

MICHIGAN FARMER

AND LIVE STOCK JOURNAL.
PUBLISHED WEEKLY. ESTABLISHED 1843.

The Only Weekly Agricultural, Horticultural, and Live Stock Journal in the State.

VOL. CLX, No. 15
Whole Number 4014

DETROIT, MICH., SATURDAY, OCTOBER 12, 1918

\$1.00 A YEAR
\$3.00 FOR 5 YEARS

Marketing Grain Without Gambling On Prices

Canadian Grain Growers Have Done Big Things by Combining to Market Their Grain Crops.--By Earle W. Gage

THERE is more gamble in a bushel of wheat than anything I know of," said a farmer who belongs to one of the cooperative growers' associations, "especially when it goes through the natural channel of trade, where a dozen men decide its destiny and price; men who never did a solitary thing to produce it, and to whom no one, farmer or consumer, owe a profit."

Many think because the government has set a price on wheat that growers are going to get more profit. They are—provided they demand it. But selling wheat at government prices, and receiving all the profit possible, are two different things, as many wheat growers know.

Canadian grain growers have been doing big things through cooperation. They have the world's greatest farmers' cooperative enterprise; the grain growers' Grain Company, of Manitoba, and the Alberta Farmers' Cooperative Elevator Company joined hands after it was foreseen that they could do team work profitably, and formed the most powerful grain exchange, entirely in the hands of the farmers.

The company, now known as the United Grain Growers' Ltd., has more than thirty-five thousand shareholders, assets of \$6,000,000, and a turnover last year of \$100,000,000. It operates nearly four hundred grain elevators, two hundred and fifty flour warehouses, nearly two hundred coal sheds, two terminal elevators, two implement warehouses, and a large timber mill. It also owns a large timber tract which supplies lumber to the company's shareholders and other farmers in Canada. More than one thousand people are employed by this great farmers' concern.

These figures are more impressive when we remember that the idea has been working only eleven years. And

of the fifteen million acres of wheat now in Western Canada, more than two-thirds will come under cooperative control, so that you can see these men have been ironing the wrinkles out of the grain growing business in Canada.

Winnipeg is the greatest primary grain exchange in the world. More than 275,000,000 bushels of wheat are handled each year. Railroads from the great wheat-growing sections connect with the large

elevators. The Grain Dealers' Exchange was the first organization, but in due time the farmers discovered that they were neither receiving freight service nor prices they should. Low prices were paid at country points and there were many complaints of under-

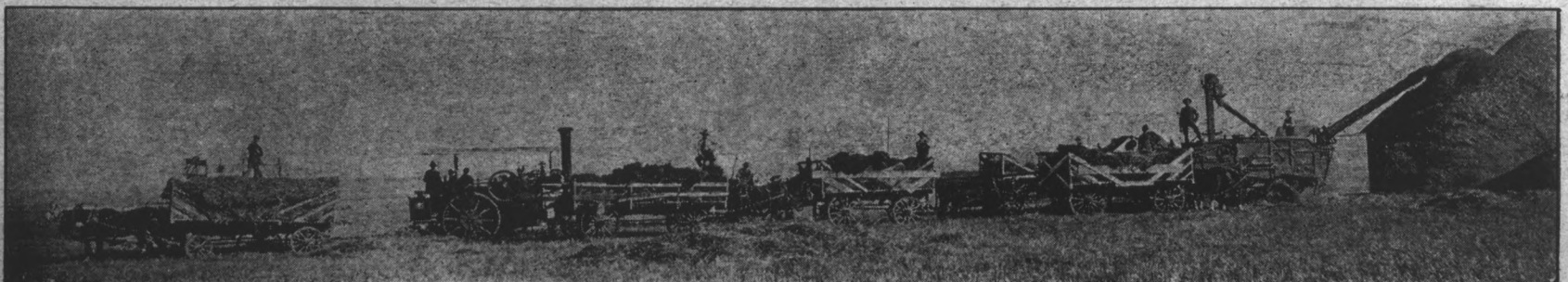
weighing and heavy dockage charges. Abuses grew until the farmers realized that salvation lay in organizing to handle their own products. They successfully organized three associations, in the three wheat-growing provinces.

Local associations were the initial organizations, later joining into large associations, the object being a combined plan of action. They learned how to get together, work together, and then how to stay together. The organization aimed to influence legislation to bring about improvement in marketing, grading, and transportation of grain. Another work was the promotion of advanced and improved methods of grain culture, seed selection, purchase of supplies, and distribution of products.

Up until the joining of hands, the Grain Growers' Company had the greatest success. It was organized with the idea of making a company which should obtain a seat on the Winnipeg Grain Exchange, and act as a commission agent for consignments of grain, either domestic or foreign. It did its first work in 1905 with some forty stockholders. It grew, and the following year a seat in the Grain Exchange was purchased for \$2,500, and a line of credit established by the joint signatures of grain growers. Few things in connection with business farming are more interesting than the starting and growth of this association.

The organization started in debt from the very first, began with leaders without previous experience, but who

One of a Big Chain of Elevators Operated by the Grain Growers of the Great Northwest.



At Threshing Time the Ears of the Crop Reporters Are Turned Toward the Great Wheat Fields of the Canadian Northwest.

(Continued on page 327).

The Michigan Farmer

Published Weekly Established 1843 Copyright 1918

The Lawrence Publishing Co.

Editors and Proprietors

39 to 45 Congress St. West, Detroit, Michigan
TELEPHONE MAIN 4525.NEW YORK OFFICE—381 Fourth Ave.
CHICAGO OFFICE—111 W. Washington Street.
CLEVELAND OFFICE—1011-1015 Oregon Ave., N.E.
PHILADELPHIA OFFICE—261-263 South Third St.M. J. LAWRENCE..... President
F. H. NANCE..... Vice-President
P. T. LAWRENCE..... Treas.
J. F. CUNNINGHAM..... Secy.I. R. WATERBURY..... Associate Editors
BURT WERMUTH.....
FRANK A. WILKEN.....
ALTA LAWSON LITTELL.....
LEROY W. SNELL.....
W. MILTON KELLY.....

I. R. WATERBURY..... Business Manager

TERMS OF SUBSCRIPTION:

One Year, 52 issues.....\$1.00
Two Years, 104 issues.....\$1.50
Three Years, 156 issues.....\$2.00
Five Years, 260 issues.....\$3.00
All sent postpaid.
Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

45 cents per line agate type measurement, or \$6.30 per inch (14 agate lines per inch) per insertion. No advt. inserted for less than \$1.35 each insertion. No objectionable advertisements inserted at any price.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at Detroit, Michigan, Under the Act of March 3, 1879

VOLUME CLI.

NUMBER FIFTEEN

DETROIT, OCTOBER 12, 1918



CURRENT COMMENT

Germany's Peace Note

AS we go to press the world is anxiously awaiting President Wilson's reply to Germany's first direct and formal bid for peace. But the people of our own and allied countries appear to be united in the opinion that Germany's offer to make the President's announced peace program the basis for negotiations falls far short of the unqualified acceptance of that program as a basis for peace, to which Germany must undoubtedly come before peace may follow.

The German note was transmitted to the President through the medium of the Swiss government. It asks the President to take in hand the restoration of peace, to acquaint all of the belligerent states with the request and invite them to send plenipotentiaries for the purpose of opening negotiations. It accepts on the part of the German government the program set forth by President Wilson in his message to Congress on January 8 and in his later pronouncements, especially his speech of September 27, as a basis for peace negotiations, and asks for the immediate conclusion of an armistice.

In general discussion of the text of the German note as given through the press reports, two ideas have been strongly voiced. One generally expressed thought is that by means of inaugurating peace talk Germany may be sparring for time until winter brings relief to her battered armies, and another commonly expressed thought is that the peace note, coming at this time in the midst of our Fourth Liberty Loan, may have been aimed at its success by giving the people of America the idea that the war is practically over and that their continued financial support is unnecessary.

These very commonly expressed opinions indicate that the people of America have fully absorbed the idea that Germany is not to be trusted, and that a lasting peace brought about by

negotiation with the German government is not possible of attainment. What the official answer to Germany's appeal may be cannot, of course, be forecast, but it is a safe conclusion that there will be no thought of a peace, the terms of which shall in any way be dictated by the German government, or which does not insure the lasting peace and the full measure of justice and human liberty to every people for which we are fighting.

Past events make it certain that the official reply will be made as promptly as diplomatic usage permits, and as clearly as the English language can be made to express our government's position. In the meantime, the answer of loyal Americans will have been written on applications for Liberty Bonds to an amount which will forever convince official Germany that "peace offensives" directed against the American people are wasted effort.

Selling the Wheat

AN official statement was recently issued by the Food Administration assuring farmers that there is no need whatever of selling wheat at less than the guaranteed price. The text of this statement follows:

"Reports reach the Food Administration that some farmers are selling their wheat at less than the guaranteed price because of the railway embargoes placed in parts of the country against wheat shipment. While the elevators are temporarily overstocked because seaboard movement has not kept pace with internal movement, this condition should be improved during the next thirty or sixty days. No farmer who will have patience until the situation improves need sell below the guaranteed price, for the government will buy all wheat as fast as it can be moved."

Obviously, all of the country's wheat crop cannot be moved at once. Under normal conditions a heavy movement such as taxed the elevator and transportation facilities of the country would have demoralized the wheat market. While there is a natural inclination on the part of farmers to cash in on the wheat crop because of the fixed price, those who are in a position to hold their wheat for a few weeks will be able to market it in a less busy period, which will be some compensation. Certainly no farmer should sell his wheat to any profiteering miller or elevator man below the guaranteed price less a reasonable handling charge and the cost of transportation to the nearest official receiving point.

Anticipate Equipment Needs

REPORTS from a number of manufacturers of agricultural implements indicate that dealers are not stocking up liberally with equipment for the late fall and early spring trade. The personal experience of many farmers who have undertaken to buy needed farm equipment from local implement dealers supports this theory. This being the case, it is more than ever necessary for farmers to anticipate their equipment needs and place orders for same as far in advance of their actual needs as possible.

Farm implement manufacturers, in common with other manufacturers, have been cut in their allotment of materials, particularly steel, due to the urgency of war needs. This means that if the dealers of any section do not buy heavily enough to satisfy the needs of the farmers of their communities, it will be impossible to secure needed equipment on short notice. For this reason, it is the part of wisdom for every farmer to make a survey of his next year's implement needs and place his orders at the earliest possible date, to the end that they may be covered by orders with manufacturers, otherwise it may be impossible to secure equipment for next year's use when it is needed.

Criticizing the Farmer

THE other day the writer, while on a train, overheard a conversation touching upon the farmer's profits. One man declared that the farmers are making a big thing out of this war. "Why," he said, "Look at the price of wheat. A few years ago wheat was selling at eighty to ninety cents per bushel and even less, and now producers are getting \$2.00."

His companion was a man who had thought more about this problem than he had. He remarked, "The present price of wheat was fixed by a committee appointed by our government. That committee represented consumers and producers and transportation men, in fact, all classes of citizens, and as near as they could they based the present price of wheat upon cost of production and a decent profit to the farmer. Now, it seems to me that no fairer method could be devised for determining what the farmers should get for their wheat. I am convinced that many of us criticize the farmer unjustly because we do not know how much it costs to produce crops. We must admit that the farmer is entitled to what it costs him to produce the crop, and a fair profit."

This argument satisfied the fault finder; he hadn't looked at it in that way. It had not occurred to him that the farmer should figure on cost plus a profit, like various manufacturing industries, but most people are inclined to be fair and they are willing that everybody should get proper remuneration for their services and investment so usually these criticisms of the farmer come from a misunderstanding on the part of the consumer. The critics don't understand conditions. And the farmer is largely to blame for it because he never has endeavored to place facts before the consumer showing what it costs to produce various crops in different years.

This conversation between these two consumers is an illustration of what could be done in a large way by a national chamber of agriculture. Determining the cost of production for one individual farmer is better than nothing. To get the average for one county is better still. To get an average for the whole state is fine. But in order to get properly before the high court of public opinion, as Professor Rood says, we must have average cost for the whole country, and when this is ascertained there will be but little chance for consumers to criticize the price which the producer gets.

Milk Producers of Michigan

A Message from Field Secretary R. C. Reed

IN Washington right now there is a continuous hearing going on with the Food Administration upon the price to be paid for butter and butterfat for the next six months or year ahead. This will be followed upon other milk products. The manufacturers and dealers are interested, organized and on the job to look after their interests. They are protected by sure profits fixed by the government.

Our representatives at the seat of government, who have been struggling for a price that will give the farmers at least the cost of milk and butterfat, feel the need of a general organization of milk producers over the entire country.

Stop and Think!

Stop and think why, in the last year, you have come from ten to forty per cent nearer a price that equals the cost of production than ever before.

Think why the broad-minded men of the nation are asserting that, as a result of our organized movement, you have received in the last year at least ten dollars increased income from each cow you own.

Think that men, like Hon. Milo D. Campbell, President of the National Milk Producers' Federation, down to the officer of your local, have been working to give you this profit and your business a respectable standing in the eyes of the world.

Then think again—now think hard, you up-state milk producers. Just think how much you have done in the last years for your own business along the only line that can work out a profit: namely, the organized movement. How much have you put into this? I would be ashamed to lay bare before the world the facts and figures of the financial support that the seven thousand up-state members have given the Michigan Milk Producers' Organization for the last year. Had it not been for the support of the Detroit area, the state organization could not have existed two months, and yet the advanced price on your milk has been determined largely by the Detroit Milk Commission establishing the price of milk for Detroit.

For days before the convening of this Commission the office of your secretary was besieged by up-state milk manufacturers to know what the findings of the Detroit Commission would be, and when this finding was made

known the up-state price of the manufacturing plants was largely controlled by it. So your price is fixed largely by the Detroit Commission, which was created by the Michigan Milk Producers' Association; which has had the sanction of the governor of the state and the broad-minded men who are interested in the stabilizing of this great industry.

The Detroit market is today the backbone of the Michigan milk market, and you are getting the benefit. Think this out and see what you owe to the organized movement.

I know of one place today, outside of Michigan, where there is no Milk Producers' Association, and where milk is under contract until January 1, 1919, for \$2.00 per hundred pounds.

A Call to Arms.

Now is the time for all loyal members to come to the aid of their association. If you will be counted with those who are striving for a legitimate basis for your business, then be with us at the annual meeting at the State Capitol, Representative Hall, Lansing, October 22, at 11:00 a. m. Every local is entitled to four delegates. Be sure to have a good representation. We are proud to present the following program:

11:00 a. m., call to order.
Address, "Past, Present and Future of the Milk Producers' Association," President N. P. Hull.
11:30 a. m., Appointment of committee on nominations, resolutions.
12:00 m., Dinner.
1:00 p. m. sharp, report of auditors, report of treasurer, report of secretary.
1:30 p. m., "The Milk Producers' Association: what it has done for you; what you should do for it," Prof. A. C. Anderson.
2:00 p. m., "Michigan's Share and Influence in the National Milk Producers' Campaign," Hon. Milo D. Campbell, President National Milk Producers' Association.
2:30 p. m., "The Relation of the Government to the Organized Dairy Industry," Ex-Gov. Fred M. Warner.
2:50 p. m., "How Can the Up-state Milk Producers be Brought to Understand their Benefit From, and Obligation to, the Organized Movement?"
Five-minute talks, M. L. Moon, Jackson; W. H. Keddy, Fenton; Robert C. Blank, Maple Rapids.
3:15 p. m., "How Can we Put the Dairy Industry on a Permanent and Profitable Basis?" Hon. D. D. Aitken, President National Holstein-Friesian Association.
3:45 p. m., report of committee on resolutions, nominations. Election of officers.

