

MICHIGAN FARMER

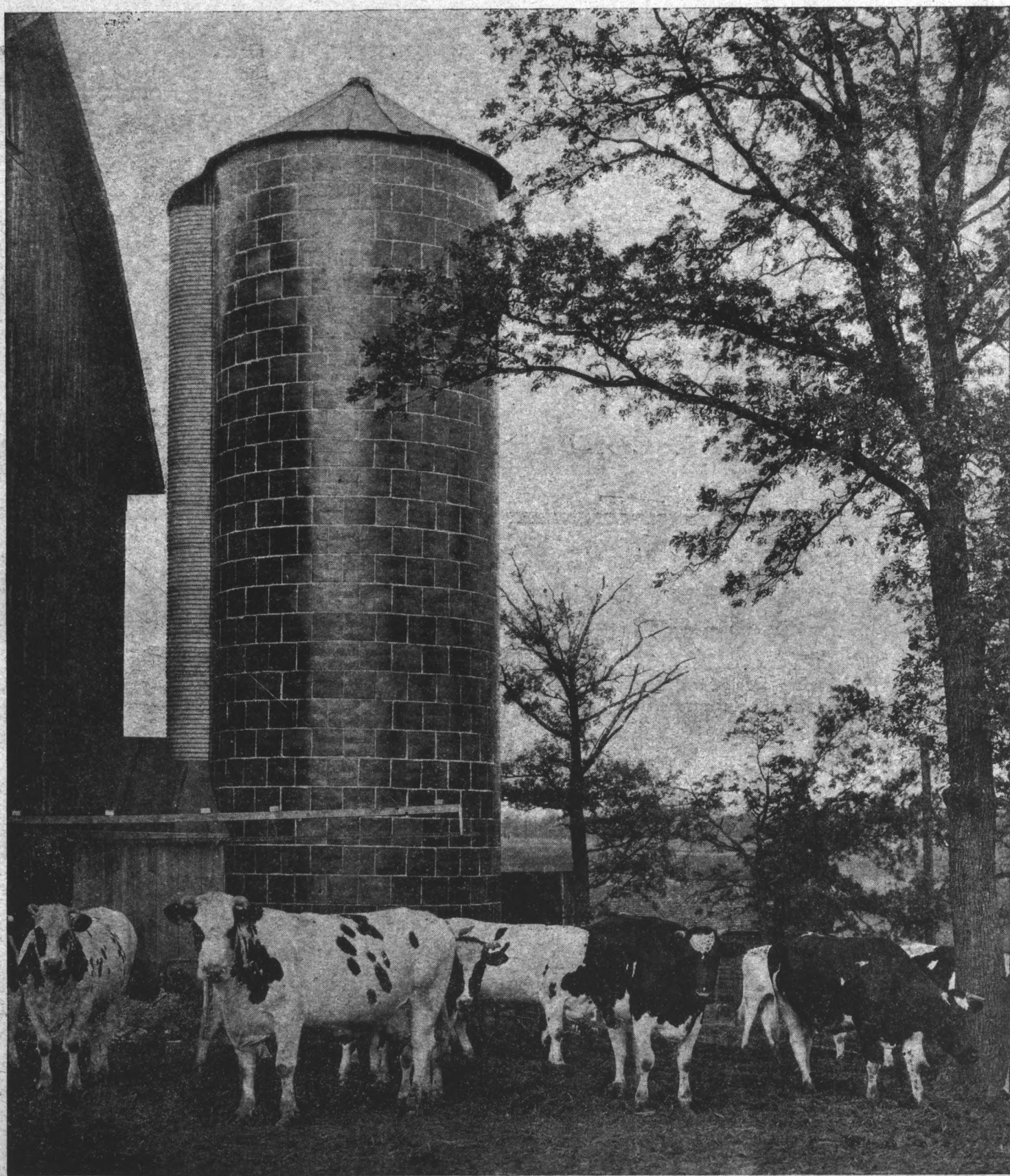
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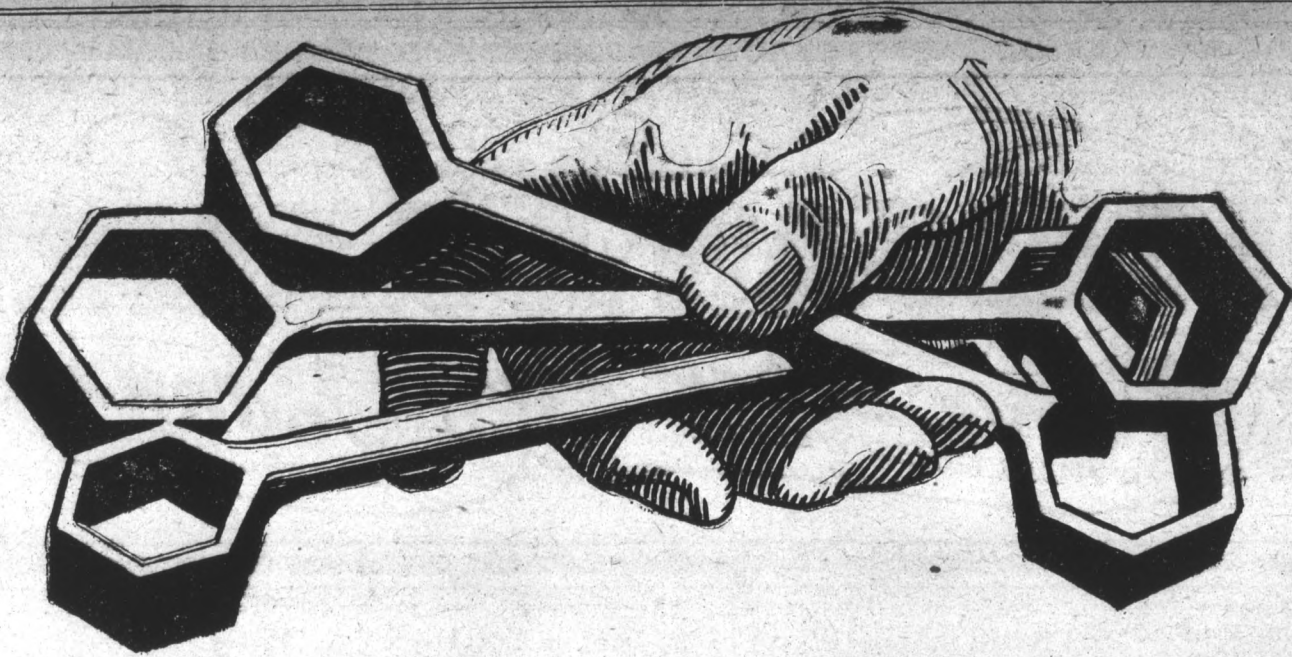
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DETROIT, MICH., SATURDAY, FEBRUARY 1, 1919

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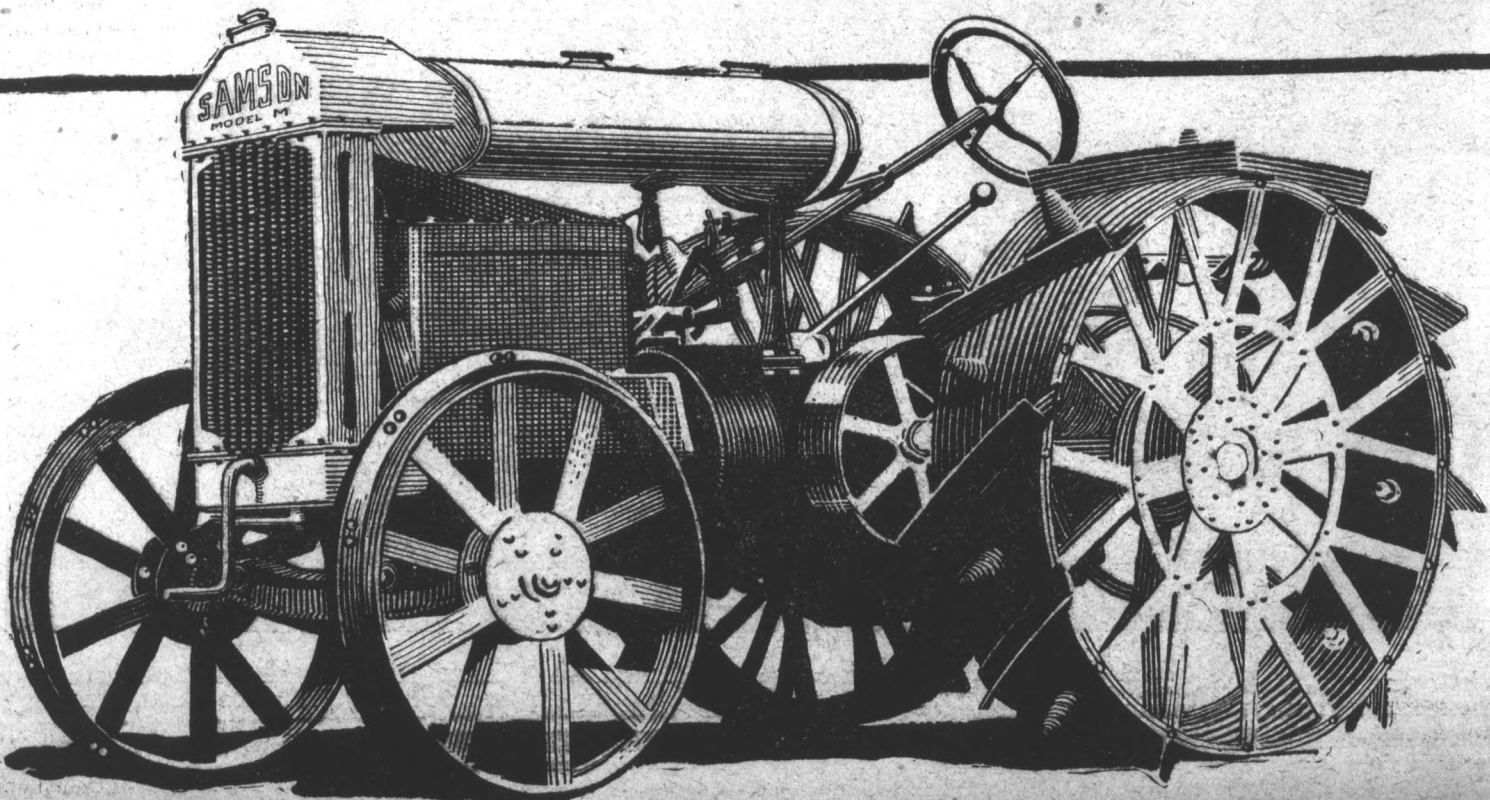
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MICHIGAN FARMER

AND LIVE STOCK JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

A Practical Journal for the Rural Family

QUALITY
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A Cooperative Farm Tenancy

(Article Two)

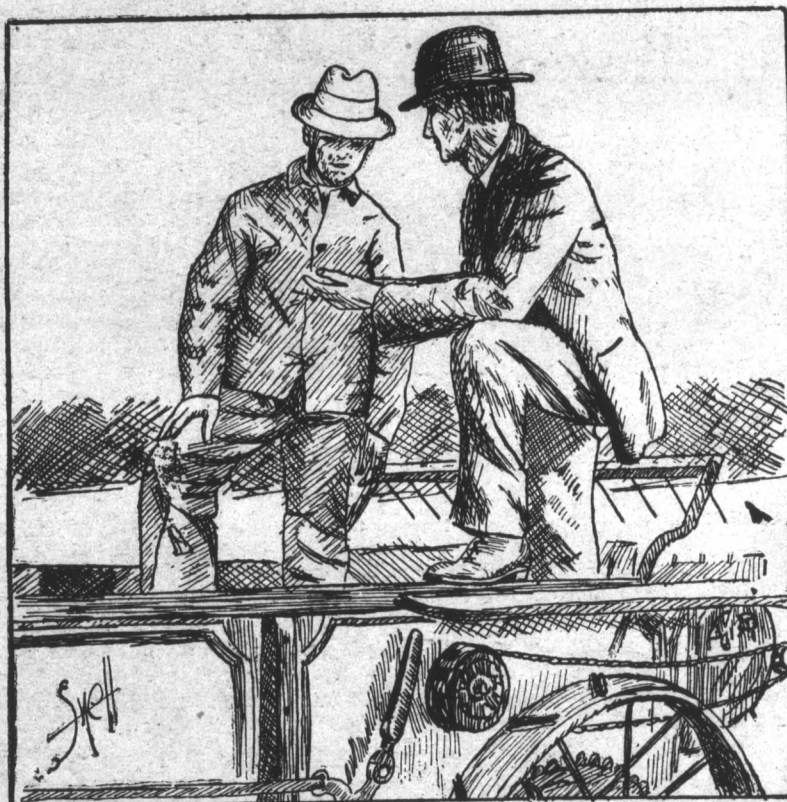
Equitable Division of Profits.

By C. B. Ford

THE land-owner who leases his farm to the tenant who will pay the highest cash rental (as is universally the case) practically sells the land, or, at least, the use of it for the time of the lease and the man who thus temporarily buys it usually has but one object in the care and cultivation of it, and that is to take from the soil such products as will sell for the most money while he has possession of the farm, regardless of the future fertility, condition of the land, buildings and fences. In too many instances he is compelled to keep this up from year to year in order to pay his rent and live. If this system is in vogue the renter, outside of feeding his work teams, two or three cows and perhaps a few hogs, depends on selling his crops in the fall before his rent comes due, many times to the detriment of the land-owner in the sense of continually removing from the farm the fertility of the soil without making a return of manure or fertilizer.

In case of grain or crop rent, at least one-half of the crops raised on the farm are either sold in the market or fed out on some other farm. In many instances the division of the crops and the time of selling is a frequent source of trouble to both parties. Crop or grain rent is in most cases more just and equitable, as both the land-owner and the tenant suffer or are benefited by the crop yields at harvest time. They are, therefore, mutually interested in the cultivation and harvesting of the crops and the added fertility of the soil, but they have no means for the manufacture of fertilizer that obtains in the partnership plan of farming with live stock and a long-term lease.

A just and equitable division of the income from stock raising and other lines of farming is not a difficult problem to work out. In Michigan if the owner of the land furnishes most of the stock and equipment or the capital to finance the business he should retain full control of the money end of the business. Division of the operating and incidental costs must be determined by agreement. No rules can be laid down which will apply with equal fairness to all farms, men and conditions, and the farm that is in a run-down condition cannot yield satisfactory returns to the tenant unless he gets a larger share of the income. At the beginning of the tenancy it is often necessary for the land-owner to buy most of the stock, but if the tenant can be encouraged to gradually work into live stock until he owns one-half of the cattle, sheep and swine it is easy to get on a just and equitable working basis. It is my judgment that it is better to furnish the tenant with capital to purchase one-half of the breeding stock, even though the land-owner takes security on his stock. In this way he feels that he has an interest in the animals and gives them better care.



"I am Willing to Pay for the Ground Rock Phosphate if you will Mix it with the Manure and Spread it on the Land."

In order to make his investment safe and protect the firm's business the owner of the property should retain control of the financial end of the farming, but it is only fair that he should give a statement of the business every month, or whenever demanded by the tenant. I know that many will question this assertion, and no doubt claim that I am writing this for the benefit of land-owners. This is wrong. Why, let me ask you, should the owner of a valuable property sign

his name to a lease which binds him to do thus and so, when the tenant cannot be held equally fast to carry out his part of the lease. Do banks and business concerns do business that way? Can you go to a bank and borrow money without giving security? Can you start in business and buy goods from a large concern before you have established your credit? Of course not. Then, why is it just and equitable for you to go to a land-owner and insist that he give you a

lease which gives you absolute control over his farm and personal property for a term of years without you putting up a bond which will hold you equally responsible.

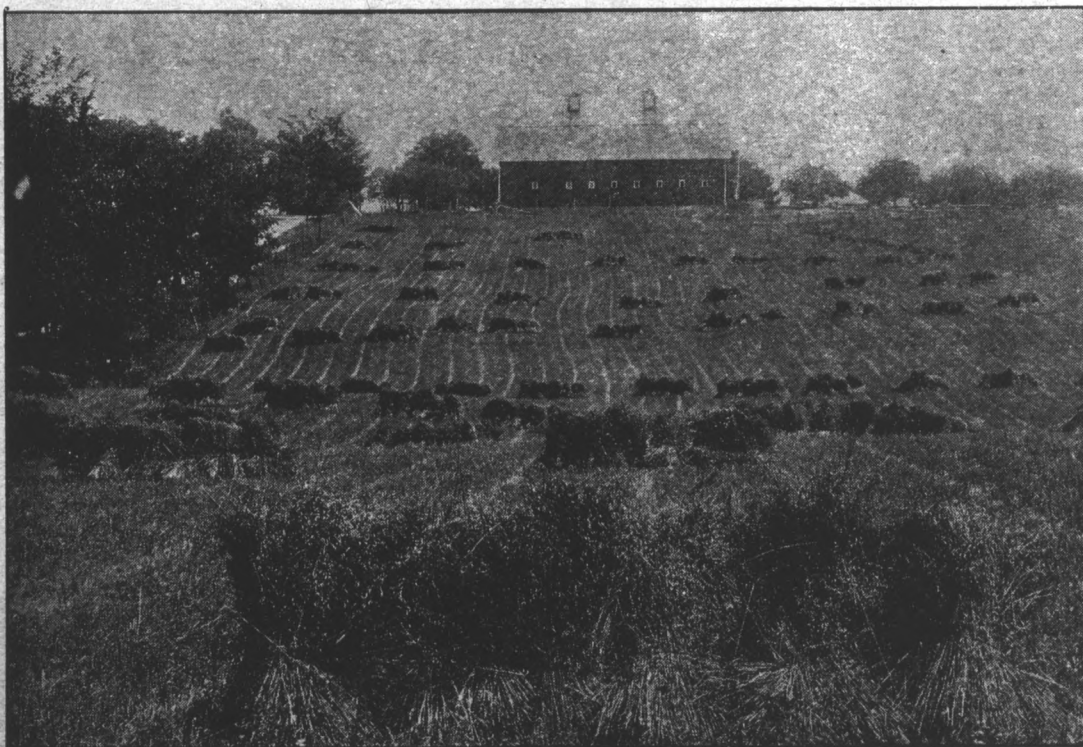
He is good for all that he agrees to do, and you will no doubt hold him to the letter; but if you should decide to be dishonest what can he get out of you? If you have property and put up ample security that you will faithfully perform your part of the agreement, you should have a lease which gives you equal rights in handling the cash and buying and selling the supplies and products of the farm. If you cannot do this you should not ask a man to give you a lease which takes his farm and personal property out of his hands and places him entirely at the mercy of a tenant for a term of years.

You may say that one cannot get tenants that will enter into such an agreement, but any good tenant who seeks to make a good profit from his farming would prefer to do business with a land-owner who is willing to furnish him with a good farm, suitable stock and conveniences than to rent some run-down farm which has been skinned for years by shiftless tenantry. Business is business, and a high-class tenant knows the advantages of a long-time lease and conducting his business on a systematic basis and is willing to listen to the advice of a liberal land-owner who takes interest in doing what he can to increase the efficiency of the farm as a financial proposition. With the present tendency toward the breeding of high class live stock in Michigan, there are many breeders who would gladly furnish a good tenant with a good farm and the right kind of stock if they had faith in his honesty and ability to make good. On the other hand, there are any number of land-owners, who have no idea of what constitutes good farming, who are interested only in using the tenant as a means of skinning their impoverished soils of cash crops. These men are constantly shifting from one type of farm to another, and

are unwilling to give a good tenant an opportunity to develop a profitable system of live stock farming. There is no tenant on earth who can make good if he is restricted and cramped by some penurious land-owner, who demands everything in sight and refuses to put any money into stock, fertilizers and improvements.

I like to hear the land-owner say: "I want to keep this farm in good productive condition. I am willing to furnish all the clover and grass seed you want. I want to get alfalfa started. I will pay two-thirds of the cost of all the acid phosphate and potash you think it best to use with the grain crops. I want the crops fed out on the farm and I will help you select and buy some good stock and get things in shape to bring in some money. This is not for

(Continued on page 187).



The Lease Should Prohibit Pasturing this Newly Seeded Field After Grain Crop is Removed.

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DETROIT, FEBRUARY 1, 1919



CURRENT COMMENT

The Fat of the Land

IN its effort to aid in the winning of the war, the United States Food Administration took stock of the food resources and the food needs of the world, particularly of the very considerable portion of the world engaged in fighting the Huns. This survey indicated that one of the most critical food shortages was that of fats. This shortage was even more serious than that of bread grains or sugar, in which food lines the shortage was perhaps more generally impressed on the mind of the average consumer.

In this emergency the farmers of America were appealed to by the Food Administration and the United States Department of Agriculture to increase pork production and help win the war. As a means of stimulating greater production, the government, through the agency of the Food Administration, issued a declaration to the effect that so far as possible through its purchases for military purposes and for the Allies, the price for the 1918 pig crop would be maintained at a point which would make the price of one hundred pounds of pork represent the value of thirteen bushels of corn. The result was a patriotic response by our farmers which enabled an increase in the exportation of fats from fifty million pounds of fats per month in the summer of 1917, to four hundred million pounds during January of the present year.

While there has been some criticism regarding the manner in which this promise has been kept, the results to date as measured by a stabilized market have been fairly satisfactory to producers. The method of stabilization followed by the Food Administration was to bring the allied buying agents, representative farmers and the packers together for a settlement of the price by monthly periods. Under the general arrangement the packers were allowed a quarter of a cent per pound over and above the price to the farmer and the cost of material and labor for packing. The allies took all

the surplus. So long as the war demand lasted the result was fairly satisfactory to all concerned. Our farmers got a fair price and a stable market for their hogs, the packers made a good profit, though less than before control measures were established, and the allies got the fats which they needed so badly.

But since the beginning of the armistice this arrangement has been disturbed. The allies can better avail themselves of the advantages of more distant markets and under the depleted condition of their finances are naturally more inclined to use their surplus stocks of fats accumulated against the submarine menace than to add to them beyond their present needs. The extended foreign market and increased demand for fats which will obtain when the peace treaty is finally signed will undoubtedly afford a profitable outlet for our surplus, but in the meantime the government must keep faith with American pork producers or "the fat of the land," in the form of pork and pork products, will not long remain plentiful, even for home consumption. Figuratively, if not literally, "the fat will be in the fire."

The importance of this question as a reconstruction problem was emphasized by Food Administrator Hoover in a lengthy statement issued from Paris this week, apparently provoked by the attack made on the pending European food relief plans, through the charge that these plans were calculated to add to the packers' profits. In this statement he said:

"The dominating food problem in the United States at this moment is a very much bigger problem than the Chicago packers. It is a problem of the American farmer.

"If the packers' profit of two or three per cent on his turn-over is too high, it is the duty of congress to tax it out of him. If the farmer's prices threaten to fall below the level of a fair return, it behooves the country to do some quick, clear thinking."

Mr. Hoover's warning is well worthy of the attention of congress, should

control of speculative interests at the present time would be an injustice to which our farmers would not patiently submit. Our farmers have made a large investment in their 1918 pig crop in good faith on the assurance of the government that they would receive a fair return, and the continued stabilization of the market at a compensatory price until the last of the crop has been marketed is a duty and responsibility which cannot be successfully evaded.

Congress should give early attention to the solution of this reconstruction problem if the Food Administration finds itself unable to cope with it under present conditions. Then it may well take up the question of the permanent control or regulation of the meat packing and distributing industry in the interests of both producers and consumers.

The Road Bonding Proposal

BOTH Houses of the legislature have voted unanimously to submit an amendment to the state constitution to be voted on at the April election to authorize the legislature to issue state bonds in an amount not to exceed \$50,000,000 dollars to complete trunk line highway systems laid out pursuant to an act passed by the legislature in 1913. This amendment has been urged by the state good roads association and its submission has received the approval of the executive committees of the leading state farmers' organizations, without definite commitment of their organizations to the plan.

Briefly, the surveyed plan of trunk line systems laid out for Michigan contemplates the improvement of more than 5,000 miles of roads. These trunk lines embrace two main roads from the southern state line to Lake Superior, one on each side of the state, several east and west main lines, and numerous connecting roads. The system as laid out extends into all of the eighty-three counties of the state. About two thousand miles of this proposed sys-

amendment have worked out a plan to be embodied in subsequent legislation if the proposed amendment is adopted, under which the counties in which these roads would be built would contribute to the cost in proportion to their assessed valuation. Under this plan the eighty-three counties would be arranged in nine groups. The group having the lowest assessed valuation or less than \$50,000 per trunk line mile of road to be built within their limits, would pay ten per cent of the cost of building, the state paying ninety per cent. The group having the largest assessed valuation, or over \$500,000 per trunk line mile of road to be built within their limits would pay fifty per cent of the cost, and the state fifty per cent. The various intermediate groups would, under this plan, contribute in proportion to their assessed valuation as related to the miles of road to be constructed within their limits. The plan contemplates that any county may pay the total cost of their apportionment in a single year or in yearly installments covering a period of years by direct taxation at a rate not to exceed one mill on the total assessed valuation or by the issuing of short-term bonds.

This proposition is well worthy of careful consideration of every farmer in the state, and should be made the subject of thorough discussion at every farmers' meeting during period intervening before the April election.

News of the Week

Wednesday, January 22.

THE supreme council of the peace conference is formulating a concrete proposal on the Russian situation.—Following the success of the moderates in the German elections, a federation of eight states is to be established.—Sinn-Feiners launch the republic of Ireland.—The Bolshevik program is being adopted by the Ukraine people, according to recent reports on conditions there.—The American navy will leave European waters not later than February 15.—Michigan legislative committee continues its investigation of the state school for girls at Adrian.—Portugal is under martial law.—American banks made new records in 1919 despite the tremendous burdens of war.

Thursday, January 23.

THE proposals of President Wilson advising the recognition of the right of the Russian people to direct their own affairs are approved by the peace conference, and all factions in Russia will be asked to meet the Allies by February 15.—Bolshevik troops are shelling positions held by the United States troops on the Waga river in northern Russia.—Leaves of absence for members of the American army are to be granted on a more liberal basis hereafter.—President Wilson plans to be in Brussels January 27.—The mayor of Pittsburgh is placed on trial, charged with violating state laws during riots in 1917.—Secretary of Agriculture Houston advocates federal regulation of the live stock and meat-packing industry.

Friday, January 24.

THE German cities of Hamburg and Bremen protest against the surrender of German trade ships to the Allies.—The representatives of four governments at the peace conference declare they will not sit at the peace table with Soviet representatives.—Bolshevik armies are evacuating Petrograd as the opposition to their scheme of government develops.—A French torpedo boat is sunk off the coast of Tunis and eighteen men are lost.—United States exports in 1918 a total of \$6,150,000,000, or \$83,000,000 less than the total for 1917.—The three months' strike of 55,000 garment makers in New York city is ended by the granting of forty-four hour week.

Saturday January, 25.

A NEW program for Ireland which provides for federal rule for each of four provinces is launched.—The attitude of Russian factions toward the invitation of the peace conference remains uncertain.—All embargoes on cotton exports to non-enemy countries are lifted by the federal government.—The War Department has ordered that no man be discharged from the army against his desires until he can obtain employment in civil life.—The loss entailed in the administration of railroads during 1918 is figured at \$40,000,000.
*(Continued on page 190).

Memorial Sunday Proclamation

MANY of the brave boys who so freely offered their lives in our cause will not come back to us. Some of them sleep in sunny France. Some lie "in Flanders' Fields," among the poppies. Some went down to sea in ships and there met a cruel fate. Some were cut off by accident and disease in our own land. They all died that Freedom might live; and, while our heads are bowed with sorrow, our hearts are filled with pride and thankfulness when we think of their willing spirit of service. We shall not forget their splendid achievement.

It is fitting, however, that we should in some special way manifest our appreciation of their noble devotion and sacrifice.

Therefore, in order that we may pay a tribute of respect and affection to the memory of the gallant lads who died for us, I, Albert E. Sleeper, Governor of the State of Michigan, do issue this, my proclamation and hereby designate and set aside Sunday, the second day of February, nineteen hundred and nineteen, as Memorial Sunday for Michigan's martyred sons in the Great War.

And I earnestly request the people of the state to gather on that day in their accustomed places of worship and there hold appropriate and solemn services in memory of our honored dead. Let every church in Michigan devote one service, preferably the morning service, to this purpose.

I suggest too that, in communities where this plan is practicable, the laymen arrange for a general service, with a suitable program of music and addresses, to be held in the afternoon.

I further request that during the day flags be displayed at half-staff, and that everyone wear a small bow of white ribbon in loving remembrance of those who will not return to us.

action by that body be essential to the redemption of the governmental pledge to American farmers. No well informed man has yet accused the Food Administration of undue zeal in the farmer's interest, either in the establishment of control measures or in their demobilization. The removal of restrictions on mill feed prices has been an unwonted hardship. The abandonment of the hog market to the con-

tem have already been permanently improved by counties, townships and districts under the state reward act. About three thousand miles remain to be built, and much of the road already built needs still further improvement to withstand the heavy traffic, particularly of motor trucks which was not anticipated under the original plan of improvement.

The promoters of this proposed

Shall Land Owners Pay all Taxes?

THE movement for the adoption of the single tax as part of the constitutional law of Michigan makes it necessary for people generally and farmers in particular to inquire what it is. Single tax is a general scheme, not a definite program. Like free trade, socialism, etc., every individual advocate of it has his peculiar views as to its proper details of application.

Single tax is a remedy proposed for an evil. That evil is the uneven and unequal distribution of wealth. All men agree that it is bad for a community to have most of the wealth gathered into a few hands, and most of the inhabitants in dire poverty. Men differ as to the cause and the cure. Looking back as far as history records and in every country in the world, that evil is present always and everywhere, in some times and places worse than in others; but "ye have the poor always with you."

What is the cause and the remedy? It has been said that the cause is the hardness of men's hearts; and the remedy is sell all you have, give it to the poor, take up your cross and follow Christ. This was the slogan of the Franciscan Friars several hundred years ago, and a book published a few years ago, called "In His Steps," by Rev. Charles M. Sheldon recounts the efforts of a man trying to correct the evils of our social order by christian living. Thomas Jefferson, third president of the United States, argued that one of the most provoking causes of congestion of wealth into a few hands was inheritance by the first-born son of the whole estate to the exclusion of the sisters and younger brothers; and through his influence the law in that respect was changed in the American colonies before the Revolution so that all the children inherited equally; and so it has remained here ever since, yet great fortunes continue to accumulate. When the standard of values was falling, several years ago, many persons charged a large part of the evil to our monetary system, some demanding paper money, some the free coinage of silver; but with the rising prices resulting from the discovery and mining of the great Rand gold reef in South Africa since 1896, and especially since the rapid rise of prices resulting from the inflation of the currency here and in Europe since the beginning of the great war, we hear no more about that; and yet, great fortunes grow. Numerous other solutions of the difficulty have been suggested. The foregoing are given merely by way of illustration.

The single taxer says these solutions are all wrong, that the evil is due to the private ownership of land, that the remedy is to abolish private ownership, that the best way to abolish it is to tax it out of existence, that the way to make taxes high enough to accomplish that result is to abolish all other forms of taxation. Therefore the name "single tax." This notion seems to have taken form about the middle of the last century; but it first came to popular attention about 1880, through the writings of Henry George, the high priest and great

How the Single or Site Tax Would Affect Michigan Farmers.

By John R. Rood



THIS is the first of the series of articles on "Single Tax" which was announced last week. We asked Mr. Rood to contribute an article on this subject because of his national reputation as a legal authority on all branches of real property law. His books are in common use by lawyers all over the United States, and he has been teaching various branches of the subject at the Law School of the University of Michigan for the past twenty years. Although he is now engaged in general practice of law in Detroit, he is still as he has for many years past, been largely interested, actively and financially, in farming in this state.

prophet of the order; and his book, "Progress and Poverty," is the single taxer's bible.

The argument runs something like this: When a country is new and wild, all live in hardship, but poverty is almost unknown—the richest are poor, but the poorest live in abundance. As the resources of the country are developed, and hardship should disappear, large fortunes begin to accumulate, and along with them come more paupers and more distressing poverty. The cause is the right of some, called the owners of the land, to collect rent from the rest and to appropriate to themselves the profits that accrue from the rise of land values. The remedy is to abolish the cause. Do it by appropriating all the value of ownership to the public by taxation.

The believers in "single tax" admit that the name is unfortunate. They say it is not a tax at all, because the value of land arises from the fact of the increase of the number of inhabitants of the community, and therefore belongs to the public. Further, they admit what is plain to everyone that it cannot stand alone, that no "single" tax will do to supply all gov-

ernment needs at all times and places.

The single tax scheme is especially objectionable as a single source of public revenue, because it is absolutely inelastic, the revenue depending on the rise in land values, not on the public necessities. Therefore its advocates say, make this the first source of taxation and raise the rest by other methods.

The scheme has never been tried anywhere. Something of the idea has been tried in the western Canadian provinces, but those who have made most careful study of the laws there say they were not designed to embody the single tax theory, and are based on local conditions. We have in the United States at the present time a statute that does appropriate a part of the rise in land values by taxation. It is the federal income tax statute; under which the difference between the purchase price of land, bought perhaps years ago, and the price at which it is sold today, is treated as income accruing at the day of the sale, and is appropriated in greater or less degree by taxing the income, the per cent of the tax depending on the amount. This would seem the most exact method of appropriating the increment; for to

say what the rise in value has been before a sale is made must be largely guesswork.

Perhaps the best presentation of the subject would be by giving briefly the arguments for and against the single tax, and permitting the reader to judge for himself. Some of the prime arguments for the single tax are the following:

1. Taxes on commodities and business can be and are passed on to the general public, and have to be paid by the poor. If a tax be made on mortgages the lender insists that the borrower pay it in addition to the interest; if taxes be put on telegraph messages, the telegraph company adds it to the price of the service; if a tax be put on tea, the dealer adds the tax to the cost, collects a profit on both, and passes the enlarged tax on to the poor public, who has to pay it in the end with increase. But taxes on land cannot be passed on. There is only so much land; no tax can increase or diminish the supply or demand; the landlord has to pay the tax and can't escape it. It is a fair and just tax, therefore, levied on the rich, the best able to pay, and they cannot shift it over to anyone else.

2. The earth is the common property of all men. Those who make private property of land the gift of God, pretend in vain to be innocent. In thus retaining the substance of the poor they are the murderers of those who die every day for want of it. On what just basis can I claim private ownership of it? The only basis of private property is force, and the vain boast, God made this for me, keep off. The answer is, show us a deed from God and we will admit the claim.

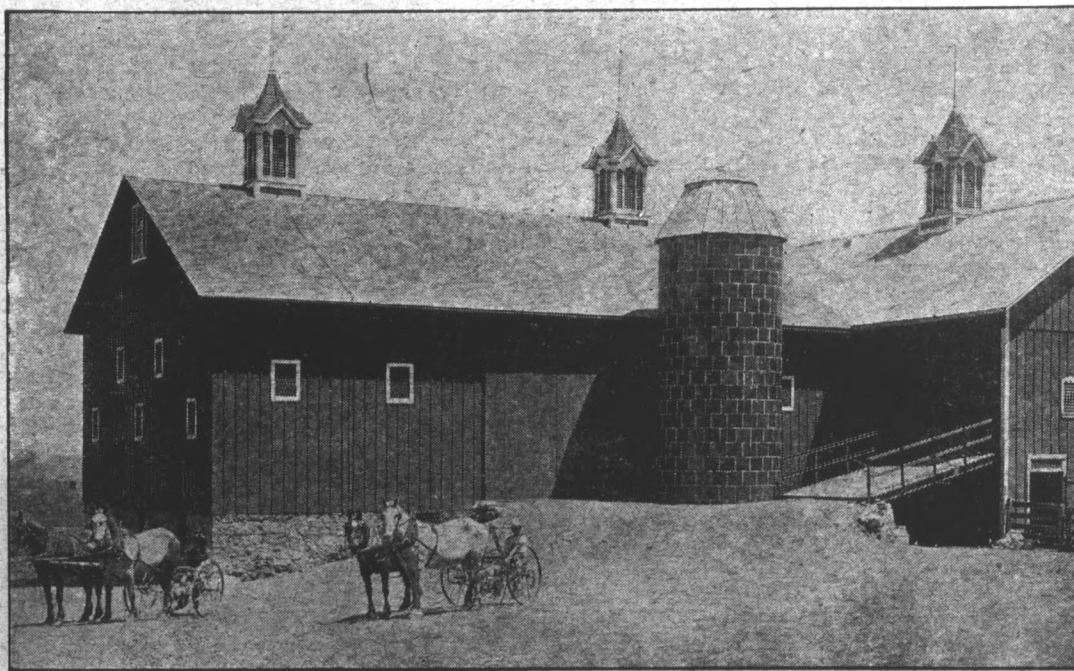
3. The value of the land is created by the community not by the supposed owner. It comes from the growth of the community, from the increase in the inhabitants, therefore it belongs to the community, and should be appropriated by taxation. The island on which New York City stands was once sold by the Indians for \$28. It is now estimated to be worth \$3,500,000,000. Take away the inhabitants of America, and it would be worth no more than it was when bought from the Indians. Why, then, should private persons who did not populate America, therefore did not create the value, be admitted to own the value?

4. Private ownership is the cause of land speculation, giving us the idle rich waiting for the values of their lands to increase, the idle poor kept from developing the value, and idle land—the intolerable trinity, idle, rich, idle poor, idle land. The genius and charities of the Morgans, Carnegies and Rockefellers, do not compensate us for turning over to them the bounties of nature stored during the ages.

5. It is self-evident that if taxes are increased on unoccupied land they would be decreased on occupied land. Let the speculators pay the taxes.

To these arguments of the single taxer, the following answers are hereby made:

1. True it is that the land tax cannot be passed on by the landlord immediately.



Some Think it Unfair to Tax Improvements to Benefit Unprogressive Land Speculators.

(Continued on page 164).

The Best Farmer In Michigan

IN the report of the Extension Service of the Farm Management Department at the Michigan Agricultural College, based upon the accounts for 1917 by the several hundred farmers reporting, the cash labor returns, or what is termed "labor income," are considerably less than one thousand dollars per year. As it is evident from a perusal of this report which is an average for all those so reporting and as many of these farmers are realizing considerably more than average returns for their labors it necessarily follows that some of those farmers are barely receiving as much as hired man's wages with the worry and responsibility thrown in.

This should not be and manifestly something is wrong. If the farmer cannot realize something more than wages and interest on the investment, either his methods of farming are in need of improving, or the land is in a poor state of fertility.

The writer of this article had the good fortune to be able to report for 1917 the highest labor income of any received, and while not wishing to be considered as an authority on farm management, yet it would seem, in view of the low average of farm labor incomes, that there is need for improvement in the methods of some farmers in this state.

Since these reports are all given confidentially to the department, and as the writer has no knowledge of their individual shortcomings, perhaps an outline of the methods employed on this farm can give those farmers who know that their ship leaks, but can't find the hole, some idea at least where to do the plugging.