CORPORATION FARMING

THERE are in Michigan numerous instances of large farming operations carried on from different motives; some to gratify the innate desire to subdue the earth and make it bring forth its products, others to apply some ideas of live stock growing, establish an American estate or be a country gentleman.

Near Alger, in Arenac county, there is an unique undertaking by a corporation of shareholders of moderate means to solve at least three problems; first, to be assured of their own food supply; second, a safe and profitable investment, and third, to participate in the world's great patriotic service.

The location of the farm was well chosen for there was a sufficient area under cultivation to allow the corporation to do a considerable job of farming at once, and still a large area to bring under cultivation, which will increase in value so that the farm can pay modest dividends and have a surplus in the increased valuation of the farm. To have purchased a farm in the older sections of the state this increasing increment would not have been an asset. Under the old agricultural regime much of the gain of agriculture came in that way so that the owner, when he retired, had an asset which did not seem real to him when operating his farm.

Can a large farm, managed as a corporation does other business, be made to pay? This is a fair question to ask, especially when many large farms have failed non-resident owners. The answer would seem to be that with modern machinery agriculture has been taken out of the hand-labor industries, and can be made to conform to the operation of similar industries in capital investment. By hand-labor industries one means that the small farm, inadequately equipped, where the labor is personal, with the crude machinery it corresponds more nearly to the shoe shining parlor or barber shop, when these are compared to the investment and employment of a fully equipped farm with modern power and

It Produces Food and Provides Safe Investment for Surplus Capital.

By JAMES N. McBRIDE



A Field of Potatoes on Farm of Cleveland Community Company.

machinery. The present and prospective range of farm prices would also seem to be an assurance of productive production. Much of agriculture in the years past has not been productive in the sense of adequate pay and to leave a margin for improvement and continuance. It is the introduction of the business type of farm corporation which will aid the individual farmers in price matters. The large farm will raise the level to that of the higher plane of production, and the ability of the larger farm to determine price grades and distribution will be most healthy to all engaged in agriculture.

Carl Robinson is the manager of the Cleveland Community Farm Company, and was put into the service late in the spring. Splendid crops of oats and barley have been harvested, and the photograph of the large potato field speaks for its area and careful cultivation. It is planned to send the potatoes to Cleveland and distribute

directly to the stockholders and consumers. The bean crop can be handled in the same way. It is a healthy economic sentiment that interests the actual consumer with the problems of food production. The future plans that may be worked out would include a midget mill in the elevator, where the grains could be milled into flour or breakfast food, a creamery where dairy products could be made ready for the city consumer, and the by-products converted into finished pork products. A canning plant is also under consideration for, in addition to the ordinary farm-grown crops for canning there is usually a large huckleberry crop to the north of this place which would be available at a good profit.

The meetings of the neighborhood people at this farm are events of importance. It is broader than most agricultural meetings for it is inclusive, without membership or creed. What will benefit the whole agricultural sec-

tion is the general scope of discussion. There are light refreshments and the yard is filled with farmers of the country adjoining.

Heretofore the ability to get prompt threshing of the grain crop in that section has been a disheartening one. The Community Farms Company have brought in a small unit grain separator operated with tractor power. This outfit is easily transported, gets into action at once, and has a reasonable capacity. It was easy to thresh one bushel of barley per minute. The grain crop in this section of Arenac county is a fair average with other portions of the state. Fields of oats, barley, and spring wheat were being harvested that would yield very high. The Marquis variety of spring wheat seems most promising. There is a difference of opinion as to whether this has been an ideal season for spring wheat. There was little or no rust development, but rather too little moisture for best crop making.

In different sections the idea of a farm under central management is an engaging one. In the southern states under the slave labor system, this was well worked out. In Mexico, under peonage, it is also a feature. American democracy can now apply the idea clothed in separate form, where the interest is to serve all, is getting a good start at the Community Farm Company.

There are so many opportunities that it would seem that development will follow with success. The sheep industry could be made a feature with summer range on the cheaper lands away from the present holdings, and use the roughage on the farm for winter feeding. There is also under consideration the development of a large apiary, for bees do well in this section.

The work of building a farm is slower than most persons realize, but every day there is being added increased values and betterments, which are a part of the work. The Community Farms Company deserves and will achieve success.

Dust, Bacteria, Bad Odors and Flavors

DUST, bacteria, bad odors and flavors are four wastes so big that today the dairy interests are dealing with them as live issues, taking steps for their elimination on every farm; and already much prevention work has been accomplished on the better class of dairy farms.

In every business where food is handled dust means direct lowering of quality, if not actual spoiling. Dustlessness pays. Cleanliness is next to profits. Dust inside a dairy barn or milk house often indicates faulty construction. When the trouble is studied, and when the cause is corrected the problem of reducing the amount of sediment and bacteria in milk will be partially solved. The president of one of the big city milk companies recently said to the writer: "We place more stress upon the sediment test than upon the bacteria count, because if milk is comparatively free of sediment the number of bacteria, as a rule, will not be excessive." In a broad way the ceiling of the side walls and overhead of the dairy stable and milk house with lath and plaster or matched material will lead to the production of cleaner milk. Bacteria are closely related to dust when it comes to producing sanitary milk, and the same care in stable and milk house construction produces as pleasant results. It is still impossible to produce a germless milk—a few dust particles and bacteria enter the milk in such mysterious ways that there will always be more

Handling the Milk and Methods of Feeding Determine the Healthiness and Flavor

or less trouble from such sources, but careful stable management has reduced the amount of dust and number of bacteria to such an extent that the milk produced on many farms is a pure and healthful food. As the dairy farmer understands that this sort of thing pays the incentive to abolish dust and bacteria becomes very direct and practical.

A few dairy farmers have become interested in the fact that dust and bacteria are injurious to the health of

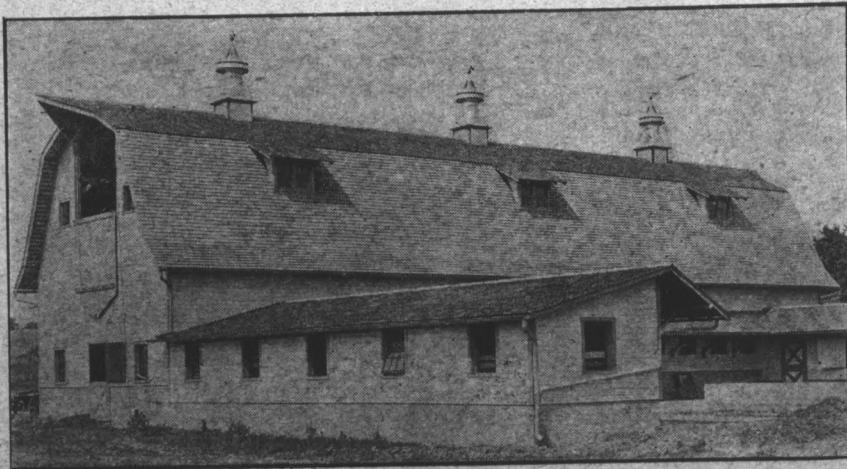
their cattle. Many preventative measures were introduced. In a little while it was found that the cows produced better milk, more of it and that the men were better-tempered through the day and less tired at night. Dust and bacteria in the dairy barn often indicate something out of balance. When the trouble is studied and the cause is corrected the cows will produce better milk, more of it, remain healthy and need less food than is the case when they are confined in a stable, and ex-

posed to bacteria laden dust and dirt.

Even in the most carefully constructed stables care must be exercised in feeding, cleaning the stables, bedding the cattle and preventing too free circulation of the air in the stable and milk house. Hay and roughage should not be fed until after milking time and it is better to change the bedding material during the middle of the day so that the dust will settle before milking time. If milking machines are used care should be taken not to allow the teat cups to hang close to the floor where the suction will draw dust into them and deposit it in the milk.

Healthy cows secrete healthy milk. Bacteria get into the milk after it is drawn from the cow or in the process of milking. The cow is not the guilty party. Milk does not come from the cow entirely free from bacteria, because it is impossible to keep the teats of the cow sterile; however, we can keep them clean and reduce contamination from this source. The ducts of the teats and the body temperature of the cow afford ideal conditions for the bacteria to multiply and, the best we can do, the lower ducts of the teats will contain considerable numbers of bacteria. By using the first few jets of milk to wash out the ducts, the milk that goes into the pail will be practically free from bacteria. If proper care is taken at this stage of production, the few bacteria which get into the milk from this source are of but

(Continued on page 340).



Clean Barns Are Essential to the Production of Clean Milk.

The Michigan Farmer

Published Weekly Established 1843 Copyright 1918

The Lawrence Publishing Co.

Editors and Proprietors

39 to 45 Congress St. West, Detroit, Michigan
TELEPHONE MAIN 4525.

NEW YORK OFFICE—381 Fourth Ave.
CHICAGO OFFICE—111 W. Washington Street.
CLEVELAND OFFICE—1011-1015 Oregon Ave., N.E.
PHILADELPHIA OFFICE—261-263 South Third St.

M. J. LAWRENCE..... President
F. H. NANCE..... Vice-President
P. T. LAWRENCE..... Treas.
J. F. CUNNINGHAM..... Secy.

I. R. WATERBURY..... Associate Editors
BURT WERMUTH.....
FRANK A. WILKEN.....
ALTA LAWSON LITTELL.....
LEROY W. SNELL.....
W. MILTON KELLY.....

I. R. WATERBURY..... Business Manager

TERMS OF SUBSCRIPTION:

One Year, 52 issues.....\$1.00
Two Years, 104 issues.....\$1.50
Three Years, 156 issues.....\$2.00
Five Years, 260 issues.....\$3.00
All sent postpaid.
Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

45 cents per line agate type measurement, or \$6.30 per inch (14 agate lines per inch) per insertion. No advt inserted for less than \$1.35 each insertion. No objectionable advertisements inserted at any price.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at Detroit, Michigan, Under the Act of March 3, 1879

VOLUME CLI.

NUMBER FIFTEEN

DETROIT, OCTOBER 12, 1918



CURRENT COMMENT

Germany's Peace Note

AS we go to press the world is anxiously awaiting President Wilson's reply to Germany's first direct and formal bid for peace. But the people of our own and allied countries appear to be united in the opinion that Germany's offer to make the President's announced peace program the basis for negotiations falls far short of the unqualified acceptance of that program as a basis for peace, to which Germany must undoubtedly come before peace may follow.

The German note was transmitted to the President through the medium of the Swiss government. It asks the President to take in hand the restoration of peace, to acquaint all of the belligerent states with the request and invite them to send plenipotentiaries for the purpose of opening negotiations. It accepts on the part of the German government the program set forth by President Wilson in his message to Congress on January 8 and in his later pronouncements, especially his speech of September 27, as a basis for peace negotiations, and asks for the immediate conclusion of an armistice.

In general discussion of the text of the German note as given through the press reports, two ideas have been strongly voiced. One generally expressed thought is that by means of inaugurating peace talk Germany may be sparring for time until winter brings relief to her battered armies, and another commonly expressed thought is that the peace note, coming at this time in the midst of our Fourth Liberty Loan, may have been aimed at its success by giving the people of America the idea that the war is practically over and that their continued financial support is unnecessary.

These very commonly expressed opinions indicate that the people of America have fully absorbed the idea that Germany is not to be trusted, and that a lasting peace brought about by

negotiation with the German government is not possible of attainment. What the official answer to Germany's appeal may be cannot, of course, be forecast, but it is a safe conclusion that there will be no thought of a peace, the terms of which shall in any way be dictated by the German government, or which does not insure the lasting peace and the full measure of justice and human liberty to every people for which we are fighting.

Past events make it certain that the official reply will be made as promptly as diplomatic usage permits, and as clearly as the English language can be made to express our government's position. In the meantime, the answer of loyal Americans will have been written on applications for Liberty Bonds to an amount which will forever convince official Germany that "peace offensives" directed against the American people are wasted effort.

Selling the Wheat

AN official statement was recently issued by the Food Administration assuring farmers that there is no need whatever of selling wheat at less than the guaranteed price. The text of this statement follows:

"Reports reach the Food Administration that some farmers are selling their wheat at less than the guaranteed price because of the railway embargoes placed in parts of the country against wheat shipment. While the elevators are temporarily overstocked because seaboard movement has not kept pace with internal movement, this condition should be improved during the next thirty or sixty days. No farmer who will have patience until the situation improves need sell below the guaranteed price, for the government will buy all wheat as fast as it can be moved."

Obviously, all of the country's wheat crop cannot be moved at once. Under normal conditions a heavy movement such as taxed the elevator and transportation facilities of the country would have demoralized the wheat market. While there is a natural inclination on the part of farmers to cash in on the wheat crop because of the fixed price, those who are in a position to hold their wheat for a few weeks will be able to market it in a less busy period, which will be some compensation. Certainly no farmer should sell his wheat to any profiteering miller or elevator man below the guaranteed price less a reasonable handling charge and the cost of transportation to the nearest official receiving point.

Anticipate Equipment Needs

REPORTS from a number of manufacturers of agricultural implements indicate that dealers are not stocking up liberally with equipment for the late fall and early spring trade. The personal experience of many farmers who have undertaken to buy needed farm equipment from local implement dealers supports this theory. This being the case, it is more than ever necessary for farmers to anticipate their equipment needs and place orders for same as far in advance of their actual needs as possible.

Farm implement manufacturers, in common with other manufacturers, have been cut in their allotment of materials, particularly steel, due to the urgency of war needs. This means that if the dealers of any section do not buy heavily enough to satisfy the needs of the farmers of their communities, it will be impossible to secure needed equipment on short notice. For this reason, it is the part of wisdom for every farmer to make a survey of his next year's implement needs and place his orders at the earliest possible date, to the end that they may be covered by orders with manufacturers, otherwise it may be impossible to secure equipment for next year's use when it is needed.

Criticizing the Farmer

THE other day the writer, while on a train, overheard a conversation touching upon the farmer's profits. One man declared that the farmers are making a big thing out of this war. "Why," he said, "Look at the price of wheat. A few years ago wheat was selling at eighty to ninety cents per bushel and even less, and now producers are getting \$2.00."

His companion was a man who had thought more about this problem than he had. He remarked, "The present price of wheat was fixed by a committee appointed by our government. That committee represented consumers and producers and transportation men, in fact, all classes of citizens, and as near as they could they based the present price of wheat upon cost of production and a decent profit to the farmer. Now, it seems to me that no fairer method could be devised for determining what the farmers should get for their wheat. I am convinced that many of us criticize the farmer unjustly because we do not know how much it costs to produce crops. We must admit that the farmer is entitled to what it costs him to produce the crop, and a fair profit."

This argument satisfied the fault finder; he hadn't looked at it in that way. It had not occurred to him that the farmer should figure on cost plus a profit, like various manufacturing industries, but most people are inclined to be fair and they are willing that everybody should get proper remuneration for their services and investment so usually these criticisms of the farmer come from a misunderstanding on the part of the consumer. The critics don't understand conditions. And the farmer is largely to blame for it because he never has endeavored to place facts before the consumer showing what it costs to produce various crops in different years.

This conversation between these two consumers is an illustration of what could be done in a large way by a national chamber of agriculture. Determining the cost of production for one individual farmer is better than nothing. To get the average for one county is better still. To get an average for the whole state is fine. But in order to get properly before the high court of public opinion, as Professor Rood says, we must have average cost for the whole country, and when this is ascertained there will be but little chance for consumers to criticize the price which the producer gets.

Milk Producers of Michigan

A Message from Field Secretary R. C. Reed

IN Washington right now there is a continuous hearing going on with the Food Administration upon the price to be paid for butter and butterfat for the next six months or year ahead. This will be followed upon other milk products. The manufacturers and dealers are interested, organized and on the job to look after their interests. They are protected by sure profits fixed by the government.

Our representatives at the seat of government, who have been struggling for a price that will give the farmers at least the cost of milk and butterfat, feel the need of a general organization of milk producers over the entire country.

Stop and Think!

Stop and think why, in the last year, you have come from ten to forty per cent nearer a price that equals the cost of production than ever before.

Think why the broad-minded men of the nation are asserting that, as a result of our organized movement, you have received in the last year at least ten dollars increased income from each cow you own.

Think that men, like Hon. Milo D. Campbell, President of the National Milk Producers' Federation, down to the officer of your local, have been working to give you this profit and your business a respectable standing in the eyes of the world.

Then think again—now think hard, you up-state milk producers. Just think how much you have done in the last years for your own business along the only line that can work out a profit: namely, the organized movement. How much have you put into this? I would be ashamed to lay bare before the world the facts and figures of the financial support that the seven thousand up-state members have given the Michigan Milk Producers' Organization for the last year. Had it not been for the support of the Detroit area, the state organization could not have existed two months, and yet the advanced price on your milk has been determined largely by the Detroit Milk Commission establishing the price of milk for Detroit.

For days before the convening of this Commission the office of your secretary was besieged by up-state milk manufacturers to know what the findings of the Detroit Commission would be, and when this finding was made

known the up-state price of the manufacturing plants was largely controlled by it. So your price is fixed largely by the Detroit Commission, which was created by the Michigan Milk Producers' Association; which has had the sanction of the governor of the state and the broad-minded men who are interested in the stabilizing of this great industry.

The Detroit market is today the backbone of the Michigan milk market, and you are getting the benefit. Think this out and see what you owe to the organized movement.

I know of one place today, outside of Michigan, where there is no Milk Producers' Association, and where milk is under contract until January 1, 1919, for \$2.00 per hundred pounds.

A Call to Arms.

Now is the time for all loyal members to come to the aid of their association. If you will be counted with those who are striving for a legitimate basis for your business, then be with us at the annual meeting at the State Capitol, Representative Hall, Lansing, October 22, at 11:00 a. m. Every local is entitled to four delegates. Be sure to have a good representation. We are proud to present the following program:

11:00 a. m., call to order.
Address, "Past, Present and Future of the Milk Producers' Association," President N. P. Hull.
11:30 a. m., Appointment of committee on nominations, resolutions.
12:00 m., Dinner.
1:00 p. m. sharp, report of auditors, report of treasurer, report of secretary.
1:30 p. m., "The Milk Producers' Association: what it has done for you; what you should do for it," Prof. A. C. Anderson.
2:00 p. m., "Michigan's Share and Influence in the National Milk Producers' Campaign," Hon. Milo D. Campbell, President National Milk Producers' Association.
2:30 p. m., "The Relation of the Government to the Organized Dairy Industry," Ex-Gov. Fred M. Warner.
2:50 p. m., "How Can the Up-state Milk Producers be Brought to Understand their Benefit From, and Obligation to, the Organized Movement?"
Five-minute talks, M. L. Moon, Jackson; W. H. Keddy, Fenton; Robert C. Blank, Maple Rapids.
3:15 p. m., "How Can we Put the Dairy Industry on a Permanent and Profitable Basis?" Hon. D. D. Aitken, President National Holstein-Friesian Association.
3:45 p. m., report of committee on resolutions, nominations. Election of officers.

CORPORATION FARMING

THERE are in Michigan numerous instances of large farming operations carried on from different motives; some to gratify the innate desire to subdue the earth and make it bring forth its products, others to apply some ideas of live stock growing, establish an American estate or be a country gentleman.

Near Alger, in Arenac county, there is an unique undertaking by a corporation of shareholders of moderate means to solve at least three problems; first, to be assured of their own food supply; second, a safe and profitable investment, and third, to participate in the world's great patriotic service.

The location of the farm was well chosen for there was a sufficient area under cultivation to allow the corporation to do a considerable job of farming at once, and still a large area to bring under cultivation, which will increase in value so that the farm can pay modest dividends and have a surplus in the increased valuation of the farm. To have purchased a farm in the older sections of the state this increasing increment would not have been an asset. Under the old agricultural regime much of the gain of agriculture came in that way so that the owner, when he retired, had an asset which did not seem real to him when operating his farm.

Can a large farm, managed as a corporation does other business, be made to pay? This is a fair question to ask, especially when many large farms have failed non-resident owners. The answer would seem to be that with modern machinery agriculture has been taken out of the hand-labor industries, and can be made to conform to the operation of similar industries in capital investment. By hand-labor industries one means that the small farm, inadequately equipped, where the labor is personal, with the crude machinery it corresponds more nearly to the shoe shining parlor or barber shop, when these are compared to the investment and employment of a fully equipped farm with modern power and

It Produces Food and Provides Safe Investment for Surplus Capital.

By JAMES N. McBRIDE



A Field of Potatoes on Farm of Cleveland Community Company.

machinery. The present and prospective range of farm prices would also seem to be an assurance of productive production. Much of agriculture in the years past has not been productive in the sense of adequate pay and to leave a margin for improvement and continuance. It is the introduction of the business type of farm corporation which will aid the individual farmers in price matters. The large farm will raise the level to that of the higher plane of production, and the ability of the larger farm to determine price grades and distribution will be most healthy to all engaged in agriculture.

Carl Robinson is the manager of the Cleveland Community Farm Company, and was put into the service late in the spring. Splendid crops of oats and barley have been harvested, and the photograph of the large potato field speaks for its area and careful cultivation. It is planned to send the potatoes to Cleveland and distribute

directly to the stockholders and consumers. The bean crop can be handled in the same way. It is a healthy economic sentiment that interests the actual consumer with the problems of food production. The future plans that may be worked out would include a midget mill in the elevator, where the grains could be milled into flour or breakfast food, a creamery where dairy products could be made ready for the city consumer, and the by-products converted into finished pork products. A canning plant is also under consideration for, in addition to the ordinary farm-grown crops for canning there is usually a large huckleberry crop to the north of this place which would be available at a good profit.

The meetings of the neighborhood people at this farm are events of importance. It is broader than most agricultural meetings for it is inclusive, without membership or creed. What will benefit the whole agricultural sec-

tion is the general scope of discussion. There are light refreshments and the yard is filled with farmers of the country adjoining.

Heretofore the ability to get prompt threshing of the grain crop in that section has been a disheartening one. The Community Farms Company have brought in a small unit grain separator operated with tractor power. This outfit is easily transported, gets into action at once, and has a reasonable capacity. It was easy to thresh one bushel of barley per minute. The grain crop in this section of Arenac county is a fair average with other portions of the state. Fields of oats, barley, and spring wheat were being harvested that would yield very high. The Marquis variety of spring wheat seems most promising. There is a difference of opinion as to whether this has been an ideal season for spring wheat. There was little or no rust development, but rather too little moisture for best crop making.

In different sections the idea of a farm under central management is an engaging one. In the southern states under the slave labor system, this was well worked out. In Mexico, under peonage, it is also a feature. American democracy can now apply the idea clothed in separate form, where the interest is to serve all, is getting a good start at the Community Farm Company.

There are so many opportunities that it would seem that development will follow with success. The sheep industry could be made a feature with summer range on the cheaper lands away from the present holdings, and use the roughage on the farm for winter feeding. There is also under consideration the development of a large apiary, for bees do well in this section.

The work of building a farm is slower than most persons realize, but every day there is being added increased values and betterments, which are a part of the work. The Community Farms Company deserves and will achieve success.

Dust, Bacteria, Bad Odors and Flavors

DUST, bacteria, bad odors and flavors are four wastes so big that today the dairy interests are dealing with them as live issues, taking steps for their elimination on every farm; and already much prevention work has been accomplished on the better class of dairy farms.

In every business where food is handled dust means direct lowering of quality, if not actual spoiling. Dustlessness pays. Cleanliness is next to profits. Dust inside a dairy barn or milk house often indicates faulty construction. When the trouble is studied, and when the cause is corrected the problem of reducing the amount of sediment and bacteria in milk will be partially solved. The president of one of the big city milk companies recently said to the writer: "We place more stress upon the sediment test than upon the bacteria count, because if milk is comparatively free of sediment the number of bacteria, as a rule, will not be excessive." In a broad way the ceiling of the side walls and overhead of the dairy stable and milk house with lath and plaster or matched material will lead to the production of cleaner milk. Bacteria are closely related to dust when it comes to producing sanitary milk, and the same care in stable and milk house construction produces as pleasant results. It is still impossible to produce a germless milk—a few dust particles and bacteria enter the milk in such mysterious ways that there will always be more

Handling the Milk and Methods of Feeding Determine the Healthiness and Flavor

or less trouble from such sources, but careful stable management has reduced the amount of dust and number of bacteria to such an extent that the milk produced on many farms is a pure and healthful food. As the dairy farmer understands that this sort of thing pays the incentive to abolish dust and bacteria becomes very direct and practical.

A few dairy farmers have become interested in the fact that dust and bacteria are injurious to the health of

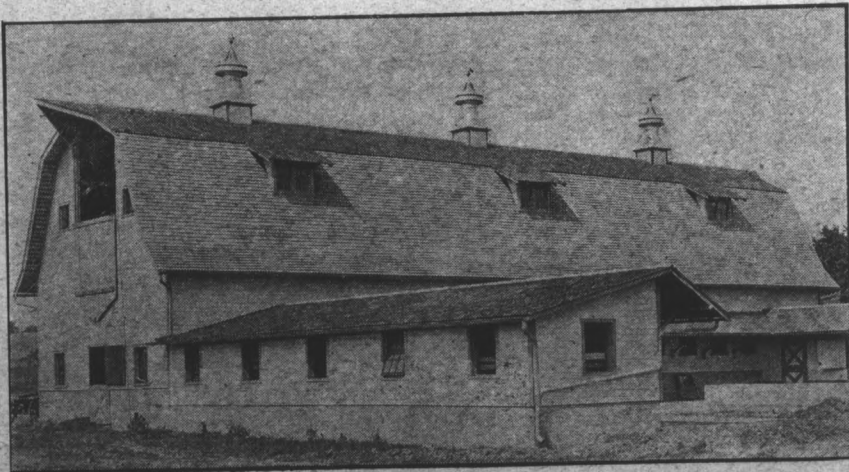
their cattle. Many preventative measures were introduced. In a little while it was found that the cows produced better milk, more of it and that the men were better-tempered through the day and less tired at night. Dust and bacteria in the dairy barn often indicate something out of balance. When the trouble is studied and the cause is corrected the cows will produce better milk, more of it, remain healthy and need less food than is the case when they are confined in a stable, and ex-

posed to bacteria laden dust and dirt.

Even in the most carefully constructed stables care must be exercised in feeding, cleaning the stables, bedding the cattle and preventing too free circulation of the air in the stable and milk house. Hay and roughage should not be fed until after milking time and it is better to change the bedding material during the middle of the day so that the dust will settle before milking time. If milking machines are used care should be taken not to allow the teat cups to hang close to the floor where the suction will draw dust into them and deposit it in the milk.

Healthy cows secrete healthy milk. Bacteria get into the milk after it is drawn from the cow or in the process of milking. The cow is not the guilty party. Milk does not come from the cow entirely free from bacteria, because it is impossible to keep the teats of the cow sterile; however, we can keep them clean and reduce contamination from this source. The ducts of the teats and the body temperature of the cow afford ideal conditions for the bacteria to multiply and, the best we can do, the lower ducts of the teats will contain considerable numbers of bacteria. By using the first few jets of milk to wash out the ducts, the milk that goes into the pail will be practically free from bacteria. If proper care is taken at this stage of production, the few bacteria which get into the milk from this source are of but

(Continued on page 340).



Clean Barns Are Essential to the Production of Clean Milk.

"It certainly
is handy, when you
can use the whole top
of your range,
and not heat your oven!"



THE Hot-All-Over Top is a patented device, found only on the JOY ECLIPSE range, which forces the flames to pass under all six lids before escaping. You save time in preparing meals; save fuel by keeping the flames from being sucked out the chimney too soon, and can have a comfortable kitchen in summer.

ECLIPSE

Write us for name of the Eclipse dealer near you. Ask him about our cast-iron range—wears a life-time; guaranteed never to rust out; always looks well; gives perfect satisfaction. He will gladly show you the Eclipse Adjustable Damper, by which you can control the oven temperature.

Send for large, free, illustrated booklet showing Eclipse ranges and heaters. It will help you choose the right stove for your requirements. Write today.

THE ECLIPSE STOVE CO.
MANSFIELD, OHIO

R. K. TIRES FOR HARD WORK

You can't give an R. K. Tire too much work—for the harder the work the easier it does it. Double tread, double chain stitched, guaranteed for 100 percent service—yet a price saving that gives you two tires at the cost of one!

The following are the little prices of our guaranteed tires.

Size	Price	Size	Price
30x3	\$ 7.00	36x4	12.50
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
34x4	12.00	37x4 1-2	15.00

Add \$1.00 to the above for Non-Skid Tire
2 percent off for cash with order.
10 percent deposit required with all C.O.D. orders

R. K. Tire Company

837 No. Broad St. Philadelphia, Pa.

Send for descriptive booklet and price list.

It Pays to Save Lambs

for 10¢ each
Tix-Ton Drench Balls
for Lambs & Sheep
Kills Stomach WORMS

Write for Club Offer and Booklet on Care and Breed. of Sheep or send \$1.00 for a ten sheep trial package. By Parcel Post.

Parsons Tix-Ton Co. Michigan



IT IS the necessity of cutting labor costs and releasing men for the front that makes the tractor a present necessity.



is an old acquaintance of war-time conditions. As sire of a worthy son, the British Battle Tank, it knows the grudging warrant of rough ground; but lingers on—majestic, resolute.

The BULLOCK CREEPING GRIP TRACTOR promises to do more and better work than three men and six horses on any farm. We only ask that you encourage it to make this promise good.

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.
BULLOCK TRACTOR COMPANY
1818 Diversey Parkway
Chicago, U.S.A.

Clover Seed and Peas

Use care in selecting a fair sample—send to us and we will make you a good bid either cleaned or in the dirt. We have cull beans for sale.
W. L. IRELAND & CO., Grand Ledge, Mich.

For Sale. New Moline Universal Tractor, model C, with plows and full equipment, will sell right, cash or part stock, owner having to leave farm.
E. P. JOHNSTON, Milan, Mich.