The inference is drawn from the report of the department that those who reported likely had a better income than those who did not, because to quote it, "as a rule only the most enterprising and business-like of farmers keep accounts." The impression is also conveyed that those whose reports show high labor incomes were probably that class of farmers who kept an improved strain of live stock. Be that as it may, however, as this farm has been conducted with no especial strain of live stock, with no market except the open market for returns, and the following of general live stock farming, it is the purpose of this article to prove that anyone else, with a productive farm as a base, may do fully as well.

This farm of one hundred and forty acres is part owned and part rented by the writer. The main sources of income have been from hogs, sheep, cattle and wheat in the order named. Practically all of the crops raised except wheat, are consumed on the farm by live stock, the few items of crop sales representing small amounts of seed grain and in the few sales of hay as an accommodation to some less fortunate neighbor. To the writer's best recollection hay has been sold for market only twice in the seventeen years of farm operation and then only to make room for the oncoming crop.

None of the stock except sires are blooded stock, only such kinds as might be found upon any productive farm. While the net returns have been highest from hog sales it is my firm belief that for the labor required and the benefit a farm receives, for the general farmer, no branch of farming will give better returns from the capital invested than will a good flock of ewes. They need not be a large

Mr. W. J. Rawson, Whose Farm Showed the Largest Labor Income of Any Farm in Michigan, Explains His System of Crop Growing and Stock Feeding to Readers of The Michigan Farmer.



Farmstead of W. J. Rawson, Manchester, Michigan.

flock. Indeed, one should not attempt to keep more than the farm can comfortably support as they require considerable range during the pasture season, but aside from some three or four weeks' close attention in the spring, during the increase, they are but little bother. The wool at present prices surely pays for their winter board. They are nearly as much benefit to the farm in the checking of weeds in summer as the pasture is worth and the lambs at weaning are about so much "velvet." As a matter of fact, on two permanent pasture lots since ewes have been kept, but very few Canada thistles have had to be cut to prevent their going to seed, while formerly it took a day or two to accomplish the same result.

The net returns from hogs are the largest of any one branch of live stock receipts and with the nominal initial investment of capital one might wish to question my judgment in placing sheep before hogs, in determining net profits. They are a close second to be sure, but one must bear in mind that lambs get a large portion of their growth on grass and when put in the feed lot part of the additional weight is derived from coarse feeds such as hay, oat straw, shock corn, etc.

In the year 1917 the lambs were fattened wholly upon hay, shock corn and oats, and weighed one hundred pounds at ten months of age—an average gain of ten pounds per month including weight at birth. The past year the same kind of lambs made practically the same gains but were fed on shelled instead of shock corn, owing to the light crop.

I might add that the lambs are taught to eat oats in the spring as soon as old enough, then in the fall as soon as weaned, they are started on a light ration of oats, increasing the same as fast as they become accustomed to it, and later gradually changing to heavier feeds and at the finish

they usually consume from three to three and a half bushels of grain a day per hundred.

Hogs on the other hand, do not consume any roughage but make almost all their gains on concentrated feeds. These feeds, of course, are expensive whether raised on the farm or bought in the market.

Some farmers in this community think they make more profit on hogs by letting them shift for themselves all summer, waiting until the corn crop matures before fattening them, then if the corn crop is poor or late, or both, they must begin feeding purchased feed, when they might better have done so as soon as weaned, or they are compelled to throw their immature pigs on the market for the other fellow to finish.

In 1917 the spring crop of pigs were marketed at eight months of age, at an average weight of 283 pounds, the past year they averaged 245 pounds at seven months. These figures are cited, not in a spirit of boastfulness, but merely to present what the possibilities are in feeding stock for profit.

In getting these results every effort is made to have the young stock begin to grow and keep growing from birth. I go on the hypothesis that if you take good care of your stock, they will take good care of you.

While considerable cattle are usually kept on the farm both for feeding and the dairy, and while some dairy-men may take issue with this statement, I fully believe that the cattle end of the farm, particularly dairying, if accurate accounts of their costs were kept, would show mostly a case of swapping dollars, unless—and I wish to emphasize the unless—you have a special market for your product at more than open market prices. Some cattle are either fattened or wintered through practically every year. I do not believe the net profits approach that of sheep or hogs, they fat-

ten too slow, and it takes two years to turn your stock. Yet there are what might be termed "invisible profits." As a means of maintaining soil fertility, which is important they have no equal. Also cattle with shoats running behind them make an excellent method of wintering the fall litter—but have the pigs come early enough in the fall so they will be fair-sized at the beginning of the feeding season. As near as possible I try to have the fall litters not later than September 1. The cattle are fed, as long as the supply lasts, mostly on shock corn, after that on shell corn, cottonseed meal and as much hay as they will consume. The feeding cattle are never housed in stanchions but are allowed to run at will in the basement of one barn, and if dehorned, which they should be, will be as quiet among themselves as so many sheep.

The above part of this article refers mainly to the feeding end of farm products; how about the producing end? One man can feed considerable live stock in the winter alone; producing the crops is another matter. It is unnecessary to emphasize the extreme shortage of labor. It was true before war conditions were met. It has been aggravated by it since. Owing to this shortage, some different methods of field management were of necessity adopted if normal production was to be maintained.

The character of the soil on this farm is of a clay loam nature, with a considerable acreage of bottom land. Some years it is quite possible to fall plow the fall stubble for the spring crops; also on the bottom land good results are obtained by fall plowing for corn. When that cannot be done, I do not, as a rule, plow for small grain in the spring, but either drag or disk the stubble. The exceptions to the rule have been in years, following a wet season, in which it was impossible to give the corn clean cultivation.

Very satisfactory results are the rule by this method, and the saving of time, which at this season is precious, is considerable. On various occasions the writer remembers of being able to sow fields between wet spells before many farmers on similar soils were through plowing and the earliest stands generally gave the best yield.

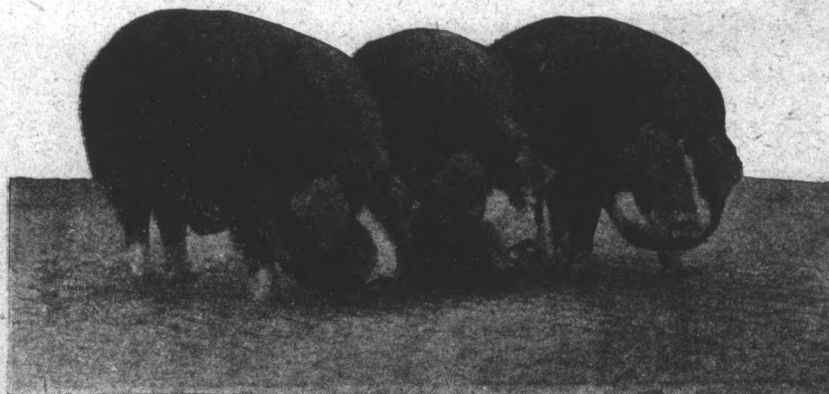
There is one drawback to this method. Occasionally in plowing these fields after harvest for wheat, especially if the ground is dry, it is more difficult than if it had been spring-plowed. Generally, however, there is but slight difference in this respect.

No work is done by hand that can be accomplished by horse power. This brings into use some tools which one on a smaller farm probably would not be warranted in purchasing. Most of the tools are of the riding variety as it is easier to ride than to walk, and if you cannot do any more in the field by riding you surely can at the end of the day when the team is in the barn.

It is also essential that one use good tools. The inference should not be drawn by this that as soon as the paint is off the wheels you should throw it away and buy new. Most tools will give good service for many years if properly housed and kept in good repair.

The writer, with another, owns a grain and corn binder, that have served on two instead of one farm for about fifteen years, and still give good service. This materially reduces over-

(Continued on page 168).





The Future of the Dairy Industry

By Clyde King

*Federal Milk Commissioner, U. S. Food Administration,
Student of Rural Problems and Prof. of Economics,
University of Pennsylvania.*

OWNERS of dairy herds are now planning for the future. As the price of labor and feed and farm products generally approach normal, what may we expect to be the tendency of prices for dairy products of the farm? This is a question that all who are planning ahead are now putting to themselves.

The answer to the question requires information as to the present condition of the dairy herds in this and other countries and the future demand for dairy products. For it is the national and international as well as the local supply of and demand for milk that will determine its price.

Of the milk produced in the United States, 43.1 per cent goes into whole milk consumption; forty-one per cent into butter; five per cent into cheese; 2.9 per cent into condensed milk; 3.7 per cent into ice cream and 4.3 per cent into calves and other young animals.

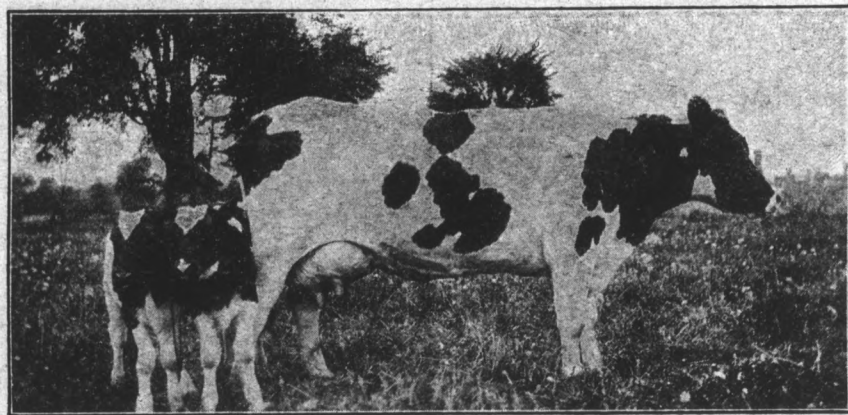
The Market for Milk.

What will be the future demand for milk for each of these purposes? This is the first question around which prices for the future will be determined. Inasmuch as investments may be influenced by what I say, I shall try to understate rather than overstate what I believe to be the future of the dairy industry in the United States.

The demand for whole milk in both city and country is no doubt to increase. Of the total amount spent on food, the average working family of five now spends about ten per cent for milk as compared with forty per cent for meats. If the advice of the health specialists were followed, the amount spent for milk should approach twenty-five per cent of the total family expenditures for food. This means that it is theoretically possible to double the demand for whole milk. A long line of chewing ancestors will, however, make all adults prefer food they can chew to food they can drink. To double the demand for whole milk is therefore probably out of the question. But it is not impossible to increase its consumption far beyond what it now is.

And this for two reasons. In the first place, the recently discovered fact that certain elements essential to sound nutrition are found most surely in milk is getting widely known. Physicians and dietitians everywhere are teaching the value of whole milk in the diet. The still more important reason is that milk is the cheapest of all animal products. The American and the English lead the world as meat eaters. Meat is the most expensive part of the diet. If American labor and capital are to compete successfully with the products of other countries, our national diet must turn toward the less expensive foods; that is, toward less meat and more of the leafy vegetables and milk.

Just because the cow converts feeds into human food with less loss than does the meat animal, the dairy cow will increase in numbers more rapidly than meat animals and the price for meat must tend to be higher relatively than the price for milk. Thus the price of meats will probably remain high while wages will probably not remain proportionately so high. The greater the difference between the price of milk and the price of meat, the greater the demand for milk as an animal food. If there is not a substan-



To Double the Demand for Milk is Not Always Out of the Question.

tial difference in the price for the same food value any well human will prefer something to chew. As our diet changes to less meats and more vegetables, milk will be used more freely, not only as a drink, but as a seasoner in solid foods. This increased demand for milk will take place in both city and country. We can confidently expect therefore a very substantial increase in the per capita consumption of whole milk.

In the days of eight-cent milk to the consumer, about four cents went to the farmer and four cents to the distributor. With increasing volume on retail milk wagons and through milk plants, the cost of handling and distributing milk per quart has not gone up so rapidly as have labor costs and material costs; for the higher the volume the lower the cost per quart. This

means that the distributors' costs should in the future take a smaller relative portion of what the consumer pays, and a larger part can therefore go to the farmer. The tendency toward a smaller amount of duplication in milk routes and milk plants by lowering the distributing costs per quart should expand the market for whole milk. This makes a more favorable market for the farmer because of a more favorable price to the consumer.

Then, too, we can count on a substantial increase in the number of city dwelling people. In 1910, forty-six per cent of our population lived in cities as compared with forty per cent in 1900. The increase in the number of city dwellers has gone on during the years since 1910. In no state in the Union did the urban population increase less than ten per cent from

1900 to 1910, and in nineteen states it increased over fifty per cent. Every such increase adds to the demand for whole milk. For all these reasons we can be sure that there will be a widening market for whole milk for many years to come.

Condensed Milk.

As to the condensed milk market in this and certain foreign countries it promises to be fairly strong. It is only a question of time, I believe, and a shorter time than most people think, before Europe will be producing all the condensed milk and whole milk needed for European purposes. Our domestic markets for condensed milk, America and in frigid and tropical countries will develop even more rapidly than before the war. While we probably will not export as much condensed milk as during the past few months, we can confidently expect that, on a year-round basis, the foreign and domestic demand for American condensed milk will remain strong.

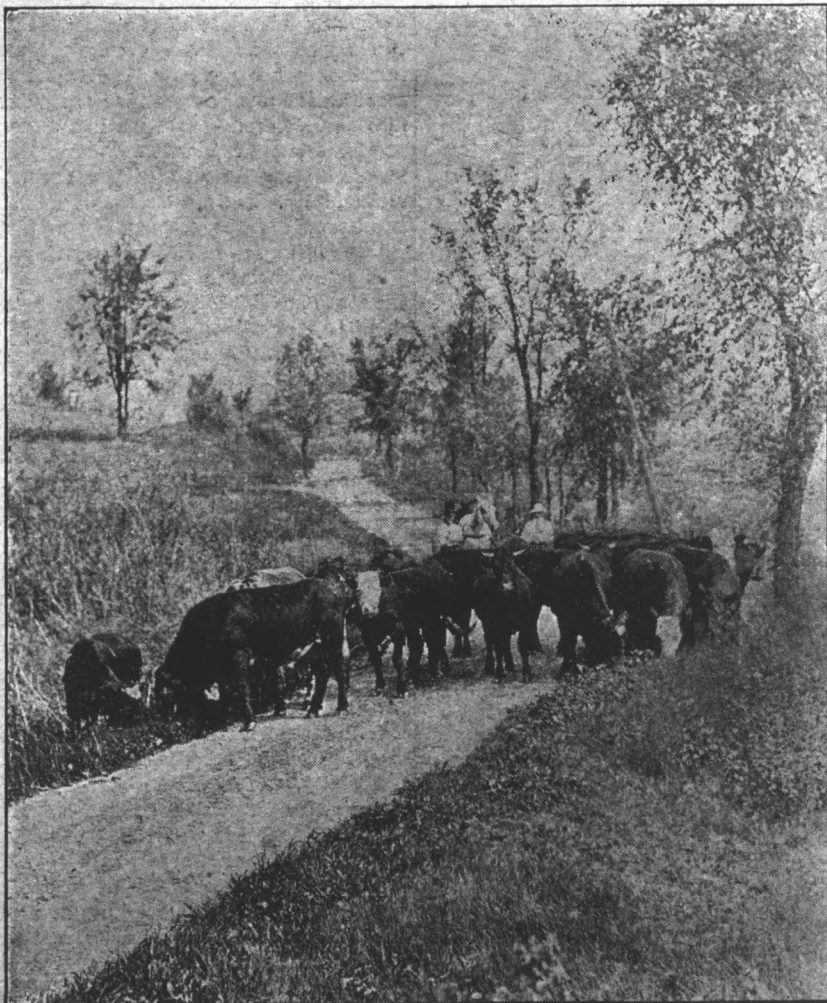
Chart on page 185 shows the rapid increase in the amount of condensed milk exported from the United States from 1913 to 1918. The last column, it must be remembered, is for the first nine months only of 1918. About twenty-seven pounds were exported in 1917 to every one pound in 1913. The exports in 1918 will no doubt exceed those of 1917, despite the export limitations of the first half of the year.

Commercial ice cream is now made largely of condensed milk and butterfat. There is a steady year-round increase in the demand for ice cream. This demand will undoubtedly grow in the future. Large manufacturers of ice cream are now distributing ice cream on a volume basis that makes it possible to sell this product to the consumer at prices below the trouble and expense of home-made ice cream. This price factor alone will stimulate consumption both in the city and in the country. The use of storage milk products in ice cream has a stabilizing influence on the price to the farmers. Thus cream itself can be held in cold storage for over six months with but a slight rise in the bacteria count.

The use of condensed milk and milk powders, particularly the latter, will have a stabilizing influence on the whole milk market far beyond the expectations of most producers. Skim-milk powder with sweet butter and water run through an emulsifying machine makes a re-constituted milk that, according to the best advice of specialists, is as wholesome as natural milk. If made with filtered water, this re-made milk can not be surely told from natural milk. It may not taste as good as natural milk, but it is a fair substitute. I find considerable quantities of it used in towns, large and small. When used at all it is usually mixed with whole milk.

The economic significance of this re-made milk has not been fully appreciated. Its wide use will mean that condensed milk from the Seattle region can be mixed with butter from Wisconsin and filtered water from the Hudson and sold in New York City as "Re-made Milk." Whole milk powder can be used likewise. This present year the demand for milk powders by the American Red Cross and allied organizations has been so heavy that their use for domestic purposes has not been as large as would have been

(Continued on page 184).



Can Dairy Cattle Maintain their Supremacy on Michigan Farms?



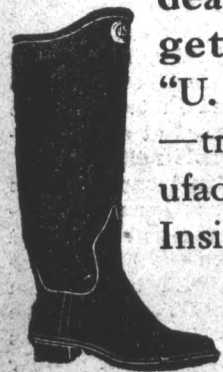
Be "U. S. Protected" When the Going's Rough

Rubber footwear that is sturdy, comfortable, long-wearing and built to stand the roughest weather and places!

That's U. S. "Protected" rubber footwear. It stands supreme for service. It keeps feet warm and dry under the most trying conditions. During the war, the Government probably used more U. S. "Protected" rubber footwear than of all other makes combined.

U. S. "Protected" rubber footwear is *the* footwear for outdoor workers. Every pair of the many styles is built staunch and true by patented process, reinforced where greater strength is needed, yet altogether roomy and easy on the feet. Longer wear insures the saving of money.

U. S. "Protected" rubber footwear comes in all kinds and styles suited to the special needs of all who work in the open. Your dealer has the kind you want or can get it quickly. To make sure of "U. S." quality, look for the "U. S. Seal"—trade mark of the largest rubber manufacturer in the world—on each pair. Insist on "U. S. Protection."



United States Rubber Company
New York

U. S. Rubber Footwear



Farmers' Week at M. A. C.

FARMERS and housewives of Michigan and members of many of the state's most active agricultural and rural life associations, will meet at the Michigan Agricultural College for five days during February, commencing February 3 and continuing through February 7. Usually this week in East Lansing is called simply "Farmers' Week and the Housewives' Congress," but this winter, say the announcements from the college, the sessions will be something more.

Michigan Live Stock Breeders and Feeders.

For one thing, as the completed program discloses, the week will be made the occasion for conventions and conferences by many of Michigan's best known associations. Live stock men of the state will meet in force for the annual sessions of the Michigan Improved Live Stock Breeders' and Feeders' Association. This body will convene on February 6. Along with

muck crops for the college. This meeting of the muck farmers will run for two days, February 4-5.

Many Other Meetings.

Still other meetings during the week will be those of the Poultry Breeders' of Michigan, the Michigan Maple Syrup Makers' Association, the School Commissioners of Michigan, the Drain Commissioners of Michigan, the leaders of Boys' and Girls' Clubs, together with the youngsters who, during the past summer were winners in their counties and communities in gardening, raising of live stock, canning and other enterprises in which these clubs interested themselves. The first three of these sessions will be conducted on February 5. That of the leaders of Boys' and Girls' Clubs will be held on February 5-6. The school commissioners will meet February 4.

Exposition Planned.

Eight buildings at the college which during the strenuous preparations for the gathering will be the annual con-

war were built to be used as barracks

Dates for Various Association Meetings

Michigan Improved Live Stock Breeders' and Feeders' As.	Feb. 5-6
County Farm Bureau Conference	Feb. 4-5
Michigan Crop Improvement Association	Feb. 4-5
Michigan School Commissioners	Feb. 4
Michigan Muck Farmers' Conference	Feb. 4-5
Michigan Poultry Breeders	Feb. 5-6
Michigan Maple Syrup Makers' Association	Feb. 5
Michigan Drain Commissioners' Association	Feb. 5
Boys' and Girls' Club Conference	Feb. 5-6
Michigan Potato Growers' Association	Date later

vention of the many associations affiliated with the parent body. See full program on page 162 of this issue.

Farm Bureaus to Unite.

Another conference that promises to be of epochal interest will be the meeting of officers and members of the county farm bureaus of the state on February 4-5-6. It is the intention of the farmers in these organizations—farmers who perhaps represent the most active and progressive agriculturists in Michigan—to launch a central organization that will concern itself with matters that touch the civil, sociological and other affairs of country life as well as the strictly agricultural.

Crop Improvement Association.

A third meeting of moment will be that of the Michigan Crop Improvement Association. The members of this body, who are pledged to the conversion of Michigan farmers to the raising of improved varieties of grains and who are seeking to procure for the farmers some of the direct benefits that heretofore have accrued to the seedmen, will meet February 4-5.

A principal feature of the session of the grain growers is to be an exhibit of pedigreed grains, and in fact of all grains of merit. A number of prizes have been offered, particularly for corn acclimated to Michigan. The sum of \$100 will be one of the awards made for the best strain of white corn that can be grown with success in this state. Entries for the grain show, incidentally, can be made by filing a request with J. W. Nicolson, of East Lansing, secretary of the association.

Muck Farmers.

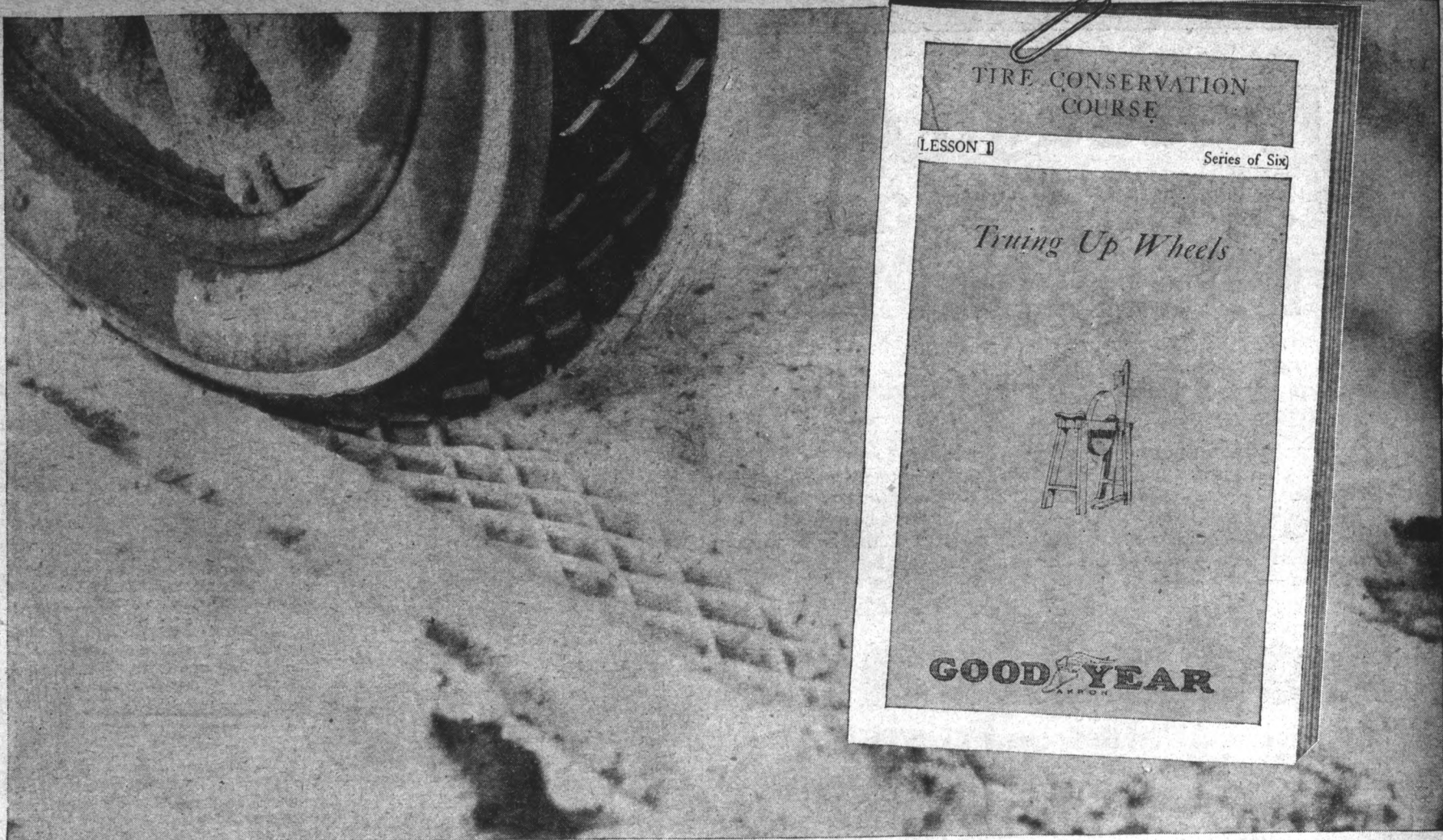
Not a little interest, also, is centering in the proposed meeting of muck farmers of Michigan. A special program has been arranged for agriculturists whose interests lie in this direction by Ezra Levin, specialist in

for the student army training corps, will also be made use of. All eight of the army structures are to be filled with exhibits. One of these "expositions" will be of improved grains; another will be used for a poultry show—with special places for winners in recent state contests; a third will be a health show; a fourth will be taken up with exhibits of interest to housewives and housekeepers. In all, the exposition will fill the eight barracks buildings.

Many Prominent Speakers.

The special conventions and conferences of the many associations that will unite for sessions at the East Lansing institution, will be conducted during the mornings of the week. During the afternoons and evenings all of them will join in the general farmers' week meetings. These meetings will be addressed by many men and women of prominence, not alone in the agricultural world, but in industrial and governmental circles also. Miss Jane Addams, of Hull House, Chicago; Dr. I. W. Chamberlain, formerly president of Iowa Agricultural College; O. H. Benson, leader of Boys' and Girls' Clubs throughout the United States; Dr. E. G. Montgomery, professor of Farm Crops at Cornell University; Lieut. C. R. Crozier, who was wounded at Chateau-Thierry; Dr. Arthur Evans, of the Chicago Tribune, noted health authority; F. M. White, well known as a specialist in tractors; Miss Louise H. Campbell, of Iowa State College, and many others, will be among these speakers.

During the week the college—with its lecture rooms and laboratories, instructors and professors—will be turned over to the visitors. The sessions will be open to the entire public irrespective—according to the invitations—of age, sex or place of residence.



Saving 5,000 Miles by "Truing Up" Wheels

A LARGE multi-cylinder car recently came to a Goodyear Service Station in Chicago with the treads on two Goodyear Cord Tires showing evidence of recent rapid wear. The tires had run 8,500 miles, but in the last few days the treads had been wearing down alarmingly. It was found that a recent accident had twisted the front wheels seriously, so that they were out of line. The grinding action due to this misalignment was cutting down the treads so rapidly that in a few days more the tires would have been out of commission. The wheels were re-aligned. The tires ran a total of more than 13,500 miles. 5,000 miles of tire

wear were saved in this case by "truing up" the wheels in time. Have your Goodyear Service Station Dealer test your car today for wheel alignment.

ONE car in three has wheels out of line that rob their tires of thousands of miles.

Not even the Goodyear All-Weather Tread can long resist the grinding wear that such wheels inflict on tires.

They grind down a tread precisely as if it were held squarely against a revolving grindstone.

Misalignment is most common on the right front wheel, because it is most frequently run into ruts and gutters and against curbs.

On others a rim improperly applied,

a bent steering knuckle, a worn bearing, or a warped axle may cause a like condition.

A misalignment of only three-quarters of an inch is enough to reduce by 5,000 miles or more the life of the best tires.

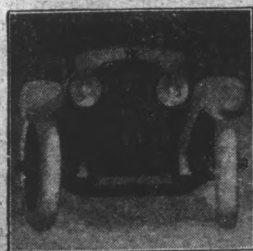
Only the most careful measurements can detect the condition.

Ask your Goodyear Service Station to inspect your car today.

Ask also for Lesson 1 of the Goodyear Conservation Course, dealing with the detection and correction of wheels out of line, so that you or your chauffeur can in future make inspections when you delay too long your calls at your Service Station.

The Goodyear Tire & Rubber Company
Akron, Ohio

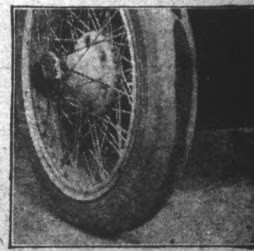
GOODYEAR
AKRON
TIRE SAVERS



Notice the misalignment of the Right Front Wheel

Ask your Goodyear Service Station, or us, for Lesson 1 of the Goodyear Tire Conservation Course, explaining the effects and detection of misaligned wheels.

The Worn Tread on a Tire from a Wheel $\frac{3}{4}$ of an Inch Out of Line



A Message of Vital Importance to Michigan Farmers--

Michigan farmers must produce "more bushels per acre" in 1919 than ever before. This is the year of big profits for you. High prices are the rule and labor is plentiful. But remember to produce bumper crops you must sow the best seeds you can get—and the seeds must be suited to Michigan's soil and climate. To make 1919 the most profitable year in your experience, and to do your share in answering the call for "more bushels per acre" sow—

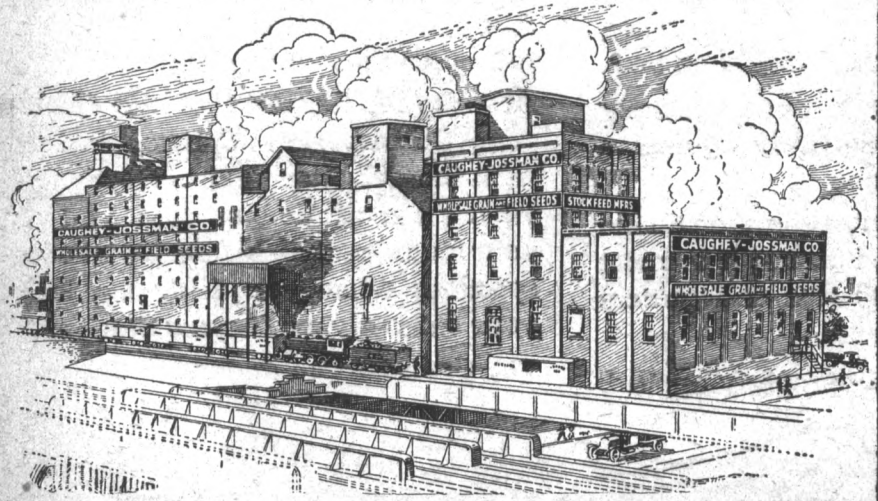
Apex Brand RE-CLEANED and TESTED Field Seeds

The reasons why thousands of Michigan's most successful farmers sow Apex Brand Field Seeds year after year is because they are—

- all northern grown.
- carefully re-cleaned.
- tested for purity and germination by a former Asst. State Seed Analyst.
- of uniform quality.
- backed by the largest exclusive field seed house in Michigan— with a reputation of over 25 years square dealing.
- and because they have proved to be the seeds that grow best in Michigan soil.

If your dealer can't supply you—mail the coupon below today. For bigger crops and profits insist on Apex Brand Field Seeds.

Caughey-Jossman Company
DETROIT, MICHIGAN
Michigan's Field Seed Specialists



COUPON

CAUGHEY-JOSSMAN CO.,
Detroit, Michigan

Give me the name of the dealer nearest me who sells APEX BRAND FIELD SEEDS. Also send me samples of the following field seeds.....

Signed.....
Address.....

Program for Live Stock Men

Program of Michigan Improved Live Stock Breeders' and Feeders' Association for their Twenty-eighth Annual Meeting, to be held at East Lansing, February 5-6.

Program.

Thursday, February 6, 1919.

Room 402, Agricultural Building.
Secretary's report, appointment of committees, president's address.
"Cooperative Live Stock Marketing," Hale Tennant.

"Calculating a Farmer's Income in Accordance with the Income Tax Law," Hon. J. J. Jerome, Chairman of Ways and Means Committee, State Legislature.

Afternoon, 1:30 P. M.

"The Legislative Program for 1919," Hon. Fred Woodworth, State Dairy and Food Commissioner.

"Farm Loans from the Government," W. L. Fass, Federal Farm Loan Bank, St. Paul, Minn.

Wednesday, 4:30 P. M.

Joint meeting of all allied organizations, Dean R. S. Shaw, Chairman.

"The American Federation of Meat Producers and what it has Done," H. H. Halladay, President State Live Stock Sanitary Commission.

Reports of association secretaries.
Banquet tendered Wednesday evening by the State Board of Agriculture to the members of the Michigan Improved Live Stock Breeders' and Feeders' Association.

Michigan Angus Breeders.

President, Alexander Minty, Ionia; secretary, Ward Hathaway, Ovid.

Wednesday, February 5, Room 405.

Meeting called to order at 2:00 p. m.
"The Future for Aberdeen Angus Breeders," Chas. Grey.

"How the Angus Assists me in Farming," W. E. Scripps, Detroit.

"How and Why Should we Maintain the Breed in Michigan," President A. Minty.

All Angus breeders should be present to head these addresses as it will be profitable for them.

Red Polled Breeders.

President, N. C. Herbison, Birmingham; Secretary E. J. Peabody, Mulliken.

Wednesday, February 5, Room 113.

Meeting called to order at 1:30 p. m.
"Starting a Breeding Herd," J. M. Chase.

"The Future of the Cattle Industry," J. M. East.

"How Can we do Our Best to Attract Attention to the Red Polled Cattle?" E. Foster.

"How Much Can a Small Breeder Afford to Pay for a Herd Bull?" Andrew Seeley.

Business meeting and election of officers.

Jersey Cattle Club.

President, Alvin Alden, Capac; Secretary, Mrs. P. H. Walker, Kalamazoo.

Tuesday, February 4, Room 403.

Meeting called to order at 1:30 p. m.
Address, "Economical Feeding of Dairy Cattle," Prof. A. C. Anderson, M. A. C.

Tuesday Evening, February 4.

Banquet.
Speakers, C. D. Richardson, Chesaning; H. F. Probert, Jackson; James Helme, Adrian; John Breck, Jackson; Hon. S. Odell, Lansing; A. Henrickson, Shelby; C. C. Lillie, Coopersville.

Wednesday, February 5, Room 403.
Assemble at College at 10:30.

Address, President A. Balden.
Moving picture at theatre, "Hearts and Jerseys," featuring May Irwin.

Afternoon Session, 1:30 P. M.

Address, W. F. Taylor, New Ea, "A Small Machine and a Large Task."

Business.
Addresses, Hon. Samuel Odell, Lansing, and C. C. Lillie, Coopersville.

Question box.

Sheep Breeders and Feeders.
President, E. G. Read, Richland; Secretary, W. H. Schantz, Hastings.

Wednesday, 10:00 A. M., Room 109.
Short address by President E. C. Read.

Reports and election of officers.
"Some Requirements of a Good Dog Law," John C. Ketcham, Lecturer National Grange.

"Progress Made in Sheep Husbandry in the State During the Past Year," H. H. Halladay, President State Live Stock Sanitary Commission.

"What we Expect to Accomplish by Sheep Husbandry Extension Work," V. A. Freeman, M. A. C.

"What Has Been Done by a State Sheep Breeders' Association in Ohio and Can be Done in Michigan," J. B. Walker, Secretary and Treasurer Ohio State Sheep Breeders' Association.

Swine Breeders.

President, J. B. Hibbard, Bennington; Secretary, O. F. Foster, Pavilion.

Wednesday, 1:30 P. M., Room 109.

"Economical Methods of Pork Production," E. Z. Russell, Swine Specialist, Bureau of Industry, Washington, D. C.

"The Swine Growers' Organization and What it Means to the Michigan Breeders," W. J. Carmichael, Secretary National Swine Growers' Association.

General discussion led by Newton Barnhart, St. Johns, Mich.

Paper by C. U. Edmonds, Hastings, Mich.

Horse Breeders.

President, Jacob DeGeus, Alicia; Secretary, R. S. Hudson, East Lansing.

Wednesday, 1:30 P. M., Room 316.

President's address, Jacob DeGeus.

"The Future of the Pure-bred Sraft Horse," Eli Sprunger.

"Stallion Registration Problems," Judson Black, Richmond.

"The Commercial Horse Market," John Sharkel, Bellevue.

Friday, February 7, Horse Sale at 10:00 A. M.

Poland China Swine Breeders.

President, P. P. Pope, Mt. Pleasant; Secretary, Wm. J. Clark, Mason.

Wednesday, 10:00 A. M., Room 207.

President's address, P. P. Pope.

"Does Size Count as Much as Quality?" E. R. Leonard, St. Louis.

"Does Filthy Surroundings Injure Sales?" W. J. Hagelshaw, Augusta.

"The Value of Pasture," L. L. Chamberlain, Marcellus.

"In What Way Can the Association Help Most?" W. E. Livingston.

General discussion and election of officers.

Holstein-Friesian.

President, M. W. Wentworth, Battle Creek; Secretary, Charles Daniels, of Okemos.

Banquet on Tuesday evening at Plymouth Congregational Church, Lansing.

Wednesday, 10:00 A. M., Dairy Building.

Address by President M. W. Wentworth, Battle Creek.

Report of Secretary-Treasurer C. A. Daniels, Okemos.

Awarding of prizes for 1918.
Business session.

Afternoon Session 1:30 P. M.

"How Can the Extension Department and the Local Associations Cooperate to the Best Advantage?" Wm. M. Rider, Director of Extension Service, Holstein-Friesian Association of America.

"Problems of the Milk Commission," Prof. A. C. Anderson, M. A. C.

"Future Possibilities for the Michigan Holstein-Breeder," Hon. D. D. Aitken, President Holstein-Friesian Association of America.

Guernsey Cattle Club.

President, Harry Ballard, Niles; Secretary, C. G. Parnall, Jackson.

Wednesday, 1:30 P. M., Room 111.
The president is preparing an attractive program and urges every breeder of the Guernsey Cattle Club to be present.

Hereford Breeders.

President, Lewis Norton, Quimby; Secretary, Earl C. McCarty, Bad Axe.

Wednesday, 1:30 P. M., Room 110.
"Why I Breed Herefords," Samuel Bigelow, Cass City.

"The Hereford as a Feeder," Representative Wallace.

"Advancing Hereford Interests in Michigan," Jay Harwood, Ionia.

Duroc-Jersey reeders.

President, Fred J. Drott, Monroe; Secretary, O. F. Foster, Ann Arbor.

Wednesday, 10:00 A. M., Room 110.
"Breeding Better Durocs," discussion by members.

Chester White Swine Breeders.
President, Harry T. Crandall, Cass City; Secretary, J. Carl Jewett, Mason.

Wednesday, 10:00 A. M., Room 316.
Annual meeting and election of officers. An interesting program is being prepared.

Shorthorn Breeders.

President, Jay Smith, Ann Arbor; Secretary, W. W. Knapp, Howell.

Thursday, 4:00 P. M., Room 109.
"How to Improve Our Shorthorn Herds," J. L. Tormey, American Shorthorn Breeders' Association.

Oxford Sheep Breeders.

President, O. M. York, Millington; Secretary, I. R. Waterbury, Detroit.

Wednesday, 10:00 A. M., Room 113.
Berkshire Breeders.

President, J. L. Miller, Caledonia; Secretary, B. Perry, Leslie.

Wednesday, 10:00 A. M., Room 405.
Short business meeting and informal discussion by members of the club.

Sales.

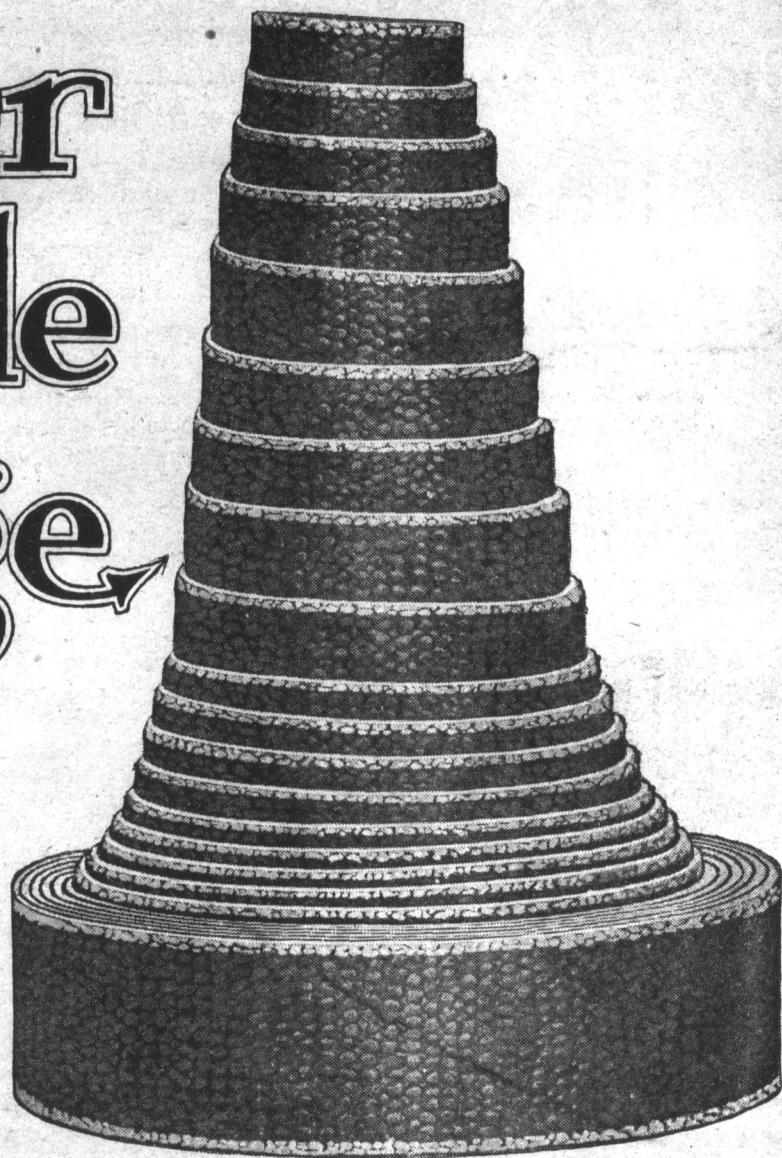
Thursday, February 6, 9:00 A. M., Holstein Sale, Pure-bred Cattle.

Friday, February 7, 10:00 A. M., Sale of Pure-bred Draft Horses.

Look for the tell-tale Silver Edge

Be carefull about your brakes. See that they respond to slightest pressure on the pedal. Line your brakes with Raybestos—the lining that is guaranteed to wear one year!

There are imitations of Raybestos—"cheap" fabrics which will not wear. There are imitations with names that sound like "Raybestos". Avoid them. Each foot of genuine Raybestos is edged with Silver. This enables you to distinguish real Raybestos from substitutes. When you buy brake lining—buy guaranteed wear and long service. Look for that tell-tale Silver Edge.



FOR FORD CARS: Use Raybestos (without wire) for transmissions. We also make Raybestos Rolled Steel Cam Brakes—fit drums now on your car: supporting fixtures, pullrod and clip included. At your dealer.

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We Guarantee
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BRAKE LINING
to wear one year. New lining
will be furnished gratis, if it
fails to sustain the guarantee.

Guaranteed to wear one year
17,000 dealers sell it

THE RAYBESTOS COMPANY
Bridgeport, Conn.

A Vital Message to Every Corn Grower

All of the corn that you can raise this year will command a high price.

Every extra bushel you raise means extra profit.

Extra bushels will come from planting in each hill exactly the number of kernels required to match the soil's producing ability.

If a field is uniformly fertile enough to support three stalks to the hill, three kernels of tested corn should be planted in every hill. If it will support four stalks to the hill, you should plant four kernels in every hill. If the fertility varies, the number of kernels dropped should likewise vary—two kernels in poor spots, three in more fertile spots and four, or a greater number, in very rich spots.

Remember, you use a corn planter on faith. It isn't like plows and cultivators. Their work is visible—but the results of a corn planter's work are invisible—the corn is covered up and the mistakes do not show sometimes until too late to be remedied.

With accuracy as their goal, the John Deere factory which has made a specialty of building corn planters for over fifty years, started out to build a planter that would do perfect work its entire life.

This took years of painstaking care.

The John Deere No. 999 Corn Planter is the result.

Its accuracy is proved. Its drop can be changed instantly merely by pushing a lever.

★ ★

The factory specialists unanimously agree that it is built as perfectly as a corn planter can be built and rightly serve the purpose for which a corn planter is intended.

By manufacturers it is considered a "super planter"—by the thousands of satisfied farm users it has been rightly termed the "accurate planter."

Yet this planter is moderately priced. Due to the thorough and accurate planting it does—and this means during its entire life—it is a profitable investment at ten times the price.

Perhaps your present planter is a John Deere No. 999. If that's the case, you need have no fear but that you are getting

ting a maximum yield insofar as it is possible for a planter to contribute toward that yield.

If you haven't a John Deere No. 999 you may be under the impression that your old planter is doing accurate work when really it may be dropping 1, 2, 3, 4 or 5 kernels regardless of what you want it to drop—under-planting some hills and over-planting others—and you are losing a good profit every year. Such a planter is a "thief in the field"—the sooner you get rid of it the more money you will be ahead.

★ ★

You as a corn grower can not afford to postpone investigating thoroughly the John Deere No. 999 because it is a profit-maker from the first day it starts work in the field.

Every year this planter stays out of your field you are letting slip through your fingers profits that might just as easily come to you.

To give you a complete story of this planter we have prepared a book entitled "More and Better Corn," which also gives practical information on every feature of quantity and quality corn production. We will send you this valuable book free by return mail if you will drop us a card.

JOHN DEERE

Moline, Illinois



This Valuable Book Sent Free

Don't neglect to send for this book. Do it now while this is fresh in your mind. The card asking for the book may be the most important and profitable one you'll write this year. In writing ask for package PS-116.



Should Land Owners Pay all Taxes?

(Continued from page 157).

diately; but as soon as speculation ceases to be attractive development stops, accommodations become scarce, demand continues to increase but nobody attempts to supply it without hope of profit, and eventually the occupant must pay the cost of replacement, plus the tax, plus a profit, commensurate with the profit to be had in other lines of endeavor, or live in the open like the wild animal. No man will make provision for anyone without assurance of an adequate reward; but give him the assurance or due return and he will make comfortable quarter for five thousand on an acre; if need be, by use of sky-scrapers. In other words, eventually the public must pay the tax and a profit; and under the single tax they would have to pay it more surely than now; for under the present system the speculator often pays taxes for which he never gets return, merely thinking the good turn is just ahead; which he would not do if assured he could never hope for a profit.

2. True it is that all titles to land in private ownership are man-made, not God-given. They originated in mere appropriation. In this country the social organization called the government took possession and granted the private titles. The same charge that God did not sanction it could as well be made to most of our man-made laws; and without some understanding, some rules as to how we shall live together, there would be no safety or security for anyone; and those who complain of private ownership of land would suffer as much as anyone. Proof? Look at Russia. The single taxer's argument is admitted, but not his conclusion from it. True, it is of human, not of Divine origin; but the assumption that it is therefore bad would condemn all human creations. The question debated is not what is the origin, but whether it is bad, or something else is better.

3. That the growth of the community makes land values is also true. That it would be wise to appropriate all the value so as to stifle private initiative in hope of gain, does not follow, necessarily. That it should all be appropriated, is reasoning like the woman buying a stove, who was asked if she did not want a damper also, and said she did not, for she wanted the fire to burn; but when told a damper would enable her to get twice the heat from the stove she concluded she would take two dampers. Some heat may be saved by checking the draft; but with no draft the fire goes out. Undoubtedly our country would never have been developed as it has been but for the hope of gain which lured the adventurous spirits to pioneer and open the way ahead as they would never have done without the hope of gain.

The single taxer's argument, numbered three above, also goes on another false assumption that this unearned increment, this value created by the public and not by the private owner is not appropriated as far as it is possible or practicable to do so, under the present system of taxation. It is common knowledge and often proved, that only under the most favorable circumstances will the rise in (Concluded on page 183).

SEED BARGAINS

Recleaned
SWEET CLOVER
4.95
Per Bu.
Guaranteed

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CLOVER
AT LOW PRICES
Write For Sample

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Lowest Prices
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Big Bargain
Guaranteed

Our Prices Save You Real Money

To introduce our high quality, guaranteed Farm and Garden Seeds to new customers, we are making special money-saving bargain prices on pure, high grade Seed. You will save money buying of us. Tested by our own experts in our own laboratory. Sold subject to Government or State test, or your own test. Remember, we allow customers a 30-day test. If seeds don't prove as represented, return at our expense. Could anyone ask for a fairer, squarer deal? You do your own testing and take thirty days to do it. If you are not satisfied, we don't want you to keep them. That's the Berry policy and practice—upon which we have built our immense business. Don't pay two profits when you buy Seed. We sell direct to the farmer at wholesale. We are headquarters for Farm Seeds and our large facilities make our Low Prices possible. A trial order will convince you you should buy from us.

BIG BARGAIN CATALOG FREE

SAMPLES FREE

High Quality—Recleaned
Government Tested

Let us send you samples of seeds you are interested in. Remember, you can absolutely rely upon our samples. Shipments positively guaranteed to meet same tests as samples. Don't fail to secure copy of our 1919 Bargain Catalog—116 pages, handsomely illustrated. Full of astonishing bargains—a valuable book—yours for the asking. If you are interested in Alfalfa, ask for our 60-page Alfalfa Book. Don't wait—

Write Today

FROM THE WORLD'S LARGEST BARGAIN SEED HOUSE

We are the largest bargain house handling guaranteed Farm and Garden Seeds. We are Seed Growers and Dealers. We attend to every detail in the proper handling of seed from the planting to the harvesting, cleaning and testing. Our facilities are second to none. Our big storage plant and our large investment of capital enable us to offer the lowest Seed Bargains. Our catalog will open your eyes.

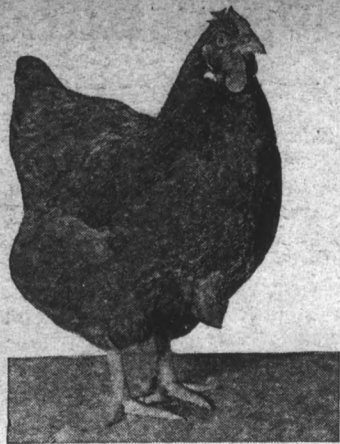
We Want YOU for a Booster

Our policy is to MAKE GOOD on every statement we make in regard to our Seeds. We don't disappoint customers. We make boosters of them. That's why we grow. If you become a customer of ours, you will become a booster or we want to know why. Quality talks. Prices talk. Our Farm Seeds combine both.

Read the big Bargain Offers in this ad. Send at once for our Big Catalog and get better acquainted with us and our methods of saving money for our seed customers. Every sale we make is guaranteed to give the buyer just what we promised. Could you ask more?

Send now for Big Bargain Catalog of Farm and Garden Seeds. Address

A. A. BERRY SEED CO.
Box 1831 CLARINDA, IOWA



The Future with Poultry

By R. G. Kirby

EVERY farmer who owns a fair-sized flock of poultry is thinking about his birds and wondering just what will be the future profits in the poultry business. What kind of a flock will we see on the average farm after the war if the farmer wishes them to earn as much as possible? The flock will undoubtedly be pure-bred. Pure-bred birds will mean the chance of selling breeding stock and carrying on the constant improvement which is necessary if a man stays in the poultry business.

Many of the city breeders have disposed of their flocks because of the cost of feed in the city, and most of these breeders will return to the business after the war. The farmers in their sections who have pure-bred birds will have an opportunity to sell foundation stock to these city fanciers.

Some poultrymen have turned their houses into rabbit hutches for the period of the war and many of these men will wish to return to poultry breeding as soon as grain prices fall. Many lovers of poultry will wish to buy birds in the very near future in spite of the price of grain because they will appreciate the value of eggs and poultry meat produced at home.

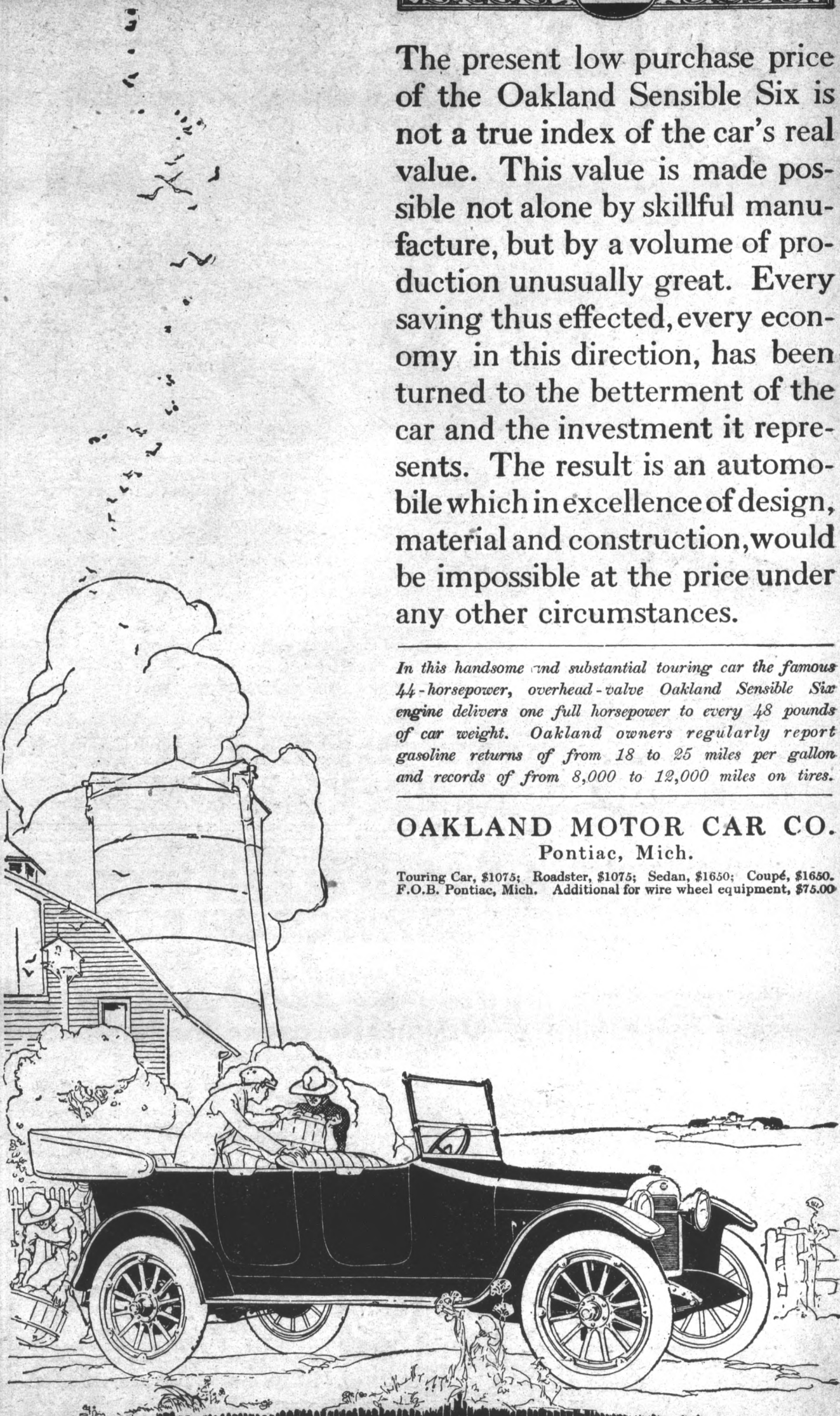
Some of our returning soldiers may desire to go back to the land and they will wish a flock of poultry and they will seldom buy anything but pure-bred stock. The army hospitals will need fresh eggs in quantities for many months after the war.

The countries which have been devastated by the war were formerly great producers of eggs and poultry meat. Some way must be provided to furnish foundation stock for these farmers who have lost so much through the war. The American farmer who has been raising pure-bred birds will have a chance to fill some of this demand.

The future flock of poultry on the farm is not only going to be pure-bred but it is going to be bred for vigor and productive ability. The bred-to-lay hen is not a dream, as all poultrymen realize when they compare the results from their bred-to-lay birds with the egg records of stock which has been bred for many generations by the hit-or-miss method. The farmers who select their egg producers for breeders will gradually develop flocks which will pay and such breeders will be of great value to their country.

There is going to be more cooperation in the selling of poultry products in the future and in sections where many eggs and birds are produced there must be some form of cooperative selling to place the business on a firm foundation. Now it is the general custom in many districts to sell all of the eggs to the grocer in exchange for articles needed in the home. In the future the egg producer should be able to take his eggs to the cooperative station where they can be graded and packed in the way that brings high

(Continued on page 178).



The present low purchase price of the Oakland Sensible Six is not a true index of the car's real value. This value is made possible not alone by skillful manufacture, but by a volume of production unusually great. Every saving thus effected, every economy in this direction, has been turned to the betterment of the car and the investment it represents. The result is an automobile which in excellence of design, material and construction, would be impossible at the price under any other circumstances.

In this handsome and substantial touring car the famous 44-horsepower, overhead-valve Oakland Sensible Six engine delivers one full horsepower to every 48 pounds of car weight. Oakland owners regularly report gasoline returns of from 18 to 25 miles per gallon and records of from 8,000 to 12,000 miles on tires.

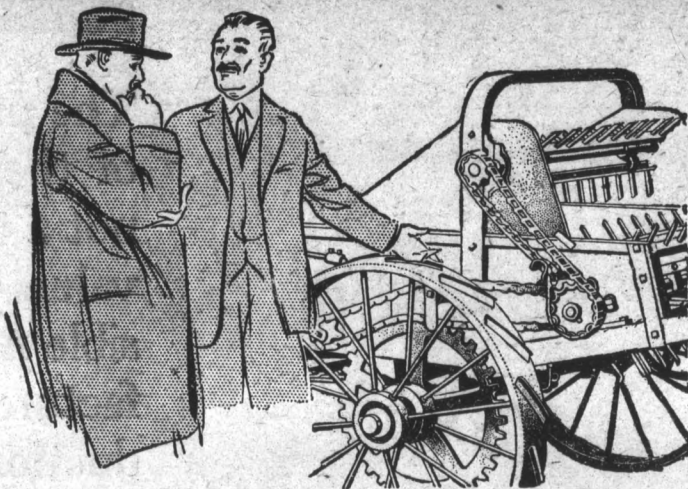
OAKLAND MOTOR CAR CO. Pontiac, Mich.

Touring Car, \$1075; Roadster, \$1075; Sedan, \$1650; Coupé, \$1650.
F.O.B. Pontiac, Mich. Additional for wire wheel equipment, \$75.00

OAKLAND

SENSIBLE SIX

BUILT TO LAST



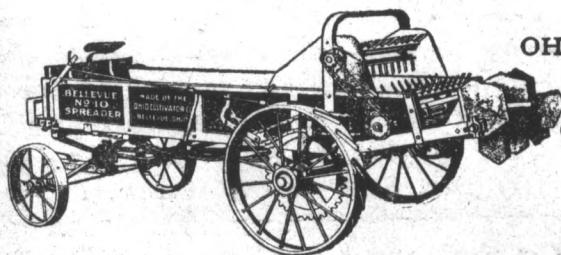
All the Power Goes Into the Work

To get thoroughly pulverized manure, and to scatter it over a wide area, the maximum power is necessary. The simple direct drive in the Bellevue No. 10 Spreader guarantees that all the power goes into the work.

And there are no troublesome, expensive gears to wear out and to replace. Heavy, rugged, malleable links in the chain, and steel pins. A convenient lever operated from the driver's seat raises the chain and throws the spreader mechanism out of gear so that there is no wear on it

when the spreader is on the road. Here's just one of the many features in the Bellevue Spreader that guarantees its profitable, dependable performance for many seasons—just one of its many features that makes it a worthwhile investment for you.

There are many other improvements embodied in the Bellevue No. 10 Spreader that are of interest and importance to you if you are planning to buy a spreader this Spring. See your dealer, and if he does not know about the Bellevue, write us for our free Spreader Catalog.



OHIO CULTIVATOR COMPANY, BELLEVUE, OHIO

Address Dept. 31

The BELLEVUE No. 10 SPREADER

Save Money on Newspapers

Many rural readers have bought their daily and the Michigan Farmer in combination at a price that saved them money.

Save money by ordering through us. Tell your neighbors about it. We will give prompt and accurate service in the filling of all orders.

The Michigan Farmer—One Year Your Favorite Daily—One Year

On rural routes only at prices specified below in "Our Price" column.

	Regular Price.	Our Price.
Free Press, Detroit.....	\$5.00	\$4.50
Journal, Detroit	5.00	4.50
Times, Detroit	4.00	3.50
Herald, Grand Rapids.....	5.00	4.50
Press, Grand Rapids	5.00	4.50
News, Grand Rapids	5.00	4.50
News-Courier, Saginaw ...	5.00	4.50
News-Statesman, Marshall.	4.00	3.25
Journal, Flint	5.00	4.50
Gazette, Kalamazoo	5.00	4.50
News, Cadillac	4.00	3.50
Enquirer, Battle Creek....	5.00	4.50
Evening News, Monroe....	4.00	3.50
Pioneer, Big Rapids	4.00	3.50
Blade, Toledo	5.00	4.50
News-Bee, Toledo	5.00	4.50

The above combinations give you an average saving of Fifty Cents.

To Save \$1.00

Remit the first column prices and you will get one year of the daily and two years of the Michigan Farmer—\$6.00 value for \$5.00 with \$4.00 dailies—\$5.00 value for \$4.00 with \$3.00 dailies—a saving of the price of one year's subscription to the Michigan Farmer.

Send all orders to

The Michigan Farmer,

A 4 YEAR CLEAN RECORD OF SERVICE ON FARMS

Waterloo Boy Original Kerosene Tractor

Uniformly solid construction, without any "weak spots" to cause trouble and costly delays—the tractor in which every part is built with scrupulous care to fully sustain its share of the strain in a hard day's work—the tractor of demonstrated working adaptability and capacity, of low operating cost, easy control, complete accessibility, trouble-proof ignition, smooth, even power—lasting service. These and other features make the Waterloo Boy

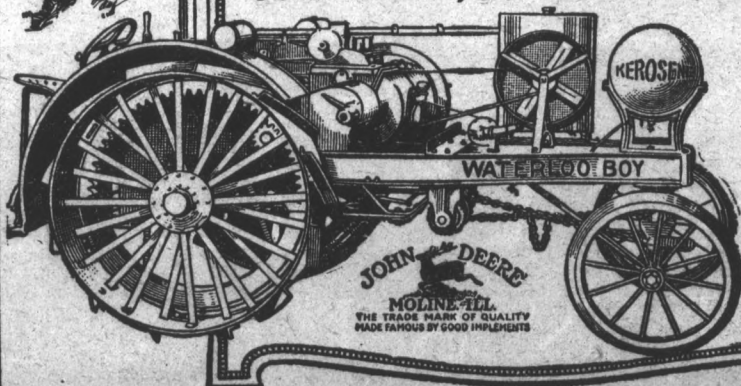
The Tractor of Steadily Growing Popularity

Owners of Waterloo Boy Tractors are their strongest boosters. George M. Breeding, of Milford, Ill., writes:

"Your tractor has given the best satisfaction. I plowed seventy acres of ground in eight days, with a 3-bottom John Deere Plow; did most of my discing with it, pulling two 18-inch wheel discs at all times. \$2.00 a day pays for all fuel and lubrication, when doing a full day's work—on light work it is much less. I consider it a very economical machine. The service given by your distributors has been satisfactory at all times."

Let us send you illustrated catalog showing many points of Waterloo Boy advantages, and illustrations of the tractor at work in the fields of many owners.

JOHN DEERE, 4609 W. Third Ave., Moline, Ill.

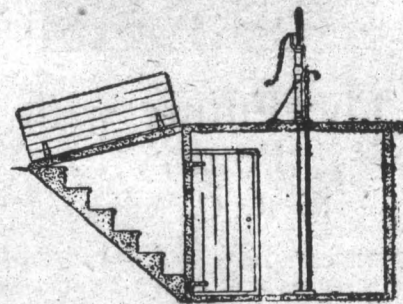


Two Speed
12-25
H. P.

Suggestions

A SIMPLE COOL ROOM.

A SIMPLE method of constructing a cool, out-door cellar in localities where the common house cellars are too warm for use during the summer time, is shown in the accompanying sketch. It is a cellar made under the pump, so that the water pumped by the windmill has a very cooling effect. In places where it is difficult to obtain ice, it will prove indispensable to the

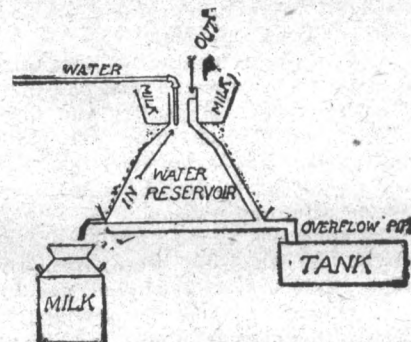


dairyman who keeps a few cows. Another important item is the fact that a man does not find it necessary to pull up all of the pipes every time that he finds it necessary to repair the pipes and pump.

It is constructed of concrete. The top is reinforced with half-inch steel rods placed one foot apart each way and the concrete work is about six inches thick. The sides are made by using a form and the stairs are also made of concrete and are reinforced by small steel rods. The cost, including the labor amounted to about \$50. The steel reinforcements were scraps that had been thrown away.

A MILK-COOLING DEVICE.

THE milk is poured into the hopper on top of the aerator and that divides it into small streams that flow down over the outside surface and the milk is cooled to within a few degrees of the temperature of the running wa-



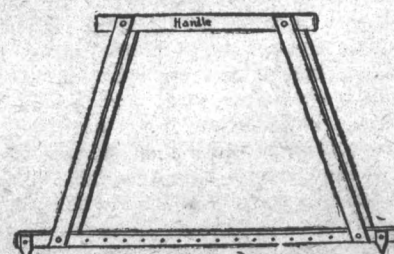
ter that is passing through the inside of the aerator.

The overflow pipe carries the water from the aerator and by doing this the aerator is full of fresh water at all times up to the top of the overflow pipe.

It is built of heavy tin plate with galvanized steel bottom and should be painted inside with rust-proof paint.

PLANT SPACER, OR MARKER.

THIS spacer will be found a great help in spacing plants the correct distance apart in row. Simply walk down row and press peg in ground, leaving mark each time showing the



proper place for plant. It is made of 1½x2-inch lumber. Countersink all joints. Bolt securely, bore holes four inches apart on bottom runner for pegs; bolt pegs securely.—L. K.

SAVE THE BEST SEED.

WHEN saving garden seed it pays to select the seed from the best plants. Frequently the best vegetables are used and a few cull specimens are allowed to go to seed because they are so poor that they are unfit for use. Then the seeds from these inferior specimens are saved and tried the next year. The grower often finds that the results are poor and then believes that nothing is gained by trying to use home-grown seed.

The plant that produces the seed for next year's crop should be the best. Save the plants in the garden that appear vigorous and free from fungous diseases or insect injury. Allow them to go to seed and the results next year will be apt to be very good, often better than from the seed purchased on the market.

Seed that has been left over this year should be stored in labeled envelopes for use next year. Many farmers think that commercial seedsmen replenish all of their seed supply every year and never send out seeds that are more than one year old. They reason that they are purchasing absolutely fresh seed if they buy of the seedsmen and think that their own seed is probably inferior if over a year old. Many seedsmen raise a large amount of seed during a year when it is particularly favorable for the growth of a certain plant and then have enough to last over if crop failures occur. Certain seeds retain their vitality for several years and the per cent of germination will be very good if they are properly stored. A spool cabinet makes a nice case to store envelopes and packages of seeds. It should then be placed in a dry room where there will be little danger of inroads from mice. We save old coffee cans and frequently use them for storing garden seeds. A one-pound tin coffee can will hold quite a lot of garden seed and it will be safe from rats and mice. The seed will also be protected from dampness and it will not become mixed with other varieties, as sometimes happens when easily broken paper bags or envelopes are crammed full of seed.

The farmer who studies varieties and saves seed from the best will find an added interest in vegetable gardening which will make the work more profitable. Raising good garden truck is much like raising good live stock. Only the best should be allowed to increase. Undoubtedly there are many points concerning seed growing and plant breeding which the average farmer must leave to the seedsman, but under present conditions every farmer can reduce his expenses by trying to save seed from some of his best plants.

CONSERVE THE MOISTURE.

A GOOD deal can be done to save moisture in the way the land is handled. Fairly deep plowing opens up the soil so rain can soak in more readily. Plenty of vegetable matter helps hold moisture. Plenty of available plant food enables the plant to make more growth with a given amount of moisture. This fertility and vegetable matter are furnished in the best form in manure. Weeds use up a lot of moisture and the weeds grow all the time, they must be kept out. A good way to accomplish all this is to put one-third of the plowed area of the farm in corn, potatoes or summer fallow, (must be kept clean and plowed in June), and the other two-thirds in grain. Corn or potatoes are preferable to the summer fallow; they give a crop and leave the soil in nearly as good a condition.

One Tractor and One Implement For All Orchard and Vineyard Work



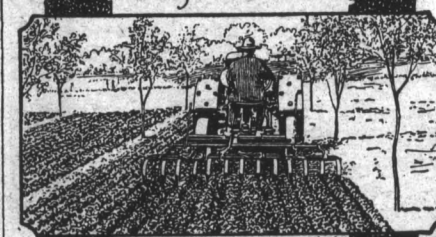
Plowing away from the trees



Finishing the job completely



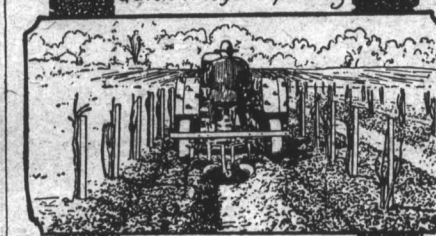
Thorough cultivation



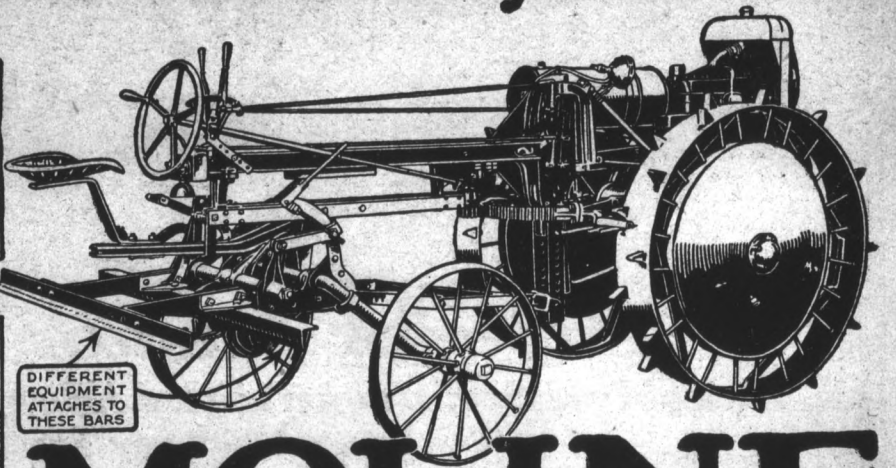
Harrowing a fine mulch



Quick vineyard plowing



Finished in two operations



DIFFERENT EQUIPMENT ATTACHES TO THESE BARS

MOLINE UNIVERSAL TRACTOR and ATTACHOR

With this one outfit the orchardist and vineyardist can do practically all their work and one man can do much more work at less expense than ever before possible.

The Moline-Universal Tractor Attachor is made to work in connection with the Moline-Universal Tractor so that one man has control of both tractor and implement. It consists of an attachor truck equipped with a power lift device and a pair of transverse bars to which can be attached the following equipment: Orchard Gang Plow, Offset Sulky, Straight Sulky, Orchard or Alfalfa Cultivators; Spring Tooth Harrow in two, three or four sections, Furrow Irrigator for orchard or vineyard work, Ridge Irrigator, Vineyard Gang Plow and Crust Breaker.

Thus this one implement does away with all special tools which are used for only a few days out of the year. The Moline-Universal Tractor Attachor combines the main parts of all these machines such as wheels, axle, frame, lifting device, seat and control mechanism. The saving in expense is apparent.

But the improved quality of the work which can be done with the Moline Universal outfit and the saving in time is of greater importance.

For orchard plowing the gang plow is used and the land is plowed as close as the branches of the trees will permit. Then the Offset Sulky or the Straight Sulky is attached in place of the gang plows and the last furrow or two are plowed out right up to the tree trunks. Plowing can be done away from or to the trees in this manner. After plowing the Orchard, the Cultivator or Spring Tooth

Harrow can be readily attached for making a fine mulch. And if irrigation is practiced, furrows or ridges are quickly made by attaching this equipment.

For vineyard work, Moline-Universal Attachor enables a better quality of work to be done, and quicker and cheaper than ever before possible. The vineyard plow consists of a pair of right and left hand bottoms. These bottoms can be spaced wide apart or close together to suit any vineyard rows from 6 to 10 ft. apart. In two operations, with the bottoms spaced wide and close together, all the land can be completely plowed between the rows. Then by using Spring Tooth Harrow and Furrow Irrigators the entire vineyard work can be finished completely.

The Moline-Universal Tractor is especially well adapted to orchard and vineyard work, being light in weight, extremely powerful. All moving parts are fully protected from dust and many other features which other tractors do not have. Aside from this work it can be used for any farm work, including cultivation of row crops and for belt work.

This Moline outfit will make you more profit. If you are interested in orchard or vineyard work, send for folder R. F. No. 84 which explains in detail just how the Moline-Universal Tractor and Attachor are used.

Manufacturers of Quality Farm Implements Since 1865

Plows (steel and chilled)	Hay Rakes	Scales
Harrow	Hay Loaders	Grain Binders
Planters	Hay Stacks	Corn Binders
Cultivators	Grain Drills	Wagons and Moline-Universal Tractor
Mowers	Line Sowers	
	Manure Spreaders	

Stephens Salient Six Automobiles

Address Dept. No. 42

Moline Plow Company, Moline, Illinois

BALDWIN'S BERRY BOOK

It's free. Send for your copy today. It shows the most complete line of small fruit plants all standard varieties, to be secured anywhere. Tells you how to plant and grow them successfully. The leading standard varieties of Strawberries, as well as everbearing Strawberries, Raspberries, Blackberries, Currants, Grape Plants, are plainly described, embellished with illustrations; real pictures of fruit grown from the leading varieties—the kind that pay you to grow. There is money in growing small fruits from Baldwin's healthy plants.

Baldwin's Peace Victory Berry Plants

Help feed the world the choicest of fruits. Nothing better than berries and small fruits to preserve the health and maintain the happiness during these reconstruction days. Our plants are true to name. All free from diseases. All northern grown on new rich ground, producing strong, healthy, large, heavily rooted plants. Millions of them, as good as ever were grown, offered our customers this year. We have had a wonderfully successful growing season.

Baldwin's Berry Plants produced by Baldwin himself, are sure growers. Every grower or prospective customer, large or small, should have our big, handsomely illustrated and thoroughly descriptive Berry Book. It contains valuable information, showing how to plant and produce successfully delicious fruit from Baldwin's Berry Plants. It explains how to have the earliest berries in the Spring and the latest berries in the Fall. For home garden or market purposes, for pleasure or for profit, Baldwin will show you the way. Save a day. Write tonight.

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USE NATCO DRAIN TILE

Farm drainage demands durable tile. Our drain tile are made of the best Ohio clay, thoroughly hard burned—everlasting. You don't have to dig 'em up to be replaced every few years. Write for prices. Sold in carload lots. We are also manufacturers of the famous NATCO Silo, NATCO Corn Crib, NATCO Building Tile and NATCO Sewer Pipe. Send for the new edition of our book, "NATCO on the Farm".

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GOOD SEEDS

GOOD AS CAN BE GROWN
Prices Below All Others.

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

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CONDON'S CRYSTAL ONION

The Big Money Making Crop. \$1200.00 from one acre is what our customer Mrs. Dorothy Baugen made last season. To help you do as well and to introduce to you our Wonderful Grown Live "Sure Crop" Seeds we will mail you 250 seeds of this most perfect White Onion and our BIG 1919 GARDEN AND FARM GUIDE **FREE**

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CONDON BROS., SEEDSMEN
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SCOTT'S FIELD SEEDS

Our seeds are selected and cleaned to be WEEDLESS and free from dead grains. They will go much farther than ordinary field seeds, nearly always adding enough to the crop to pay for themselves. Samples and catalogue including "How to Know Good Seed" free. Write today.

D. M. SCOTT & SONS CO. 264 5th St., Marysville, Ohio

Seed Corn 5,000 Extra selected, sure to grow

varieties. Highest yielders. Best show corn. Also seed oats, barley, alfalfa, Spring wheat. 1200 acres. Sample on request. Write today for catalog.

W. N. SCARFF & SONS, New Carlisle, Ohio

"The Superior is the most complete line of Grain Drills in the world."



Superior Tractor Drills

**Equipped with Special Power Lift and Adjustable Tractor Hitch
Can be used with any Tractor**

Power Lift enables operator to raise or lower discs while in motion without leaving seat of tractor. Strong and durable. Made of choicest materials. This Tractor Drill is a great time and labor saver to the farmer and its economical sowing will bring you increased profit.