Growing and Marketing the Potato Crop--By C. B. FORD

THE man who grows potatoes as a complement to general farming must study the business phases of the undertaking, keep production charges low and find the best markets for his crop. To make profits he must produce cheaply and sell wisely. The cost of production and methods of selling will depend upon varying conditions. There are, nevertheless, a few fundamental rules which apply roughly to all farms where the crop can be grown successfully. Though the methods must be adapted to the farm and local conditions one cannot go far wrong in adhering to certain general principles.

First grow good potatoes; second, grow an acreage sufficient to do all the work with machinery; third, try and interest other men in the business. Quality is an important factor in marketing the potato crop. If one can grow ten acres each year it will justify the use of a good planter, sprayer and digger. In order to compete successfully with the commercial growers all of the work must be done with machinery. When ten or twelve men are interested in potato growing, economies can be introduced in the purchase of seed, fertilizer, machinery, spraying materials and in making shipments to distant markets.

Marketing economies are a big factor in determining the profits from potato growing. The usual low price of potatoes per bushel and the bulk of the crop makes it necessary to make up profitable shipments. Cheap transportation by water has made it possible for many distant localities to put potatoes on the large eastern markets at a very low price. During the average season one can buy potatoes much cheaper in New York, Philadelphia and Baltimore than in Chicago and St. Louis. Early potatoes from Bermuda, Florida and Virginia are shipped by water to many eastern cities. The growers of Colorado and other irrigated sections cannot put their potatoes on eastern markets at a profit; they must depend upon the markets within profitable shipping distance from their localities. Hence, the area which will be grown in these localities must be restricted for some years to come. The cost of transportation and distribution of the potato crop is sufficient reason why farmers within easy shipping distance to large cities should grow potatoes. In many instances the local growers have an advantage of more than ten cents per bushel over the distant growers.

In many localities better prices may be obtained for the early crop than for the late crop. In the interior cities of the northern, eastern and central states early potatoes bring remunerative prices. The crop gets to market ahead of those from the irrigated districts and northern states. The growers along the Atlantic coast, because of the almost prohibitive freight rates, cannot compete successfully with the home-grown crop. This is a phase of

potato growing that is worthy of special study among farmers in these states.

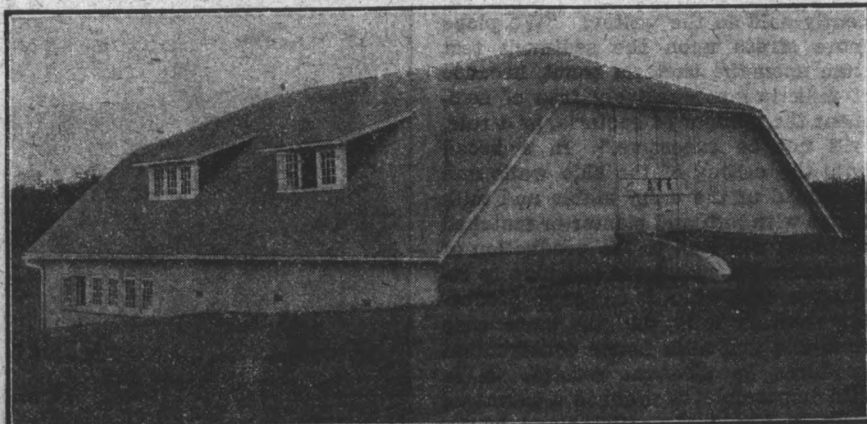
The early crop is usually fit to harvest and market at a time when other farm crops do not demand attention. Besides, the proceeds from a few hundred bushels of early potatoes are a mighty welcome addition to the working capital of most farmers at this particular time of the year. Another advantage of growing early potatoes is the fact that the crop is not so apt to blight as the late crop. Farmers who have a few acres of sandy or gravelly land can put it to no more profitable use than getting it in condition to grow large crops of early potatoes.

The work of harvesting a large crop of potatoes should not be undertaken without a good mechanical digger. The modern machine has a shovel point that runs under the row of potatoes and lifts up and places them on an elevator, which separates the soil from the tubers and sifts them onto the ground, the tubers and vines falling behind the machine on top of the loose soil. These machines cost from \$100 to \$130, and it requires three or four horses to keep them working at maximum efficiency. Some manufacturers claim their machines have very light draft, but the very nature of the work, especially if the ground is heavy, demands plenty of horsepower. Four or five acres a day can be harvested with a good machine and eight or ten pickers. The use of the digger makes it possible to prepare a good seed-bed for the wheat or rye crop without plowing the ground. In many cases where a digger has been used spring grains give better yields than is the case on ground that is plowed in the spring and hastily seeded.

In some potato growing localities growers hire a gang of Italian or Polish women to pick up the potatoes after the digger. These growers pay about two cents per bushel to their hands and find it an easy way to rush the work and get their potatoes into storage. As a rule all of the potatoes are picked up at the same time. If the crop goes direct to market the sorting is done on tables placed at convenient spots in the field. The bushel basket is the handiest thing for handling the crop from the field to the sorting tables or storage house, but the bushel crate is better for hauling to the car or market. It is easy to load and unload and the potatoes are not injured by rubbing against each other.

It is always best to dig potatoes when the ground is dry; they come out cleaner and will keep better in storage. This is not always possible, for when the season is crowding along it is good policy to keep the work moving and give the potatoes an opportunity to dry off as much as possible before picking them up. Never allow them to lie exposed to the sun long enough to become green, or the quality will be ruined. Potatoes should be handled

Continued on page 326.)



The Owner of this Cellar Can Market His Crop During The Winter.

The Apple with the Flavor

By H. S. FISHER

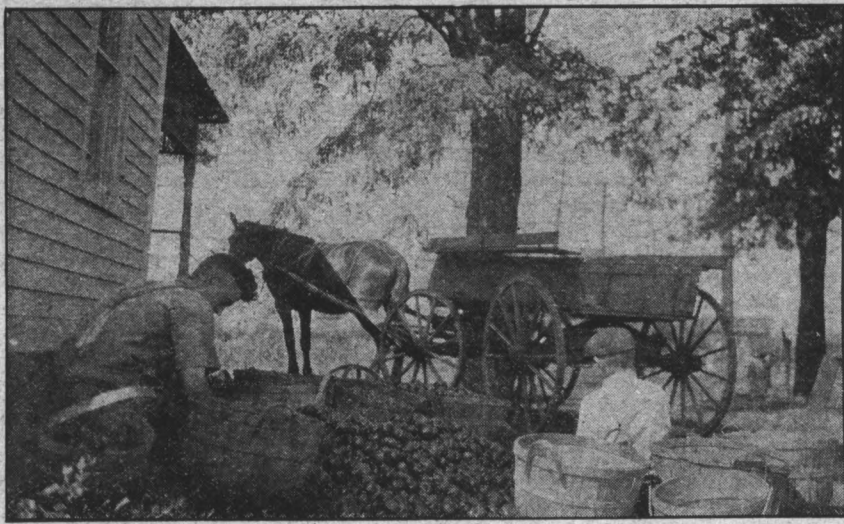
WHEN will the east come into its own? Never in the history of American fruit production has there been such an opportunity for the eastern fruit grower—the man who can produce the "Apple with the Flavor." The people are tired of the highly colored, but tasteless fruit from the Pacific Northwest. They have begun to discover that the eastern apple is so far superior as to remove it from the ignominy of a comparison with the coarse-grained, flavorless apple from Washington or Oregon. The markets of the United States are turning to the East for fruit grown more slowly and naturally on heavier soils, without irrigation—the fruit that has texture and flavor.

But why in the past have people so

east over the west lies in the difference in cost of transportation. The Hood River or Yakima Valley grower is two thousand miles from the markets he attempts to reach. It costs him sixty cents a box or \$1.80 per bbl. of three boxes to get his fruit to the Chicago market. Icing charges of seventy-cents for three boxes must be added to this. Stated in another way, the western orchardist must receive \$660 a carload in order to break even. These are the facts that confront the west.

Listen to the Opportunities of the East.

In Michigan, for instance, fine, gravelly, and rolling lands—ideal for orchard planting—may be purchased at from \$25 to \$100 per acre. Irrigation



The Eastern Grower Must Pack Perfect Apples Uniformly and Honestly.

eagerly bought the western apple? Standardization is the answer. The western apple has been scrupulously graded and honestly packed. The buyer knew what he was getting and was willing to pay the price for it, although he could get fruit of doubtful quality for much less in the east. Hood River apples were accepted on the markets everywhere without inspection, because the buyer does not take the gambler's chance he must assume whenever he buys an unlabeled barrel of Spys or Baldwins from Michigan or New York.

The eastern grower has labored under the hallucination that he could "fool all the people all the time." He has grown his apples unscientifically, harvested them carelessly, and packed wormy and under-sized fruit in his barrel, finishing off with the deceitful choice layer beneath the barrel top. He has chuckled at his cunning—and accepted a price which has hardly paid him the cost of production.

The western grower, on the other hand, realized at once the handicap of isolation and distance from markets that he must overcome. Under the spur of necessity, then, he has developed a standardized pack that has made the eastern orchardist sit up and take notice, and has given a new aspect to the industry.

But they of the west are playing a losing game. They have barely made expenses during the past five years. In the Wenatchee Valley, for instance, eighty per cent of the orchard property is mortgaged at interest rates of from eight to twelve. Their overhead expenses are too high. Land was purchased at inflated "boom" prices, often in excess of \$1,000 per acre for newly planted orchards. Raw land was sold for \$250 to \$300 an acre. Irrigation systems had to be installed at a cost of \$125 to \$200 additional, making a total first cost of \$375 to \$700 per acre. The west is now suffering the inevitable reaction from its earlier boom, and a sound basis for the fruit-growing industry there is still in the future.

But the greatest advantage of the

is unnecessary, the average annual rainfall being thirty-two inches. Thus, in the first cost of land the Michigan grower can beat the Wenatchee orchardist by \$350 to \$600 per acre, or by 300 to 500 per cent.

Freight to Chicago costs the Michigan man twenty-six to thirty cents per barrel, and icing is unnecessary because of the nearness to market. Here again, the difference of \$1.50 per barrel is in his favor. He can sell a carload of apples for \$300 and break even. This difference in transportation costs of \$360 a carload represents in itself a substantial profit for the apple grower of the east.

This is not a situation peculiar only to Michigan, however. There are as good or better opportunities throughout Ohio, Indiana, Illinois, Pennsylvania, New York, and New England. Probably seventy per cent of the nation's population reside in these states. The eastern grower's market lies right at his door, and opportunity is knocking at it. The advantages of the east as a region in which to grow apples are overwhelming. It is the natural place to produce the "fruit with the flavor," for which the public now is clamoring.

How to Meet the Situation.

First, he must grow his apples more scientifically. He must prune and spray more thoroughly, and learn the practice of thinning to secure fruit of greater size. He must get away from the idea that he can give his attention to other crops of the farm and let the apples take care of themselves, with perhaps a half-hearted attempt or two at spraying. Apple growing of the future must be a specialized business given highly specialized and scientific attention. Nature has done her best by producing in the east an apple of superior flavor and finer texture. It is up to the grower, then, to see that they are sizeable and free from blemishes of controllable insects and diseases.

And finally, the eastern grower must pack uniformly and honestly. His pack must be one of perfect apples—all



Takes the Place of the Men Who Are Gone

YOU are already short of man-power. The help problem is getting worse, not better. Make use of the Mechanical Farm Hand—buy an inexpensive LAY Porta Power (an implement for utilizing the power of your automobile to obtain belt power for running your farm implements) and you have power wherever you want and need it. You can take it all over your farm—to the woodlot, the barn, the wagon-shed, in the fields; with it you, your sons, wife and daughters can greatly increase your farm's efficiency. It delivers at least 8 H. P. from any automobile, to any mill, sheller, press, elevator, saw, pump, milker, separator, cutter on your farm.

LAY Porta Power

Cheapest Belt Power on Earth

You can save \$150 to \$300 on a gas engine by buying a LAY Porta Power. Takes its power at the rear wheels of auto. Hundreds of farmers write enthusiastically about its wonderful records. Needed for feed-grinding and fuel-cutting this winter.

Money-Back Bond Guarantee

And, for your mill, buy the LAY Porta Mill. Notice (see illustration) that it is portable, so that it can be wheeled wherever you want to do some grinding. It is specially designed to run with LAY Porta Power, is a rapid worker, and is guaranteed. It is the simplest, best constructed mill ever made.

L. A. Young Industries, Inc.

Detroit, Michigan

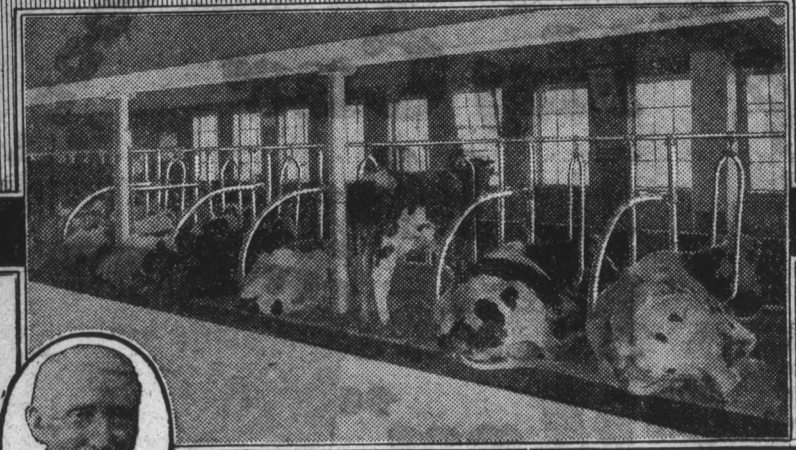
Grace Motors, Inc.

Canadian Distributors
Toronto, Ont. Canada

Send full particulars about LAY Porta Power.
Name _____
Address _____
State _____
L. A. YOUNG INDUSTRIES, Inc.,
2150 Russell St., Dept. 24, Detroit Mich.

LOUDEN

STALLS and STANCHIONS



WM. LOUDEN
Originator of Modern
Labor Saving Barn
Equipment

Standing or Lying Down Cows Are Always Comfortable

That is one of the distinctive, practical advantages of Loudon Stalls and Stanchions—the secret of increased milk yield wherever they are installed.

Louden Stalls and Stanchions combine in a superior degree all the essentials of comfort, safety, cleanliness, and convenience—they are noted for their simple construction, easy installation, durability and great strength. Note the smooth, graceful tubular steel construction and freedom from all trouble-making parts.

Besides being the strongest and most comfortable cow tie made, the Loudon Swinging Stanchion is the only one which permits the use of

The Loudon High Built-Up Feed-Saving Curb

without inconvenience to the cow. It prevents cows from nosing feed out of the mangers onto the stall floor—saves many a dollar's worth of high priced feed in the course of a year which would otherwise be wasted with the ordinary low level curb. Now, when every ounce of feed is needed, the Loudon High Built-Up Feed-Saving Curb is a real necessity.

With Loudon Stalls and Stanchions and other Barn Equipment you can actually save one-half your barn work every day in the year—for years to come.

You can install Loudon Stalls and Stanchions yourself in your present barn, just as it stands, at moderate cost, and will find it a paying investment even if you have but a few cows.