Superior Grain Drills

Insure the utmost yield from every foot of ground. No seed is wasted—no patches of soil left idle. All the grain goes into the ground at the bottom of the drill furrow. Every feed sows a measured quantity of seed and distributes it evenly. No clogging, skipping or leaving empty furrows.

Call upon your dealer and have him show and explain to you the special features of the Superior Drill. Made in all sizes in plain grain and fertilizer styles.

The American Seeding-Machine Co., Inc.

Springfield, Ohio

Send for Superior Catalog

The Drill for your purpose is illustrated and described and is backed by our guaranty. Special features: Double run positive force grain feeds—two feeds in one. Parallel disc bearings guaranteed for life of drill. Steel conductor tubes—non-breakable; no buckling, kinking, bending or collapsing. Patented oscillating drag bars.

The Best Farmer in Michigan

(Continued from page 158.)

head expenses. It certainly is poor business to buy expensive tools and when through using leave it to a shade tree to protect them from the elements. Yet some farmers seem to think this a good method.

Another method employed to reduce expenses is in the handling of the corn crop. It used to be the practice of cutting the corn by hand and husking by the same method. This is rather of an antiquated method. While there is some waste fodder from cutting corn with a binder, yet on the whole this waste is not commensurate with the saving of labor. As not enough corn is raised to fatten the stock and considerable shelled corn is bought for that purpose, only enough is husked for a seed supply, the rest being fed in the bundle. With lambs it should be fed in tight bottom racks. but with cattle the racks are turned over daily and what they do not get the hogs do, so there is very little waste.

With the feeding of practically all of the crops grown on the farm and with the consequent accumulation of a good supply of manure, one can maintain and even increase soil fertility, and at the same time be practically independent of the commercial fertilizer agent. In a four-year rotation of crops the soil has at least one and frequently two, applications of manure.

This I think covers in general the system employed with the object of getting maximum returns, with the labor distributed fairly even throughout the year, and with the maintenance of the soil in a fertile condition.

Some may contend that this system requires more labor than by cropping. This is quite true in the winter. But in the summer if you are a crop farmer you must do too much plowing for good results, while if you keep a reasonable amount of stock, less plowing is required by reason of a need of more pasture and you are doubly insured against a poor season, because you are quite sure of some gains on your stock even if you raise crops at a loss.

No mercantile or manufacturing concern, however small, not even the proprietor of a corner grocery, would attempt to operate without some system of keeping accounts. He may not determine those departments which lose and which gain, depending upon the elaborateness of his system. Yet he would know almost daily how the business stands as a whole. The business side of the farm is fully as complicated, and there is certainly as much need of an accounting system as there is of any other business; yet too many farmers are prone to depend on their memory, and possibly their vest pocket to serve them in managing their affairs. An inventory should be taken at least once a year and with some method of recording cash items one can readily determine whether the farm as a whole is yielding the returns it should without reference to the bank account. Almost any form of book-keeping will do but a very practical and convenient style is furnished by the Agricultural College Extension Bureau.

If this article has proved the contention that general farming with live stock can and should be profitable, that it is safer than specializing, and more remunerative than crop farming, if it enables some farmers to better their plans and better their incomes, then the writer will feel that it has served its purpose.

Shear With Machine

Old ways of shearing leave too much wool on the sheep. Wool is scarce and commands high prices. Buy that sheep shearing machine NOW—they're going to be scarce this season. Get a Stewart No. 9 Ball Bearing Machine with 4 sets of knives. Costs only \$14. You'll more than save that much in wool. Order now. Or send for 1919 catalog. CHICAGO FLEXIBLE SHAFT COMPANY Dept. 127, 12 1/2 St., and Central Ave., Chicago, Ill.

Strawberry Plants That Grow

Best June and Fall-Bearing Strawberries at Reasonable Prices. Also Raspberry, Blackberry, Currant and Grape Plants in Assortment. Catalog FREE.

C.E. Whitten's Nurseries, Box 14, Bridgman, Mich.

STRAWBERRY PLANTS

Send for our FREE OFFER and 1919 catalog, which fully describes all small fruit plants, such as Strawberries, Raspberries, Blackberries, Currants, Grapes, etc. BRIDGMAN NURSERY CO., Bridgman, Mich.

Cherry, Pears, Apple and Plum trees 15c each, all kinds of small fruit. Catalogue free. ALLEN'S NURSERIES, Geneva, Ohio

Leaf Tobacco Kentucky Best, 2 yrs. old, chewing or smoking, 3 lbs., \$1.50, 7 lbs., \$3.00, postpaid. Special prices on large orders. S. ROSENBLATT, Hawesville, Ky.

Onion Seed, Seed Corn and Ensilage, special prices for early orders. Catalogue free. ALLEN'S SEED HOUSE, Geneva, Ohio.

Fordson Tractor and Plows for sale. This outfit very little used. Price \$700. NORMAN W. ALLEN, R. 2, Albion, Mich.

Salesmen Wanted

We pay salary to good subscription getters, who can devote their entire time to our work. The offer our salaried men handle is especially attractive to farmers. Address

The Michigan Farmer, Detroit

Salzer Oats



In no crop is there such a close relation between seed and harvest as in oats. Sow Salzer seed oats and you are sure to get the largest possible yields. Salzer Seed strains—with reputations for extreme hardiness and dependability. The wide range of adaptability has placed them to the front. We have an oat for practically every condition of soil.

Wheat—Farmers cannot afford to buy any but the very best seed wheat obtainable. Salzer Seed Wheat has a value distinctly its own—seed that combines unusual plumpness, attractiveness and purity.

Corn—Salzer Corn is favorably known the country over for its remarkably robust seed life. Noted for big yields and early maturity. All strictly high altitude seed. Wide range of varieties.

Clover—Cheap clover seed should never be considered at any price. Quality has a value. It is folly to invest in clover seed except absolutely the best. Plant pure, high grade Salzer Clover.

Billion \$ Grass—A wonderful producer. Grows two and three big, luxuriant crops per season. Matures in from six to ten weeks anywhere. Preeminently the grass to sow for short hay crops.

Send Postcard for our Large 164-page Catalog (40 Pages in Actual Colors). Everything in Garden and Field Seeds.

JOHN A. SALZER SEED CO.
America's Headquarters for Seeds
Box 135, La Crosse, Wis.

Please Mention The Michigan Farmer When Writing to Advertisers



FEWER CATTLE TO BE FED THIS WINTER.

MANY farmers are not feeding any cattle this winter, because they thought they could see more profits from marketing corn. The prices of corn advanced recently to the highest level of the season, and many farmers counted on selling for \$1.50 a bushel. Values have since suffered a decline. In Texas the big cattle interests are doing plenty of cattle feeding, and it is stated that many shipments will be made from the southern part of that state by March. Present marketings of cattle run mostly to short-fed steers, cows and culling stuff, with a great scarcity in the Chicago market of choice fattened beefs. Owing to dear corn, few farmers are not disposed to carry their cattle for more than sixty to ninety days, the greater number no longer than two months. Ohio, Indiana and Illinois farmers have been buying feeding steers weighing from eight hundred to one thousand pounds in the Chicago market, with the bulk of the sales to country buyers at \$10.50 to \$12.50, and a few sales are made of prime selected feeders at \$13 to \$14. Kansas City reports a fair Iowa and Illinois demand for fleshy steers for a two to three months' feed on corn, but Nebraska farmers are not putting many cattle on feed, as corn is scarce in its feeding belt.

HOG PRICES FLUCTUATING LESS THAN USUAL.

STABILIZATION of hog prices has prevented the former wide fluctuations in prices, and sales from week to week have been usually within a narrow range of quotations, values being extremely high. The Chicago receipts show up extremely well in quality, with recent arrivals averaging in weight 226 pounds, comparing with 216 pounds one year ago and 191 pounds two years ago, the lightest weight ever recorded in a week in January. The export movement greatly exceeds all past high records, yet stocks in the leading western markets on New Year's amounted to 311,076,000 pounds, comparing with 256,316,000 pounds a month earlier and 267,258,000 pounds a year ago.

RABBITS SELL WELL.

ONE thing that attracts attention is the way and the rapidity with which the southern rabbit has "come into its own" and become a popular product. Rabbit pot-pie is about as popular as chicken pot-pie.

A few years ago rabbit meat was an incidental matter but now in the markets of the country it is an everyday item. The high price of rabbits it is believed here, is going to stimulate the development of the Belgian hare industry. The hare heretofore has been generally considered as a sort of novelty, but of late it is noticed that the Belgian hare is bulging into the market at a great rate.

One day recently a lady was seen bringing a heavy basket to market, and the supposition was that the basket contained eggs and dressed poultry. However, inquiry developed the fact that one item in the basket was ten young Belgian hares, neatly dressed, going to a customer for the entire lot. They weighed, when dressed, one and one-half pounds each, and were only two months old. They sold readily at thirty-five to forty cents each.

Save time when feeding

Save time on watering cows
Do away with tank heater boiler

Save time when cleaning

Save time when milking

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Fertilizer

Is an Investment — Not an Expense

YES SIR! The *more* dollars I can spend in fertilizer the better off I am, just so long as each additional dollar returns its profit." The Question is

**Not How Little but
How Much Fertilizer
Can You Use to Advantage**

Your investment in land, buildings, stock, and machinery is fixed—and must be carried regardless of the size of your crops. The way to make this entire investment pay a bigger profit is by using fertilizer. The same labor, the same work horses, the same machinery, the same land—with fertilizer added—will earn a bigger return.

Figure fertilizer on a business basis. The more dollars invested *at a profit*, the better—and it makes no difference whether your investment in fertilizer is \$10 or \$10,000. The important point is, "What investment will bring you the maximum year's profits from your farming operations?"

Are You Using Enough Fertilizer?

Increase your plantfood application this spring by using higher grade fertilizer. Buy fertilizer containing not less than 14 per cent. of total available plantfood—phosphoric acid, ammonia and potash. High grade fertilizer furnishes plantfoods at the lowest cost and returns the biggest profit on the investment.

Write for our interesting bulletin on fertilizer usage

**Soil Improvement Committee
of the National Fertilizer Association**

915 Postal Telegraph Building
Chicago

1415 The Munsey Building
Baltimore

"Fertilizer Feeds the Crops that Feed the World"

"BEYOND THE FRONTIER"

By RANDALL PARRISH

Chevet stood silent, his slow mind struggling with the possibilities of my plan. I could realize the amazement with which he comprehended this cool proposition. He, who had considered me a thoughtless girl, incapable of serious planning, was suddenly forced to realize that a woman confronted him, with a will and mind of her own. It was almost a miracle, and he failed to entirely grasp the change which had occurred in my character. He stared at me with dull eyes, like those of an ox, his lips parted as he sought expression.

"You—you will try, as his wife, to win confession?" he asked finally, grasping vaguely the one thought occurring to him.

"No; there is a better way. I despise the man; I cannot bear that he touch me. More than that, if I read him aright, once I yield and confess

myself his property, he will lose all interest in my possession. He is a lady killer; 'tis his boast. The man has never been in love with me; it was not love, but a desire to possess my fortune, which led to his proposal of marriage. Now I shall make him love me."

"You! Mon Dieu; how?"

"By refusing him, tantalizing him, arousing a desire which I will not gratify. Already his thought of me has changed. Last night in Quebec he was surprised, and aroused to new interest in me as a woman. He considered me before as a helpless girl, with no will, no character—the sort with which he had had his way all his life. He thought I would fall in his arms, and

confess him master. The words I spoke to La Barre shocked and startled him out of his self complacency. Nor was that all—even before then he

had begun to suspicion my relations with Sieur de Artigny.

"It was at his suggestion, you say, that you sent that young man your message of warning to keep away from me. Good! the poison is already working, and I mean it shall. Two hours ago, when we landed here, the two men were on the verge of quarrel, and blows would have been struck but that I intervened. He is finding me not so easy to control, and later still the mighty Commissaire met with a rebuff which rankles."

I laughed at the remembrance, satisfied now as I placed the situation in words, that my plans were working well. Chevet stood silent, his mouth agape, struggling to follow my swift speech.

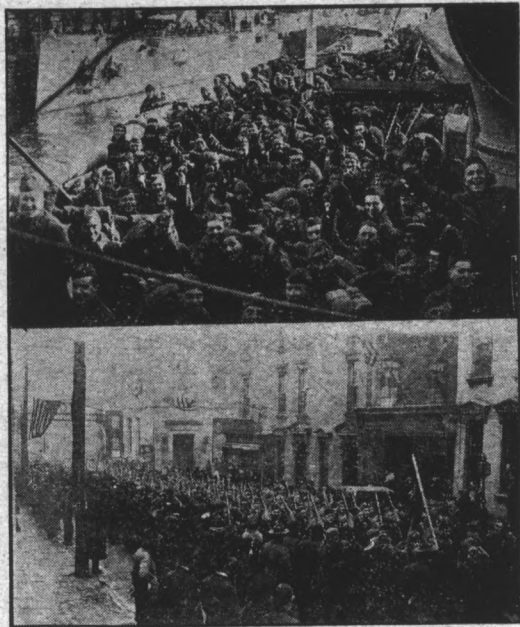
"Do you see now what I mean to do?" I asked gravely. "We shall be

alone in the wilderness for months to come. I will be the one woman; perchance the only white woman into whose face he will look until we return to Quebec. I am not vain, yet I am not altogether ill to look upon, nor shall I permit the hardships of this journey to affect my attractiveness. I shall fight him with his own weapons and win. He will beg, and threaten me, and I shall laugh. He will love me, and I shall mock. There will be jealousy between him and De Artigny, and to win my favor he will confess all that he knows. Tonight he sulks somewhere yonder, already beginning to doubt his power to control me."

"You have quarreled?"
"No—only that I asserted independence. He would have entered this tent as my husband, and I forbade his do-

(Continued on page 174).

WORLD EVENTS IN PICTURES



Upper—Soldiers Arriving on the St. Louis. Lower—Artillery Regiment Lands in Hoboken.



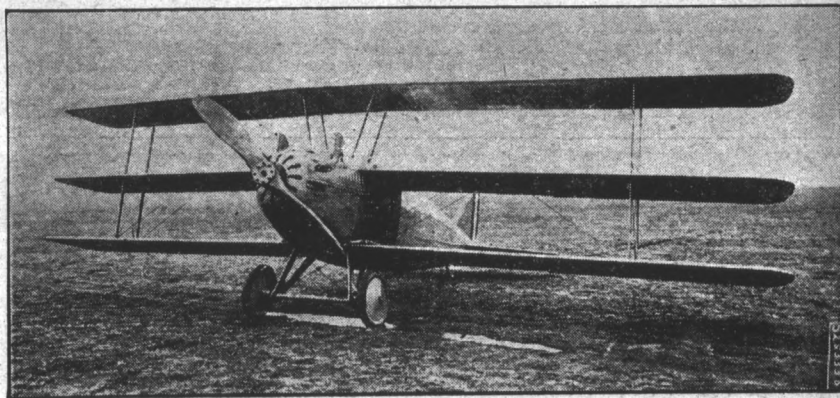
Strassburg Celebrates Restoration After Fifty Years of German Rule.



Maude Adams, Suffering from Nervous Breakdown, May Retire from Stage.



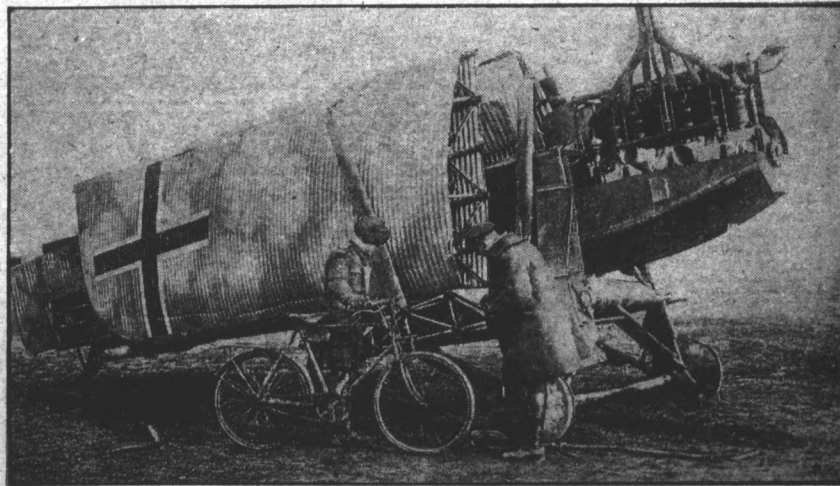
American Prisoners of War, Released, Arrive in Switzerland Enroute Home.



American Airplane, Fastest in World, Attains Speed of 160 Miles an Hour.



An Example of Friendliness of French Peasants Toward American Soldiers.



Canadians Examining Abandoned German Airplane Made Entirely of Metal.

Special Offer to Lime Users during February

Order It Now—Haul It Now—Pay For It When You Use It

Spring is approaching—the most important Spring in all our history.

The end of hostilities in Europe places 200,000,000 more people on our food list, in addition to 100,000,000 in Allied countries to whom we have been supplying food and in addition to ourselves.

We need this Spring to be prepared—all prepared to go at and finish every operation on time and in the most efficient way.

Knowing this, we have made a special proposition to lime users, so that they may order their line now, have it delivered now, haul it now when hauling will not interfere with other work, and pay for it when they use it.

Orders Placed During February

—will be billed for April first payment. If paid between April first and tenth, you are allowed a 3% cash discount, or if you prefer not to take advantage of the discount you need not pay until June 30th, when you will pay in full without discount.

Our sister company, the Semet-Solvay Company, produces Arcadium Ammonium Sulphate as a by-product of coke. During 1919 we will maintain a stock of this material at our quarries in Sibley. We believe, as first-hand distributors, we will be able to furnish nitrogen to the farmers of your state very economically. We shall be very glad to quote on shipments of Arcadium Ammonium Sulphate during the seasons.

SOLVAY PROCESS COMPANY

2091 Jefferson Avenue

Detroit, Mich.



Soldier Sam Tastes Farm Life

By Felix J. Koch

MANY and varied, indeed, the experiences which will linger all his long life-time with Soldier Sam—come back, howsoever long from the big world war—and destined to become family traditions in his line for endless generations to come; none, however, which Sam himself will relate of any oftener, nor tell of with greater pleasure, than the insight he received into the farm life of Sunny France.

Soldier Sam, one of ten and hundreds of thousands of American, Canadian soldiers who saw service in the Republic, came to know French country life from within as very few tourists visiting Europe in the peace times over and over, ever had opportunity to know.

Sam, that's to say, was billeted in the very homes of the peasant farmers.



Madame Demenceau.

He became one of them, to share their joys and their sorrows; to learn of crops planted and fields tilled and tended; and of harvests brought in—sent to market—as the stranger to yeomanry can hope to learn of these things in really no other way.

Just as example, herewith excerpts from letter written in the enthusiasm of such moment by Sam to the folk at home:

Ste. Gervaise, Sarthe, France.

*** Fall has been arriving and has been making its coming known by the smells arising from the hemp. All the stagnant little pools we had noted all about on the farms—reminding one of the quiet ponds within the rock-wall closures of the farms of our own Kentucky, are now filled with the sheaves of hemp. This is put here to soak and decay, and then, smelling as unto Heaven, it is laid out in the fields to dry.

Being away out in the country, so to say—with the nearest city, Le Mans, quite so far away that one can visit only when on a pass of some period—the only new event of real interest, aside from actual soldiering, is our contriving with the farmers hereabouts for the acquisition of a pig—a really beautiful French pig. With Thanksgiving beginning to loom on the horizon, the company—that is to say—has induced a farmer to part with a pig, for consideration, said porker to be fattened for that festive day. French pigs, somehow, are cleaner—or at least look cleaner, than ours do; and, again, have abnormally long ears. The little stranger is now housed in our corral and is already being very tenderly regarded as a friend with whom one shares all he can.

By the same post I am sending some of the charming embroidery the peasant women do, off hours, in their own homes—a sort of dolly, (or it could be used for pillow cover), which is typical and yet so very different from the quiltings and other forms of home-needlework we find on our own farm at home."

It is just a vignette—a peep into Sam's own especial form of country

life, far overseas there, but it interests, none the less.

Even more so is the picture of French farm life—farmer life, from within—which Sam sends from the same town in a shortly subsequent note:

"*** It has turned colder with October," he writes, "and it is almost like winter here. Last night with the cold wind blowing in, we were, in fact, decidedly glad that the Demenceau family—our billetors—had moved out the house proper, removing to their beloved Compiègne, from which the Allies have expelled the Boche, and that we might move into the real farm dwelling-rooms in a day or two ourselves."

"Today I rode out to the Bousard farm and got the key to the residence, and this afternoon several of our 'fusiliers,' as they are called, were busy cleaning it out; so that I hope that by tomorrow, at least, we will be able to ensconce ourselves in a real, high-grade farm home. I don't know for how long this luxury will be mine; however, from the present look of things I may move up here, at town heart, to Battalion Headquarters, where I shall be a little nearer to my work."

"It seems a little odd without the Demenceaus in the billet!—The children were usually playing around—typical little French country tads—and Madame was ubiquitous. By this time I presume, they are safely back in their 'dear Compiègne,' and Madame is walking her thirteen meters a day, delivering the letters to French soldiers located in the country, and who, according to her statement, oft repeated, are 'pas bonne' (not nice) to a lady under the circumstances. Meanwhile, the meek Gustave, her husband, is doubtless riding his bicycle and also executing rural delivery in such wise."

"We shall also miss Madame Julliet, or 'Bangs,' as the men called her, for the way she wore her hair, who was a regular visitor to the billet. The good French country-folk, you know, have not been slow in making first calls on their American guests. She was one of the few good-looking country women of the locality, and did not look at all like the mother of the two impish children that were generally tagging at her skirts."

"Madam has a husband tucked away



The Embroidery.

somewhere in Paris, which doesn't bother her much. He appears about once a month or so—a rat-like little man, who looks like an Apache.

"In fact, as a rule, the chicness of the French women, if to be judged by the country folk, is not all that it is cracked up to be. Perhaps it exists in the big cities; but back here in the country the peasant lasses do not at all come up to the standard that romantic fiction has set for them. Dainty, certainly, they are not."

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"They walk to field with a stiff, swinging, masculine stride, and would at times, seem almost ludicrous, were they not so uniquely astonishing. Their sense of proprieties, as well as their moral code, is French, in all that the word implies. I would call them largely unmoral, (if one wished to go so far), rather than immoral. They will talk to you in the most matter-of-fact way, and in fullest details, of things that would never be mentioned at home. Yet, on the other hand, they will consider little things that we deem perfectly proper, as not so at all.

"Almost all are most careful of appearances, especially when in the town proper.

"I remember one moonlight night of the past summer when one of these sturdy young ladies, with whom I was promenading, told me that the town was very straight-laced and that if once gossip got started it might 'ruin her chance of securing a husband for ever.' She discussed securing a husband in much the same manner as American girls would 'buzz' over the purchase of a new winter hat.

"They certainly differ a lot from the 'goose-girls' and the peasant maids of France of the novels and the motion pictures.

"They certainly aren't romantic—at least, in the scenario-writer's way!

"In a story, on the stage, or in the movie screen, if a French country lass saw you coming and wished to attract your notice, she would perhaps accidentally drop a rose. One of these Amazons, wanting a word with you, will pick up a rock or a clod of mud, the size of your head, and playfully whale it at you! It takes not alone a sense of humor, but good ability to dodge, often, to escape their friendliness unscathed.

"* * * Have been riding about, on my work, on the bicycle I have here.

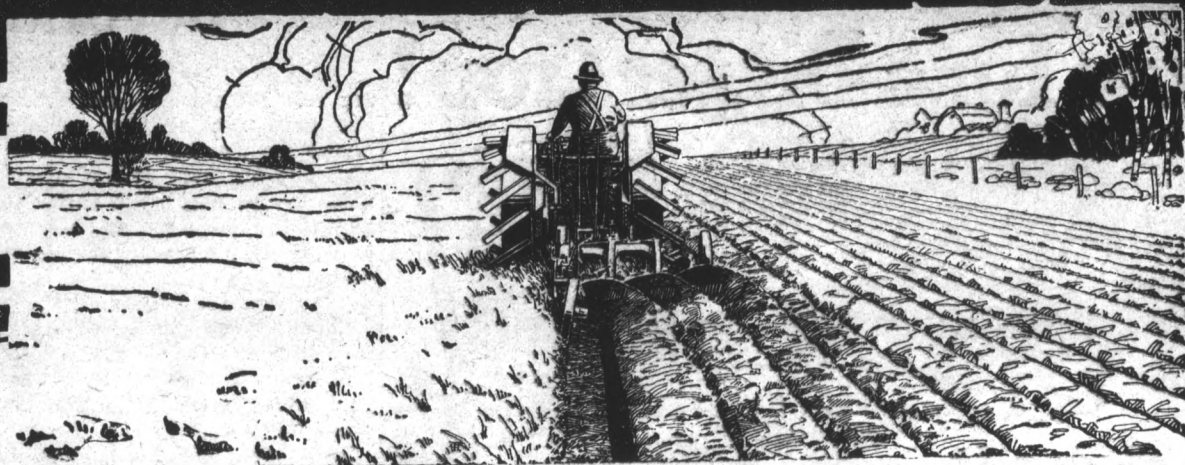
"It is quite cozy tonight in the old billet, for we have a crackling wood fire in the old French grate, with its head of Napoleon at center of the arch and its irons. The orderlies have left with their various reports, for the night, and Sergeant-Major O—and I have the place to ourselves.

"News of 'things doing' out here in the country, and so matters to talk of, are slight and really rare.

"Today, though, there was another peasant's funeral in the little country town and through my window I could see the simple little cortege enter the church, with the priest chanting prayers at front, the women, dressed in black and wearing the small, white Puritan caps, behind; (each woman bearing a taper), and then the casket and immediate mourners themselves."



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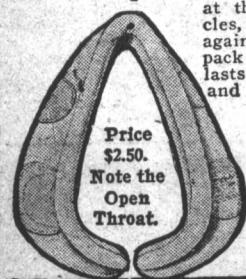
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"Beyond the Frontier"

(Continued from page 171).

ing so. He stormed and threatened, but dare not venture further. He knows me now as other than a weak girl, but my next lesson must be a more severe one. 'Tis partly to prepare that I sent for you; I ask the loan of a pistol—the smaller one, to be concealed in my dress."

"You would kill the man?"

"Pooh! small danger of that. You may draw the charge if you will. For him to know that I possess the weapon will protect me. You do not grasp my plan?"

He shook his head gloomily, as though it was all a deep puzzle to his mind, yet his great hand held forth the pistol, the short barrel of which gleamed wickedly in the fire glow, as I thrust it out of sight.

"'Tis not the way I front enemies," he growled stubbornly, "and I make little of it. Mon Dieu! I make them talk with these hands."

"But my weapons are those of a woman," I explained, "and I will learn more than you would with your brute strength. All I ask of you now, Uncle Chevet, is that you keep on friendly terms with Monsieur Cassion, yet repeat nothing to him of what I have said, and gain me opportunity for speech alone with Sieur de Artigny."

"Ah! perhaps I perceive—you love the young man!"

I grasped his sleeve in my fingers, determined to make this point at least clear to his understanding. His blunt words had set my pulses throbbing, yet it was resentment, indignation, I felt in strongest measure.

"Mother of God, no! I have spoken with him but three times since we were children. He is merely a friend to be trusted, and he must be made to know my purpose. It will be joy to him to thus affront Cassion, for there is no love lost between them. You understand now?"

He growled something indistinctly in his beard, which I interpreted as assent, but I watched his great form disappear in the direction of the fire, my own mind far from satisfied; the man was so lacking in brains as to be a poor ally, and so obstinate of nature as to make it doubtful if he would long conform to my leadership. Still it was surely better to confide in him to the extent I had than permit him to rage about blindly, and in open hostility to Cassion.

I seated myself just within the tent, my eyes on the scene as revealed in the fire-glow, and reflected again over the details of my hastily born plan. The possibility of the Commissaire's return did not greatly trouble me, my confidence fortified by the pistol concealed in my waist. No doubt he was already asleep yonder in the shadows, but this night was only the beginning. The opposition he had met would prove a spur to endeavor, and the desire to win me a stronger incentive than ever. He may have been indifferent, careless before—deeming me an easy prey—but from now on I meant to lead him a merry chase.

I cannot recall any feeling of regret, any conception of evil, as my mind settled upon this course of action. There was no reason why I should spare him. He had deliberately lied, and deceived me. His marriage to me was an act of treachery, the only intent to rob me of my just inheritance. There seemed to me no other way left in which I could hope to overcome his power. I was a woman, and must fight with the weapons of my sex; mine was the strength of the weak.

How dark and still it was, for the fires had died down into beds of red ash, and only the stars glimmered along the surface of the river. The only movement I could perceive was the dim outline of a man's figure moving about near the canoes—a watch-

man on guard, but whether red or white I could not determine. It was already late, well into the night, and the forest about us was black and still. Slowly my head sank to the blanket, and I slept.

CHAPTER X.

We Attain the Ottawa.

It was not yet dawn when the stir in the camp aroused me, and the sun had not risen above the bluffs, or begun to tinge the river, when our laden canoes left the bank and commenced their day's journey up stream. De Artigny was off in advance, departing indeed before I had left the tent, the chief seated beside him. I caught but a glimpse of them as the canoe rounded the bend in the bank, and slipped silently away through the lingering shadows, yet it gladdened me to know his eyes were turned toward my tent until they vanished.

Cassion approached me with excessive politeness, waiting until the last moment, and escorting me to the shore. It made me smile to observe his pretense at gallantry, yet I accepted his assistance down the bank with all possible graciousness, speaking to him so pleasantly as to bring a look of surprise to his face. 'Twas plain to be seen that my conduct puzzled him, for although he sought to appear at ease, his words faltered sadly. He, who had so long considered himself a past master of the art of love-making had most unexpectedly encountered a character which he could not comprehend.

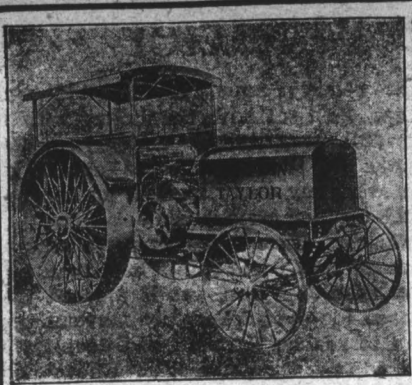
However, that his purpose was in no way changed was made evident as we took our places in the canoes. A new distribution had been arranged, Chevet accompanying the sergeant, leaving the Commissaire and me alone, except for the pere, who had position in the bow. I observed this new arrangement from underneath lowered lashes, but without comment, quietly taking the place assigned me, and shading my face from the first rays of the sun.

The day which followed was but one of many we were destined to pass in the canoes. I have small recollection of it, except the weariness of my cramped position, and Cassion's efforts to entertain. Our course kept us close to the north shore, the high banks cutting off all view in that direction, while in the other there was nothing to see but an expanse of water.

Except for a single canoe, laden with furs, and propelled by Indian paddlers, bound for Quebec and a market, we encountered no travelers. These swept past us swiftly in grip of the current, gesticulating and exchanging salutations, and were soon out of sight. Our own boats scattered, as no danger held us together, and there were hours when we failed to have even a glimpse of their presence.

At noon we landed in a sheltered cove, brilliant with wild flowers, and partook of food, the rearward canoes joining us, but De Artigny was still ahead, perhaps under orders to keep away. To escape Cassion, I clambered up the front of the cliff, and had view from the summit, marking the sweep of the river for many a league, a scene of wild beauty never to be forgotten. I lingered there at the edge until the voice of the Commissaire recalled me to my place in the canoe.

It is of no consequence what we conversed about during that long afternoon, as we pushed steadily on against the current. Cassion endeavored to be entertaining and I made every effort to encourage him, although my secret thoughts were not pleasant ones. Where was all this to lead? Where was to be the end? There was an expression in the man's face, a glow in his eyes, which troubled me. Already some instinct told me that his carelessness was a thing of the



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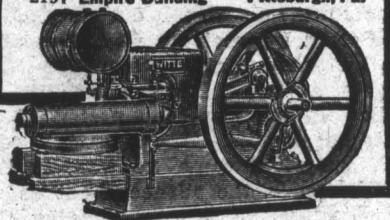
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past. He was in earnest now, his vague desire stimulated by my antagonism.

He had set out to overcome my scruples, to conquer my will, and was merely biding his time, seeking to learn the best point of attack. It was with this end in view that he kept me to himself, banishing Chevet, and compelling De Artigny to remain well in advance. He was testing me now by his tales of Quebec, his boasting of friendship with the Governor, his stories of army adventure, and the wealth he expected to amass through his official connections. Yet the very tone he assumed, the conceit shown in his narratives, only served to add to my dislike. This creature was my husband, yet I shrank from him, and once, when he dared to touch my hand, I drew it away as though it were contamination. It was then that hot anger leaped into his eyes, and his true nature found expression before he could restrain the words:

"Mon Dieu! What do you mean, you chit?"

"Only that I am not won by a few soft words, Monsieur," I answered coldly.

"But you are my wife; 'twill be well for you to remember that."

"Nor am I likely to forget, yet because a priest has mumbled words over us does not make me love you."

"Sacre—" he burst forth, yet careful to keep his voice pitched to my ears alone, "you think me a plaything, but you shall learn yet that I have claws. Bah—do you imagine I fear the cock-comb ahead?"

"To whom do you refer, Monsieur?"

"Such innocence—to that boot-licker of La Salle's to whom you give your smiles and pretty words."

"Rene de Artigny," I exclaimed pleasantly, and then laughed. "Why how ridiculous you are, Monsieur. Better be jealous of Pere Allouez yonder, for of him I see far the most. Why do you pick out De Artigny on whom to vent your anger?"

"I like not the way he eyes you, nor your secret meetings with him back in Quebec."

"If he even sees me I know it not, and as for secret meetings, knew you not that Sister Celeste was with me while we talked?"

"Not in the Governor's palace."

"You accuse me of that then," indignantly. "Because I am your wife, you can insult, yet it was your hand that drew aside the curtain, and found me alone. Do you hope to gain my respect by such base charges as that, Monsieur?"

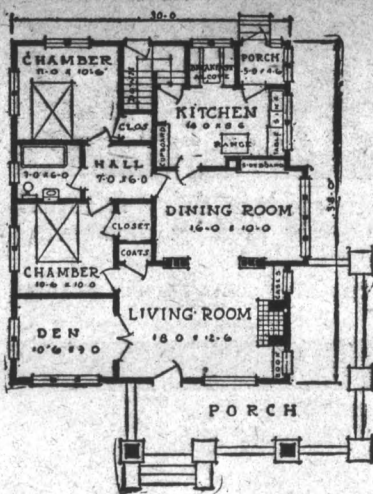
"Do you deny that he had been with you?"

"I? Do I deny! It is not worth my while. Why should I? We were not married then, nor like to be to my knowledge. Why, then, if I wished, was it not my privilege to speak with the Sieur de Artigny? I have found him a very pleasant, and polite young man."

"A pauper, his only fortune the sword at his side."

"Ah, I knew not even that he possessed one. Yet of what interest can all this be to me, Monsieur, now that I am married to you?"

That my words brought him no comfort was plain enough to be seen, yet I doubt if it ever occurred to his mind that I simply made sport, and sought to anger him. It was on his mind to say more, yet he choked the words back, and sat there in moody silence, scarce glancing at me again during the long afternoon. But when we finally made landing for the night, it was plain to be seen that his vigilance was in no wise relaxed, for, although he avoided me himself, the watchful Jesuit was ever at my side, no doubt in obedience to his orders. The second camp, as I recall, was on the shore of Lake St. Peter, in a noble grove, the broad stretch of waters before us silvered by the sinking sun. My tent

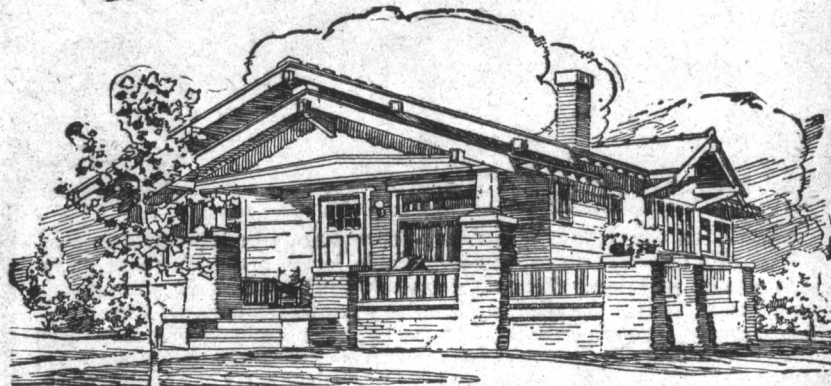


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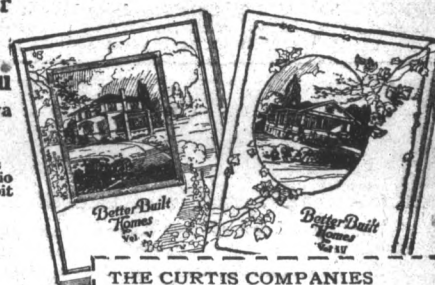
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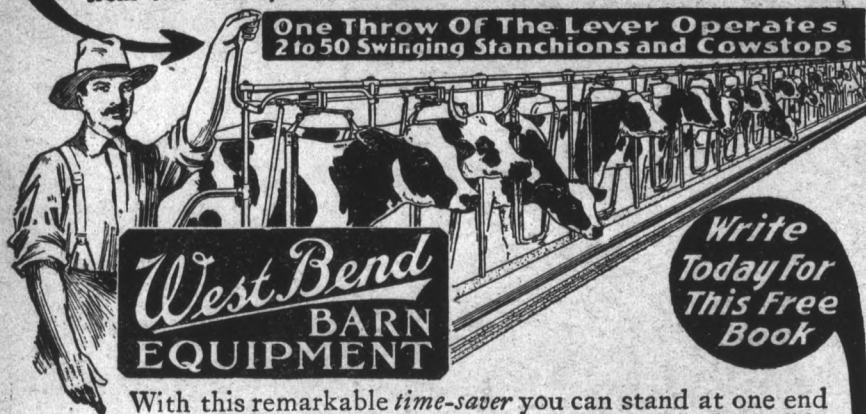
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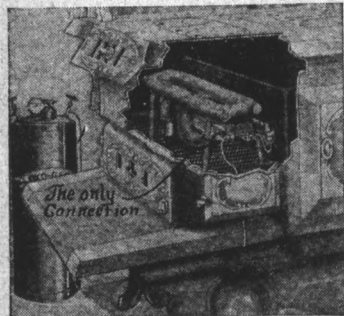
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"Beyond the Frontier"

was pitched on a high knoll, and the scene outspread beneath was one of marvelous beauty. Even the austere pere was moved to admiration, as he pointed here and there, and conversed with me in his soft voice. Cassion kept to the men along the bank below, while Chevet lay motionless beside a fire, smoking steadily.