Large Loudon Catalog Shows You How to Save Labor

Its 224 pages with many fine illustrations show the full Loudon Line of Labor-Saving Barn Equipment: Stalls and Stanchions, Litter and Feed Carriers, Animal Pens, Hay Unloading Tools, Power Hoists, Barn and Garage Door Hangers, Sanitary Water Bowls, Cupolas, Ventilators—Everything for the Barn. Sent postpaid, no charge.

Our Barn Building Experts can save you time, trouble and money if you contemplate building a barn. Loudon Barn Plan Book—112 pages of valuable information on every phase of barn-building, sent postpaid on request—no obligation.

The Loudon Machinery Company

1906 Court St. (Established 1867) Fairfield, Iowa
Branches: St. Paul, Minn., Albany, N. Y., Chicago, Ill.

through; and it must be graded to standard sizes. It must be labeled for what it is. Having produced such a pack, the grower will no longer hesitate to stamp his name and orchard trade-mark upon the package; and to add to its attractiveness by wrapping and using catchy labels that give the consumer a "hankerin'" that must be satisfied with a box or barrel of "The Apples with the Flavor."

That this can all be done has been most forcibly demonstrated by energetic growers throughout the apple-growing regions of the east. Two hundred to three hundred dollars an acre net profit has been of common occurrence, while there are hundreds of progressive orchardists who are aver-

aging much better than this. One orchard, for example, belonging to Mr. J. A. Stokes, near Sandusky, Ohio, and reported in Ohio Circular No. 112, has averaged an annual net profit, after deducting all growing and marketing costs, of \$400 to \$500 an acre. In western Michigan, Oregon methods have been applied, and boxed apples have been sold on the Detroit market at prices higher than those of apples from the "Golden West."

The opportunity is in the East! Now! And when once the eastern grower sets out in earnest to grow "The Apple with the Flavor," the west will be hopelessly outstripped, and the east will come into its own in the apple markets of the country.

Growing and Marketing Potatoes

(Continued from page 324).

carefully to prevent breaking the skins and bruising. Unless the days are cool it will pay to let the potatoes stand one or two days in a cool place before putting them in the cellar or storage house. If they are put in the cellar the windows should be left open until the weather becomes quite cool.

If an early frost checks the growth of the crop early in the fall it will be best to sell the potatoes as quickly as possible. The tubers will begin to shrink in weight if put into storage for any length of time. Taken one year with another the grower will come out dollars ahead if he can sell his crop for eighty cents a bushel from the field at digging time. It saves labor and risk in holding the crop for higher prices. Experienced potato growers figure that eighty cents per bushel at harvest time is as good as a dollar and ten cents from the cellar or storage house during January or February.

The potato grower should have plenty of storage room. For the farmer engaged in potato growing as a side line, or money crop, the large house cellar is, perhaps, the most economical and efficient kind of storage. Many will protest against using the house cellar to store fruit and vegetables and point out doleful stories of disease epidemics caused by decaying fruit and vegetables, but it is not to be expected that the progressive potato grower is going to allow his crop to rot in the cellar and the fumes to come up through the floors in the house. In the northern states the storage house should be a cellar of some kind. The tubers should be placed in bins six feet wide and as long as necessary, and the tubers piled from five to six feet deep in them. Care must be taken to see that the tubers are dry when they are put into storage, also to keep them cool.

As a general proposition it pays to get the crop out of the cellar during January and February. From harvesting time to about the middle of February potatoes may be kept at a relatively small shrinkage if they have been stored in proper condition. After this time they shrink rapidly and prices must be advancing to make it pay to take chances playing the market game. As soon as the sprouts grow the loss of weight increases rapidly, so that the man who waits for the usual advance in the spring market is busy sprouting his last year's crop and hauling it to market at the time when the prudent grower is getting ready for his next crop.

The farmer who has good storage facilities and plenty of time to look after the marketing end of the business during the winter can frequently make good profits supplying customers in nearby cities and villages. By selling direct to the family trade and putting up good potatoes one can frequently get from ten to twenty cents per bushel above the market prices. Many commercial growers who live nearby the markets operate trucks and sell several thousand bushels every year to hotels, restaurants and grocery stores

and deliver them at any time when wanted. Hotel and restaurant owners are becoming critical in their demands for quality and uniformity of type in potatoes for serving in their dining-rooms. By grading the potatoes to meet their demands many progressive growers are finding it possible to sell the potatoes at advanced prices. The hotel and restaurant trade calls for white potatoes, of medium size—from six to ten ounces—and oblong, round, of uniform appearance, shallow eyes, dry and floury when ready to serve, and with a flavor that pleases an epicure. Such potatoes look better on the table; medium size prevents waste; and oblong round bakes better, and smooth, shallow-eyed potatoes save waste and labor.

A leading dealer recently said: "The market is never so dull that good potatoes cannot be sold at fair prices. Last week a Minnesota grower consigned four cars of the choicest stock that we have received this year. In just two hours after inspecting the cars, by the use of the telephone, we had disposed of the four cars at six cents above the market for choice potatoes. We could have sold ten more cars of the same quality stock at equally as satisfactory prices. And this was at a time when the market was liberally stocked, and the buyers holding back on account of the crop rotting in storage. If you could see some of the stuff that comes into the market you would wonder why intelligent men would persist in paying freight on some of the stuff they ship. This cull stuff pulls down the grade of the whole carload or shipment, besides the cost of shipping the waste is charged against the grower. It is absurd to think that an otherwise intelligent man would mix varieties, disregard color and perfection in size and shape and ship such low grade stuff to distant markets where the freight charges amount to almost one-half of the prices for the potatoes. Yet this is the very thing that many growers are doing and these are the ones who are doing the most writing and talking about dishonest commission men and dealers. Fortunately, there are growers who are showing the way to better methods and higher prices. They plant just the type of potato the market prefers, and sort and ship the better grades. Moreover these careful men are getting busy and trying to improve conditions in general. It is a pleasure to do business with such progressive growers, either individually or through one of their shipping associations."

One must watch the market and keep track of the crop yield and movement through the different trade journals. He must also make due allowance for local conditions. If prices begin to reach a certain level in his district it may be a good time to sell before growers in other localities begin to ship in stock. The man who has a farm in a section where potatoes are imported can play the market game to good advantage. He can sell his

(Continued on page 343.)

Get the ORIGINAL

"An Imitation
—be it Ever
so Good—
is Still an
Imitation."

When you invest in a manure spreader you are buying an implement that ought to be the most profitable machine on your farm. It will be, if you profit by the experience of others and choose the machine that has stood the test of time. Buy the original, the machine which revolutionized old-fashioned methods, which has always been the leader in quality, in sales and in improvements. This machine is the

NEW IDEA

Registered U.S. Pat. Off.

Lowdown, light draft. Loads and pulls without undue strain on man or team. Has solid bottom with chain conveyors. Pulverizes thoroughly and spreads evenly. 5 to 7 ft. wide. Spreads from 3 to 15 loads per acre, at your option, by merely shifting a lever. Drives with heavy sprocket chain—no gears.

We have found your Spreader to be most satisfactory. The light team, weighing only about 2000, handles it on practically all the farms. The evenness and strength of the growth after top-dressing with your machine, shows it is a tool no farmer can afford to be without if he wants results. J. H. McCLUER.

Two years ago I bought one of your spreaders, last year I got a second one. A good Manure Spreader is one of the best paying tools a man can have on a farm. We spread lime as well as manure with our NEW IDEA Spreaders. Would not think of running my farms without them. A. S. WELCH.

I have used your NEW IDEA Spreader for five years. Am so well pleased with the work it does, that I would not have any other. Has cost me only 30¢ for repairs and that was caused by my own neglect. P. I. WORTHINGTON.

Original letters on file. Addresses upon request.

See the "New Idea" at your dealer's. Don't wait for him to see you as he is probably short of help. Insist on the "New Idea," and don't buy regrets by taking some other machine. If you don't know who sells the "New Idea," write us and we will give you his name. Get our Book—"Helping Mother Nature," which gives much new information about manure and soil fertility. (2)

The NEW IDEA Spreader Co.
SPREADER SPECIALISTS. COLDWATER, OHIO



When writing to advertisers please mention the Michigan Farmer.

Marketing Grain Without Gambling on Prices

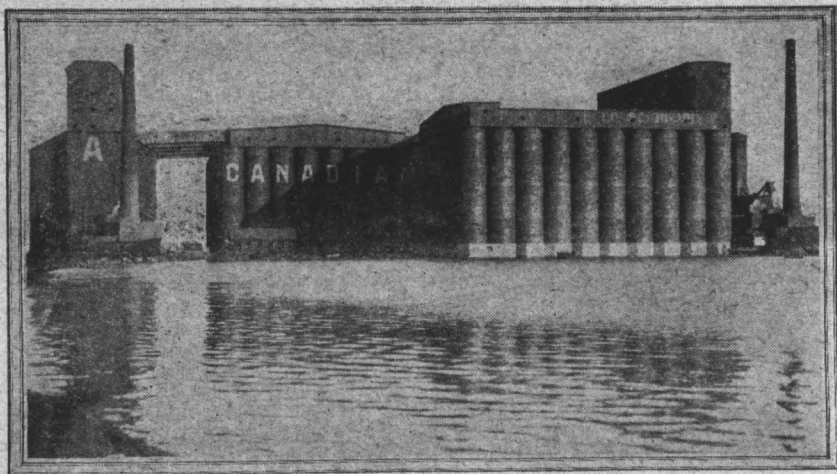
(Continued from first page).

more money to save an organization that gave every evidence of not operating another day.

And the Winnipeg Grain Exchange, controlled by grain dealers, did not do much to make the grain growers joyous. It was strictly opposed to farmers' organizations. A month after the Grain Growers' Exchange started, a circular was issued, declaring their plan to pay what they termed a "patronage dividend." What they meant was that they would pay a fair rate of dividend to shareholders, and distribute surplus profits to growers in proportion to the amount of grain shipped by the grower. The Exchange objected, advising that it was against

The growers appreciate that the life of the great grain industry depends entirely upon cooperative effort and they have never cashed their checks for their first dividend, but have them framed and hung in their parlors, and proudly point to them to all visitors, as a monument to the faith of a band of farmers, who built a great and profitable industry upon their faith in each other.

A powerful reserve fund was built up, which gives the farmers' cooperative company added power throughout the nation. The money taken from the earnings has enabled the company to enter into various activities, such as providing coal, lumber, and other sup-



The Largest Elevator in the World, Port Arthur, Ontario.

plies; buying fruit for members as well as operating grain elevators. In these activities the farmers were able to succeed, whereas other interests failed. The members appreciated that the success of their business depended upon holding together.

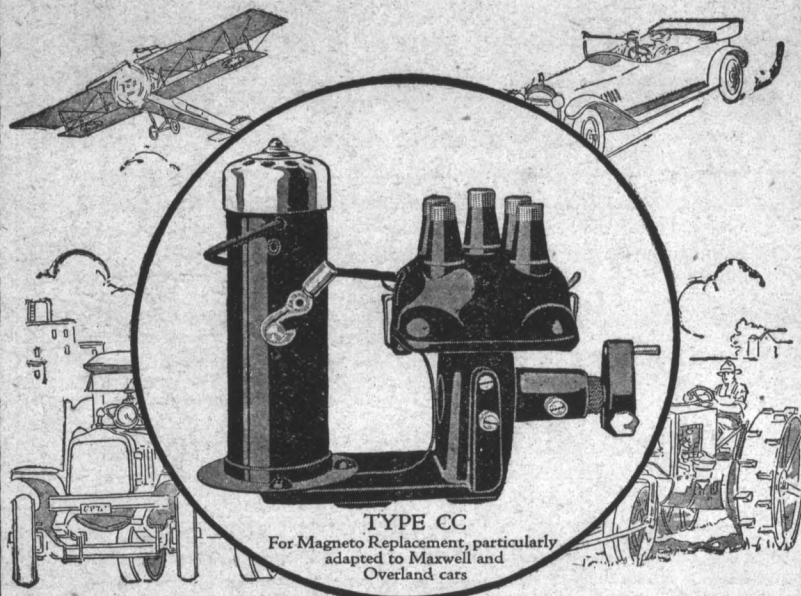
Before many months the Winnipeg Grain Exchange became alarmed at its lessened business and at the increased surplus of the Grain Growers' Exchange, every dollar of which represented the cash that the dealers had pocketed at the expense of the grain grower. In 1909 the Winnipeg dealers suspended operations on the commission basis. The cooperative organization transacts its business as a regular commission merchant for its members, except that all profits are returned to the farmers. It charges one cent per bushel on consigned wheat. The plan of the Grain Exchange was to put this new company out of business. Therefore, the Exchange offered to handle wheat at one-half a cent a bushel, calculating that the farmers would fall over each other in chasing a half-cent instead of sticking together. But these men were the regular kind. They were pioneer settlers, who had faced rascals, and could see a little further than a copper cent.

When approached with the offer to sell out their organization, the farmers promptly refused. They told the agents if they could do business at such a rate now, they must have been robbing them deliberately in former years, when they charged more. The dealers became discouraged, and disbanded, leaving the growers to enjoy prosperity unmolested.

The Grain Growers' Company started in 1906 with \$25,000 subscribed, and \$5,000 paid capital. In 1909 the capital subscribed was \$188,950, while in 1911 it was \$615,000, and at the opening of the war this had grown to \$1,060,925, of which \$771,409 had been paid in. Dividends and earned commission totaled nearly a quarter of a million dollars for the same year, all of which would have gone into the till of the middlemen without cooperative effort in force.

A blessing in disguise was the failure to pay dividends as intended. If it had carried out its original plan, the Grain Growers' Company would no doubt have paid out all of its profits as dividends without building up a much needed reserve fund. At first the profits were generously divided. The first year there was a seven per cent dividend; the second year forty per cent, and the third year thirty per cent, and so on. While the original subscribers to the company paid in cash only \$7.50 for shares, these are today valued at about \$30 each. At the end of the third season, dividends paid were equal to the original amount paid for shares. Without cooperative effort, all these dividends would have gone with an increased amount into the hands of the middlemen and the growers would have been under the thumb of men who did not care about the future production of the wheat belt, save as it increased profits.

ATWATER KENT SCIENTIFIC IGNITION

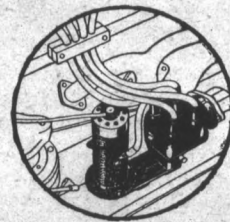


ON the farm, in the air, on the water, on the crowded thoroughfares of the nation, you will find Atwater Kent Scientific Ignition doing its part.

Its big, hot, perfectly synchronized spark at all motor speeds assures better motor performance wherever used.

It facilitates starting, saves gas, increases motor power and is so unfailing in performance and simple in construction as to rarely need attention.

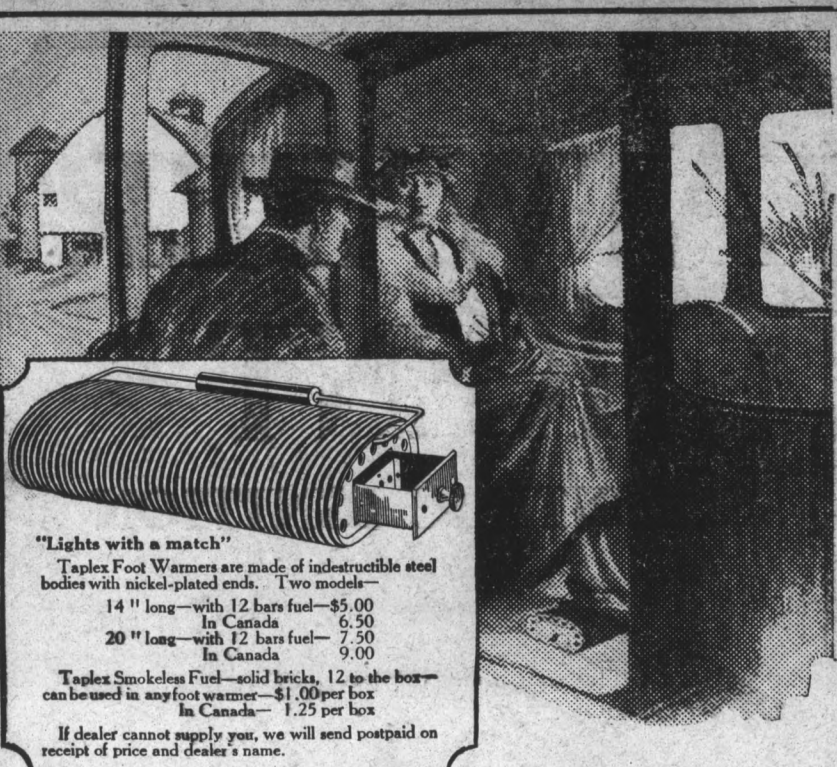
Note the position of the Atwater Kent System on your motor—the identical spot formerly occupied by your magneto. Easy and inexpensive to install, fits your magneto base.



This system will replace any magneto on any car and give better service—for cars electrically equipped or not. Quickly and economically installed. Send for booklet.

ATWATER KENT MFG. WORKS
Philadelphia

SEE YOUR DEALER OR WRITE TO 4927 STENTON AVENUE



"Lights with a match"
Taplex Foot Warmers are made of indestructible steel bodies with nickel-plated ends. Two models—
14" long—with 12 bars fuel—\$5.00
In Canada 6.50
20" long—with 12 bars fuel—7.50
In Canada 9.00
Taplex Smokeless Fuel—solid bricks, 12 to the box—can be used in any foot warmer—\$1.00 per box
In Canada 1.25 per box
If dealer cannot supply you, we will send postpaid on receipt of price and dealer's name.

YOU can use your auto all winter—even in the severest weather—without fear of getting frozen feet—frost bite—chills or the like; you can ride in perfect comfort in *any* weather—if you have a

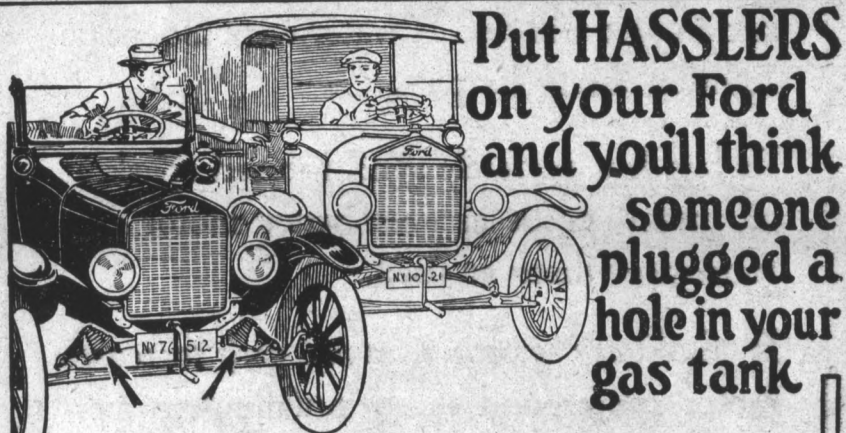
TAPLEX FOOT WARMER

"Needs but a match"

It's the *only* foot warmer you can put in operation at any time and anywhere simply by applying a match.

You'll find dozens of other uses, too, for the Taplex Foot Warmer and also for the other Taplex Warmers: Body Warmer, Bed Warmer and Handy Warmer. All of them are put in operation instantly merely by applying a match. Give out generous heat for 6 to 8 hours—no flame—safe, efficient, economical. All Taplex Warmers guaranteed satisfactory or money refunded. Sold by leading general, drug, hardware, department and automobile accessory stores. Write for descriptive folder—sent free on request.

TAPLEX CORPORATION, 47 West 34th Street, New York City



Put HASSLERS on your Ford and you'll think someone plugged a hole in your gas tank

The easier your Ford rides, the less gasoline it takes to run it. Make your Ford ride like a \$2,000 car and secure the last bit of power from every drop of gas. Install the

For
FORD
Cars



For
FORD
Cars

Shock Absorber

Hasslers enable you to save gas in two ways:

First, they make your Ford ride so smoothly it requires less power to run it. Second, they enable you to take the roughest spots without shifting into low or changing speed.

Hasslers achieve economy by making your Ford comfortable. They stop all jolts and jars, decrease vibration, prevent sideways and rebound, and make your Ford easier to steer and safer to drive. By doing this, they cut your expenses for gas, tires, up-keep, and increase the resale value of your car.



10-DAY FREE TRIAL OFFER

Write today for FREE TRIAL BLANK and we will have a set of Hasslers put on your Ford without a cent of expense to you. Try them 10 days. Then, if you are willing to do without them, they will be taken off without charge. Don't ride without Hasslers simply because someone discourages you from trying them. Accept this offer and see for yourself. Nearly a million of the Patented Hasslers now in use.

ROBERT H. HASSLER, Inc.

1823 Spruce Street

Indianapolis, Indiana



Developing the Farm Flock

IN starting a flock of mutton sheep, adverse public opinion and universal disapproval have discouraged the use of the scrub ram in that country.

In the selection of a suitable ram it is important that he shall be carefully chosen. He is more than half of the flock that has the power of depreciating as well as improving the quality of his lambs. He should possess marked evidences of the qualities to be improved in the flock. No matter what particular line of breeding one may pursue, well developed shoulders indicating strong constitution, should be a strong characteristic in the ram. His ability to transmit vigor and early maturity is the most important quality to be considered. Make a close scrutiny of your ewes, noting their strong and weak points, more particularly the weak ones, and resolve in your mind's eye the type of ram needed to bring about the desired improvements. Thus equipped with an idea of what you want, make a visit to some of the best flocks of the breed you believe best adapted to your needs, and keep a going until you find what you want. Above all, do not get stuck on some finely conditioned ram lamb that is not just what you want, and make a compromise. Look further, perseverance will bring its reward. You will not only be able to see the rams, but the stock from which they are bred; thus you will have some assurance that your purchase will produce animals like those in the flock where he was bred. Do not be afraid to invest a few extra dollars when it is a question of deciding between rams of inferior and average quality and those of superior individuality and breeding. The best is always the cheapest, and the pride and satisfaction of a fine crop of uniform lambs at weaning time remains long after the few dollars extra money paid in the cost of the ram is entirely forgotten.

In selecting breeding ewes to promote early maturity and quality in the mutton flock, uniformity of type is of first importance. Care must be taken to weed out inferior ewes and retain only those that are of one type. Always save a few yearling ewes of your own breeding even if they are not as good as you can buy elsewhere. It is making the flock uniform and more of one type than buying odd ones from other flocks. If pure-bred sheep are kept it is a good deal easier to select uniform breeding ewes than where cross-breeding is practiced. In connection with selecting uniform ewes one should aim to establish a type that conforms to the purpose for which which they are kept. If to produce fine mutton, select the meat-making type. Ewes of the blocky type mature early and make the best mutton. Successful breeding has as its object the gradual fixation of type and characteristics that add commercially to the value of the animals.

Every ewe that shows signs of a faulty constitution should be disposed of, no matter how good she may be otherwise. Ewes that have the ability to transmit physical force and energy to their young are the kind everyone wants. A faulty constitution is generally indicated by a loose, thin fleece, narrow chest and dull, lifeless actions. Examine these points carefully and if the animal fails to meet these requirements dispose of her. Ewes that are in any way diseased, no matter how good a fleece and lamb they may produce, should be immediately disposed of. There is always plenty of trouble with disease without inviting more through careless selection.

Though many American flock owners have achieved success in the production of a few specimens of nearly a perfect type of mutton sheep, yet the average farm flock reflects little credit on our skill as shepherds. One does not need to spend much time investigating the history and development of the leading breeds of mutton sheep before he finds that England has been the birthplace of the majority of our best breeds of mutton sheep, and it also leads the world in the work of development. A study of the English flock owners' methods would essentially aid us in developing our farm flocks and add much to the value and welfare of our animals.

The first fundamental recognized by the English flock owner is the absolute value of the pure-bred ram. The value of high-class rams has long ceased to be questioned with him, and even the smallest tenant farmer, who is not able to buy pure-bred rams, arranges for their services, either by loan or on a cooperative basis. Agricultural socie-

ties, adverse public opinion and universal disapproval have discouraged the use of the scrub ram in that country.

The successful flock owner acquaints himself with the conditions surrounding his flock and steadily improves his methods of handling his sheep and lambs. The farmer who invests in breeding stock is looking for the profit he can secure from the industry, but he should never be so "penny-wise and pound-foolish" as to overlook the importance of keeping as good a breeding flock as the best line of breeding and kind of feeding can produce. Many failures in sheep breeding are due to the fact that good judgment is not exercised in retaining the best animals for breeding purposes. The success of every famous breeder of mutton sheep has been due to his skill and well-trained judgment in selecting sires and dams that possess the proper qualifications. The demand in this country today is for fancy mutton and breeders and feeders who fail to take advantage of this demand for quality mutton and better breeding stock are well on the road to ultimate failure.

Complete success in developing a flock of mutton sheep, either for breeding stock or mutton for market, will come only when the most painstaking care is exercised in looking after the welfare of the flock. Shiftlessness, irregularity and neglect will ruin any flock. While different breeds possess slightly different qualifications the same general methods of breeding, feeding and flock handling must be practiced to attain the desired results. Rigid culling of inferior animals must be practiced and a standard fixed whereby every sheep in the flock produces its portion of mutton and wool.

When Writing to advertisers please state that you saw their ad. in The Michigan Farmer.

Financing the National Board of Agriculture

A FRIEND asked me how the expenses of this proposed organization would be met. Of course, nothing is settled definitely, but it seems to be that the county farm bureaus would be the logical body to finance the organization. The farm bureaus represent the farmers of the county. It is the farmers of the county that are to be represented and benefited. The representative selected by the farm bureau should have some compensation if he leaves his business and participates in the state and national chambers of agriculture, also his actual expenses. This would only be a few days at most and the farm bureau could easily finance this proposition. Then all the farm bureaus of the state, or in other words, the state Chamber of Agriculture, would elect a representative to the National Chamber of Agriculture and the state chamber would finance this member.

Later on it would be necessary to maintain a regular office and office force, both for each state and the nation. This would have to be maintained by the organization but the expense need not be heavy. These expenses would be small compared with the good that would come if the organization prevented any crop from being sold below the cost of production. In Michigan there are over two hundred thousand farmers. If expenses could be distributed among all the farmers, the expenses for each would be only a few cents. At first, of course, the expenses wouldn't be evenly distributed. The more enterprising farmers who now belong to the farm bureaus would pay not only their share but that of somebody else as well. But supposing they did, the money they would expend, if it works out would be nothing in comparison to the benefits they would receive. If the bureau in any particular county hasn't many members, it would be the duty of those present members to get others interested.

A farmer in the northern part of the state said, "I believe that you have got a good idea there. The only question is about working it out. Won't it fail, the same as all other farmers' organizations fail, by having someone squander the money, get it complicated financially and wind up in failure?" Of course, we farmers are suspicious because we have seen many cooperative associations end up in some such way as this—poor management of business that represented large amounts of money have failed many times. Nobody proved dishonest, but simply poor management coming in contact with new problems.

This is a different proposition. We are not going to handle money. There will be nothing to sell. All the expense necessary will be to pay the expenses of the organization. This state and national body simply ascertains the cost of production of the farm crops; that is all. The organization won't sell anything; it simply makes a public statement that takes into consideration the whole United States. It costs so much to produce a certain crop; if the farmer gets anything out of it farming must be put on a business basis; in other words, to stabilize agriculture this product must be sold at a certain amount. Now, it is believed that farmers will insist upon that price before it is sold. If they do they are directly benefited by it. Let the selling be done through the ordinary channels. We haven't got to worry about that at all, but we must have this organization conducted by the farmers themselves

COLON C. LILLIE.



Where Others Failed the Caloric Succeeds

The big farm home shown above is owned by Mrs. Annie M. Strawn of Lincoln, Ill. Last year she installed a Caloric Furnace. Previous to that she had used a hot water system, following it with a pipe system. Let her tell you about the advantages of the Caloric Pipeless Furnace over all others:

"What I Think of the Caloric"

"I am writing you in regard to what I think of the Caloric Pipeless Furnace.

"When I first heard of heating an entire house from one register I did not believe it possible. My house has thirteen rooms and it had been difficult to heat with a pipe furnace.

"Expense of Heating Much Less"

"I am more than satisfied, for all thirteen rooms have been comfortable this winter, which was unusually severe, and we had no trouble at all keeping warm. The Caloric has proved far more satisfactory than any other heating I have ever used.

"It has been very economical, too. We used only twelve tons of a lower grade of Illinois soft coal than used in our kitchen range, and glad to say the expense of heating was much less than heretofore.

"I heartily commend the Caloric for economy, efficiency and cleanliness."

Thousands of others have spoken equally well of this remarkable furnace, which has over fifty thousand users in the country, from Maine to California. The comfort they enjoy may be yours in the house you now live in, at low cost.

See the Caloric dealer, or write to us for our beautiful free catalog, which describes the principles of Caloric heating, and tells why this furnace furnishes the maximum of heat at the lowest cost. With it we will send the names of users in your vicinity, so you can see for yourself.

Burns Coal, Coke, Wood, Lignite or Gas

The Monitor Stove Company

Established 1819—99 Years of Service

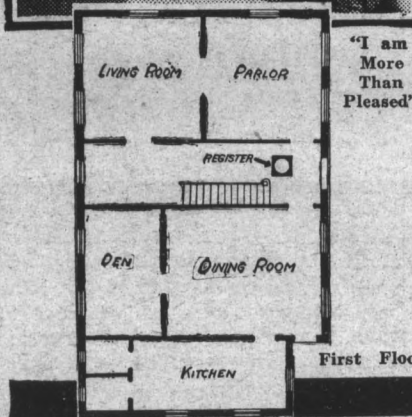
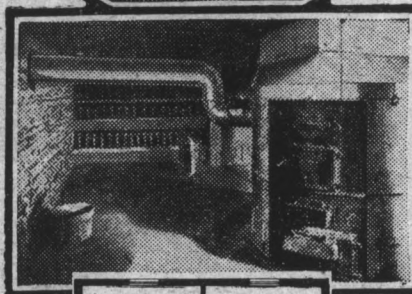
2426 Woodrow St.

Cincinnati, Ohio

Morley Bros. Saginaw, Mich.