I had no glimpse of De Artigny, although my eyes sought him among the others. The chief, Altudah, glided out from among the trees as it grew dusk, made some report, and as quickly disappeared again, leaving me to believe the advance party had made camp beyond the curve of the shore. The priest lingered, and we had our meal together, although it was not altogether to my liking. Once he endeavored to talk with me on the sacredness of marriage, the duty of a wife's obedience to her husband, the stock-phrase rolling glibly from his tongue, but my answers gave him small comfort. That he had been so instructed by Cassion was in my mind, and he was sufficiently adroit to avoid antagonizing me by pressing the matter. As we were eating, a party of fur traders, bound east, came ashore in a small fleet of canoes, and joined the men below, building their fires slightly up stream. At last Pere Allouez left me alone, and descended to them, eager to learn the news from Montreal. Yet, although seemingly I was now left alone, I had no thought of adventuring in the darkness, as I felt convinced the watchful priest would never have deserted my side had he not known that other eyes were keeping vigil.

From that moment I never felt myself alone or unobserved. Cassion in person did not make himself obnoxious, except that I was always seated beside him in the boat, subject to his conversation, and attentions. Ever I had the feeling the man was testing me, and venturing how far he dared to go. Not for a moment did I dare to lower my guard in his presence, and this constant strain of watchfulness left me nervous, and bitter of speech.

In every respect I was a prisoner, and made to realize my helplessness. I know not what Cassion suspected, what scraps of information he may have gained from Chevet but he watched me like a hawk. Never, I am sure, was I free of surveillance—in the boat under his own eye; ashore accompanied everywhere by Pere Allouez, except as I slept, and then even some unknown sentry kept watch of the tent in which I rested. However it was managed I know not, but my uncle never approached me alone, and only twice did I gain glimpse of Sieur de Artigny—once when his canoe returned to warn us of dangerous water ahead, and once when he awaited us beside the landing at Montreal. Yet even these occasions yielded me new courage, for, as our eyes met I knew he was still my friend, waiting, as I was, the opportunity for a better understanding. This knowledge brought tears of gratitude to my eyes, and a thrill of hope to my heart. I was no longer utterly alone.

We were three days at Montreal, the men busily engaged in adding to their store of provisions. I had scarcely a glimpse of the town, as I was given lodging in the convent close to the river bank, and the pere was my constant companion during hours of daylight. I doubt if he enjoyed the task any more than I, but he proved faithful to his master and I could never venture to move without his black robe at my side.

Nor did I seek to avoid him, for my mind grasped the fact already that my only hope of final liberty lay in causing Cassion to believe I had quietly yielded to fate. Surely as we plunged deeper into the wilderness his suspicions would vanish, and his grim vigil-

lance relax. I must patiently abide my time. So I sat with the sisters within the dull, gray walls, seemingly unconscious of the pere's eyes stealthily watching my every motion, as he pretended other employment.

Cassion came twice, more to assure himself that I was safely held than for any other purpose, yet it pleased me to see his eyes follow my movements, and to realize the man had deeper interest in me than formerly. Chevet, no doubt, spent his time in the wine shops; at least I never either saw, or heard of him. Indeed I asked nothing as to his whereabouts, as I had decided already his assistance would be of no value to me.

We departed at dawn, and the sun was scarce an hour high when the prow of our canoes turned into the Ottawa. Now we were indeed in the wilderness, fronting the vast unknown country of the west, with every league of travel leaving behind all trace of civilization. There was nothing before us save a few scattered missions, presided over by ragged priests, and an occasional fur trader's station, the headquarters of wandering couriers du bois. On every side were the vast prairies, and stormy lakes, roamed over by savage men and beasts through whom we must make our way in hardship, danger, and toil.

Cassion spread out his rude map in the bottom of the canoe, and I had him point out the route we were to follow. It was a long, weary way he indicated, and, for the moment, my heart almost failed me, as we traced together the distance outlined, and pictured in imagination the many obstacles between us and our goal. Had I known the truth, all those leagues were destined to disclose of hardship and peril, I doubt my courage to have fronted them. But I did not know, nor could I perceive a way of escape. So I crushed back the tears dimming my eyes, smiled into his face, as he rolled up the map, and pretended to care not at all.

When night came we were in the black woods, the silence about us almost unearthly, broken only by the dash of water over the rocks below where we were camped, promising a difficult portage on the morrow. Alone, oppressed by the silence, feeling my helplessness as perhaps I never had before, and the dread loneliness of the vast wilderness in which I lay, I tossed on my bed for hours, ere sheer exhaustion conquered, and I slept.

CHAPTER XI.

I Gain Speech with De Artigny.

OUR progress up the Ottawa was so slow, so toilsome, the days such a routine of labor and hardship, the scenes along the shore so similar, that I lost all conception of time. Except for the Jesuit I had scarcely a companion, and there were days, I am sure, when we did not so much as exchange a word.

The men had no rest from labor, Cassion changing from boat to boat as necessity arose, urging them to renewed efforts. The water was low, the rapids more than usually dangerous, so that we were compelled to portage more often than usual. Once the leading canoe ventured to shoot a rapid not considered perilous, and had a great hole torn in its prow by a sharp rock. The men got ashore, saving the wreck, but lost their store of provisions, and we were a day there making the damaged canoe again serviceable.

This delay gave me only glimpse of De Artigny, still dripping from his involuntary bath, and so busily engaged at repairs, as to be scarcely conscious of my presence on the bank above him. Yet I can hardly say that, for, once he glanced up, our eyes met, and possibly he would have joined me, but for the sudden appearance of Cassion, who swore at the delay, and ordered me

back to where the tent had been hastily erected. I noticed De Artigny straighten up, angered that Cassion dared to speak to me so harshly, but I had no wish then to precipitate an open quarrel between the two men, and so departed quickly. Later, Father Allouez told me that in the overturning of the canoe the young Sieur had saved the life of the Algonquin Chief, bringing him ashore unconscious, entirely helpless from a broken shoulder.

This accident to Altudah led to the transferring of the injured Indian to our canoe, and caused Cassion to join De Artigny in advance. This change relieved me of the constant presence of the Commissaire, who wearied me with his ceaseless efforts to entertain, but rendered more difficult than ever my desire to speak privately with the younger man. The pere evidently had commands to keep me ever in view, for he clung to me like a shadow, and scarcely for a moment did I feel myself alone, or unwatched.

It was five days later, and in the heart of all that was desolate and drear, when this long sought opportunity came in most unexpected fashion. We had made camp early, because of rough water ahead, the passage of which it was not deemed best to attempt without careful exploration. So, while the three heavily laden canoes drew up against the bank, and prepared to spend the night, the leading canoe was stripped, and sent forward, manned only with the most expert of the Indian paddlers to make sure the perils of the current. From the low bank to which I had climbed I watched the preparations for the dash through those madly churning waters above. Cassion was issuing orders loudly, but exhibited no inclination to accompany the party, and suddenly, the frail craft shot out from the shore, with De Artigny at the steering paddle, and every Indian braced for his task, and headed boldly into the smother. They vanished as though swallowed by the mist, Cassion, and a half dozen soldiers racing along the shore line in an effort to keep abreast of the laboring craft.

It was a wild, desolate spot in which we were, a mere rift in the bluffs, which seemed to overhang us, covered with a heavy growth of forest. The sun was still an hour high, although it was twilight already beside the river, when Cassion and his men came straggling back, to report that the canoe had made safe passage, and, taking advantage of his good humor, I proposed a climb up an opening of the bluff, down which led a deer trail plainly discernible.

"Not I," he said, casting a glance upward. "The run over the rocks will do me for exercise tonight."

"Then will I assay it alone," I replied, not displeased at his refusal. "I am cramped from sitting in the canoe so long."

"Twill be a hard climb, and they tell me the pere has strained a tendon of his leg coming ashore."

"And what of that?" I burst forth, giving vent to my indignation. "Am I a ten-year-old to be guarded every step I take? 'Tis not far to the summit, and no danger. You can see yourself the trail is not steep. Faith! I will go now, just to show you that I am at liberty."

He laughed, an unpleasant sound to it, yet made no effort to halt me. 'Tis probable he felt safe enough with De Artigny camped above the rapids, and he had learned already that my temper might become dangerous. Yet he stood and watched while I was half-way up before turning away, satisfied no doubt that I would make it safely. It was like a draught of wine to me to be alone again; I cannot describe the sense of freedom, and relief I felt when a spur of the cliff shut out all view of the scene below.

The rude path I followed was not row, but not steep enough to prove wearisome, and, as it led up through a crevice in the earth, finally emerged at the top of the bluff at a considerable distance above the camp I had left. Thick woods covered the crest, although there were open plains beyond, and I was obliged to advance to the very edge in order to gain glimpse of the river.

Once beyond there, however, with footings secure on a flat rock, the scene outspread was one of wild and fascinating beauty. Directly below me were the rapids, rock strewn, the white spray leaping high in the air, the swift green water swirling past in tremendous volume. It scarcely seemed as though boats could live in that smother, or find passage between those jutting rocks, yet as I gazed more closely, I could trace the channel close in against the opposite shore, and note where the swift current bore back across the river.

Leaning far out, grasping a branch to keep from falling, I distinguished the canoe at the upper landing, and the Indians busily preparing camp. At first I saw nothing of any white man, but was gazing still when De Artigny emerged from some shadow, and stepped down beside the boat. I know not what instinct prompted him to turn and look up intently at the bluff towering above. I scarcely comprehended either what swift impulse led me to undo the neckerchief at my throat, and hold it forth in signal. An instant he stared upward, shading his eyes with one hand.

I must have seemed a vision clinging there against the sky, yet all at once the truth burst upon him, and, with a wave of the arm, he sprang up the low bank, and joined the Indians. I could not hear what he said, but with a single word he left them, and disappeared among the trees at the foot of the bluff.

(Continued next week).

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It was at Mount Vernon. The guide noticed a woman weeping, and said: "Pardon me, madam, but you seem to be in distress. Can I help you in any way?"

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Money Back If Not Satisfied
is the greatest incubator offer of the season. You can use the machine for 30 days and if not satisfactory, we will refund your money and pay return freight charges. Machine come to you complete, ready to use, and accompanied by a 10 YEAR IRONCLAD GUARANTEE.

Both for \$14.75
Freight Paid East of Rockies

150-EGG Ironclad Incubator
Don't class this big galvanized iron covered, dependable hatcher with cheaply constructed machines. Ironclads are not covered with cheap, thin metal and painted like some do to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Don't buy any incubator until you know what it is made of. Note these Ironclad specifications: Genuine California Redwood, triple walls, asbestos lining, galvanized iron covering. Large egg tray, extra deep chick nursery, hot water top heat, COPPER tanks and boiler, self-regulator, Tyco's Thermometer, glass in door, and many other special advantages fully explained in free catalog. Write for it TODAY or order direct from this advertisement.

IRONCLAD INCUBATOR COMPANY, Box 97 RACINE, WIS.

150 Chick Brooder
MADE OF CALIFORNIA REDWOOD

Get Eggs to Sell—and Eggs to Hatch

The big demand for poultry products insures a continuance of high prices for a long time. Take advantage of this money-making opportunity. Make your birds lay heavily now. Have lots of eggs to sell. And get highly-fertile eggs too, the kind that gives big hatches of sturdy chicks which will grow rapidly to market weight. Use

Pratts Poultry Regulator

to put your layers and breeders in perfect physical condition. Abounding health and vigor mean profitable egg production and strong, vigorous chicks.

Pratts Poultry Regulator keeps the flock in splendid health and that means better results, greater production, bigger profits. It tones up and strengthens the organs of digestion, assimilation and reproduction, enabling each to do full duty. And it does this work in a perfectly natural way. It is a scientific combination of tonics, appetizers, digestives and laxatives which are so necessary to heavy production. Test it now on all or part of your flock at our risk.

Sold by Pratt dealers everywhere. "Your money back if YOU are not satisfied."

Write for FREE Poultry Book

PRATT FOOD COMPANY

Philadelphia Chicago Toronto

Keep Your Hens a Laying

Trust your hatching to time tried and tested
"SUCCESSFUL"
Incubators and Brooders
Used by the big money makers who stay in business year after year. Poultry Lessons Free. Booklet, "How to Raise 48 out of 50 chicks," 10 cents. Catalog Free. Write today.
Des Moines Incubator Co., 368 Second Street, Des Moines, Iowa

Poultry Book Latest and best yet; 144 pages, 215 beautiful pictures, hatching, rearing, feeding and disease information. Describes busy Poultry Farm handling 50 pure-bred varieties and BABY CHICKS. Tells how to choose fowls, eggs, incubators, sprouters. Mailed for 10 cents.
Berry's Poultry Farm, Box 136, Clarinda, Iowa

62 BREEDS Most Profitable Pure-Bred Chickens, Geese, Ducks, Turkeys, Hardy fowls, eggs, and incubators at lowest prices. America's finest Poultry Farm. Write for valuable Poultry Book FREE.
F.A. NEUBERT, Box 346 Mankato, Minn.

POULTRY

HOMESTEAD FARMS

Day Old Chicks and Eggs

Send for illustrated catalog: Barred, White and Buff Rocks; R. C. Reds; W. Wyandottes; S. C. Black Minorcas; S. C. and R. C. White and Brown Leghorns; Buff Leghorns; Anconas.

Cockerels: Barred and White Rocks; W. Wyandottes; S. C. Black Minorcas; S. C. and R. C. White and Brown Leghorns; Anconas.

Bloomington Farms Association, Desk F, Bloomington, Mich.

BABY CHICKS—11 Varieties, \$10 per 100 up, 2 weeks old 25c up, 4 weeks 45c up. Hatching eggs \$1.50 per 15 and \$8 per 100. Brd. White and Buff Rks., Buff and White Orp., S. & R. C. R. J. Reds, White Wyand., S. C. W. Leg., S. & R. C. Br. Leg., Alredale Pups, Or. free. Sunny Side Poultry Farms & Hatchery, Blanchester, O.

Baby Chicks Bred-to-lay S. C. W. Leghorns. The high cost of feed we have culled our breeders closely, saving the best; therefore, we will have to advance the price to 15c each for March and April. Book orders early.
Sunnybrook Farm, Hillsdale, Mich.

Baby Chicks: S. C. White and Brown Leghorns, eggs. Guaranteed to reach you in first class condition by parcel. Catalogue with price list free.
WOLVERINE HATCHERY, R. 2, Zeeland, Mich.

Baby Chicks Hatching eggs, seven leading varieties, best quality. Lowest prices. Catalogue free.
Goshen Poultry Farms, R. 19, Goshen, Ind.

Barred Rocks—EGGS FROM STRAIN with records to 250 eggs a year; \$2 per 15. Delivered by parcel post, prepaid. Circular free.
FRED ASTLING, Constantine, Mich.

Barred Rock Cockerels, bred from prize winners, single birds \$4.20 or more three dollars each.
A. A. WOOD & SON, Saline, Mich.

Barred Plymouth Rock Cockerels, fullblood \$5 each; prize winners for 17 years.
J. A. BARNUM, Union City, Mich.

BUFF LEGHORNS, 50 nice breeding cockerels, One to three dollars apiece.
Dr. WILLIAM SMITH, Petersburg, Mich.

Cockerels: R. and S. C. R. J. Reds and R. J. Whites, anted. \$2.50 up, good stock, satisfaction guaranteed.
O. E. HAWLEY, Ludington, Mich.

Chicks, We ship thousands, orders booked now for spring delivery, booklet.
FREEPORT HATCHERY, Box 12, Freeport, Mich.

Additional Poultry Ads. on Page 183

Biggest Hatches Strong Chicks

That's what you want and will get with a Champion Belle City Hatching Outfit. My big catalog "Hatching Facts" tells the whole story—gives newest ideas and quickest ways to make poultry pay with my

\$10.95 140-Egg Champion Belle City Incubator

Double Walls Fibre Board—Self-regulated—Hot-Water Copper Tank—Safety Lamp—Thermometer Holder—Egg Tester—Nursery. With my \$6.35 Hot-Water Double Walled 140-Chick Brooder—both only \$15.95

Freight Prepaid East of Rockies Towards Express

I ship quick from Buffalo, Minneapolis, Kansas City or Racine. With this Guaranteed Hatching Outfit and my Guide Book for setting up and operating you can make a big income. You can also share in my

Special Offers

They provide easy ways to earn extra money.

Save time—order now, or write to-day for my Free Poultry Book.

"Hatching Facts"

It tells everything. Jim Rohan, Pres.

Belle City Incubator Co., Box 14 Racine, Wis.

30 DAYS FREE TRIAL

10 Year Guarantee

Don't take chances. Find out what an incubator is made of before buying.

Catalog and sample of material used sent free. We will send you these two machines, freight prepaid East of Rockies on 30 DAYS' free trial.

Both Machines \$14

Freight Paid

Wisconsin Incubators are made of genuine California Redwood. Incubators have double walls, air space between, double glass doors, copper tanks, self-regulating. Shipped complete with thermometers, egg tester, lamps, etc., ready to run. Send today for our new 1919 catalog, free and postpaid.

Large Size 180 EGG INCUBATOR AND BROODER, BOTH \$17.25.

WISCONSIN INCUBATOR CO. BACK IF NOT SATISFIED

Box 72, Racine, Wis.

64 BREEDS Most Profitable chickens, ducks, geese and turkeys. Choice, pure-bred, northern raised. Fowls, eggs, incubators at low prices. America's greatest poultry farm. 26th year. Valuable new 112 page book and catalog free.

R.F. NEUBERT Co., Box 817 Mankato, Minn.



The Future with Poultry

(Continued from page 165).

prices and furnishes the consumer with an article of diet that is worth every cent he pays for it.

In many communities there are co-operative creameries now existing and these organizations might as well be used to handle the eggs produced by its members. When poultrymen are organized they will be able to do business on a better basis and instantly the hen will receive more attention and poultry production will take the place on the farm that it deserves.

Now it is possible for the large commercial egg producer to sell his eggs at better prices than are given to the farmer with the small flock. The farmer with no more than one hundred birds is handicapped as his egg production is not large enough to ship many crates to the best city market. However, the large egg farms are the ones that suffer the most from high feed prices and the general farmer with his small flock finds that he can still do business. Then if this small producer can combine with several of his neighbors so that their aggregate flocks will amount to three or four thousand birds they are able to do business in the same manner as it is conducted by the larger commercial egg farm.

The ideal poultry flock in the future is not going to be a nuisance on the

farm by ranging in the garden and on the front porch. It is going to have plenty of range but the range will be supplied in fields that are fenced and the hens will have their place the same as the cattle and the hogs. In the hen's pasture certain crops will be produced and colony houses for the young stock will be used to give the birds the benefit of the range. Raspberries, corn and potatoes will be raised on the same land that is used for the poultry and fruit trees will be a more common sight on the poultry range. Of course, the birds will have to use another range until the corn has started but then it will furnish shade for the birds throughout the season.

The winter feeding of the farm flock is going to improve in the future. The chicken silo to supply green feed for the birds will be a common sight on the farm maintaining several hundred hens. This abundant use of green food is going to help in producing winter eggs and people in the cities are going to use more eggs in the winter than at present. The farm flock of the future is going to produce an income as reliable as the milk checks from the dairy cattle because the poultry business is going to live and it cannot live without business-like management and the elimination of haphazard methods.

Cold Weather Poultry Notes

REGULAR feeding is important, but necessary when the days are cold and birds find less to busy them on the range. Then, of all times, they must go to bed with a full crop and get up in the morning with scratch again in the litter so that they can warm up through the exercise of scratching for their breakfast.

Pumpkin is of value in the cold weather poultry ration. It can be boiled and mixed with bran or the dry mash ration until the mixture is crumbly. This is appreciated by the fowls and it stimulates their appetites and induces egg production.

Save all of those cull vegetables which are graded out when selling or storing potatoes and truck. They will be of great value in keeping the birds in healthy vigorous condition during the winter and it is the healthy well-fed bird that fills the egg basket.

Do not force hens for eggs if they are to be used for breeding stock next spring, as such hens need a little rest and if they lay heavily in the winter because of the feeding of concentrated mash the eggs will not hatch well next spring. It pays to divide the laying house if there is only one house on the farm and keep the pullets on one side and the hens on the other. The pullets can be forced for winter eggs and the strength of the mature hens saved to produce eggs for hatching in the early spring.

Sometimes a few of the pullets will form the habit of roosting on the nests or the feed hoppers. This soon gives the house an unclean appearance and the nests are not fit to be used by the layers. Such roosting places cannot easily be protected from mites as is the case with the roosts. At night remove such birds and place them on the roosts. Usually they will learn to roost in the proper place after two or three lessons.

Fowls gradually become accustomed to cold weather and if the house is dry and free from draughts they will stand

considerable cold without suffering. It is only necessary to lower the curtains during severe storms or during zero weather. It is not a bad idea to keep a thermometer in the house and compare the daily temperature with the apparent condition of the birds.

If more pullets are raised than can be housed properly it pays to advertise them for breeders if they are good enough, or for utility layers if they are only medium in quality. Many city poultrymen make it a practice to buy ten or a dozen pullets each fall simply to furnish the family with eggs until the next year and such buyers do not demand extra fine breeding quality but just birds that are well developed and good enough to produce winter eggs. If the farmer has a surplus of pullets they can be sold to such buyers for a price quite a little higher than the price quoted for broiler stock. It pays to cull the pullets and only keep the best and even then, only keep the birds that will have plenty of room as overcrowding means a loss.

Old hens that are not needed for breeders should be fattened and marketed. Sometimes the old hens of the heavy breeds will not need fattening as they have a tendency to take on fat with age. The pullets and the year-old hens are the best egg producers and often there will be many older hens in the farm flock which do not pay their board. There is a White Leghorn hen at Purdue that is reported to have paid her board plus a profit for the last seven years and so far she is credited with having laid one thousand eggs. However, the average old hen on the farm is not in that class and unless the records and breeding value of old hens are known it does not pay to feed a large number of them. More such results are obtained when the bulk of the layers are pullets of a bred-to-lay strain and this is a poor time to experiment with hens that are not fairly sure of filling the egg basket.

G. K. RILEY.

HAVING FINISHED OUR GOVERNMENT CONTRACTS We Are Again Taking up the Manufacture of Our---

ALL STEEL OIL TRACTOR

You have been contemplating the purchase of a tractor for some time and have been wondering which tractor to buy.

First: You will be interested in a tractor that will operate on kerosene as well as on gasoline.

Second: You will be interested in a tractor that will do as good work plowing on your farm as can be done in any other way.

Third: You will be interested in a tractor that is free from troublesome chains and other weak points, and has a guarantee covering the gearing.

Let us tell you about the tractor we have to offer.

Oil for Fuel

The Bates All Steel Oil Tractor is provided with an oil carburetor of our own design, made in our own factory and can be found on no other tractor. The Bates Oil Carburetor is the result of 25 years actual experience in the manufacture of engines and will operate on Clear Kerosene (Without Mixing With Gasoline). No extra carburetor is required for using gasoline when the engine is operating under light load as the Bates Oil Carburetor Will Operate The Engine Perfectly Under All Speeds And All Loads On Kerosene. Requiring no adjusting—No regulating—Or switching over to gasoline when the load changes. Therefore, in operating ensilage cutters, corn huskers, etc., where the work will change from empty to full load almost immediately, no trouble is experienced with the Bates All Steel Oil Tractor using Kerosene As Fuel.

THINK OF SLOWING THE ENGINE RIGHT DOWN TO A LOW SPEED TO SUIT YOUR CONDITIONS, ON KEROSENE OIL.

With the Bates Oil Carburetor the mixture is completely prepared and the heat and energy all used, therefore our engine Will Yield As Much Power on a Given Quantity of Kerosene as Gasoline. With this perfect mixture, the fuel is all burned and We Will Guarantee Our Tractor Not to Bother With Carbon or Tar.

THINK OF THE IMMENSE SAVING BURNING KEROSENE AS FUEL UNDER ALL CONDITIONS AND RECEIVING THE SAME AMOUNT OF POWER AS WITH THE HIGH-PRICED GASOLINE.

A Durable, Long-Life Tractor

The Bates All Steel Oil Tractor is the Oldest Tractor on the Market. Years of hard service have developed every detail until we have a machine that will stand the wear and tear of hard service for a long time. Our experience has taught us that a tractor to be practical must Resist Extreme Heavy Duty Continually and at the same time must be Light Enough in Weight to be driven over soft ground in the spring of the year without miring and on sandy soil and, in fact, Go Where Horses Can Be Driven. To accomplish this we have constructed our tractor of Steel Throughout, tests having proven that steel is four times as strong as cast iron and will wear four times as long. With this material the strength of the machine cannot be questioned and the weight is reduced materially and with our Wide Drivers the Pressure Per Square Inch on the Surface is Much Less Than That of a 1400 Pound Horse and We Will Guarantee to Drive Our Tractor Where Horses Can Be Driven Practically.

All Steel Gearing

Our Long Experience in the manufacture of tractors has proven that Steel Gearing is the Only Successful Method by which the Power of the Engine Can Be Transmitted to the drive wheels. We have used Steel Gearing for a long time and so complete has been our success with this means of transmission that we will furnish a Guarantee to Replace All Gears That Break for a Period of Five Years Free of Charge. With a transmission of this kind you are not

bothered with troublesome chains that have proven a failure for the past 20 years on all self-propelled machines. Chains Will Stretch and Climb on the Sprockets and Break and Have to be Replaced every little while.

THINK OF OUR GUARANTEE TO REPLACE ALL GEARS THAT BREAK FOR A PERIOD OF FIVE YEARS, FREE OF CHARGE.

Two Speeds

The Bates All Steel Oil Tractor has two speeds forward and will plow Up Steep Hills That Can be Plowed With Horses. You Don't have to Lift Part of the Plows out of the ground when you come to a steep hill or bad place with The Bates All Steel Oil Tractor. Just throw in the slow gear and the engine will do the rest.

Bates Plows---Guaranteed to do as good work As can be done in any other way.

The Bates Plow Carriage is Directly Connected to the Tractor, the front end being supported by the tractor and the rear end by a caster wheel and the plows entirely supported by the plow carriage. By this arrangement the Plows can be Lifted From the Ground and the Entire Outfit Backed Into the Corners of the Fence and the Field Plowed Complete Without the Aid of Horses.

Think of Plowing the Entire Field, Even the Last Furrow of the Land With a Tractor and Doing as Good Work as Can be Done in Any Other Way.

With the Bates Plowing System you are Able to Plow Your Fields as You Have Been in the Habit of Plowing Them and as You Want Them Plowed. You can Plow in Lands or Around the Field as you desire.

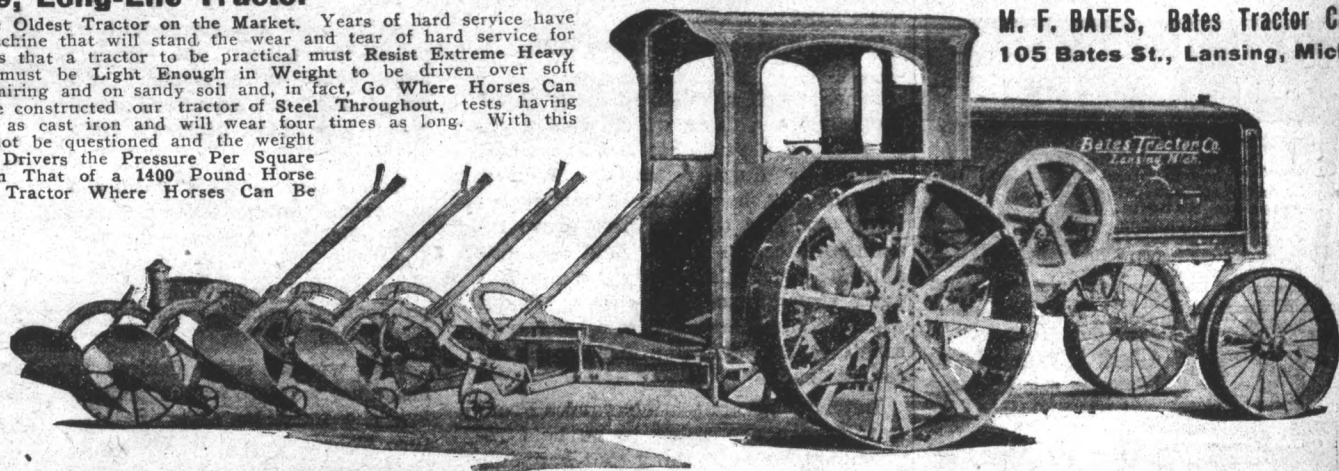
The Bates Plows Operate Independently by this arrangement. Any One of the Plows Can Be Raised Entirely Out of the Ground without interfering with others. The Bates Plows are connected to the carriage by means of a steel forging at the end of the beam which allows the front end of the beam to raise and lower according to the irregular surface of the ground. This provides a plowing outfit especially Adapted to Stony Fields and Rough Land. In fact, We Will Guarantee to do as Good Work on Your Farm as Can be Done in any other Way Even in Rough and Stony Fields. We have sold a good many of our outfits under this guarantee and will make no exception in your case regardless of the conditions of your farm.

Belt Work

There will be lots of belt work for a tractor to do and you should have a Bates All Steel Oil Tractor to do This Work. I want to tell you more about my All Steel Oil Tractor and will ask you to send for our catalog. Sizes: 10-16 H. P. draws 2 plows. 20-30 H. P. draws 4 plows.



M. F. BATES
Designer and Manufacturer



M. F. BATES, Bates Tractor Co.
105 Bates St., Lansing, Mich.

The Michigan Farmer Clubbing Service

If you wish other papers in combination with the Michigan Farmer, we offer an economical and efficient means of getting your family reading. The combinations listed are of standard publications which have proven most popular with our readers. Prices are subject to change without notice. Send your orders early—it will help us give good service.

The Michigan Farmer, 1 yr...	\$1.00
Today's Housewife, one year...	1.00
People's Home Journal, 1 yr...	1.00
All For	\$2.00
Total value	\$3.00

The Michigan Farmer, 1 yr...	\$1.00
McCall's Magazine, one year...	1.00
Today's Housewife, one year...	1.00
All For	\$2.00
Total value	\$3.00

The Michigan Farmer, 1 yr...	\$1.00
McCall's Magazine, one year...	1.00
Woman's World, one year...	.50
All For	\$1.75
Total value	\$2.50

The Michigan Farmer, 1 yr...	\$1.00
Pictorial Review, one year...	2.00
McCall's Magazine, one year...	1.00
All For	\$2.85
Total value	\$4.00

The Michigan Farmer, 1 yr...	\$1.00
People's Popular Mo., 1 yr...	.25
Little Folks' Magazine, 1 yr...	1.50
All For	\$1.90
Total value	2.75

The Michigan Farmer, 1 yr...	\$1.00
McCall's Magazine, one year...	1.00
BOTH	\$1.50
Total value	\$2.00

The Michigan Farmer, 1 yr...	\$1.00
People's Home Journal, 1 yr...	1.00
BOTH	\$1.50
Total value	\$2.00

The Michigan Farmer, 1 yr...	\$1.00
American Boy, one year...	2.00
BOTH	\$2.50
Total value	\$3.00

The Michigan Farmer, 1 yr...	\$1.00
Breeders' Gazette, one year...	1.50
BOTH	\$2.15
Total value	\$2.50

Newspaper Combinations

Prices quoted are only for rural routes within the State of Michigan. They include the Michigan Farmer and the daily paper specified, each for one year:

Free Press, Detroit...	\$4.50
Journal, Detroit...	4.50
Times, Detroit...	3.50
News, Detroit...	6.00
Press, Grand Rapids...	4.50
Herald, Grand Rapids...	4.50
News, Grand Rapids...	4.50
Enquirer, Battle Creek...	4.50
Pioneer, Big Rapids...	3.00
News, Cadillac...	3.50
Tribune, Chicago...	6.00
Herald-Examiner, Chicago...	5.25
Journal, Flint...	4.50
News, Jackson...	4.60
Gazette, Kalamazoo...	4.50
News-Statesman, Marshall...	3.25
News, Monroe...	3.50
News-Courier, Saginaw...	4.50
Tribune, South Haven...	3.00

The Michigan Farmer, 1 yr...	\$1.00
American Fruit Grower, 1 yr...	.50
American Bee Journal, 1 yr...	1.00
All For	\$2.10
Total value	\$2.50

The Michigan Farmer, 1 yr...	\$1.00
Swine World, one year...	1.00
Reliable Poultry Journal, 1 yr...	.50
All For	\$1.75
Total value	\$2.50

The Michigan Farmer, 1 yr...	\$1.00
Toledo Weekly Blade, 1 yr...	1.00
Poultry Success, one year...	.50
All For	\$1.75
Total value	\$2.50

The Michigan Farmer, 1 yr...	\$1.00
Market Growers' Journal, 1 yr...	1.50
Power Farming, one year...	1.00
All For	\$2.50
Total value	\$3.50

The Michigan Farmer, 1 yr...	\$1.00
Today's Housewife, one year...	1.00
BOTH	\$1.55
Total value	\$2.00

The Michigan Farmer, 1 yr...	\$1.00
Mother's Magazine, one year...	2.00
Little Folks Magazine, 1 yr...	1.50
All For	\$3.00
Total value	\$4.50

The Michigan Farmer, 1 yr...	\$1.00
Hoard's Dairyman, one year...	1.00
BOTH	\$1.65
Total value	\$2.00

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When it arrives, try it out on your own meat or fish for 30 days. See what a wonderful fire-proof, sanitary, combined Smoke House and Meat Storehouse it is. If satisfied, keep it. If not pleased, return at my expense. You don't risk a penny. Four easy ways to pay.

Kirstin

All-Steel FARM SMOKE HOUSE

All-Steel construction! Costs less than wood, brick or stone — is fire-proof, sanitary, portable. Smoke is positively air-cooled — can't frizzle out. Produces sweeter, milder smoked hams, bacon, sausage for your table — or for sale at big profits. After smoking, use for a sanitary meat storehouse.

My New Book FREE Tells why there are "Feasts and Follies" in home smoked meat! Explains the needless waste of selling all your hogs and then paying big prices to the butcher. Shows Kirstin Smoke House sizes, gives valuable meat curing recipes, Special Agent's Proposition, etc. Write for FREE BOOK today. A. J. Kirstin, General Mgr.

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204 Wells St. Escanaba, Mich.

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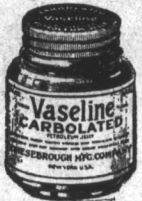
Let us send our new book that will show you how to get unbeatable quality in Kalamazoo Ranges, Stoves, Furnaces, Gas Ranges, Oil Ranges and Kitchen Cabinets at wholesale factory prices. As Del Dane has often told you — we are manufacturers and sell direct to users.

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OYSTERS

50 Different Kinds at the Right Prices. Write for our Special price List.
Lakeside Fish & Oyster Co.
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Strawberry plants 23 varieties, seed beans, oats and barley. Instructive list free. Please to mail you one.
MAYER'S PLANT NURSERY, Merrill, Mich.

"To Love and to Labor is the Sum of Living" — Moore

WOMEN'S SECTION

Now All Together to Register

HAVE you registered? Now that Michigan women have been given the vote it is up to us to exercise the right, no matter whether we were suffragists or antis, or merely in the ranks of those who didn't care a straw either way.

Frankly, I have always been inclined towards the antis. Not that I do not think women are as eminently qualified to vote as men, but as for myself I am by nature averse to responsibility. I liked to have something I could blame the men for and feel that my own skirts were perfectly clear. If a candidate turned out bad, or unjust laws were passed, I could always say:

"Now, if we women were doing it, etc., etc."

It was such a relief to know there was some one thing which women absolutely couldn't be scolded about and told their duty regarding. Women have always been blamed for everything else and told of their grave responsibilities, in short, held accountable for everything under the sun that went wrong, except elections. It did seem good to have one thing that you didn't need to feel you were to blame for, at least.

But now all that is changed. From now on we are going to be held responsible for everything that happens. If the prohibition amendment is held unconstitutional, you'll see it will be because woman was given suffrage. If a senatorial aspirant buys his seat, women voters will be charged with accepting sodas and sundaes. If someone stuffs the ballot boxes, it will be the woman member of the board who did the stuffing. Frankly, I believe that was the compelling motive which prompted our men to vote us the vote. They wanted to shift all their responsibilities onto our shoulders.

However, be that as it may, we have the vote and it is up to us to use it. I have always held that the man who could vote and didn't, was a worse slacker than the man who tried to get out of shouldering a gun for his country. And I always noticed that the men who did the most fault finding about the government and the officers were the men who stayed home from the primaries and the general elections. They never got out and tried to remedy matters. It was easier to sit at home and howl about "dirty politics."

I hope for the honor of their sex women will not be that way. I hope every woman, whether she wanted the

vote or not, will feel that she owes a duty to her country and will go to the polls and vote for the men whom she honestly believes will give us the best government. And I hope before she

what she is voting for. Her vote will be of little real constructive value if she simply votes the way her husband or brother or father tell her to vote, without giving the subject any serious thought herself.

In all the cities and in many of the small towns, schools are being held to give instruction to women. If there is such a school near you, by all means go. If there is none, ask questions of everyone you meet who is at all posted on questions of the day. Read everything you can on the legislation that is needed and about the men whose names you see as leaders. Get acquainted with politicians through the papers, no matter what you have previously thought of politics. Politics simply means the science of government, and if American politics are not clean it is because American people of clean thought have neglected their duty.

Some of the leading magazines are devoting considerable space to things the new voters should know. Get in touch with these articles. If your local library does not have the magazines on file ask the librarian where you can write to get them. Write the equal suffrage headquarters of your nearest town for literature. Read, study and above all, think. Think for yourself. Don't ask friend husband his opinion and vote as he does, unless you really agree with him.

And above all, register before February 11. Otherwise you can not go to the primaries and help nominate the candidates. You can register later, but then you can only vote for the men put up by others. You have been knitting and canning and conserving for your country faithfully for months. That was easy for it fell in the line of your regular day's work. Now you are asked to vote for it. Don't be a slacker on registration day.

That many women will be, either through accident or design, is already apparent. In a city of eleven thousand inhabitants in Michigan only fifty-six women had registered January 16. By the same token, only two women in the same city were sufficiently interested in things outside their four walls to attend a canning demonstration arranged by their county agent and paid for by the state and federal government. Don't be in that class of women who consider their whole duty done when they take care of their own immediate family. The world is your family, if you are the right sort.

Register, and vote.

DEBORAH.

Women Voters Register Before Feb. 11

THE spring primaries will be held March 5, at which time the following state candidates will be nominated:

Two regents of the state university; one superintendent of public instruction; one member state board of education; two state board of agriculture members; one state highway commissioner.

In addition to these there are numerous county, township and city officials in their respective localities. These nominees will compose the candidates for republican, democratic and socialist tickets.