PIPELESS CALORIC FURNACE

The Original Patented Pipeless Furnace



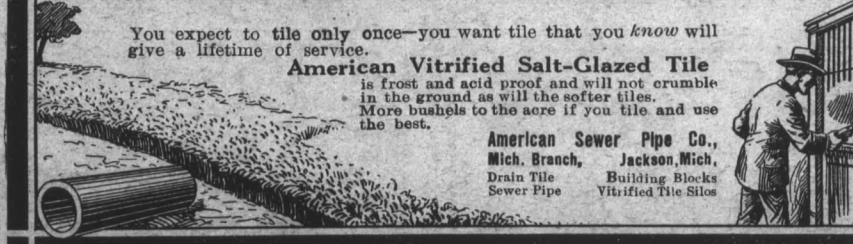
"I am More Than Pleased"

It will pay you to say— "I want American Vitrefied Salt Glazed Tile"

You expect to tile only once—you want tile that you know will give a lifetime of service.

American Vitrefied Salt-Glazed Tile is frost and acid proof and will not crumble in the ground as will the softer tiles. More bushels to the acre if you tile and use the best.

American Sewer Pipe Co.,
Mich. Branch, Jackson, Mich.
Sewer Pipe Building Blocks
Vitrified Tile Silos



DRAIN TILE

Whether it is a dry or wet season, the tile drained acres produce the best results. It is your patriotic duty to increase your crops. Write today for prices and our booklet explaining tile underdrainage.

THE CADILLAC CLAY COMPANY

Manufacturers and Distributors—Building Material
710 Penobscot Bldg., Detroit, Michigan

Lump Jaw

The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

Sold for \$2.50 a bottle under a positive guarantee since 1896—your money refunded if it fails. Write today for FLEMING'S VET-POCKET VETERINARY ADVISER. A book of 197 pages and 67 illustrations. It is FREE. FLEMING DRUGS, Chemists, 252 Union Stock Yards, Chicago

DEHORNING STOPS LOSS

Cattle with horns are dangerous and a constant menace to persons and to other cattle. Dehorn quickly and easily with a

KEYSTONE DEHORNER

All over in 2 minutes. Not a 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.

LEARN AUCTIONEERING

at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog. JONES NAT'L SCHOOL OF AUCTIONEERING, 28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

2000 Ferrets They hustle rats and rabbits. Price list and booklet mailed free. N. A. KNAPP, Rochester, Ohio

50 good Belgian Hares, and other large Rabbits, also some fox and Rabbit hounds, enclose stamp. W. E. Lecky, Holmesville, O.

Agricultural News

LARGER MILK DEMAND FOLLOWS PROHIBITION.

INCREASED demand for milk following curtailment of brewing in the United States is a probable development in the nation's food situation during the coming year. In a recent conference with Food Administration officials at Washington, R. C. Reed, Secretary of the Michigan Milk Producers' Association, presented facts of unusual interest to all dairymen. Since last May when Detroit became dry, consumption of milk, according to Mr. Reed, increased twenty per cent and of buttermilk about fifty per cent. To satisfy this sudden demand, it became necessary to bring in milk from greater distances and to a considerable extent utilize the supply formerly made into cheese.

Not only has consumption of milk increased in private homes but many saloons have been converted into lunch rooms and ice cream parlors. These establishments have become new outlets for milk and its numerous products. The large increase in buttermilk consumption is explained by its mild acidity, which seems to allay the alcoholic craving.

While the Detroit percentages should not be considered an exact index to future conditions in other cities, they emphasize the present importance of dairy products in the world food program. Curtailment in the supply of alcoholic beverages and similar drinks may be expected to stimulate demand for milk to a very material degree.

END THE MEAT TRUST.

SENATOR BORAH, of Idaho, who has been selected to push proposed legislation to take over parts of the packing industry, and Herbert C. Hoover, Food Administrator, have been holding conferences with a view of bringing the Federal Trade Commission, the Food Administration and Congress into an agreement as to the best method to pursue to control the meat industry of the country.

Hoover is said to admit the advisability of the government's taking over the stockyards and the rolling stock controlled by the five big packing concerns, but he is hanging back on taking over the branch houses of the big packers in various cities throughout the country for fear such action might interfere with the plan of food distribution necessary to the conduct of the war.

Senator Borah is strongly of the opinion that the packers must be divorced from nearly all of the one hundred and eight industries in which they are interested outside of meat packing. To break up their alleged monopoly, he contends, it will be necessary to enact legislation to confine them to the business for which they were primarily organized.

A strong fight is expected in congress on the proposition of permanent government ownership of the stockyards as a public utility.

MUST POST PRICES.

EVERY retail grocer and vegetable grocer and vegetable dealer in California will be ordered to post in a conspicuous place in his establishment a placard list of a dozen or more leading staples and vegetables with the prices he paid and the prices he is charging the consumer.

Ralph P. Merritt, Federal Food Administrator for California, in announcing this order Tuesday, which is effective September 26, said it was a measure to protect the public against profiteering.

The man who calls improved live stock "fancy stock," will have an account to settle with his Maker, on the judgment day.



Yes! Our Mueller Pipeless Furnace has replaced our stoves—no trouble to keep the whole house warm and it's saving tons of fuel—

THAT is what thousands of delighted home owners all over the United States are telling their neighbors and friends. In the coldest weather the Mueller Pipeless Furnace is successfully heating their homes, saving *one-third and more in fuel*, giving them all the comfort and convenience of furnace heat at minimum cost.

If you are a dweller in a stove heated home, you cannot afford to ignore the great advantages of this remarkably efficient and economical heating system. Your entire house heated through one register—no pipes or flues to tear up your floors or walls or heat your cellar. Constant circulation of fresh, warm, moist air throughout every room—better health and better living conditions for your family.



The Mueller Pipeless Furnace is a marvelously efficient utilization of the well known law that warm air rises and cool air falls. In its design and construction this law has been scientifically and correctly applied for heating the entire house through one register. The Mueller Pipeless is the result of over sixty years' experience in furnace building—the work of expert heating engineers—and is sold under a *binding guarantee* to heat the entire house to a comfortable temperature.

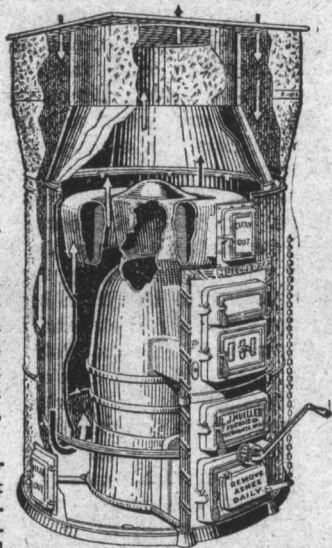
The Mueller Pipeless can be quickly and easily installed in any house, old or new. No cellar too small for it; if house has no cellar a pit large enough to hold fuel and furnace can be dug. No heat can escape into the cellar and interfere with storage of food stuffs.

The Mueller Pipeless heats the entire house with a *remarkably small amount of fuel*. It burns hard or soft coal, coke or wood, is simple to operate, dependable under all

weather conditions, and completely removes all fire danger.

Do not consider the purchase of any other heating system until you have thoroughly investigated the Mueller Pipeless. Its strikingly superior features of design and construction will quickly convince you that it is the only pipeless system you will wish to install in your home—that it is reliable, economical and built to last a lifetime.

Write at once for free book "Heating Your Home." You want this book because it gives you valuable information about heating and a complete and detailed description of the Mueller Pipeless. We will send it free at your request and give you the name of the nearest Mueller dealer.



MICHIGAN HARDWARE CO.

GRAND RAPIDS, MICH.

Distributors for Michigan

Thousands of Kirstins Now in Use!



Try It 30 Days Free Send No Money

do the hardest work easier and quicker, return at our expense, you don't risk a penny. Four easy ways to pay.

Kirstin ONE-MAN Stump Puller

Write for Big New Free Book of Kirstin Stump Pullers!

operates. Just a few pounds on the handle means tons on the stump. When stump starts throw machine into high speed and out comes the stump, roots and all. Positively no other machine like it. Send for most valuable Stump Puller Book ever published—pictures, prices, terms—and our Special Agent's Proposition—all FREE. Write today. One-man style or HORSE POWER, all sizes. 3-year guarantee with each machine. Shipment from nearest distributing point, saving time and freight! Low prices now. Write for FREE BOOK, etc. TODAY!

A. J. KIRSTIN CO., 303 Lud Street, Escanaba, Mich.

One Man Alone Handles Biggest Stumps!

To prove the Kirstin is the most powerful, speedy and efficient Stump Puller, we will ship you any size or style on 30 Days' Free Trial. Send no money. When Puller comes, try it on your own stumps—give it every severe test—let it prove that it will do the hardest work easier and quicker. If satisfied, keep Puller. If not pleased, return at our expense, you don't risk a penny. Four easy ways to pay.

Quick Shipment From:
Escanaba, Mich.
Atlanta, Ga.
Portland, Ore.
Soo, Canada

"Get a WITTE" Wood Sawing Outfit

BURN KEROSENE



NOW HELP SAVE COAL

Ready to Use From Factory price. Earn Big Money. Made in sizes 4 to 22 H.P. To be sure of delivery, write for my latest, lowest offer today.—E. H. Witte, Pres.

WITTE ENGINE WORKS, Kansas City, Mo. Pittsburgh, Pa.

2196 Oakland Avenue, 2196 Empire Building,

Day Pulverizer

LIME YOUR LAND



Our machines are strong and durable have large capacities, are sold cheap and on easy terms. Write for our catalog.

Day Pulverizer Co., Knoxville, Tenn.

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

Farms and Farm Lands For Sale

\$3000 Down Secures 16 Cows 270 Acre Farm and

\$500 pair horses, driving mare, Holstein bull, 3 calves, harness, wagons, mowing machine, tedder, ensilage cutter, harrows, plows, all crops, furniture, all ready to go on making money. Dairy alone paying \$170 monthly. 2 miles to 2 towns. Smooth, machine-worked dark loam fields, meadows cutting 70 tons hay, wire-fenced, spring-watered pasture for 40 head, estimated more than 1000 cords wood, 40,000 feet timber, variety fruit. 7-room house, 3 stock barns, granary, other buildings. To settle, everything goes for \$6500, \$3000 down; 2 nearest farms valued \$12,000, \$15,000. Details page 17 Strout's Fall Farm Catalogue of this other bargains, east, west, north and south, many with stock, tools, crops; copy free. E. A. STROUT FARM AGENCY, Dept. 101, 814 Ford Building, Detroit, Mich.

CHOICE Florida Lots and farm locations at Oldsmar, Florida, by Mr. R. E. Olds, famous automobile manufacturer, 15 miles west of Tampa, on Tampa Bay, Dixie Highway, Seaboard Railway. Delightful climate, tropical scenery, low prices, easy terms. Free booklet. REBOLDS FARMS CO., Oldsmar, Florida.

Beautiful modern home, steam heat, 8 lots, expensive shrubbery, fruit and shade, block from CENTRAL MICHIGAN NORMAL COLLEGE, will sell or trade for small farm, or stock general merchandise. Cooper, Goyer & Francis, Mt. Pleasant, Mich.

For Sale Rainy Lake settlement-land, Presque Isle County, none better. \$10 to \$15 per acre, easy terms. JOHN G. KRAUTH, Millersburg, Mich.

A good corner property at the junction of West Mich. pike and Chicago Detroit trunk-line highway. Splendid location for Garage and supply house or tourist hotel. Price right, cash, bonds, or terms to suit. G. A. WIGENT, Watervliet, Mich.

For Sale or exchange 35 acre farm suited to dairying and hogs, ideal climate, good buildings, beautiful shade trees, bearing Pecans, fruit. Northern community, 3 1/2 miles to Co. seat. JAMES A. PLUMBE, Edendale Farm, Bay Minette, Ala.

Wanted To hear from owner of farm or unimproved land for sale. O. K. HAWLEY, Baldwin, Wisconsin

A Visit to an Afghan Bek

By DR. ERNST A. BESSEY



The Sellers of Bread Walk Around.

IN the summer of 1902 the writer was sent by the United States Department of Agriculture, as an agricultural explorer to Russian Central Asia, or as it is generally known, Russian Turkestan. An agricultural explorer is a person sent to a foreign country to study the agricultural conditions there and to bring or send back seeds and plants that seem to have promise of being of value somewhere in the United States. My special mission was to obtain seed of alfalfa from various parts of Turkestan, a previous explorer having obtained indications that some strains of Turkestan alfalfa was of promise. In addition to alfalfa I was to obtain cereals of merit, also any promising fruits, such as grapes, melons, etc.

I reached the Khanate of Bokhara late in August on the Central Asiatic Railway from Oskhabad. I planned to stop at the city of Bokhara for several days but found, as seems to be frequently the case with Russian railroads, that the main line did not go

nearer to the city than ten miles, the stop being at the new Russian city called New Bokhara. One of the two hotels there was full and at first I could not obtain accommodations at the other hotel for myself and Mr. Nylo, my interpreter. At length, after much persuasion on Mr. Nylo's part, they fixed up a cot in the billiard room and put bedding on one of the billiard tables. I occupied the latter. There was no lock nor even efficient latch on the door, so we barricaded it with furniture. As it was August and very hot we had to leave the windows wide open and so were rudely disturbed long after midnight by a drunken army officer who tried to climb through a window, thinking the room to be unoccupied.

The next day we took the short stub-line train ten miles (forty-five minutes) to Old Bokhara. All the way we passed between fields, chiefly of alfalfa, gardens and orchards, for this region is well watered by the Zerafshan River which takes its rise in the mountainous part of Bokhara. The fields were not separated by rail or barb wire fences but by walls of mud a foot or more thick and four to ten feet high, often very ornamentally marked on the surface and battlemented at the top.

The railway station at Old Bokhara lies about a quarter of a mile outside of the city walls. The broad road leading to the city gate passes a large cemetery which, as is too often the case in the Orient, was in a sad state of neglect. Burial is not, as with us, in a grave but on the surface of the ground in a little brick vault just large enough to receive the body. No grave stones are erected nor are there any

inscriptions to show who is buried there. As the bricks of which these vaults are made are only sun-dried or where burned, only of very poor quality, and as after the interment the relatives have a superstitious fear of the grave, it is not to be wondered at that these burial vaults soon become dilapidated, so that the cemetery contained them in all stages from newly made to those entirely collapsed. The only exceptions were the much larger vaults where were interred the remains of reputed holy men. These are often surrounded by mud walls and invariably have long poles bearing rags attached, to keep away evil spirits. They are often shrines to which the ignorant natives come.

The city wall varies from twenty to thirty feet or more in height and is battlemented at the top. It seems to be made, like most of the houses in Turkestan, of sun-dried mud bricks, although the facing is apparently a poor quality of burned brick. The gateway is broad and high and remains open all day, the big wooden gates being closed at sunset. The road leading up to this gate was a very interesting sight. Here was a short caravan of eight or ten heavily laden camels starting off for the southern part of the Khanate or even for Afghanistan, over the mountains to the south; there came a donkey so piled with bundles of freshly cut alfalfa that all that was visible was his head and his feet, and, on top of the load, a big man who had to hold up his feet to keep them from dragging on the ground. Most of the people were walking, the better class clad in silk and wearing turbans, the poorer in ragged, padded cotton clothes and with little peaked caps. Very few



General Norbhokomi Afghanisti.

horses were to be seen, as only the wealthiest people could afford them for riding purposes and the streets are so narrow that most of them are impassable for vehicles of any kind. Aside from the two or three carriages attendant upon the railway station the only other vehicles were the native arbas with their two enormous wheels and rounded, decorated hood.