If a woman voter desires to name a candidate at the primaries, she must be registered before February 11. It is just as important to vote at the primaries as at the general election, for if desirable candidates are not selected at the primaries, it is too late to do much in the way of effecting a change.

After the primaries, there will still be time to register in order to vote at the general election April 7, but every man and woman should feel it a duty to vote at the primaries on March 5, and help name the best men possible for offices to be filled.

In cities go to the city hall to register; in townships go to the clerk. You cannot vote unless you are registered, and you must have registered since December 5, 1918.

Old registrations such as were formerly made by women are void under the new constitutional amendment granting the full suffrage to women.

goes she will do her humble and earnest bit to fit herself to vote intelligently. I don't care what ticket she votes, only that she really understands

Opening Canned Supplies

By Emma Gary Wallace

LAST summer and fall very large quantities of fruit and vegetables were put up for winter use at the cost of considerable time and money. With the coming of cold weather we are able to enjoy the provision we have made for winter needs and we must be careful that we use our supplies with discretion, and care for the containers so systematically that they will be ready for use another season. Many an individual begins an under-

taking with enthusiasm and continues it with intelligence, only to fall down, as it were, on the last quarter. This is true of the housewife. She started out to prevent wastage and to store her products properly for winter use. Having done this she is apt to feel that nothing else should be expected except the enjoyment of the good things she has put up.

Have you any distinct plan of procedure when you open your cans in

the winter? If you haven't your work of canning next fall is going to be much more difficult and perhaps be attended by mysterious failures.

To begin with, fruits, vegetables and preserves should not be opened hit or miss, but selected with care so that the choicest may be reserved for special occasions and a variety given to the family in the daily menu. To this end the housewife needs a system regarding her canned products.



Mother's Job is Full of Dangers

OVER the stove, handling hot pans and sharp knives—day in and day out—every mother is liable to get a burn or cut most any minute.

Slight at first perhaps, but not telling what the injury may lead to, if not attended to right away and in the right way.

Just a little *Hanford's Balsam of Myrrh* on an open wound to cleanse and check infection. And to hasten healing—it forms a film that keeps out dirt and dust till the new skin is formed. Cools a burn almost instantly.

For overworked, lame muscles and sprains, *Hanford's Balsam* is unusually effective. Apply freely, rub vigorously and all soreness is pretty sure to disappear in short order.

You can't be too careful of Mother. Certainly won't let her endanger health with any risks or pains which *Hanford's Balsam* may save her. Used for over seventy years and by thousands of families.

Just as Good for Children as for Grown-Ups

That you may know its merits for yourself, present this advertisement at your dealer's and buy a bottle (in any of three sizes). And

Test It at Our Risk!

If not completely satisfied, take empty bottle to dealer and get your money back. No questions asked!

Made only by

G. C. Hanford Mfg. Co.
SYRACUSE, N. Y.

HANFORD'S
Balsam of Myrrh

160 Hens--1500 Eggs

Mrs. H. M. Patton, Waverly, Mo., writes "I fed 2 boxes of 'More Eggs' to my hens and broke the egg record. I got 1500 eggs from 160 hens in exactly 21 days." You can do as well. Any poultry raiser can easily double his profits by doubling the egg production of his hens. A scientific tonic has been discovered that revitalizes the flock and makes hens work all time. The tonic is called "More Eggs." Give your hens a few cents' worth of "More Eggs," and you will be amazed and delighted with results. "More Eggs" will double this year's production of eggs, so if you wish to try this great profit maker, write E. J. Reeder, poultry expert, Dept. 2089 Reeder Bldg., Kansas City, Mo., for a \$1 package of "More Eggs" Tonic. Or send \$2.25 today and get three regular \$1 packages on special discount for a season's supply. A million dollar bank guarantee if you are not absolutely satisfied, your money will be returned on request and the "More Eggs" costs you nothing. You take no risk. Write today. Pin a dollar bill to your letter or send \$2.25 special discount for 3 packages. Or ask M. Reeder to send you free his poultry book that tells the experience of a man who has made fortune out of poultry.—Adv.

POULTRY

CHICKS CHICKS CHICKS

350000 for 1919

By Parcel Post Prepaid. Delivered To Your Door. Guarantee Live Delivery.

Strong chicks from pure bred farm stock, that are hatched right.

Have chicks of **Utility** and **Exhibition** quality.
S. C. White and Brown Leghorns, \$12.00 and \$14.00 a 100; Barred Rocks, \$15.00 and \$17.00 a 100; Rose and Single Comb Reds, \$15.00 and \$17.00 a 100; White Wyandottes, \$15.00 and \$17.00 a 100; S. C. Anconas, \$14.00 and \$17.00 a 100; S. C. Buff Orpingtons, \$18.00 and \$21.00 a 100; S. C. Black Minorcas, \$18.00 a 100; Odds and Ends, \$12.00 a 100. Eggs for hatching \$7.00 to \$8.00 a 100. Combination orders on chicks, hovers and brooder stoves. Give us your order and we will make you a satisfied customer the same as hundreds of others. Order direct from this ad. But before ordering elsewhere get our free illustrated catalog. Get your order in early. Ready to ship in March.

HUBERS RELIABLE HATCHERY,
EAST HIGH ST., FOSTORIA, OHIO

100,000 BABY CHICKS

for 1919, sent safely everywhere by mail or express. Single Comb White and Brown Leghorns and S. C. Anconas. Grand laying strains. Strong, vigorous, hatched-right kind. Tenth season. Satisfaction guaranteed. Order now for spring delivery. Prices right. Free catalogue. W. Van Appledorn, R. 7, Holland, Mich.

Chicks That Live \$15 per 100 S. C. W. Leghorns MY SPECIALTY
Send for catalogue. SNOWFLAKE POULTRY
FARM, R. 1, Grand Rapids, Mich.

ANCONAS and White Orpington
Cockerels for sale.
W. E. WEST, R. 1, East Lansing, Mich.

This may be a book kept in the store room from which she checks off each can as she uses it. Thus, in the vegetable section the page marked "Corn" shows that six quart cans were put up August 10, twelve quart cans August 16, eight quart cans August 24, ten pint cans September 1. It is the work of a moment to write in the book, "March 1, one quart can used," and so on, totaling the quarts and pints removed from the store room so that a glance shows how many are left.

Or, if this is too much trouble, she can employ a method of arrangement on the shelves which enables her to see at a glance what she has. For this purpose narrow shelves which only permit of rows one can deep are desirable. The old-fashioned swing shelf in the cellar was commodious but deceiving. Things packed away in the center often became forgotten or could not be found just when needed. If such a broad shelf is still in use, divide it in sections, putting fruit or vegetables of a kind in a section by itself and mark that section on the edge so that a glance will locate anything.

Vegetables should be opened long enough in advance of their use to become aerated. This restores some of the natural flavor and avoids a flat taste. Canned fruit is always better served very cold. Turn no more from the can of fruit than will be needed and then return to the can for storage until wanted again.

When cans are emptied they should be scrubbed until they are thoroughly clean, using plenty of hot soapsuds. They should then be scalded inside and out, for even a very little dried juice on the outside which has fermented is undesirable. Never put can tops on until the jar is perfectly dry inside and be sure that cans and covers are properly mated and put together one by one as used. Many a quart of food has been lost because the cover has been put on a can on which it did not belong. It appeared all right, but the seal was imperfect. Store cans where they will be dry and cool. If a can is put away moist it will soon become musty, especially if covered, and then another canning time the product stored in that container is sure to spoil unless a second thorough cleansing and thorough sterilization is resorted to. Of course, cans should always be sterilized before being used—the very last thing.

If by any chance the contents of a can has fermented, that can must receive particular attention by being washed and boiled in a solution of soda, after which it should be scalded in clear water and then dried. Paraffin which comes from the tops of jelly tumblers or conserve jars can all be washed in soap and water, rinsed in clear water, and the pieces melted together for future use. The advantage of melting it is that thorough heating renders it sterile and kills the germs which may have lurked in the pores. Besides it is easier to store it in one cake.

Of course, where tin is used for canning, food must never be left at all in the open can for fear of ptomaine poisoning. This is equally true of condensed milk or any other product kept by perfect sealing of tin.

The great war has taught us economy in many ways. One of these, and by no means the least, is to do our work so thoroughly today that the results of future tasks will not be undermined. The work of gardening, preservation, and conservation may all be spoiled by careless handling at the time of using the supplies.

One woman who found that it taxed her strength to move a heavy dresser in order to sweep under it, removed the lower drawer and then with a whisk broom swept out the dust that accumulated under it quite as well as though she had moved the dresser.
—L. M. T.



At the Price of Two Eggs

At the cost of the price of two eggs a big Jell-O dessert can be served—and it will serve from five to twelve persons, according to the manner in which it is prepared.

If plain, it will serve five or six persons; if whipped, Bavarian cream style, ten or twelve may be served.

There are so many possibilities—so great a variety of delightful dishes that seem to appear almost as if by magic, without cooking or fussing—that every farmer's wife is urged to send her name and address in order that she may receive (free) a copy of the Jell-O Book, which has everything on the subject that any woman could wish. Among other things it tells how whipped Jell-O takes the place of eggs and cream in desserts.

Jell-O is put up in six pure fruit flavors: Strawberry, Raspberry, Lemon, Orange, Cherry, Chocolate, and sold in all general stores and groceries at 13 cents a package or two packages for 25 cents.

THE GENESEE PURE FOOD COMPANY,
Le Roy, N. Y., and Bridgeburg, Ont.

Fresh and Fragrant

An Everyday Delicious Beverage

"SALADA"

Black, Green
or Mixed . . . }

Sealed Packets only
at all Grocers . . .



Saier's Garden Book

gives definite reasons why the seeds you plant in the garden or sow on your farm ought to be Michigan-grown.

Michigan Seeds for Michigan Planters

means that the seed you buy from Harry E. Saier is acclimated, is hardier, and produces mature plants quicker than seeds from other sections.

Saier's Garden Book explains our methods, lists Michigan-grown farm, vegetable and flower seeds, and other supplies that the Michigan farmer and gardener needs. Write today for a free copy.

Harry E. Saier, Seedsman
Box 20
Lansing, Mich.

Mount Sinai Hospital School of Nursing

A three years' course in the theory and practice of nursing with the facilities afforded by this modern fully equipped institution, is offered to qualified young women desirous of entering the Nursing Profession. The curriculum has been carefully planned emphasizing especially the educational and cultural development of the nurse. The Spring Term commences March 1st. For particulars address Principal of School, 1800 East 105th Street, Cleveland, Ohio

Barred Plymouth Rock Cockerels. Pure bred, free range, large and strong. \$4 to \$5.
R. C. WOODARD, Elsie, Mich.

25 Barred P. Rock Chks. \$3.50 to \$5, each, 10 good yearling P. R. Hens \$25.
W. E. LECKY, Holmesville, O.

Fowlers Buff Rocks Cockerels, hens and pullets. White Holland Toms, \$8 each.
R. B. FOWLER, Hartford, Mich.

JOHN'S Big Beautiful Barred Rocks are hen hatched quick growers, good layers, sold on approval \$4 to \$5. Circulars photos. John Northon, Clare, Mich.

Pine Crest White Orpington greatest egg producers—hens and young stock, buy now for next winter. Mrs. WILLIS HOUGH, Pine Crest, Royal Oak, Mich.

ROSE COMB BROWN LEGHORNS from winners at the largest shows in America.
Mrs. CLAUDIA BETTS, Hillsdale, Mich.

R. C. RHODE ISLAND REDS cockerels, large, thrifty; pure bred; \$2.50 to \$3.00.
BIDWELL STOCK FARM, Tecumseh, Mich.

Silver, Golden and White Wyandottes. Plenty of good Golden and White cockerels \$4, \$5. Few Silver pullets \$3 each. O. W. Browning, Portland, Mich.

Standard Bred Cockerels, Anconas; Buff, Columbian, Partridge and Silver Rocks; Rouen Drakes. Sheridan Poultry Yards, R. 4, Sheridan, Mich.

S. C. W. Leghorn cockerels from trapnested stock with record up to 264 eggs, price \$2.50.
L. B. FRANK, R. 3, Rochester, Mich.

White Wyandottes choice stock: cocks, hens, cockerels, and pullets. Send for 1918 circular. David Ray, 709 Norris St., Ypsilanti, Mich.

R. I. Red Chicks and Eggs Rose and Single Comb. Write for free illustrated catalogue. INTERLAKES FARM, Box 39, Lawrence, Mich.

Additional Poultry Ads. on Page 148

SPARK STRONGEST LAST LONGEST

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RED SEAL DRY BATTERY

RELIABLE FARM POWER

Use Red Seal Dry Batteries for Tractors, Farm Engines, Autos, Telephones, Hand Lanterns, Etc.

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Thousands of farmers will have no other. A sure sign of Great Value.

The Guarantee Protects You

FREE BOOK sent tractor and engine owners. Used in colleges and technical schools, but written in plain United States. Sent FREE. Please mention dealer's name, and we'll also send you our big Electrical Catalog. Write today.

MANHATTAN ELECTRICAL SUPPLY COMPANY, Inc.
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How to Run the Gas Engine

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and freight prepaid on a new 1919 "RANGER" bicycle. Write at once for our big catalog and special offers. Take your choice from 44 styles, colors and sizes in the famous "RANGER" line. Marvelous improvements. Extraordinary values in our 1919 price offers. You cannot afford to buy without getting our latest propositions and Factory-Direct-to-Rider prices and terms. Boys, be a "Rider Agent" and make big money taking orders for bicycles and supplies. Get our liberal terms on a sample to introduce the new "RANGER". Time, equipment, sundries and everything in the bicycle line at half usual prices. Write Today.

MEAD Cycle Company
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Only \$2 DOWN ONE YEAR TO PAY

\$38 Buys the New Butterfly Jr., No. 2. Light running, easy cleaning, close skimming, durable.

NEW BUTTERFLY

Separators are guaranteed a life-time against defects in material and workmanship. Made also in four larger sizes all sold on 30 Days' FREE TRIAL and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.

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EASY TO CLEAN

Albaugh-Dover Co. 2165 Marshall St. Chicago

Beacon Lamp FREE

Lights Your Home Like Day.

100 Candle Power incandescent pure white light from (kerosene) coal oil. Beats either gas or electricity. COSTS ONLY 1 CENT FOR 6 HOURS

We want one person in each locality to whom we can refer new customers. Take advantage of our Special Offer to secure a Beacon Lamp FREE. Write today. AGENTS WANTED.

HOME SUPPLY CO., 28 Home Bldg., Kansas City, Mo.

Our Boys and Girls

At Work and play

Making Money with Poultry

ABOUT the best business of all for boys and girls with a small capital is the poultry business, for on the majority of farms the poultry is neglected, and many parents will gladly give over the care and profits to them. Now, one of the big factors in any business is to get started right. To start right one must have some good hens, so let us make a close study of the various breeds and see which one should prove best adapted to the line of business we desire to use them for.

In the first place, there are some

mouth Rocks, and that is against them competing with the Rocks; they lay smaller eggs, which is also against them. Others will say, eggs sell by the dozen, so what's the difference? But let me tell you, when your customers prefer good, big, fresh eggs it is up to you to produce that kind for them if you expect to get top prices. We must have a chicken that will grow fast and mature early and for this purpose I know of no breed superior to the Plymouth Rocks. They have a plump body and are attractive in the market and when full grown

would if he had the finest house in the whole world. If you will be as contented as the wise old rooster and make the best of your small beginning, there is no question but what you will succeed in your new business. He will crow just as loud and fight just as hard to protect his small home and flock as he would if he had the finest house in the world. If you go into the business with the same spirit you are sure to make good.

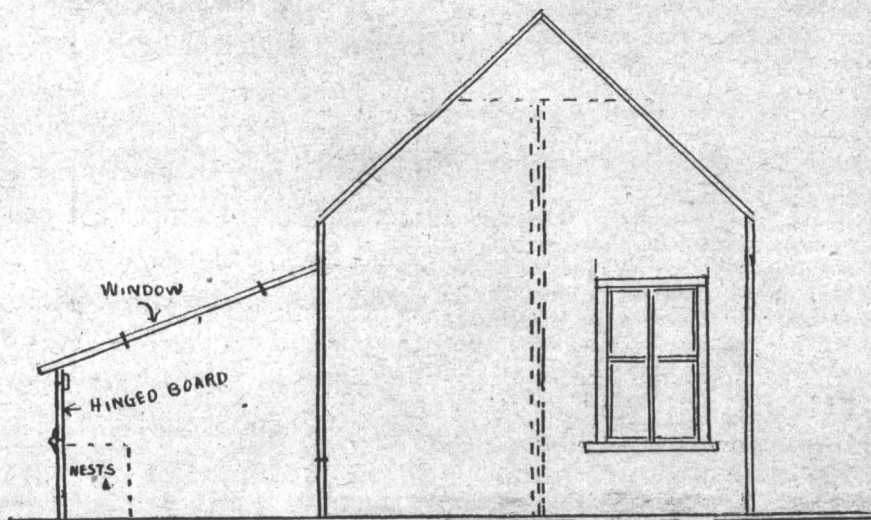
After you get your poultry plant established keep close watch of your hens, find which hens lay the most eggs and from those hens save eggs for hatching purposes. Then if none of the hens are broody, buy one and move her in the night to some nest in a box or barrel and after she has become quieted down place the eggs under her and get her started to sitting. From thirteen to fifteen eggs is sufficient for the average-sized Plymouth Rock hen. In selecting the eggs to place under her, discard all those that are not of good shape and all that are more than a week old or that may have become chilled. When you set a hen it is best to fix the box or barrel so that she can leave the nest only when you let her out to eat. She should be let out once a day and be allowed to dust herself, pick up some grit and gravel and have a good feeding of heat-producing food. Feed the sitters a little corn when they come off the nests and they will be more quiet on the nests and hatch more chicks.

When they begin hatching you will need some little coops and it will be pleasant work to make them. You should have tight coops for the hens and chickens to prevent rats, weasels and skunks from getting in nights and killing little chickens. Leave a little hole at the bottom for the air to come in and one at the top for the impure air to pass out. A hole two inches square covered with fine-wire mesh will serve the purpose.

Don't feed the little chickens wet feed for it is apt to sour and make them sick and unhealthy. Oatmeal, cracked corn, wheat, kafir corn, millet seed and small grains are good food. Give them some sharp sand and fine gravel and never allow them to be without pure water to drink.

Keep your house and coops clean at all times and spray the roosts and floors with kerosene oil and dust the nests with tobacco dust to prevent lice and mites infesting the house and coops and sapping all the profits of the business by pestering the hens and chickens. Cleanliness and the destruction of lice and mites are the big factors in building up a nice paying little business.

In the fall when the chickens are nicely grown and need more room, buy another piano box from the money you may get from selling some of your surplus stock and remove the side of the one you are using and also of the one you buy, and fasten the boxes together securely with strong boards, and use the material in the two sides that are removed to make a scratching room for the birds. After the woodwork is completed cover the whole house with some good tar paper and you will have a very cheap house that will accommodate the stock you want to carry over the winter, say twelve hens and a rooster.



Remove the sides of the Piano Boxes, Fasten them Together Securely, Build a Shed on the Sunny Side, Put in Some Windows, Nests, Roosts and a Door, then Cover the Outside Surface with Roofing Paper.

breeds that are adapted to but one purpose, and that is laying eggs, and among these breeds we find what the poultrymen call the Mediterranean breeds, such as the Leghorns, Hamburgs, Minorcas and others of that class. Now these are very good breeds, but what we want is a hen that will sit and hatch us some nice chicks and take care of them in good shape. We also want to select a breed that will be ideal for market, one that will mature early, have a nice clean color, lay a large number of good-sized eggs, be active enough to be good rustlers after grasshoppers and worms, be good sitters and mothers, easily tamed and handled and a breed that will bear confinement well.

There are many excellent breeds of this class found among what the poultrymen call the American breeds. These breeds are what we call the general-purpose fowl, that is, they are adapted to the farm or to the poultryman who does not make a specialty of any one branch of the work. The Plymouth Rocks, Rhode Island Reds, the Wyandottes, and other breeds belong to this class.

The Brahmas, Cochins, Langshans and others of the large breeds of the Asiatic class, are not as good layers as the smaller breeds; they are more inclined to be broody and as a rule are not as good rustlers as the American breeds, and for that reason you should not select your breeding stock from these breeds.

When we look the field over there is no breed that stands higher in the utility list than the Plymouth Rocks and I do not believe that you could go wrong if you selected your stock from some good flock of this fine breed. Some will say, why not Wyandottes? They are good fowls, but they are somewhat lighter than the Ply-

mouth Rocks, and that is against them have weight that makes them bring home the money that it cost to grow them. Cockerels that are to be sold in the fall make quite an important item for one to consider, and Rocks cannot be excelled in this point.

When the hens are too old to keep for egg production, it is quite an important item to have them weigh six to eight pounds and sell them for twenty-five cents a pound. There is also an increasing demand for dressed fowls, and if you have egg customers, you should be able to make plans to furnish them with dressed poultry whenever ordered, and get them to pay a top price for the choice dressed fowls.

The Rocks are good sitters, kind mothers and will raise more chickens than any other breed that we ever kept. We should select our hens from some good flock that is well-bred and where the hens have a uniform and vigorous appearance, and then buy a first-class rooster from some breeder who has a different family of the same breed, so as to avoid inbreeding. The best rooster that can be found, for what you can afford to pay, should be selected. It is easy to grade up a flock of good hens by using the best roosters every year and selling all of the pullets that are not up to the breed standard.

The best way of starting in the business would be to purchase about six good hens, all of the one breed, and a fine rooster of the same breed, and then build them a house and yard. For a house a piano box will do very well the first year and can be made to accommodate six hens and a rooster very comfortably after the cold winter weather is over. Now don't chafe at this small beginning, for your old rooster will be just as proud of his small house and his six wives as he

The cost of building the house will be about as follows:

Two piano boxes	\$4.00
Nails and roofing	4.00
Windows, hinges and locks.....	3.00
Total	\$11.00

For winter feeding a warm mash made from cornmeal and wheat bran may be fed once a day. Table scraps are also excellent egg-food and are much better than grain feeds. Unless you have table scraps that contain some meat feeds it will pay to buy some dried beef scraps to feed in the mash. Feed small grain in the shed by throwing it on hay, straw or leaves

in the scratching shed so that hens must work to get it. This keeps them healthy. Give them plenty of warm water every day. Provide grit, gravel oyster shells and old plaster at all times. As your business grows it may pay to get some feed hoppers and use them for feeding a dry mash. This is a big labor-saver and will simplify the feeding problem.

After you get started subscribe for some good farm paper and a good poultry paper and keep up to the times. There is much pleasure and profit in studying the business and in excelling in some special line, when the others have failed.

W. M. K.

Shall Land Owners Pay all Taxes?

(Continued from page 164).

land values pay common interest on the investment and the taxes usually levied on the land under the prevailing system. Even in rapidly growing cities those who speculate on idle land seldom get out with a profit above interest and taxes unless they are able to make a quick subdivision sale. Those who wait willingly for the rise, or are caught and have to wait, generally lose out. In country districts this is especially true. Few are the men holding unimproved lands for any long period who would not gladly sell for the amount they have paid on the land for taxes, to say nothing of interest on the original investment or even the principal. There is no need of any new scheme to strip these speculators of their unearned increment. The adoption of such a scheme would be their salvation; it would at once extinguish the hope of ultimate return, which lures them on from one year's tax to the next, always hoping that they will be able to get out from under before the next assessment. Under the single tax, they would at once throw up their hands, and the revenue would entirely stop. In most of the sparsely settled districts of this state the few settlers could scarcely afford to pay for the needed improvements without the aid of the assessments annually wrung from non-resident speculators.

4. The statement that speculation would not exist without private ownership is also manifestly true; but the assumption that the idle rich are a product of land speculation is baseless and false. The man who makes money in land speculation is no idler. He has to be a live one. The very names mentioned prove the falseness of the tune in banking; Carnegie made his in manufacturing and trade; and so did Rockefeller his. Those who think Rockefeller pumped his fortune out of oil wells, don't know the game. He let the speculator put down the well and pay for it, and if dry take the loss; if oil were found he let the finder pump it and get it to the station. When he got to the station with it Rockefeller and his crowd told him how much to sell it for, and you know the rest. The fortune was seldom made by the land owner or the lessee. The refiner and distributor looked to that.

Another business that has made some small fortunes recently may be mentioned—the moving picture. But the fortune has not been made by the owner or tenant of the little moving picture theater who would have to pay the land tax. The fortunes have been made by the film men, from whom very little could be taken by any land tax. They let the theater operator make just enough to keep him going.

Another business that has made some fortunes is the meat business. But the fortune has not been made by the fellows who would be caught by and have to pay the land tax—neither by the man in the city who hands the meat over the counter to the consumer, nor by the man out in the country

who raises the animals. The fortunes have been made by the packer, for whom one place is about as good as another, and who can evade most of the land tax by threatening to leave if not given special favors. If conditions are adverse in Chicago, he can move his business to Omaha, Kansas City, or Podunk. If the taxes are not levied to his liking he can give the community a slap that it will not forget in one while. Therefore, he can morally regulate his own taxes to a large degree, in so far as he is hit by a land tax. The same is true of all the other processors, from the flour-millers to the pickle makers; they make the large fortunes, but you cannot get at them to any extent by a land tax. Why should the sugar makers, tanners, etc., the processors and distributors, who really make the big fortunes be taxed according to the space they occupy, on a par with the truck gardener? Would it not be much wiser and more equitable to make them pay taxes according to the benefits they have received and their ability to pay, by levying graduated income and inheritance taxes?

All of the arguments for the single tax go on the assumption that the big fortunes are made by land operations, that the land owners are the rich, and that therefore they are the ones on whom to put the taxes. The most casual observation discloses that all of these assumptions are false. The very rich have generally the smallest percent of their assets in land. Naturally there are some large holders, and if the land is valuable they would be rich on this basis alone; but viewed as a whole, it will be found that most of the valuable land is held in small tracts by people who have very little other property. For every large holder there are hundreds that own only a house and lot or a small farm. The single tax, therefore, would for the most part be a levy on the lower middle class, out of all proportion to their just share or ability to pay.

5. The proposal to relieve the occupiers of land by shifting the burden onto the non-resident speculator is not new; it is being constantly worked now; but it would not work under the single tax; for who would be fool enough to pay taxes on vacant land if denied all hope of profit?

Naturally most of the advocates of the single tax are those who own no land. The only argument they need is the manifest statement that it is a scheme to make the other fellow pay all the taxes, and make land free. Wherever the question has been put to vote, there have been very few votes for it outside of the cities where the propertyless class congregate.

(Read a single-taxer's arguments in next issue).

Ensilage is good stuff to have, but it is not an all-round feed. Some hay and a bit of grain should go with it. The more ears of corn we cut into the silo, the less grain we need of that sort; but hay gives bulk and needed roughage.

C. E. R.

Both Drivers Level When Plowing

When plowing both drivers run level on the unplowed ground and one front wheel runs in the furrow for self steering.

This keeps the tractor standing straight, and eliminates any of the side thrust on bearings that is always present in tractors where they lean over because of a driver running in the furrow.

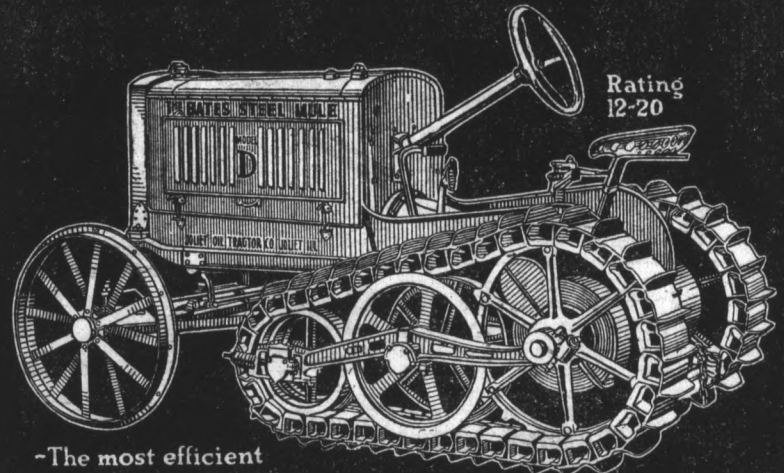
Perfect flexibility; unit construction of working parts; hardened cut steel transmission gears; Timken bearings; heavy duty valve-in-head kerosene motor; and crawlers that double the usefulness of the tractor are some of the additional features of superiority.

The latest and most progressive dealer in your territory probably has some Steel Mules on order and a demonstrator in transit. If he has not been able to get his—write us direct and we will give you full information.

JOLIET OIL TRACTOR CO.
481 Benton St., Joliet, Illinois

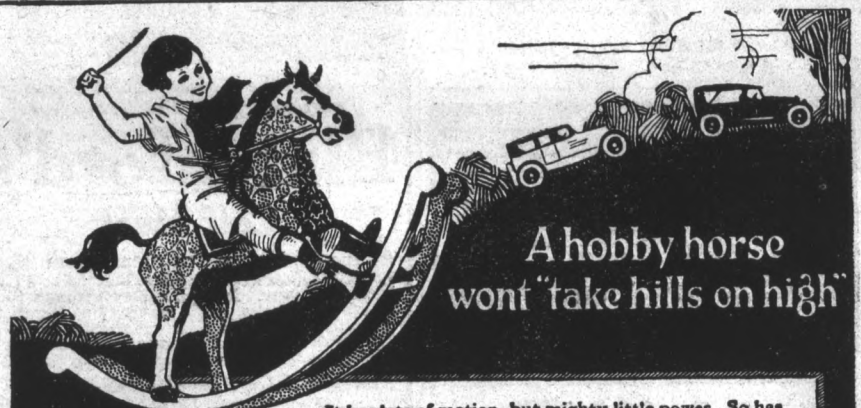
Michigan Joliet Oil Tractor Co.
Distributors
Lansing, Mich.

Bates Steel Mule



Rating
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-The most efficient tractor in America-



A hobby horse won't "take hills on high"

It has lots of motion, but mighty little power. So has an automobile motor with imperfect or worn-out piston rings. Too much power leaks past the rings. Better piston rings mean greater power. It will pay you to install a full set of

McQUAY-NORRIS

LEAK-PROOF PISTON RINGS

Increase Power—Save Gas—Decrease Carbon

For eight years these rings have been taking the "slant out of hills." Power producers because they create uniform pressure all around the cylinder wall, leaving no place for the power to slip past.

Wherever you are you can get McQuay-Norris LEAK-PROOF Piston Rings to fit any car, truck, tractor or other engine. Jobbers in over 300 distributing points carry complete stocks of sizes and oversizes. Many thousands of dealers can extend to you our service, which enables them to specify your size requirements for practically every make or model of motor without delay.

Send for Free Booklet "To Have and to Hold Power"—a simple, clear explanation of piston rings, their construction and operation.

Manufactured by

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Superoyl
RINGS

To control excess oil—In motors where flow of oil is excessive, the use of one McQuay-Norris Superoyl Piston Ring in top groove of each piston will correct this condition. In lower grooves, McQuay-Norris LEAK-PROOF Piston Rings should always be used.



Reflects Good Health

The milk flow is the best indication of the health condition of a cow. If the yield is below normal it is almost always a sign of approaching sickness.

Do not wait for actual disorders to develop; you can easily put the cow back on her feet and ward off serious ailments by the prompt use of Kow-Kure, the great cow medicine.

In cases of Abortion, Barrenness, Retained Afterbirth, Scouring, Lost Appetite, Bunches, etc., this standard remedy is a reliable treatment. It acts at once on the digestive and genital organs, where nearly all cow diseases originate.

The occasional use of Kow-Kure, as directed, will prove an effective preventive of cow diseases—and disease-prevention pays big in dairy profits.

Feed dealers and druggists sell Kow-Kure; 60c. and \$1.20 packages. Let us send you our FREE book, "The Home Cow Doctor."

DAIRY ASSOCIATION CO.
Lyndonville, Vermont

KOW-KURE



The Future of the Dairy Industry

(Continued from page 159).

possible otherwise. We can expect a considerable use of these dried milks in the years to come. During the war there was a wide use of dried milk powder in England.

There are three varieties of dried milk powders: Full cream, half cream and skim. The conclusion reached by British health authorities after considering its wide use for infants when breast feeding is impossible was that "it probably was no better than, and perhaps slightly inferior to fresh cow's milk." Scurvy and rickets are rare in infants fed on this preparation, although the occasional use of fruit juice is desirable. In at least seventy-five districts, milk powder was being used in maternity and child welfare stations. The growth curves of children fed exclusively upon dried milk from birth closely resemble the average growth curve of breast fed children, although at somewhat lower levels by reason of the more delicate condition of these children. The health authorities in Great Britain have now reached the conclusion "that cow's milk, during the process of desiccation loses none of the characters which are necessary for the support of normal growth in infants."

The use of powdered milk will be a governor that may prevent abnormally high prices in the scarce months to farmers in whole-milk regions, but it gives to farmers in other territories where milk may be cheaper, or to summer producers, a relatively wider market for their milk. The first effect of an extended use of dried milk may therefore be disadvantageous to the winter milk producers in or near large cities. This competition has its limits, however, depending upon the price of milk in the summer and the price of fresh butter. Moreover, to the author, there is no comparison between the taste of this re-made milk and the taste of good natural milk, and the better tasting natural milk will no doubt have a wider sale under fair chances.

Butter and Cheese.

Despite a world's shortage in fats, the future of the butter market in this country is beset with many price difficulties. This winter the various butter substitutes retailed at one-half the price for butter. While recent statistics are not as yet available, all those in close touch with the situation know full well that the recent per capita consumption of substitutes for butter has gone up by leaps and bounds, while the consumption of butter has correspondingly gone down. In October of 1918, 44,829,242 pounds of oleomargarine were produced in this country, as compared with 18,332,925 pounds in October of 1916—an increase in two years of nearly one hundred and fifty per cent. The production in the one month of October, 1918, was over twice the production in the entire year of 1899. Part of this increase in production has been exported. Thus we exported 60,690,783 pounds in the nine months ending with September, 1918 as compared with 8,509,497 pounds in the similar period for 1916 an increase of six pounds to one.

Because there were no substitutes at competing prices, a fifty per cent increase in the price of whole milk did not bring any appreciable decrease in consumption. But because butter-fat had a severe price competitor, a fifty per cent increase in the price of butter meant a large decrease

in the consumption. In England I am told there is no longer a firm demand for butter. Even the middle classes have gone to using vegetable fats, seasoned as they are with butter or other animal fats. Inasmuch as forty-one per cent of our milk goes into butter, any decrease in the market that is permanent is to be deplored. For the present season, however, the world's demand for all fats is so great that a fairly firm market can be expected for butter, although we will expect seasonal declines. It is to be hoped that, with prices readjusted, butter may return to its old place on the world's food table.

Chart on next page shows that the amount of cheese exported during the war increased substantially over the pre-war period. We should continue to be a cheese-exporting nation. Cheese, like whole milk, for its food value has no important price competitor. For supplying protein, one pound of cottage cheese is equal to one and a quarter pounds of sirloin steak.

If the dairy herds are to increase, the number of calves must increase. It must be said, however, that the future increase in milk output will probably be in the output per cow rather than relatively in the number of cows. The widening knowledge of the nutrient elements in milk will make farmers use skim-milk particularly and whole milk occasionally for all young animals. We can expect therefore, a slight increase in the amount of milk that is being fed profitably to young animals.

So far, then, as one can foresee, we can expect an increased consumption of whole milk and an increased demand for condensed milk, ice cream, cheese and other manufactured products. In view of the fact that the vegetable fats are practically unlimited at much lower prices than now prevail for butter-fats, we will have to expect a continued decrease in the demand for butter until the price of these two competing foods more nearly approach each other.

The Supply of Milk.

So much for the future demand for milk. Now as to the supply. The total number of dairy cows in the United States was 18,108,666 in 1900, as compared with 21,795,770 in 1910, an increase of twenty per cent. This same decade showed an increase in the population of the United States of about twenty-one per cent. But the output per cow went up notably in this period so that the total milk produced went up as rapidly as the population. In 1899 there were 5,210,125,567 gallons of milk produced in the United States and in 1909 there were 5,813,699,474 gallons. The estimates put out by the Department of Agriculture indicate that there were 8,429,000,000 gallons produced in 1918, as compared with 8,288,000,000 in 1917.

Recently I tabulated the amount of milk received at receiving stations of large whole-milk dealers in the Ohio, Pittsburgh and Philadelphia districts. As a whole there has been an increase in the fall months of this year as compared with the autumn months of the year previous. The number of dairy cows also is apparently larger over the United States as a whole. No other country at war has produced such a record as the United States in maintaining the production of milk during the war period. For our production has not only been maintained but slightly increased. This, of course applies to the United States as a

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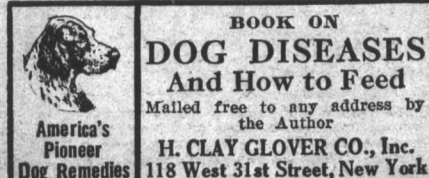
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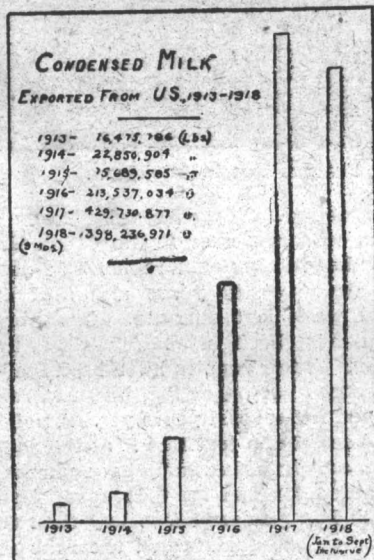
All over in 2 minutes. Note: harsh method. A clear, clean cut. Cows give more milk; steers make better beef. Send for free booklet, M. T. Phillips, Box 126 Pomeroy, Pa.



whole. There has been a very distinct shift in a number of dairy regions. For instance, cows have been taken out of the districts surrounding munition centers, where labor was scarce, into other sections where labor was not so scarce.

Up until January 1 of this year, certainly, the demand for milk was greater than its supply. The price for milk however, in the autumn months practically prohibited its use commercially in many sections save for condensing and whole-milk purposes. There naturally came to be therefore a surplus of milk on the market, with a result of decline of price on January 1. It is to be noted from the figures above, however, that in the last year the production of milk in the United States increased 1.5 per cent. It must also be noted that this was for the year ending June 30. That proportion of increase was not kept up probably after June 30, although another year of statistics can only make certain of that. Certainly the demand has exceeded this ratio of increase of supply.

The number of dairy cows in Great Britain decreased but 1.7 per cent from 1914 to June 30, 1918, the number on the latter date being 4,548,000. The number of dairy cows in France decreased from 7,794,270 on December 31, 1914, to 6,238,690 on June 30, 1917, a decrease of around twenty per cent. The dairy herds in Italy decreased during the war about fourteen per cent. Because the dairy cows not killed were poorly fed, the total output of the dairy herds in these warring countries decreased more rapidly than the numbers. Moreover, it will

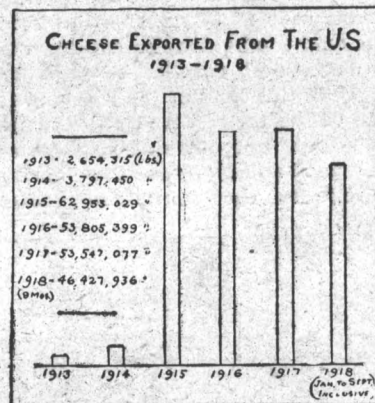


take considerable time, at good feeding, to get these herds back to normal. Until they are back to normal, we can expect to supply Europe with decreasing amounts of dairy products. To the extent, however, that these herds rely on feeds imported from the United States, it ought to be cheaper to transport dairy products than the feeds.

From this analysis of supply and demand it would appear certain that the demand for milk in the future would be in excess of supply, at least for some time to come. Demand and supply, however, are relative terms, depending upon prices. The question as to the future of the dairy industry in the United States rests in the final analysis therefore, on the price of dairy products. No government agency and no amount of propaganda can change the two facts that finally fix the price of milk. The first is that the alternatives as to what a farmer shall grow rests with the farmer, and no one else; the second is that what the consumer will choose to eat rests

with the consumer, and no one else. The practical problem is to so relate prices to farmers and to consumers that the dairy herds can profitably be maintained and increased because there is an increasing consumption of dairy products. This requires an astute knowledge of market conditions on the part of farmers' organizations and aggressive cooperation with dealers, public agents and consumers in general.

Wise action of this kind on the part of the farmers' organizations can

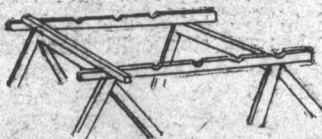


most assuredly give to the dairy industry of the United States a future far surpassing its record of increasing importance in the past. The type of action that will bring this condition has been worked out by certain farmers' organizations, particularly those selling milk in the Philadelphia, Pittsburgh and Detroit whole-milk markets. Inasmuch as whole-milk consumption is such a large part of the total demand for milk, the notable work of these three organizations has reacted to help farmers' prices everywhere.

In these three markets the demand for whole milk has not been destroyed by unfounded criticism on the part of farmers' organizations of a kind that reflects upon consumption. Agitations that diminish consumption or production in these districts have happily been conspicuous for their absence. Confidence is an essential part of the prices, and that confidence these organizations have created. Under such leadership there is every reason to believe that the dairy industry in the United States has a future that promises well. No one factor gives greater assurance of this than the fact that it is cheaper to move milk products than to move feeds, and we are essentially a feed-producing nation, as compared to the European countries to which we have thus far looked for a considerable portion of the world's milk supply.

MOVABLE ROOSTS FOR THE HENS.

THE sketch shows an easily constructed roost for hens. The roost can be taken apart and saturated with hot water, which will kill all lice. It can be built of most any kind of wood,



yellow pine being good. The flock will be free from vermin at all times if the roost is used and saturated in water often.—P. A. G.

When other helpers are busy somewhere else, try the milking machine. It will save lots of time and hard work.



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That's what you can do with your dairy cows, besides saving a lot of time and labor in watering, by installing this most up-to-date system of stall watering—

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Milk is 87 per cent water and cows cannot give their greatest yield unless they have plenty of water constantly within reach. Farmers who use Libbey Bowls report an increase of 15 to 20 per cent, which soon pays for the bowls.
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Made of famous Brazil Vitrified Fire Clay—ONE ton costs as much as FIVE tons of shale.

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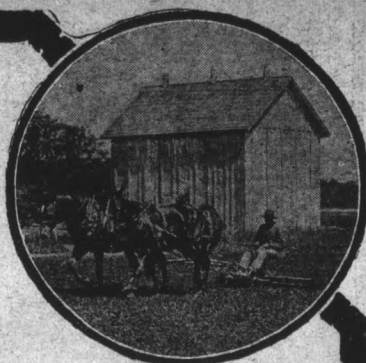
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If you will need fence next spring and know where you can buy, DO IT NOW, even if you have to borrow the money. Don't wait for the price to come down nor buy more than you will really need, for many will have to go without. Reason for this prediction explained in our "Fence Famine Bulletin." Free for the asking. Not at all; you're welcome.

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has become so popular in its first four years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil, preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year.

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TIMOTHY \$4.50 PER BU. AND UP

Save money—Buy direct from grower. New released Iowa Timothy, free from noxious weeds. Guaranteed satisfactory or money refunded. Low prices on Clover and grass seeds. Big catalog. Samples free. Write before advance order. **A. A. BERRY SEED CO., Box 331 CLARINDA, IOWA**

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Keeps water at animal heat for half-cent per hour. Saves bushels of grain. Stock drink more, eat less, gain faster. Use cheap kerosene—no smoke, no sparks, no danger. Fill once in 96 hours. Can't freeze.

BUSBY HOG WATERER

Keeps water warm so hogs drink more. Fatten up for earlier market on less feed. Holds 70 gals. 2c a day for kerosene. No chopping of ice.

Special Discount Offer! Write postal for special discount offer to owner agents. Every stock raiser needs the BUSBY and wants it when he sees it. Saves work, time, money—boosts profits. Mail postal now for special offer.

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Farm Tool Insurance

By J. H. Brown

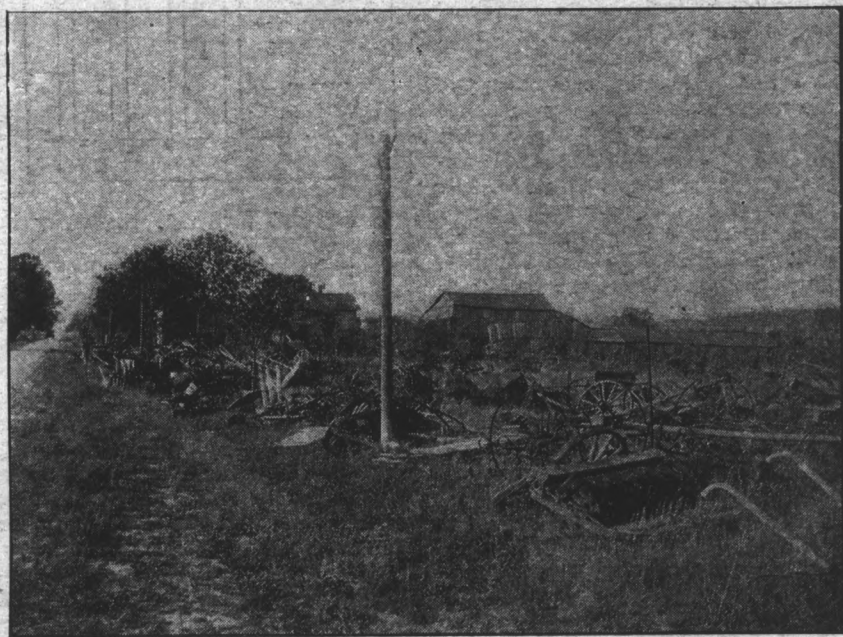
IF at the present session of our state legislature a bill should bob up in which was incorporated ways and means of preventing cruelty to farm implements, with a penalty attached thereto, either or both fine and imprisonment, what would happen?

Undoubtedly there would be the greatest gathering of farmers at the Capitol, and a whole lot of buttonholes belonging to senators and representatives would be pulled, stretched, twisted and torn, and the end of that bill would be in the pigeon-hole graveyard of the committee that was trying to give it birth.

We doubt the advisability of poking such a bill into the legislative transmission gear at this time. But something ought to be done to cut down the almost general practice of farm tool cruelty in this land of the free and the home of the brave. And now that the war is over and our side is victorious it is a good and high time to commence looking after the grain binder, mower,

has trained as a soldier at Camp Custer has looked at this collection of farm machinery and commented on the terrible extravagance and neglect of the farmers who formerly owned these expensive implements. And if some of the former owners could only hear some of the comments they would be astonished. One officer said some of the owners must have been enemy aliens and ought to have been interned, as it was evident they misused these tools so they could not grow more crops to feed the allies.

There are hundreds and thousands of Michigan farms on which stand commodious and substantial tool houses in which are sheltered these wintry days and nights many hundreds of thousands of dollars worth of farm implements of the same variety and make as shown in this picture. And some of these tools were purchased even before those in the picture. Yet they are still in good working condition because they have been cared for the whole



This Picture was Taken, Not in France, But in Michigan.

side delivery rake, sulky plow, riding year round. We personally know of cultivator, and so forth, that are right now standing out in No-Man's-Land exposed to the fires, liquids and gasses of the sun, rain and snow of the enemy forces of deterioration for more than eleven months of the year, when these valuable soldier-aid implements ought to be resting up in tool house billets and other places fully as good as some French Y. M. C. A. dugouts, and especially during this wintry weather.

There is no doubt that many farmers of Michigan lose enough each year in farm implement deterioration by exposure to the elements to pay the cost of erecting a fairly good shelter of ample proportions to house all the tools on the farm. This will also include such large implements as the hay loader and manure spreader.

We took the accompanying picture around the farm buildings of a farm near the southwest corner of Camp Custer. It shows not one-quarter of the farm tools that have been collected from the farms in that section as old junk and junk prices paid therefor. Some of these binders, grain drills, hay rakes and corn cultivators had actually been in use in the fields less than fifty days' real service, and were worn out largely because of the cruelty shown them by their owners in the form of neglect and exposure.

This immense collection of farm implements is a sight to the thousands of people from near and far, and has been commented upon by visitors to Camp Custer as worth going hundreds of miles to see. The average city business man of Detroit, Chicago, Seattle, Oshkosh, Galveston and Boston, who

At this moment there stands in the field of one farmer we know a grain binder that was purchased last June. It is covered with snow today and will deteriorate more during the winter's exposure than it would in actual field service for several consecutive seasons. That binder cost about \$200 and the owner had hard work to raise the money to pay for it. It would really pay the owner to buy lumber, even these times, to build a tight shed for this expensive machine and keep it therein when not in actual use.

We have pictures showing cruelty to tools by the score on as many farms. In fact, we have been asked to go out and take a number for typical illustrations, and later on will send a few more to the Michigan Farmer.

Why would it not be a good time, during the first of the new year 1919, for a few farmers to resolve with all their might and main to build a good substantial tool house and chuck therein from \$200 to \$1,000 worth of the costly implements that will aid them to grow more and better crops for several years to come?



A Cooperative Farm Tenancy

(Continued from page 155).

one year but for as many as you want to stay and do the square thing. I know that it is going to make you short of money this year, but I am here to see you through. If the fences need repairing I will buy the material if you will do the work. If you will keep the manure cleaned up about the stables I will buy a spreader and I want you to back it into the shed when you are through with it for the day. I want you to feel that we are equal partners in this business and we will get together and talk over our plans and prospects. I want you to feel free to consult me and pay no attention to what meddlesome neighbors and people may say to you. I am willing to respect your wishes, welfare and opinion and lay aside former customs and pet hobbies when new ideas and better ways appear reasonable and promise better returns with less labor and expense. When I drive out to the farm to see how things are going I don't want you and your family to think 'there come Grimes and the old woman snooping around to see if there is anything they can see to find fault with.' With this aim in view I think that we can get along nicely and make some money during the term of the lease and by that time you will have gotten together enough stock to enable you to buy a little farm of your own."

One of the most puzzling problems on rented farms is that of keeping up the meadow and pasture lands. The average tenant, who has not the live stock to derive the most profit from the production of grass and forage crops, has a constant desire to get the plow into thick, heavy sod, and to replace the grass and clover crops with cash crops. It is natural for him to give cultivated crops the right of way. A few of the more thrifty farm tenants, who have a deep appreciation of the value of the clovers and grasses, are held back by limited finances and the prevailing system of one-year leases. Every land-owner should take a personal interest in encouraging the better class of tenants, and cooperating with them in building up a system of farm tenancy that has as its basis the growing of grasses and clovers and the breeding of improved live stock. The whole matter rests largely with the owners of the farms, as the tenant is mostly concerned with getting the largest possible returns from his labor, and not with building soil fertility on another man's farm. Give him a long lease, and show him how it is possible to make more money as a constructive farmer than as a soil robber, and the problem will be in a fair way to be solved. Such a change of policy will be welcomed by the better class of tenants; the others will be run out of business, or driven to districts where soil conservation has not yet begun. Landowners who fail to adopt systems of leasing which provide for the maintenance of productive meadow and pasture lands, will find their farms gradually declining in fertility until the yield of market crops will not pay enough to cover insurance and taxes.

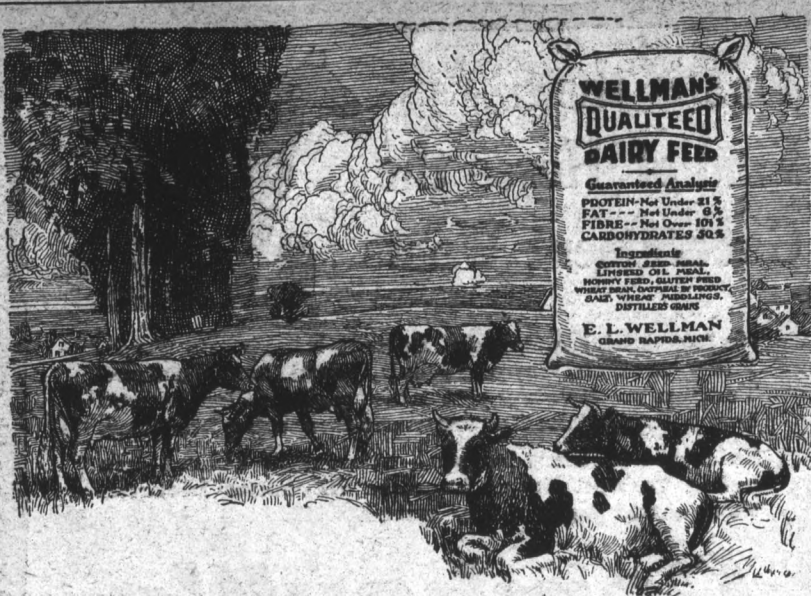
Many meadows have been practically ruined through the tenant allowing stock to run over them during the fall and winter months. During some wet seasons the growth of grass is a great temptation to the tenant, but the sod is not yet formed, and the ground is likely to be puddled or made rough by the trampling of the stock, while many of the young plants will be pulled up by the roots. Every lease should prohibit the practice, for the success of

the crop the following year depends in no small measure upon the growth of leaves it is allowed to make the first season. Leaves make starch and other food and store them in the roots for the early plant growth the following spring. With clover the growth of leaves serves a valuable purpose in protecting the roots during the winter.

Many land-owners who appreciate the value of the grasses and clovers in building up the fertility of their farms, insist that all of the manure made on the farm be applied to these crops. Such a system is no hardship to the tenant after it becomes established, for the corn crop is greatly benefited by the plowing under of a thick, heavy sod, and an abundance of organic matter is left in the soil to insure profitable yields of small grain. Landowners who have adopted a system of farming whereby the bulk of the manure is applied to the meadow and pasture lands and no hay and roughage sold from the farms, have about solved the fertility problem. A little phosphorus and potassium may be needed to balance up the manure, and lime may be needed to sweeten the soil before clover will succeed, but these elements are cheaper than commercial fertilizers and green manure crops, which are essential if equally satisfactory results are obtained.

Under the divide-the-dollar, or partnership system of leasing, many tenants object to paying a portion of the fertilizer bills where the materials are used for seeding grain crops when grass and clover seed is sown at the same time. It is, indeed, surprising that so many agricultural leaders will view the matter in the same light. I am willing to concede the fact that the land-owner has a more vital interest in maintaining good meadows and pastures than the tenant, but how any man with a fair degree of agricultural knowledge (horse sense) can advise such a practice is far beyond my powers of reasoning. My idea is that the tenant who has a five or ten year lease of a farm that is well seeded at the start of the lease should leave the property in as good shape as he found it, outside of the natural depreciation. A fair division of the cost of fertilizers would be for the land-owner to pay two-thirds and the tenant one-third if he only remains on the farm the year the crops are seeded. If lime is needed on a field that is to be seeded with clover or alfalfa the land owner should be willing to pay for it if the tenant will apply it. If it has to be hauled more than two miles he should share the expense of hauling.

Poultry, garden, fruit and truck crops are a frequent source of much trouble and misunderstanding on rented farms. As a general proposition it is important to have these matters thoroughly understood and mentioned in the lease. Probably, the most satisfactory solution of the poultry end of the business is to allow the tenant to keep a certain number of hens, have all of the eggs, and divide the increase equally at the end of the season. The best solution of the garden and truck question is to set aside a good-sized plot of ground for this purpose. The division of the fruit depends so much upon the kinds, quality and quantity that no fixed rules can be laid down that will apply to all cases. In most instances where there is a farm woodlot the tenant is allowed to cut for firewood all fallen trees, broken limbs or waste pieces of wood about of the farm. (Next week, "Choosing a Good Tenant.")



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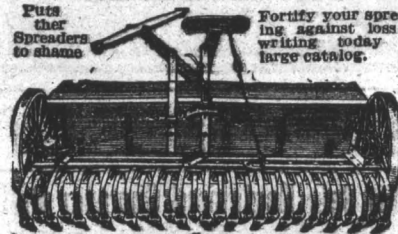
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Be prepared for the labor shortage. We have come to your rescue with the Guarantee Lime & Fertilizer Spreader, equipped with the automatic cultivating attachment that mixes your lime and fertilizer with the soil and at the same time harrows your soil. Let one hand and two horses do the work of ten men and five horses. The Guarantee Spreader contains 8 special patented features of this character: super-spiral-steel-force-feed, shifting clutch, spreading device that spreads evenly or sows in rows, acre-mark indicator, screen, lid, seat, neck-yoke, double and single trees, automatic mixing and cultivating attachment. Better write us now. Guarantee Manufacturing Co. Mail Division B. 55, Woodsboro, Maryland.

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Grinds alfalfa, corn fodder, clover hay, pea vine hay, sheep oats, kaffir corn, and milo maize in the head, either separately or mixed in varied proportions with corn on the cob, with or without shucks, seed oats, rye, barley, corn and all other grains. FULLY GUARANTEED Four plates—a double set, grinding at the same time—accounts for its large capacity. This machine has these sets of change feed gears. Perfect regulation, fine, medium and coarse grinding. For exacting, easy running and uniform grinding, the Kelly-Duplex can't be beat. Especially adapted for Gasoline Engines. Write for free catalog. DUPLEX MILL & MFG. CO., Box 308, Springfield, Ohio

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WE WANT VETCH. SEND US SAMPLE. YOUNG-RANDOLPH SEED CO. Owosso, Mich.

Cull Beans For Sale Car lots or bag lots. YOUNG-RANDOLPH SEED CO. Owosso, Mich.

German, 39 years of age, married, wants position as foreman or manager on farm. Best of references. Box W. 21, Michigan Farmer, Detroit, Mich.

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No horse with a Spavin, Splint, Ringbone, Curb, Bony Growth, Capped Hock, Wind Puff, Strained Tendon or Sweeny can now pass the keen-eyed Inspectors of the Government Remount Stations.

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DIAMOND HOG MEAL

Made from the nutritious hearts of corn kernels
Write to C. FRANCIS, 909 Ford Building, Detroit,
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ABERDEEN ANGUS

cows with calves at foot, and rebred to
IMPORTED "EDGAR OF DALMENY"
Mich. Grand Champion Angus Bull.

Also have four extra fine Angus
bulls of serviceable age.

"Best of Breeding"
and at a price to sell.

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TRON-ERICAS & BLACKBIRDS (BLACKCAPS)
only. The most fashionable strains of the breed.
Great care given to matings and pedigrees. Every animal
BRED IN THE PURPLE. Breeders and feeders
of many INTERNATIONAL WINNERS.
WOODCOTE STOCK FARM, Ionia, Mich.

Cloverly Angus Bred cows, heifers, and bull
calves of good breeding.
GEO. HATHAWAY & SON, Ovid, Mich.

REGISTERED Aberdeen Angus two heifers, ten
bulls, from eight to ten months old. Our motto:
size with quality, best of breeding. Price two hundred
dollars each. F. J. WILBER, Olio, Mich.

For Sale Registered Guernsey Bull

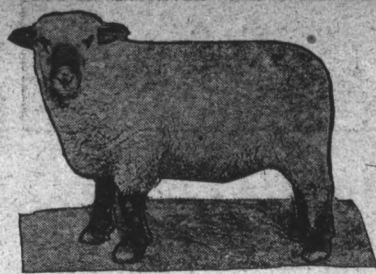
Gov. Ohene Golden Noble & May Rose breeding.
Tubercular tested by state. Halcyon Sequel born 1912.
Great grand son of Gov. Ohene sires and grand sires
are all A. R. breeding. Price \$250 F. O. B. Avondales
Hope born Mar. 25, 1917. Sire Halcyon Sequel Dam
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Duke of Avondale born Jan. 1, 1918 Sire Lord Sunrise
Dam Luella's Maid. Price \$100 F. O. B. Avondales
Hero born Jan. 10, 1918. Sire Halcyon Sequel Dam
Serena of Pittsfield. Price \$200 F. O. B. Avondales Joy
born Feb. 8, 1918. Sire Halcyon Sequel Dam Wrinkle
of Pittsfield. Price \$125 F. O. B. Avondales Mark born
Apr. 9, 1918. Sire Lord Sunrise, Dam Popular Polly.
Price \$100 F. O. B. Come and look our herd over.
AVONDALE STOCK FARM, Wayne, Mich.

GET GUERNSEYS

\$90 more per head for 16 grade Guernsey cows,
sired by a purebred Guernsey bull, than for each
of 8 cows of unknown breeding was paid at a re-
cent sale in Maryland. A purebred Guernsey bull
can likewise increase the value as well as the pro-
duction of your herd. Write for free booklet,
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THE AMERICAN GUERNSEY CATTLE CLUB,
Box 1, Peterboro, N. H.

GUERNSEYS must reduce herd, so offer
a few choice females of
Glenwood breeding also bulls, all stock of A. R. breed-
ing, herd tuberculin tested.
T. V. HICKS, Battle Creek, Mich.

GUERNSEYS REGISTERED
BULL CALVES
Containing blood of world champions.
HICKS' GUERNSEY FARM, Saginaw, W. S. Mich.



COOPERATIVE MANAGER TELLS HOW.

IN discussing the management of a
successful live stock shipping asso-
ciation, Mr. J. D. Sturgis, manager of
the Sturgis Cooperative Association of
Sturgis, St. Joseph county, Michigan,
says: "He must be a good judge of
stock, and be on the alert at all times
to get all the business possible for his
association. He must understand the
value of stock, how to load it in the
cars and how to handle it from the
time it is delivered until the cars are
shipped out.

"Unless he understands these things
and practices sound methods of hand-
ling the stock his insurance fund will
slip out through the slats of the stock
car. It is just as important that the
secretary and treasurer know good
stock and its value as he has to pass
on all of the bills before they are paid.
If the commission man has made some
mistakes in getting the markings
straight it is very important for him to
know who shipped the cull calf, the
canner cow or the seventeen-cent
steer. As we are shipping to a good
firm that is very careful, and I give
good markings, it is really surprising
how quick we can pick each patron's
stock from the bills. We always re-
tain a copy of the markings of each
cow, steer and calf. Cattle are mark-
ed by the use of a common pair of
shears, Roman letters being used and
the mark clipped along the loin. The
animal is weighed at Buffalo the sales-
man inserting his mark on the weight
ticket. This makes it easy to handle
and keep straight all of the accounts
of our rapidly growing business.

"Sheep are marked with paint. Hogs
receive no markings at all and are
sold according to weight and grade.
So you see the man who ships the
Jersey steer does not hurt the sales
of the fellow who has nice, fat steers
of the beef breeds in the same car.
We have our own scales, office and
stock yards. The manager and secre-
tary receive seven cents per cwt. for
their services, insurance is five cents
per cwt. and incidentals one per cent
per cwt., making a total expense of
thirteen cents per cwt. for handling
and marketing the stock."

BUY THE RIGHT KIND OF INCU- BATOR.

ONE man says there is practically
no difference in incubators—but
there is. There is just the same dif-
ference in incubators as there is in
pianos, in automobiles, in tractors, or
in any number of things that could be
mentioned. True, incubators are all
made for the same purpose—to hatch
chicks—and they do it when the at-
tendant does his or her part of the
work, but people have notions about
the things they buy. Even if the inside
parts of all incubators were alike, and
only the outside of the machines dif-
ferent, one person would buy one be-
cause it was painted red and another
person would buy another because it
was painted yellow. Then, some peo-
ple want to pay a high price while oth-
ers want to pay a low price for what
they buy. There are so many people
to be served that there must be a va-
riety of things, incubators included, in
order for everyone to be satisfied. In
buying an incubator, the thing to do is
to select the one that suits your notion
and your pocketbook, and then get it.

Calf Enemies

WHITE SCOURS BLACKLEG

Your Veterinarian can stamp
them out with Cutter's Anti-Calf
Scour Serum and Cutter's Germ
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or Cutter's Blackleg Pills.

Ask him about them. If he
hasn't our literature, write to us for
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One 4 Year Old

Choice Reg. Guernsey Heifer, will freshen inside 60
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GUERNSEYS Registered bulls two years old and un-
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For Sale Registered Guernsey Bull 15 mo. old,
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"Top-Notch" HOLSTEINS

The young bulls we have for sale are
backed up by many generations of
large producers. Buy one of these
bulls, and give your herd a "push".
Full descriptions, prices, etc. on request.
McPherson Farms Co., Howell, Mich.

"Winwood Herd"

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Holstein-Friesian Cattle

Sire in Service

FLINT MAPLECREST BOY

His sire is Maplecrest Korndyke Hengerveld. His
three nearest dams each over 30 lbs. of butter in 7
days. His dam and granddam both made over 122 lbs.
of butter in one year. It is the yearly cow we are
looking for to deliver the goods. Flint Maplecrest
Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter
in 7 days and 121 lbs. in 30 days. Her butter fat test
is 5.27. This looks about right to the man who goes
to the creamery. We have bull calves from 2 weeks
to 12 months old. From A. R. O. dams and sired by
Flint Maplecrest Boy, which we will sell at a dairy
farmers price breeding considered. Just think 40
more cows to freshen which means more bull calves.
Let us know your wants. We will make terms on
approved notes.

JOHN H. WINN, Inc.

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Reference Roscommon State Bank.

THE HOLSTEINS

At Maple Avenue Stock Farm are under Government
supervision. The entire herd have just been tuberculin
tested and not one reactor. A good place to buy that
bull you are looking for, and I have two very fine,
richly bred, and splendid individuals ready for any
amount of service. I want to answer any question
you may ask about them.
L. E. CONNELL, Fayette, Ohio.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of Pontiac Korndyke,
Hengerveld De Wolf, Pontiac Dutchland, or Admiral
Walker Pieterje.

Do you want a Pontiac in your herd?

Pontiac State Hospital, Pontiac, Mich.

The Traverse Herd

We have what you want in BULL CALVES, the
large fine growthy type, guaranteed right in
every way. They are from high producing A. R.
O. ancestors. Dam's records up to 30 lbs. Write
for pedigrees and quotations, stating about age
desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

CLUNY STOCK FARM

100--REGISTERED HOLSTEINS--100
When you need a herd sire remember that we
have one of the best herds in Michigan, kept un-
der strict sanitary conditions. Every individual
over 6 mos. old regularly tuberculin tested. We
have size, quality, and production records back-
ed by the best strains of breeding.

Write us your wants

R. BRUCE McPHERSON, Howell, Mich.

DISPERSAL

10 A. R. O. Holstein Cows, 4 to 6 years old, records up
to 26 lbs. in 7 days, 3 Heifers 2 to 3 years old, 4 year-
ling Heifers from A. R. O. Dams, 5 Heifer
calves.

Cows all fresh since October save one, due this
winter. All under Government supervision for con-
trol of tuberculosis. Herd located at Fabius Station
near Three Rivers, Michigan.

Peaceland Stock Farm: Three Rivers, Mich.
Chas. Peters, Herdman. For breeding and prices
Write C. L. BRODY, Port Huron, Michigan

Additional Stock Ads. on Page 189

20 Mares

5 Stallions

FOURTH ANNUAL SALE MICHIGAN HORSE BREEDERS ASS'N. PERCHERONS and BELGIANS

Live Stock Pavilion, East Lansing, Mich.

10 A.M., February 7, 1919

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The Profitable Dairy Cow

The farmers of Antwerp will have only to do with such cattle as produce the largest amount of milk upon the smallest amount of food, and for this they prefer the pure Holstein-Friesian cow.

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Send for our booklets—they contain much valuable information.
HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA, Box 164, Brattleboro, Vt.

Young bull ready for service from a 21.27 lb. record just made) 3 yr. old daughter of Sire Kornelke Veeman Hengerveld No. 10085. Sired by a 32 lb. son of the \$50,000 bull. Other bulls for sale by the same sire. Write for pedigrees and prices.
SINDLINGER BROTHERS, Lake Odessa, Mich.

For Sale at a bargain. A few young bull calves from high producing stock. Buy one of these fine calves and raise a bull for next fall.
A. F. LOOMIS, Owosso, Mich.

Reg. Holstein Bull three mo. old, also some females, some spring bag now good.
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A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write.
GEO. D. CLARKE, Vassar, Mich.

Parham's Pedigree Stock Farm offers Reg. Holstein cattle, Chester White Swine, extra bargains in calves and fall pigs. Bulls half price.
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For Sale Registered Holstein heifer bred dam gives 125 lb. milk a day. Price \$300.00
JOHN EBELS, R. 2, Holland, Mich.

\$50 gets 1 mo. old son of Maplecrest Korn. Heng. 26 lb. dau. of Johan. Heng. Lad. Dam is gddau. of Pontiac Maid 30.21 lb. Liberty Bonds or terms for what I have for sale.
M. L. McLAULIN, Redford, Mich.

\$240 buys two nice high grade Holstein heifers one 2 yr. old due in Feb. and one 3 yr. old due in Mar. and one Reg. bull calf 2 months old sired by a grandson of King of the Pontiacs and the dam is a Segis cow.
HENRY S. ROHLFS, R. 1, Akron, Mich.

Reg. Holstein Bull Calves dandies at \$50 reg. and del.
J. ROBERT HICKS, St. Johns, Mich.

\$50.00 Buys a Reg. Holstein Bull Calf. Born Oct. 30 1918, delivered at any express station in state. Also have a yearling.
E. E. STURGIS, St. Johns, Mich.

\$1100 Buys six registered Holstein heifers all past 2 yr. old and due to freshen soon from a 33 lb. bull.
B. B. REAVEY, Akron, Mich.

BROOKWATER FARM
2 Bulls
Ready for Service
Sired by butter bred bulls and out of high testing dams.
The Producing Kind
with Jersey type and capacity.
Prices reasonable. Also a few bred gilts (Durocs) and boars.
Brookwater Farm,
Herbert W. Mumford, Owner,
J. Bruce Henderson, Mgr.,
Ann Arbor, Mich.,
R. 7.

Maple Lane R. of M. Jersey herd. Bulls, bull calves and heifer calves sired by a nephew of the new World's Champion, Sophie's Agnes. Also R. I. B. Cockerels, both combs. Irwin Fox, Allegan, Mich.

For Sale Registered Jersey Cattle of both sex. Smith & Parker, R. 4, Howell, Mich.

Hillside Farm Jerseys, offer 3 yearling bulls, backed by tested dams, and sired by a double grandson of Royal Majesty, first prize & junior champion at Mich. State Fair, good individuals. C. & O. Deake, Ypsilanti, Mich.

BUTTER BRED JERSEY BULLS
CRYSTAL SPRING STOCK FARM, R. 1, R. I. B. Silver Creek, Allegan County, Michigan.

JERSEY BULLS
Ready for service FOR SALE
WATERMAN & WATERMAN, Ann Arbor, Mich.

Meridale Interested Owl No. 11311 heads my herd, bull calves from this great sire and out of R. of M. dams for sale.
C. B. WEHNER, Allegan, Mich.

Lillie Farmstead Jerseys. Young bulls ready for service from R. of M. cows. A few bred heifers and cows.
COLON C. LILLIE, Coopersville, Mich.

The Wildwood Jersey Farm.

Bulls for sale by Majesty's Oxford Fox 12414 and Eminent Lady's Majesty 12664, and out of R. of M. Majesty dams.
ALVIN BALDEN, Capac, Mich.

Herefords

5 Bulls 9 to 14 months old Prince Donald, Farmer and Perfection Fairfax breeding.

ALLEN BROS., Paw Paw, Mich.

Michigan Herefords

REPEATERS AND PERFECTIONS
Young stock for sale at all times.
80 head in herd, all ages.
Farm 5 miles south of Ionia. Visitors welcome. JAY HARWOOD, Ionia, Mich.

CITIZENS TELEPHONE 122-4

Buy a Hereford Sire Improve your Stock

Hereford Cows For Sale

4 head, registered, 4 years old, and bred. Will contract calves at one-half price of cows, if taken at once. Also two bull calves 8 months old for sale.

COLE & GARDNER, Hudson, Mich.

Lakewood Herefords Strong in the blood of Anxiety 4th 1st strain that breeds true to type and predominates the leading show and sale rings of the country. A few high class young bulls for sale. Come see, and compare. Farm adjoins town. Citiz. Phone 29.
E. J. TAYLOR, Farmington, Mich.

Herefords Bob Fairfax 494027 at head of herd. Stock for sale, either horned, or polled, or horned, any age. Price right. EARL C. MCCARTY, Sec'y. R. B. Ass'n. Bad Axe, Mich.

Herefords Polled and horned, young stock of either sex, for sale.
RALPH S. SMITH, Kewadin, Mich.

Shorthorn Cattle of both Sex for Sale
W. W. KNAPP, Howell, Michigan.

Francisco Farm Shorthorns
We maintain one of Michigan's good herds of Scotch and Scotch Topped cattle. They are well bred, properly handled and price reasonable. Come and see; we like to show them.
P. P. POPE, Mt. Pleasant, Mich.

Shorthorn Seven Scotch and Scotch Topped bulls for sale. Price reasonable.
W. B. McQUILLAN, R. 7, Howell, Mich.

BIDWELL SHORTHORNS

Registered bulls, cows and heifers—Good Scotch and Scotch-Topped for sale. In prime condition. Modern sanitary equipment. Farm 10 minutes from N. Y. O. depot, 1 hour from Toledo, Ohio. Automobile meets all trains. Write
BIDWELL STOCK FARM,
Box B, Tecumseh, Mich.

Richland Farms

Shorthorns

Home of the Mich. Champions. We have just purchased the entire herd of Scotch cattle belonging to the Estate of the late A. D. Flintom, Kansas City, Mo. About Feb. 1st. we will offer a choice lot of young bulls for sale.

C. H. PRESCOTT & SONS,
Office at Tawas City, Mich. Farms at Prescott, Mich.

For Sale Shorthorns of Quality Scotch and Scotch Topped descendants of Archie's Hope, Avondale, Maxwation Sulton and White Hall Sulton by the Oscola Co. Shorthorn Breeders Ass. JOHN SCHMIDT, Sec. Reed City, Mich.

Shorthorn Bulls ready for service of the choicest breeding. Write me you want.
A. A. PATTULLO, R. 4, Deckerville, Mich.

The Kent Co. Shorthorn Breeders have both males and females for sale. Ask about them.
L. H. LEONARD Sec., Caledonia, Mich.

STOCK ALL SOLD
CLARE RIGGS, Mason, Mich.

Oakwood Shorthorns. Three bulls sired by Gloster Boy 49661.9 to 12 months old.
COLLAR BROS., R. 4, Conkita, Mich.

Milking Shorthorns of most noted families either sex, all ages, write OSCAR SKINNER, Pres. Central Mich. Shorthorn Ass'n., Gowen, Mich.

Scotch Shorthorn. A fine lot of young bulls for sale. Phone Pontiac 71573 or Orion Exchange. John Lessiter & Sons, R. 1, Clarkston, Mich.

For Sale 2 yr. old Scotch herd bull sired by Valiant 387201, a Lespedeza Farm product.
LAURENCE P. OTTO, Charlotte, Mich.

SHORTHORNS for milk and beef are raised in the BUTLER HERD. Young bulls for sale.
ROSEMARY FARMS, Williamston, Mich.

Stockers & Feeders For Sale
180 Shorthorn Steers ave. 1065 lbs.
170 Hereford Steers ave. 930 lbs.
2 cars of yearling Herefords ave. 750 lbs.
2 cars of Shorthorn yearlings, reds and roans. These steers are deboned and in good flesh. Wapello Co. Ia. is noted for its good cattle. Write
JOHN CARROW, R. 3, Ottumwa, Ia.

For Sale 2 red Shorthorn bulls, 7 and 10 months, good milking strain.
CHAS. WARNER, Jr., Inlay City, Mich.

Polled Durham young bulls nearly one year old. O. I. C. sow's bred for spring farrow, one boar 8 mos.
FRANK BARTLETT, Dryden, Mich.

FOR Sale, registered Guernsey bull 18 months old, sire Yeoman's Sibley King, dam Pittstown Rose 2nd. Would exchange for good registered Guernsey heifer. Charles F. Clippert, 261 W. G. Boulevard, Detroit, Mich.

HOGS

For Sale Reg. Berkshire Sows & Boars all ages. Priced to sell.
RUSSELL BROS., R. 3, Merrill, Mich.

Duroc-Jersey Hogs

WILDWOOD FARMS

Offers one of the Greatest Bargains yet.

20 large type Duroc-Jersey Gilts bred for APRIL FARROWING

\$75 to \$100.00 each

Bred to "J. E. L. PERFECTION COL." Great Brookwater Bred Boar.

Weight from 250 to 275 lbs.

SEE OUR ANGUS ADVERTISEMENT

Wildwood Farms, ORION, MICH.

W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

DUROC

Bred sows and last fall boars. State Fair Champions and winners. Down to date breeding and correct type. Orion's Fancy King heads herd.
NEWTON BARNHART, St. Johns, Mich.

WE HAVE A FEW

choice young sows bred to a Defender Boar. We think this is some of the best Duroc stock in the country. Write for information.
THE JENNINGS FARMS, Bailey, Mich.

OAKWOOD FARM

A few choice Duroc fall pigs left. Also a fine yearling sow bred for Mar. litter. Write for prices.
RUSH BROS., Romeo, Mich.

Duroc Boars, April 1, boars and gilts of the choicest breeding. Also an A.R.O. 1 yr. Holstein bull.
F. E. EAGER & SON, Howell, Mich.

DUROC-JERSEYS

E. D. HEYDENBERG, Wayland, Mich.

DUROC JERSEYS Nothing but for sale. CAREY U. EDMONDS, Hastings, Mich.

Duroc bred gilts for March and April farrow with quality and size. Fall pigs both sexes not akin.
W. C. TAYLOR, Milan, Mich.

Duroc Jerseys Large heavy-boned gilts, bred to Junior Champion boar for March and April farrow; prices reasonable. Come and see them, free live expenses paid if not as represented.
F. J. DRODT, R. 1, Monroe, Mich.

Duroc Jersey Sows, Large type, heavy boned, 1000 lb. herd boar.
JOS. SCHUELLER, Weldman, Mich.

Raise Chester Whites
Like This
the original big producers
I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan. More money from hogs.
E. S. BENJAMIN, R. F. D. 10, Portland, Michigan

Chesters Gilts bred for March, April and May farrow from mature stock of the large prolific kind. Satisfaction guaranteed.
E. W. ALEXANDER, Vassar, Mich.

Breed The Best

THE WORLD NEEDS LARGE FAT HOGS

Why lose money breeding and feeding scrub hogs? Two of our O. I. C. Hogs Weighed 2806 Pounds.

We are the most extensive breeders and shippers of pure bred hogs in the world. Write today for the true story of the real O. I. C. Hogs. All foreign shipments U. S. Government Inspected

We have bred the O. I. C. Hogs since 1863 and have never lost a hog with cholera or any other contagious disease.

—TODAY—
FOR FREE BOOK
"The Hog from Birth to Sale"

THE L. B. SILVER CO.
196 Heights Temple Bldg.
CLEVELAND, OHIO

THE WORLD'S CHAMPION

big type O. I. C. S. Stock of all ages for sale. Herd headed by Calhoun Edd, the World's Champion O. I. C. boar assisted by C. C. Schoolmaster, Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Orandell's prize hogs, Cass City, Michigan.

Shadowland Farm

O. I. C.'s

Bred Gilts 200 to 300 lbs. from prize winning stock. A few fall yearlings and 2 yr. old sows, big type, growthy boars of all ages, guaranteed as breeders. Everything shipped C. O. D. Express paid and registered in buyers name. J. CARL JEWETT, Mason, Mich.

O. I. C. and Chester White Swine Strictly Big Type with QUALITY. I am sold out of everything but fall pigs. These pigs are as good—and I think better than any I ever bred. I am one of the oldest breeders of Big Type in the U. S.
NEWMAN'S STOCK FARM, R. 1, Marietta, Mich.

O. I. C. BRED GILTS all sold. Have some good last fall boars.
OTTO B. SCHULZE, Nashville, Mich.

O. I. C.'s big type serviceable boars. Yearling G. P. ANDREWS, Dansville, Mich.

O. I. C. Boar, 14 months old. Large fall pigs of either sex.
C. J. THOMPSON, Rockford, Mich.

O. I. C. Serviceable boars sold. Gilts bred for March and April farrow.
H. W. MANN, Dansville, Mich.

O. I. C. Large type. Some choice boars and sow gilts eligible to registry. WEBER BROS., Royal Oak, Ten Mile Road, one half mile west of Woodward. Tel. 408.

O. I. C. Gilts bred for Mar. and April farrow a few good fall boar pigs about 100 lbs. 1 ship C. O. D., pay express, guarantee to please. F. C. Burgess, R. 3, Mason, Mich.

O. I. C. Gilts to farrow in March and April. Also fall pigs, either sex.
CLOVER LEAF STOCK FARM, Monroe, Mich.

FOR 25 YEARS This establishment has been head quarters for Big Type Poland Chinas. We have a nice lot of boars and sows of strictly big type breeding at very low price. Let me know what you want. Bell phone.
JNO. C. BUTLER, Portland, Mich.

Big Type Poland Chinas A 400 lb. Aug. 29, yearling and a few 250 lb. Apr. gilts. Quality, stuff, registered, and cholera immune. Bred for Mar. and Apr. farrow.
WESLEY HILE, R. 6, Ionia, Mich.

Large type P. C. Largest in Mich. Boars all sold. 20 Bred gilts sired by and bred to the best boars the breed can produce, with dams of equal merit, extreme size with quality, come and see them, free live expenses paid if not as represented. W. E. Livingston, Parma, Mich.

Big type Poland Chinas. Spring gilts of the best of breeding. With quality from 1000 lb. sires and 900 lb. dams. Will be bred to a great son of the noted \$5000 Gertsdale Jones. Also fall pigs.
W. BREWBAKER & SONS, R. 5, Elsie, Mich.

Big Poland Chinas with quality. Spring, summer, and fall pigs, both sex, and bred sows, for sale. G. A. BAUMGARDNER, R. 2, Middleville, Barry Co., Mich.

Big Type Poland gilts bred to Gertsdale Superior and D Gertsdale Lad sons of Gertsdale Jones the \$5000 boar.
O. L. WRIGHT, Jonesville, Mich.

Large Type P. C. boars all sold. Spring gilts and young litters sows, bred for March and April farrow. Free delivery from Augusta. W. J. Hagelshaw, Augusta, Mich.

Michigan's Champion herd of Big Type P. C. bred sows fall pigs. Come and see them.
E. R. LEONARD, R. 3, Box 53, St. Louis, Mich.

L.T.P.C. Gilts bred for April farrow. Fall pigs of either sex; inspection invited.
A. A. FELDKAMP, Manchester, Mich.

B. T. P. C. Bred Gilts, the best lot ever on the farm at prices any good farmer can afford to pay.
H. O. SWARTZ, R. 37, Schoolcraft, Mich.

Big Type P. C. boar and bred gilts. Choice Aug. pigs at a bargain.
A. A. WOOD & SON, Saline, Mich.

Big Type Poland China. Get a Gilt, sired by Giant King, bred to Monny's Big J. near 3rd. Gilts bred to Smooth Mastodon. John D. Wiley, Schoolcraft, Mich.

Big Type P. C. Choice bred sows from Iowa's greatest herds, the big bone prolific kind with size and quality.
E. J. MATHEWSON, Burr Oak, Mich.

Big Type Poland Chinas. Spring boars all sold. Bred gilts ready for shipment. Inspection invited.
L. L. CHAMBERLAIN, Marcellus, Mich.

P. C. Bred Sows Large style best we ever owned. Satisfaction or no sale.
R. W. MILLS, Saline, Mich.

Mammoth P. C. Stubby big boned individuals 175-200 lbs. 5% months double immune. Write wants. Clyde Weaver, Ceresco, Mich.

Hampshire Hogs The International Grand Champion for sale. Spring deliveries booked now.
ELI SPRUNGER & SON, Saginaw, W. S., Mich.

Hampshires Boars at a bargain bred gilts all sold.
JOHN W. SNYDER, R. 4, St. Johns, Mich.

HORSES

Saginaw Valley STOCK FARM

Belgian and Percheron Stallions and Mares and registered Holstein Cattle, of the best breeding, for sale.

Eli Sprunger & Son, Saginaw, W. S., Mich.

Horses Will Be Horses Soon

We have on hand at all times a choice selection of young Percheron Stallions.

PALMER BROS., Belding, Mich. R. R. Orleans.

Percherons, Holsteins, Angus, Shropshires, Durocs
DORR D. BUELL, Elmira, Michigan.

Percheron Stallions and mares of reasonable prices; inspection invited.
F. L. KING & SON, Charlotte, Mich.

For Sale Reg. Black Percheron 3 yr. old Stallion and a number of good sound grade draft colts.
CHAS. BRAY, Okemos, Mich.

Additional Stock Ads on Page 191

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, January 30.

WHEAT.

Notwithstanding the selling of wheat by the government and the slow demand for flour and mill feed, wheat values have been maintained at recent figures which are above the minimum established by the government. The firm position of this grain is also emphasized by the decline noted in other departments of the cereal market. Farmers are marketing in fairly liberal quantities and the increase in the United States visible supply for the week amounted to 2,313,000 bushels. Reports on the growing crop all promise a bumper 1919 crop if conditions from now on remain normal. One year ago No. 2 red wheat sold on the local market at \$2.17 per bushel. Present Detroit prices are:

No. 2 red	\$2.30
No. 2 mixed	2.28
No. 2 white	2.28

CORN.

Corn has reacted from the recent heavy decline. This was due almost entirely to the fixing of hog price for February at \$17.50 per cwt. This has had a larger influence on marketing of corn in sections where hog feeding is a big interest. However, a firmer tone prevails throughout the country and at a majority of the markets prices have advanced from two to five cents. United States visible supply increased 1,597,000 bushels the past week. One year ago the local market was paying \$1.80 for No. 3 corn. Present prices are as follows:

No. 3 corn	\$1.25
No. 3 yellow	1.30
No. 4 yellow	1.25
No. 5 yellow	1.20
No. 6 yellow	1.15
No. 3 white	1.28

Chicago dealers have felt safe in advancing corn values not only because of the fixing of hog prices, but also on account of political difficulties which prevent shipment of corn from Argentina. Cash prices for No. 4 corn \$1.23@1.25; No. 5 \$1.20@1.22.

OATS.

Oat trading followed the course of corn with the additional handicap of having no independent strength. Neither exporters nor domestic shippers of oats are bidding for the grain at the recent prices. The American visible supply decreased 2,849,000 bushels for the week. A year ago standard oats were quoted on the local market at 89c per bushel. Present Detroit prices are:

Standard	59
No. 3 white	58½
No. 4 white	57

RYE.

Although the government has purchased this grain at \$1.62 during the past week, the general rye market has declined fully 10c in the past seven days. On the local market the quotation now stands at \$1.40 for cash No. 2.

BEANS.

Bean values have declined. Not only this but farmers in the state have not been able to sell their beans to dealers at current quotations. Dealers claim they have no outlet for the stock on hand at the present time. Some are purchasing beans at greatly reduced figures but the majority are doing no buying because farmers are by no means inclined to sell at any wide discount on current quotations. It is impossible to predict the future course of this trade. On the Detroit market immediate and prompt shipment are now quoted at \$7.75 cwt. At Chicago conditions are unchanged with prices there weakly held as follows: Pea beans, choice to fancy, hand-picked at \$7.50@7.55; best red kidneys at \$11.50@12.

FEEDS.

Another decline is made in the feed prices. Present quotations in 100-lb. sacks to jobbers at Detroit are: Bran \$52@53; standard middlings \$50@51; fine middlings \$52@53; coarse corn meal \$55; cracked corn \$55; chop \$49@50 per ton.

SEEDS.

As compared with a week ago prices are lower as follows: Prime red clover \$24.75; March \$24; alsike \$17.75; timothy \$4.90.

HAY.

This market is easy with supplies ample and prices down \$1 from last week as follows: No. 1 timothy \$26.50@27; standard timothy \$25.50@26; light mixed \$25.50@26; No. 1 mixed \$24.50@25; No. 1 clover \$23.50@24.

Pittsburgh.—Receipts of hay have been heavy and the market is easier. No. 1 timothy \$29.50@30; No. 1 light clover \$27@28; No. 1 clover \$26.50@27 per ton.

EGGS.

Egg values decline with heavier receipts. Fresh firsts are quoted at De-

troit at 52c; extra firsts candled in new cases 52½c. The Chicago market lower with firsts 49@49½c; ordinary firsts 48@48½c. Nearby western stock is selling in New York city at 60@69c and in Philadelphia western firsts and extra firsts at \$18.30@18.90 per case.

BUTTER.

A record decline was made in prices last week. In Chicago it amounted to 8c and in New York 7c. Since the government removed restrictions the general market has declined from 15@18c. The public has not been buying at the high prices. The belief is that values have now reached bottom and reactions are already noted. At Detroit fresh creamery firsts bring 46@47c; at Chicago 40@45c; at New York 44@48c; at Philadelphia western creamery extra 53c.

DETROIT CITY MARKET

The volume of trade is small, with apples selling at \$1.75@2.25; cabbage white 75c@1.25; do red \$1.25@1.50; potatoes of good quality \$1.10@1.15 per bushel.

POTATOES.

The tone of this market has been fairly steady. Michigan U. S. No. 1 whites are selling in Detroit at \$2.85@3 in 150-lb. sacks. This grade brings \$2 in Cleveland; \$1.65@1.70 in Chicago; \$2.05@2.15 in Cincinnati; \$1.93@2 in Pittsburgh; \$1.95 in Indianapolis; \$3.25 per 150-pound sack in Columbus. Michigan growers are generally holding for higher prices. The demand shows improvement at upstate points.

GRAND RAPIDS

Shipment in carlots of potatoes out of western Michigan of 1918 crop is a little less than that a year ago. The best information from dealers is that the amount in pits is very light. Some growers marketed last week at \$1.10 per cwt. Onions higher. Last fall the dealers bought for 60c per cwt. and now pay \$1. One firm bought a few cars last week. Western Michigan celery crop is nearly exhausted. Crop was less than a year ago on account of damage in the spring. Dealers in beans report the demand light and movement slow and they now quote Michigan pea variety at \$7 per cwt. and Red Kidneys \$9. Milling companies pay 65c for oats; \$1.35 for rye and \$1.55 for corn.

HOG PRICE FIXED.

A minimum base price of \$17.50 per hundred pounds for hogs for the month of February was unanimously agreed upon today by the hog committee meeting at the Food Administration.

NEWS OF THE WEEK.

(Continued from page 156).

\$881,000,000.—The United States government will maintain sufficient military equipment to arm forty-eight divisions.

Sunday, January 26.

THE peace conference unanimously adopts the League of Nations project.—The royalist movement in Portugal is meeting with reverses.—A congress having its principles based on the principles espoused by the German Spartacists and Russian Communist and Bolshevik parties has been called to meet at an early date for the overthrow of the world's capitalistic system.—Chicago meat packers urge government supervision of the entire meat industry of the country.

Monday, January 27.

THE expressions thus far given by the Russian factions toward the invitation of the peace conference to send delegates is that the Bolshevik government is hostile to a meeting under the conditions proposed. Lithuania, however, is willing to place her case in the hands of the League of Nations.—Czech troops capture Olderberg from the Poles.

Tuesday, January 28.

BOLSHEVIKI troops in northern Russia are now on the offensive and have forced the Allies and Russians to retreat thirty miles.—All nations sitting at the peace conference, including nineteen small powers and five great powers, have agreed unanimously on the main subjects thus far considered.—Additional tonnage of food from the British army is being sent to Austria.—The Trans-Atlantic freight rates have been reduced sixty-six and two-thirds per cent.—Eight states join in the 'phone rate war, to assist Indiana in fighting the increased toll rates.

MICHIGAN DAIRYMEN'S ASSOCIATION.

The Michigan Dairymen's Association will hold a special meeting at the Kerns Hotel at Lansing, February 4, at 1:00 o'clock p. m.

Mr. M. D. Munn, president of the National Dairy Council, will be present at the meeting.

The object of this meeting is to formulate plans for carrying on the educational work of the National Dairy Council in Michigan.

It is desired that everyone attend this meeting. M. SEIDEL, Sec'y.

Live Stock Market Service

Reports for Thursday, January 30th

BUFFALO.

Tog prices here today are higher, hogs going at \$18@18.25; pigs \$16@17.50. Lambs are steady at \$17.25@17.50, while the best calves bring \$17. The cattle market is dull.

CHICAGO.

Cattle. Receipts 9,500. Opening quiet and generally steady on all classes. Good to prime choice steers \$15.85@20; common to medium butchers at \$9.50@15.85; heifers \$7.35@14; cows \$6.65@13.50; bologna bulls \$8@12; canners and cutters \$5.60@6.65; stockers and feeders, good \$10.50@14.25; do medium \$7.75@10.50.

Hogs. Receipts 49,000. Held over 41,924; market generally steady; the better grades with weight favored. Tops at \$17.75; bulk of sales \$17.35@17.65; heavy \$17.65@17.75; mixed and light \$17.50@17.65; packers hogs \$16.50@17; medium and heavy \$16.85@17.40; light bacon hogs \$16.50@17.50; pigs good to choice \$12.50@15.50; roughs \$15.75@16.50.

Sheep and Lambs. Receipts 18,000. Market steady to 25c lower; fat lambs weakening most. Choice to prime lambs \$16.50@16.75; medium and good lambs \$15.25@16.50; culls \$12@14.25; medium good and choice feeders \$14.25@15.25; choice

yearlings \$14.50@14.75; medium and good yearlings \$12@14.50; wethers, medium and good \$10.75@12.

DETROIT

Cattle.

Good grades 50c lower; canners, bulls and butcher cattle steady. Best heavy steers \$14.00@14.50 Best handy wt bu str. 10.25@10.75 Mixed steers and heifers 9.25@10.00 Handy light butchers 8.25@ 9.00 Light butchers 7.25@ 8.00 Best cows 9.00@10.00 Butcher cows 7.75@ 8.50 Cutters 6.75 Canners 6.50 Best heavy bulls 10.00@12.00 Bologna bulls 8.50@ 9.00 Stock bulls 7.25@ 7.75 Milkers and springers...\$ 60@ 115

Veal Calves.

Market 25c lower. Best \$15.50@16.50 Common and heavy 7.00@14.00

Sheep and Lambs.

Market 50c higher. Best lambs \$16.50@17.00 Fair lambs 15.00@15.25 Light to common lambs... 11.00@14.00 Fair to good sheep 8.50@ 9.50 Culls and common 7.00@ 7.50

Hogs.

Market 25@50c higher. Pigs \$15.00@15.25 Mixed hogs steady at ... 17.50

Reports for Wednesday, January 29th

CHICAGO.

Cattle. Only 40,620 cattle have reached here during the first half of the week, comparing with 54,825 for the same time last week, but the mild weather has so materially lessened the consumption of beef that prices have ruled as much as 15@25c lower in numerous instances. The receipts today are estimated at only 5,000 head, the smallest for Wednesday in a long period, yet prices in most instances are no more than steady. An exception was seen in bulls, which were strong to 25c higher, while prime veal calves were advanced 25c, the better lots selling at \$14.25@14.75. Stockers and feeders were slow, with few received, and prices were mostly nominal at previous quotations. The better class of heavy beef steers are selling on a basis of \$19@19.75, with fair to fancy yearlings at \$13.50@19. The bulk of the steers go at \$14@17, with sales down to \$7@11.50 for inferior little steers, largely on the canning order. Medium grade steers sell at \$15.50 and upward and any good steers carrying much weight sell at \$17 and over. The fat butchering cows and heifers sell at \$6.90@14.50, canning cows and cutters at \$5.50@6.75 and bulls at \$6.75@12. Stockers and feeders were quotable at \$8@14.50, but few sales take place above 13.

Hogs. Receipts for three days amount to 131,250 hogs, comparing with 136,928 for the first half of last week. The Wednesday run is estimated at 25,000 hogs, and close to 49,400 were left over unsold last night. The fixing of the February price at \$17.50 had a strengthening influence, and prices were firmer, with a \$17.75 early top, an

advance of five cents. Common hogs were bad sellers, rough heavy packers selling at \$16.50@16.75, but pigs sold much higher, buyers paying \$13.50@14.50, according to weight. Any good hogs sold above \$17.

Prices are booming under the small supplies, only about 40,950 head having been received during the first half of the week, comparing with 61,165 for the same time last week. With receipts today of only about 7,000 head, much of the trading was at advances of as much as 25c.

BUFFALO.

Cattle.

Receipts five cars; the market is slow; prime heavy steers \$17@18; best shipping steers \$14@15; medium shipping steers \$13@14; best yearlings 950 to 1000 lbs \$16@17; light native yearlings, good quality \$10@11; handy steers and heifers, mixed \$11@11.75; best handy steers \$12@13; western heifers \$13@14; best fat cows \$8.50@9.75; butcher cows \$7@7.75; cutters \$6@7; canners \$5.25@5.75; fancy bulls \$10@10.50; butcher bulls \$8@9; common bulls \$6@7; best feeding steers \$10.50@11; medium feeders \$9@10; stockers \$7@8; light common \$6@7; milkers and springers \$65@150.

Hogs.

Receipts five cars; strong; heavy and yorkers \$17.90@18; pigs at \$15@15.50.

Sheep and Lambs.

Receipts five cars; market is strong; top lambs \$17@17.50; yearlings \$13@14.50; wethers \$11@12; ewes \$10.25@10.50.

Calves.

Market steady. Tops \$17; others \$7@15.



MAYER
HONORBIT
WORK SHOES

They Fit and They Last—

Ask your dealer for Mayer Shoes. Look for the trade-mark on sole.

F. Mayer Boot & Shoe Co.
Milwaukee, Wis.

R. K. TIRES Are Retreaded Tires

Contain twice as much fabric and as much rubber as ordinary new tires—are cemented and double chain stitched together to make them practically puncture-proof. So durable they take to rough, frozen roads with ease—yet their price is about one-half that of a new tire—and they are guaranteed.

The following are the little prices of our guaranteed tires.

Size	Price	Size	Price
30x3	\$ 7.90	34x4	\$12.00
30x3 1-2	8.50	34x4 1-2	13.50
32x3 1-2	9.00	35x4 1-2	14.00
33x4	11.50	36x4 1-2	14.50

Add \$1.00 to the above for Non-Skid Tire
2 percent off for cash with order.
10 percent discount required with all C.O.D. orders

R. K. Tire Company
837 No. Broad St. Philadelphia, Pa.
Send for descriptive booklet and price list.

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If you teach the little one regular bowel movements, you can almost guarantee normal health, and help the child to develop strong resistance to disease. Valuable information about your child is given in a booklet called

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Horse, cattle, fur coats made to order, from horse or cattle hides you furnish. Robes, Rugs, Gloves, Mittens, Ladies' Coats, Sets of Furs. Taxidermist work on Deer Heads, Rugs.

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Reading, Mich.

HOUNDS

COON, FOX, WOLF, RABBIT HOUNDS
PEDIGREED AND ELIGIBLE TO REGISTRY.
Broke dogs sent on ten days' trial. Money back guarantee. Nice lot of puppies from 6 to 9 weeks ready for shipment now. Rabbit season is here. Have you a good dog?

OTIS SLATER & SONS,

Oconee, Ill.



"TIX-TON MIX" with salt the year around keeps flock healthy and free from scours and ticks. Saves you big money—\$1.90 sample box by parcel post will include 1 barrel of salt. Write for club offer booklet on "Nutrition and Care of Sheep."

PARSONS TIX-TON CO., Grand Lodge, Mich.

One Of The Best.

individual bean pickers on the market. Write for catalog. Price \$6.50
THE MILLER CO.

Vassar, Michigan

For Sale in quantities to suit, 2000 sapbuckets, spouts, evaporator pans, gathering tanks, storage tanks, in good condition. 1908 acre ranch five miles from Gaylord, well watered, fenced and buildings. Half or whole. \$6 per acre. Terms, write WALLIS COGSWELL, Gaylord, Mich.

Secretary Reed's Letter to Dairymen

THERE seems to have been, in certain sections of the Detroit area, some misunderstanding in regard to different clauses of the milk producers' application and agreement for membership. Most of these clauses have been, by different individuals, cut out and the agreement mutilated before sending it to this office. Especially is this true of clause seven; some feeling that this clause did not protect the producer against loss.

Inasmuch as you are not making the agreement with the buyer, but with your association, it can be seen that the buyer has little or no advantage as a result of your violating the agreement. Should a dealer attempt to take advantage of you it would arouse all the producers in the Detroit area under the leadership of the association, which would make it unpleasant for that dealer.

Our contracts with the dealer are strong and binding. They claimed we were tying them up too closely, leaving them without opportunity to make needed changes.

Your association has been working to stabilize the business that every man would be protected from undue change. We have gone as far as would warrant in bringing about an understanding between the producer and distributor. We must establish confidence upon which to make a permanent business foundation. Detroit buyers are paying a great tribute to the association because they are willing to abide by our test any time we are able to do the testing. This would increase the work of the secretary's office, yet it may be necessary.

The estimated loss to the New York producers in the last strike was more than \$2,000,000. It is safe to assume an equal loss to the distributors. Here is a loss of \$4,000,000 which is enough to bring a severe shock to even so great a business as the dairy supply of New York city. Besides a lack of confidence has resulted which will continue to be a menace to the New York milk industry.

Success.

Ultimate success must depend upon the united effort throughout Michigan. The Detroit area cannot safely be separated from the up-state production, and we are making an endeavor to bring condensing interests into line, which is being accomplished. The superintendent of a big condensery recently told your secretary that they were willing to cooperate with us. The condensary and the producers of Mt. Pleasant are now swinging into line, having gone farther than others by authorizing the use of a cent and a half for advertising and organizing; this is to be sent to the State Association and then one-half cent be paid back to the local. This factory is now using seventy-five thousand pounds of milk a day.

A great advertising campaign is on. We should take over the testing, enlarge our force, fortify ourselves against the effort to reduce the price of food stuffs before the cost of production is reduced. This can only be done by a united effort.

R. C. REED, Sec'y.

PRESERVING FENCE POSTS.

Could you give me a formula for treating fence posts, as I have a nice lot of red oak, soft maple and cherry. I understand if treated they will last as long as cedar.

Muskegon Co.

O. L. G.

You will find one of the creosote preparations, which can be purchased at hardware stores or lumber yards, the most satisfactory preservative for fence posts.

W. M. K.



PRINCE ALBERT
The national joy smoke

Copyright 1919 by R. J. Reynolds Tobacco Co.

Get going right with a jimmy pipe!

You'll have a streak of smoke luck that'll put a lot of happiness in your life if you'll start in with a jimmy pipe and some Prince Albert tobacco.

You never will get real top notch smoke enjoyment until you can call a pipe your pal, then, to get pipe pleasure at its best you land square on that two-fisted-man-tobacco, Prince Albert!

Quality makes Prince Albert so different, so appealing all along the smoke line. Men who never before could smoke a pipe and men who've smoked pipes for years all testify to the delight it hands out! P. A. meets the universal taste. That's why it's the national joy smoke! And, it can't bite or parch. Both are cut out by our exclusive patented process!

Right now it's time to turn over a new leaf. You take a tip and get out your old jimmy pipe and land on some P. A. for what ails your particular smoke appetite.

You buy Prince Albert everywhere tobacco is sold. Tippy red bags, tidy red tins, handsome pound and half-pound tin humidors—and—that classy, practical pound crystal glass humidor with sponge moistener top that keeps the tobacco in such perfect condition.

R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

Baumgarten's Tested Seeds

Years of experience back of them and in no other business is expert knowledge so necessary. Reduce the high cost of living by having a garden and grow your own vegetables. Whatever is worth growing either in vegetables or flowers are listed in Baumgarten's Catalog. Baumgarten's early Marketeer Tomatoes—best and earliest on earth—fifteen cents a packet.

Send for our 1919 catalog.

IT IS FREE

Chas. M. Baumgarten Seed Co.

310 Third Street

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Mr. POULTRY FARMER:

We make a specialty of White Henery Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henery Whites—We remit same day shipments arrive. Ship Often—Ship by Express

GEO. R. ELDRIDGE CO.

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Remember! We guarantee you satisfaction with every shipment.

Holmes, Stowe Co., 445 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank, Bradstreet, Detroit, Mich. Cad. 2878.

CULOTTA & JULL

Eastern Market, Detroit, Mich.

We need your shipments of Poultry, Veal, Dressed Hogs, Live Roasting Pigs, Eggs, Live Rabbits and Game. Highest prices for live obtained on arrival. We can handle your Potatoes, Onions, Apples, Cabbage and root crops, carlots or less. Your shipments will be appreciated and have our best care and attention, and you don't have to wait for your money. Reference Peninsular State Bank.

HAY Ship To The Old Reliable House
Daniel McCaffrey's Sons,
623-625 Wabash Bldg., Pittsburgh Pa.

Write for our Illustrated Circular
"SHIP EGGS WITHOUT BREAKING"
Tells how to get more for your selected eggs.
DIAMOND BOX MFG. CO., Minneapolis, Minn.

Wanted on dairy farm, practical married man who could later take charge, in satisfactory.
Address Box P-21, Michigan Farmer, Detroit, Mich.

SOY BEANS FOR SEED
500 Bu. at \$3.50 per bu. Wm. Goetz, Foley, Alabama

Seed Grain. New Marquis spring wheat. Early white oats. Barred and beardless barley heavy yielders. Frank Bartlett, Dryden, Mich.

SHEEP

To The Kids of Mich. I have 75 beautiful registered Hampshire and Shropshire ewes that will have lambs this spring. I wish to sell them to you and buy back the ram lambs next fall at a mighty good price. Start now in a small way. Liberty Bonds taken. Write at once for particulars.
ROPEKON FARM, S. L. Wing, Owner.
Kinderhook, Mich.

200 Bred Ewes Choice natives, coming two years, bred to Shrop Rams, in lots to suit.
ALMOND B. CHAPMAN, South Rockwood, Mich.

Shropshire Rams Yearlings and Ram B.D. KELLY & SON, Ypsilanti, Mich.

FOR SALE SHROPSHIRE LAMBS, ewes or rams.
ARMSTRONG BROS. R. 3 Fowlerville, Mich.

OXFORD Down Ram lambs, also a few ewe lambs. Berkshire both sexes. Booking orders for fall pigs. CHASE STOCK FARM, R. 1, Marlette, Mich.

For Sale Registered Oxford Down rams and ewes; can be seen at FAIRVIEW STOCK FARM, Fred Wolfe, Snover, Mich.

WANTED: REG. OXFORD EWES
J. M. HICKS & SONS, R. 2, Williamston, Mich.

GREAT ADVANCE SALE for 1919!!

HARRIS "Ready Cut" Houses

Big Price Reductions



This is a Harris Home No. J. R. 1001 but one of more than a hundred beautiful designs in the new free edition of the Harris Book of Plans. Excellent arrangement, five rooms and a big attic.

Quick action on your part will bring your request for information to us at a time when we are better situated than ever before to impress upon you the time and money saving advantages of the "Harris Way." The great war ending almost as suddenly as it started, will cause a stupendous rush of operations in the building field. Every one will want to be first. The delay will cause them to be even more anxious to see their Harris Home quickly erected and ready for occupancy with the least possible delay. Building Material sources will be taxed to their fullest capacity. So don't delay! Get in touch with us now.

NOW is the Time to Buy

The Harris improved cut-to-fit system gives you the utmost possible in quality, economy and service. You profit directly — immediately by our experience through a quarter century. The "Harris Way" has exclusive merits and special advantages for the careful home builder, possessed by no other method today.

Harris Ready-to-Cut Houses and Farm Supplies—At Big Bargain Prices!

It is the best, safest and most sensible way to build your ideal home right, without wasting a single penny. The material for your home will come to you prepared complete for your use in a way that is instantly and easily understood. You pay for nothing you do not get—only for what is needed to do the work right. Think twice before you pass this opportunity.

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This is a Harris Home No. J. R. 1523, especially designed with care and attention to every requirement for the farm. Seven rooms and bath. Many others in the new free edition of the Harris Book of Plans.

Now Ready! The most complete and beautiful array of modern American Homes ever bound between two covers. More than a hundred desirable plans to choose from. A complete and thorough analysis of home building, with much valuable information. Mail the coupon for your free copy now!

THE GREAT PRICE WRECKERS

NOW is the Time to Buy

Watts No. 4 CORN SHELLERS

\$77¹⁰
Capacity 75 to 125 Bushels Per Hour

All Sizes Now Yours
At Big Cut
Prices!



Mail the Coupon for Our SPECIAL BOOK of THIS Great CORN SHELLER Sale

Watts No. 1 Corn Sheller for the man who shells corn only for his own use. Capacity 50 to 75 bushels per hour with a 3 H. P. engine, now \$38.30. Order No. J. R. 900.

Watts No. 4 Corn Sheller, built for the man who shells for himself and a few neighbors. Cleanly shells 75 to 125 bushels per hour with a 3 H. P. engine. Cleans and loads all the corn. Stacks the cobs, now \$77.70. No. J. R. 901.

Watts No. 7 Corn Sheller with standard equipment including wagon box, grain elevator, cob stacker, type "R" feeder, on steel trucks. Capacity 200 bu. per hour, now \$300.00. Order No. J. R. 903.

Watts No. 8 Double Cylinder Corn Shells for custom work, with standard equipment, wagon box elevator, swivel cob stacker and feeder on steel trucks. Capacity 600 bu. per hour, now \$436.50. Order No. J. R. 905.

Mail the coupon for our special book of this great sale.

CHICAGO HOUSE WRECKING COMPANY

NOW IS THE TIME TO BUY YOUR ROOFING



We Can Ship Your Roofing Promptly — Order NOW!

This is your big chance to buy Prepared Roofing. Steel Roofing and Siding at an unusual saving. But you must act quickly to get your share of these savings. ORDER THESE SNAPS Direct From This "Ad"!

Ajax high grade rubber surfaced roofing; put up 108 sq. ft. to the roll. Complete with nails and cement. No. J. R. 302, 3-ply, per roll \$1.27. 2-ply, per roll \$1.17. 1-ply, per roll \$1.07.

Rawhide stone faced Gold Metal Roofing, guaranteed 15 years. Rolls contain 108 sq. ft., nails and cement included. No. J. R. 303, per roll \$2.20.

Our Famous Rawhide Rubber Roofing, 3-ply, guaranteed for 12 years; a high grade covering. Rolls contain 108 sq. ft., nails and cement included. No. J. R. 304, 3-ply, per roll \$1.64; 2-ply, per roll \$1.44; 1-ply, per roll \$1.20.

10,000 rolls of extra heavy high grade roofing; red or gray slate coated, rock faced, brown pebble coated, double panned, mineral or mica surfaced. No. J. R. 305, per roll of 108 sq. ft., nails and cement included \$1.94.

Corrugated Metal Roofing Sheets!

28 gauge painted 2 1/2 in. corrugated, overhauled siding sheets; 6 1/2 ft. long. No. J. R. 306, per 100 sq. ft. \$2.00.

26 gauge painted 2 1/2 in. corrugated, overhauled roofing sheets. No. J. R. 307, per 100 sq. ft. \$3.00.

24 gauge extra heavy painted, 2 1/2 in. corrugated, overhauled sheets for roofing barns, granaries, etc. No. J. R. 308, per 100 sq. ft. \$3.50.



Bath Room Outfit \$75⁰⁰ Complete



Consists of porcelain enameled 5 ft. bath tub, half circle lavatory size 18x21 inches, and low down closet outfit with golden oak, heavy copper lined tank and syphon wash down vitreous china closet bowl; seat and cover of closet finished to match the tank. The outfit is furnished complete with all nickel-plated fittings above the floor line, bath cock, faucets, supply pipes, etc., ready to install. No. J. R. 1742—Bathroom Outfit, \$75.00. No. J. R. 1743—Bath Tub with fittings, \$35.00. No. J. R. 1744—Half Circle Lavatory with fittings, \$17.50. No. J. R. 1745—Closet Outfit, complete, \$27.00.



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Presto-Up Buildings come to you in convenient interchangeable sections. Quickly erected. No carpenter work. Patent, exclusive features from foundation to roof. Made of best lumber, guaranteed in every way. Mail coupon for complete description of Presto-Up Sectional Garages and Houses.

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the Original, Genuine SHARPLES CREAM SEPARATOR Famous Tubular "A"



Just a limited few of these splendid Cream Separators, the World's Best, now remain for quick buyers at the big reduced prices below. Our first announcement of this great sale brought us thousands of orders from leading farmers and dairymen everywhere.

Your Old Separator Taken in Payment!

We will take your old Separator off your hands and make a liberal allowance for it towards the purchase of your new Sharples. You can pay for your machine under most liberal terms and try it for 30 days at our expense. A double guarantee goes with every Sharples. Mail the coupon for our special Sharples Sale Book or better still, order direct from this "ad."

Look at the BIG SAVINGS!

Prompt shipment assured if you act quick. Note the big savings in our low sale prices below:

Order No.	Size No.	Capacity lbs. per hour	Sale Price	SPECIAL Discount of 3% If Cash Accompanies Order!
J. R. 20	2	400	\$42.50	
J. R. 25	3	600	47.50	
J. R. 40	4	800	55.00	
J. R. 60	6	1000	67.50	
J. R. 90	9	1200	75.00	

HOG TROUGHS

5 ft. long, each \$3.14
In lots of 3 each.....\$3.04
In lots of 6 each.....2.94
Non-tip troughs made of heavy galvanized iron, painted black. Heavy iron base, cross brace and legs. Strongly riveted; in 14 in. wide, 5 ft. long; capacity 20 gals. No. J. R. 514, each \$3.14. In lots of three, each \$2.94. In lots of six, each \$2.94.

New Wire NAILS

100 lb. \$4⁹⁵ KEG
In Stock now. Common, Fence, Casing, Finishing, Box, Flooring, Roofing Nails and Spikes. Sizes from 2 to 60d. Common Nails from 20d to 60d, per 100 lb. keg, \$4.95. Other kinds and sizes proportionately low. 100 kegs mixed at \$3.95 per 100 lbs.

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Our guaranteed House Paint of \$2¹⁷ Gal. best formula, spreads farther, wears longer and costs less than any other paint at such a remarkably low price. White, black and 25 non-fading colors to choose from. No. J. R. 206. Put up in 1 gal. cans, 5 gal. kits, 25 and 60 gal. barrels.

Guaranteed BARN PAINT

Guaranteed quality Barn Paint, a lasting preservative for everything about the farm; six colors. No. J. R. 207, per gal. \$1.30.

Barbed Hog Fencing, 33c Per Rod

Special barbed bottom galvanized fencing. Made of No. 11 top wire and No. 14 intermediate line and stay wires. Stays spread 6 in. apart. J. R. 209, 26 in. per rod 33c. J. R. 210, 32 in. per rod 39c.
Galvanized Wire, 100 lbs. \$3⁵⁰
Galvanized Wire, 8 to 14 gauge at \$3.50 per 100 lbs. and up. Suitable for every farm use, put up in 100 lbs. J. R. 207

INDOOR TOILET



One-Piece Sinks

Size 18x30 inches \$15⁹⁵
Size 20x36 inches \$16²⁵
White Porcelain Enameled one-piece roll rim sink and back; two nickel plated faucets and strainer; lead trap. No. J. R. 6520—20x36 in. \$16.95. No. J. R. 6530—18x30 in. \$15.95.

Stickney Gas Engines \$43 And Up

We are now prepared to make quick delivery of this celebrated high-grade, guaranteed, perfect gasoline engine in sizes ranging from 1 1/4 to 16 horse power. Take advantage of this opportunity to buy these famous Gas Engines at money saving prices.

Write today for special catalog illustrating full line.

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Good Iron Pipe in random lengths, complete with couplings in all sizes are now offered at prices that save money. Suitable for the conveyance of water and all liquids. No. J. R. 204—1 in. per ft. 7c. No. J. R. 205—1 1/2 in. per ft. 9c.

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Complete cobbler outfit consisting of reversible iron stand, last, hammer, knife, sewing awls, hammers, needles, rivets, heel plates, leather and rubber cement, clamp, punch, soldering copper, thread and wax. Order No. J. R. 84.

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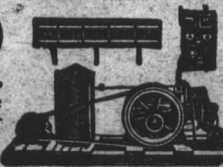
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75 light Rume-ly falk electric light outfit, complete with Willard rubber jar storage batteries, 80 volts. An excellent Lighting Plant for the farm. Guaranteed to give excellent service and satisfaction. A few of these plants from a big purchase some time ago are offered for quick sale at low price. No. J. R. 213.



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