Within the walls the narrow streets with the almost windowless houses were strange to one used to the wide streets and bewindowed houses of America. The dreary monotony of the narrow streets bounded by their mud walls is broken at frequent intervals by paved squares, usually adjacent to mosques and often beside large pools of filthy looking and evil smelling water. Into this water the refuse from the squares is swept and the drainage from the streets flows, and from this the people drink. Is it any wonder that when cholera reaches Bokhara it finds so many victims!

(Continued on page 334).

WORLD EVENTS IN PICTURES



Some of the Great Number of Heavy German Guns Captured by British During August.



Nazareth, Home of Christ, Again in the Hands of Christians.



Great Hordes of German Prisoners Being Marched to Rear Under British Guard.



French Officer Commanding Allied Armies on the Bulgarian Frontier Reviewing Greek Troops Before going into Battle.



Arabs Who Have Come to the Assistance of the British in Driving Turks Out of Palestine, on the March Across the Desert.



Meet Mrs. Munson—who has two in the Army—and two selling W. S. S.

"MRS. ALGER tells me I look ten years younger since we got our Colt Lighting and Cooking Plant, and I believe her. I know I feel lots younger. It gives me more time to myself than I've ever had before. I visit friends now as I haven't done since I was married."

"Now that we have a Colt Light the Red Cross workers come to our house in the evenings to sew. They say it is a good deal easier to work by this soft, strong, white light, and they certainly do more work than they used to."

"I can't help smiling when I see the way boys have taken to calling on my two girls of an evening, to sing and dance or play games. The whole atmosphere of the place seems more alive, more wide-awake. The lights seem actually life-giving, as plants grow in the sun."

"Out in the barns the Colt Light is a perfect Godsend when the days begin to shorten. James has said to me dozens of times: 'Mother, since we got the Colt Plant this place runs like an automobile engine—easier and smoother at night than it does in the daytime.'"

"All our old fear of the barns catching fire from matches or lamps has gone. We pull a tiny switch and the barn is flooded with light. We shut off the switch and out she goes. No matches or fuss with lanterns."

"Nothing would ever persuade me to go back to the old days, cooking with coal or wood or kerosene. Our Colt gas cooking range has forever banished those dreary hours over a hot fire! I shudder when I think of them. In the bottom of my heart I pity the poor women who are still chained down to such a tiresome, listless life. Cooking is a real pleasure with a Colt Cooking and Lighting Plant."

"And the Colt is so wonderfully simple! We've had it over a year and never know it is in the house. Not a sound. No chugging engines. Nothing to get out of order. The Algers have had their Colt Plant seven years and have not spent a penny for repairs."

(Business of making more flapjacks)

Carbide Lighting **COLT** and Cooking Plant

The Colt system costs less than any other. It is so small it can stand in a corner of the cellar or outbuilding. The operation of plain water on crushed stone (carbide) produces the gas. These are added once a month. It is so safe that 700,000 miners use it for miners' lamps. Write us today for the names and addresses of enthusiastic neighbors, who can tell you all about it.

J. B. COLT CO., 42nd Street Building, New York

NEWS OF THE WEEK

Wednesday, October 2.

THE foe's entire line yields to the heavy blows of General Foch. Belgian cavalry is operating far on the road toward Bruges and Ostend. The French and British troops press beyond St. Quentin both to the north and south of that objective. It is also reported that some of the Allied troops have already entered the city.—Hard fighting by the French carries them in a long advance from the Aisne river, which outflanks Laon.—Americans capture and sweep beyond Cierges.—In Palestine, General Allenby's army has completely encircled Damascus.—Turkey demands cash and men of Berlin, and if these are not forthcoming that country will follow the lead of Bulgaria in asking for peace with the Allies.—Serious uprisings have occurred in Roumania.—United States Senate defeats the bill providing for woman suffrage, by a vote of sixty-two to thirty-four, or two votes short of the necessary two-thirds majority.

Thursday, October 3.

ALLIES continue to gain along the entire western front from the North Sea to Verdun. The Belgians are close to the U-boat bases on the North Sea coast. They have captured Roulers and cut the Mennin railway. St. Quentin is in the hands of the Allies and the Hindenburg line is opened up a distance of eight miles at this point. The French take new ground to the northwest of Rheims, and Americans and French cooperating clean out the Argonne forest in the Champagne sector and press farther to the north.—In Palestine the British occupy Damascus and take seven thousand prisoners.—It is hinted that Austria is about to make another peace offer. A daily consignment of airplanes is being shipped from America for overseas service.—The government announces minimum and maximum prices for shoes which are \$3 to \$12 respectively.

Friday, October 4.

GERMAN newspapers predict a German retirement on the western front to a line extending from Antwerp through Metz, which would surrender the western half of Belgium. Germans evacuate Lens and Armentieres. The Allies smash German fortifications between Cambrai and St. Quentin.—American, British and Italian warships destroy the Austrian naval base at Durazzo, and sink the war ships anchored there.—Austrians are withdrawing from Albania, being hard pressed by Italian forces, who have captured Berat.—General Allenby captures entire Turkish army in his operations in northern Palestine.—Austrian Chamber of Deputies takes up discussion of the question of peace with the Entente Allies.—A bill before the United States Senate to authorize the President to name a reconstruction board is hotly opposed.—The influenza epidemic in army camps shows an increase during the past twenty-four hours, in which period 331 deaths are reported, sixty more than for the previous day.

Saturday, October 5.

AUSTRIA requests Holland to invite belligerents to take part in peace negotiations. The Americans advance on a twenty-mile front for a distance of three miles in an offensive near the Meuse valley. Fighting of the most furious nature has occurred along the British front in the region east of Le Catelet. Germans launch six powerful counter attacks in this region. All were repulsed except one, which obliged the British to withdraw for a time from Beurevoir and Montbrechain. Enemy is hard pushed far to the east of Lens.—Italians sweep foe from Albanian positions.—Explosions of munitions near Perth Amboy, N. J., resulted in fifty or more deaths and many scores of persons being injured.

Sunday, October 6.

NEWS is received that Germany, Austria-Hungary and Turkey are asking President Wilson to make representation for a general armistice and negotiations for a general peace. In their appeal the Central Powers declare that they are ready to negotiate on the fourteen points in President Wilson's message of January 8 and the four points of his speech of February 12 and September 27.—British reach the Haute Deute Canal and Germans are evacuating Lille. The French

take Fort Brimont, and the massif of Moronvillers and encircle Nogent L'Abbesse. Americans and French are crushing in the southern wall of the German defense which extends from Rheims to the Meuse.—During the fighting of the past week the Allies account for 194 aircraft of the enemy.—A new record is established in the movement of forty-eight million bushels of grain across Lake Michigan from the beginning of the crop season to October 1.

Monday, October 7.

THE united stand of allied nations on the peace proposal of the enemy is for an unconditional surrender of the armies of the central powers, this being the attitude of the civil populations as reflected through the press and from pulpits.—On the western front Haig captures Fresnoy, and the Americans take St. Etienne in the Champagne sector, thereby compelling the Germans to withdraw on a twenty-eight-mile front.—Italians open an offensive along the Ailette. In the southern theatre the Austrians are being forced to withdraw by the pincer movement of allied forces in Macedonia and Albania.—Nearly 7,000 cases of Spanish influenza are reported at Camp Custer.

Tuesday, October 8.

AUSTRIA claims she is ready to cede to Italy such land as the Italians have won and to the new nation of Poland parts of Galicia as a guarantee that the latest peace offer is sincere. The Allied nations, however, look upon the appeal for an armistice as a pleading for time to reorganize the armies of the central powers.—The enemy line from La Fere to the Meuse is tottering, the Americans having crossed the Aire river while French take Berry-au-Bac near the east end of the Chemin-des-Dames.—The armies of Marshal Foch are forcing the invader from the Belgian coast without pause and the Serbs and Italians are fast recovering territory occupied by the enemy in Albania and Serbia.—The French capture Beirnt on the Mediterranean Sea, a new point from which attacks can be made against Turkey.—Loyal Russia notifies America that the new government will raise an army to fight the central powers.



The Leader of Our Armies in France. Yes, this is our own General John J. Pershing at the Age of Six.

LET US TAN YOUR HIDE.

Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our Fashion book, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address The Crosby Frisian Fur Company, 571 Lyell Ave., Rochester, N. Y.

WE WANT ALL KINDS OF FURS
WOLF, LYNX, BEAR, FOX, BEAVER,
WILDCAT, MUSKRAT,
SKUNK, MINK, ETC.
WE'LL PAY THE MOST

Remits Quickest. Pays Cash. Holds shipments 5 days
HIGH. Catch all you can. Follow our HINT. TRAPPER'S GUIDE.
IT'S FREE. Send for it. Make big money. Frequent PRICE-
LISTS sent to keep you posted. TRAPS AND BAIT, the kind you
want. Get to know us. In business HALF A CENTURY. Biggest
Houses. MOST CENTRALLY LOCATED. Ask any bank about us.
First in U. S. to send Price-Lists to Trappers. Cash for Hides.
Let us quote.

WEIL BROS. & CO.

"The Old Square Deal House"
Box 125, Fort Wayne, Ind., U.S.A. Capital \$1000,000.00 Paid
Everybody Interested Write

BACH

Wants Your Furs

Why be satisfied with ordinary prices when you can get MORE money by shipping to this well known and reliable house? You get ALL your money—no commission charged—not one cent deducted for handling.

Ship Today
We grade your furs liberally—pay highest prices—remit promptly and guarantee absolute satisfaction at all times.
Write For FREE Price List

Get posted on the market—our latest fur price list will be sent FREE on request. A postal will do—write for it TODAY.

BACH FUR CO.

Chicago, Dept. 30 New York, Dept. 30
108 W. Austin Ave. 118 W. 27th St.

WALL PAPER

1,000,000 ROLLS

Per Roll { Write for sample catalog of 50 new designs and colorings.
SAMPLE BOOK MAILED FREE
Martin Rosenberger, 1818 VINE ST., CINCINNATI, OHIO

When writing to advertisers please mention The Michigan Farmer.

"By the Way"

OUT AND IN.

The class in natural history being asked to state the difference between a dog and a tree, the head boy promptly gave this answer:

"A tree is covered with bark, while a dog seems to be lined with it."

WHAT DID HE MEAN?

Clara, very earnestly: "If you had never met me, darling, would you have loved me just the same?"

George, fervently: "Yes, dear—more!"

Conundrum.—What is dust?

Answer.—Mud with the juice squeezed out.

COULDN'T FOOL HIM.

"How do you know it was a stork and not an angel that brought your little brother?"

"Well, I heard pa complaining about the size of the bill, and I guess the angels don't have bills!"

HE'D GET MO' LATER.

Little Rastus had come to see if Miss Jane would give his mother "a little 'lasses."

"Why don't you say a little molasses, Rastus?"

"Why, Miss Jane, you don't nach'ly think I'm goin' ter say mo' lasses when I ain't had none yit!"

SHOT IN THE MELEE.

Loquacious Visitor.—So you were wounded at the front, my good man?

Irishman.—No, Begorry. I was wounded in the rear av me.

FOOD CONSERVATION.

Two British soldiers went into a restaurant in Salonika and ordered the waiter to bring them "Turkey with Greece."

"Sorry, but I cannot Servia," replied the waiter.

"Then bring the Bosphorus," cried the soldiers.

The boss came, and after hearing the complaint, answered, "I regret to Russia, but you cannot Roumania."

So the soldiers went away Hungary.

NOT EVEN A GERM.

A country school teacher was cashing her monthly check at the bank. The teller apologized for the filthy condition of the bills, saying: "I hope you are not afraid of microbes."

"Not a bit," answered the school-ma'am; "I'm sure no microbe could live on my salary."

Today's Riddle

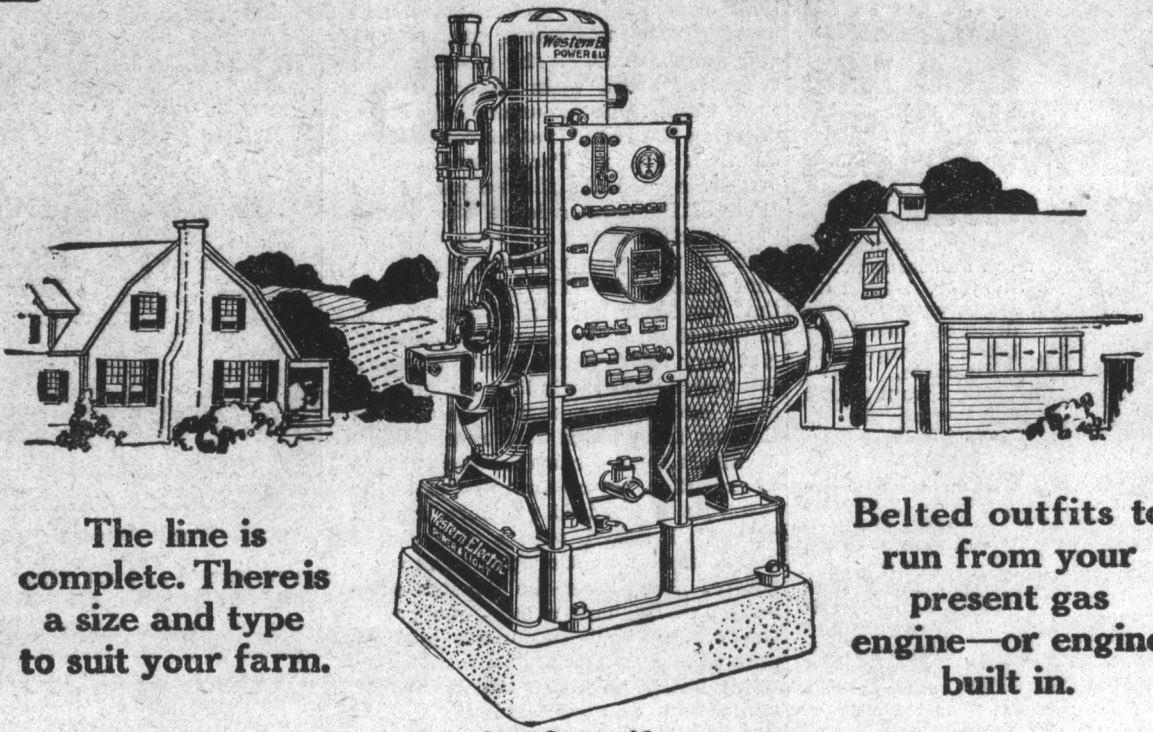
WHEN IS A
BLACK DOG
NOT A BLACK DOG?

(Answer)

When he is a



Western Electric POWER and LIGHT



The line is
complete. There is
a size and type
to suit your farm.

Belted outfits to
run from your
present gas
engine—or engine
built in.

Direct-Connected Set

IN buying a plant from the Western Electric Company, you enjoy unusual advantages—all of which help you get just the outfit that you need, at the price you want to pay.

We realize that it is not good business to offer you only one kind of an outfit. That is why you can choose from several kinds of Western Electric plants—and why our advice is impartial.

If you already have a gas, gasoline or steam engine, we can furnish the electrical equipment. If you desire a belt-driven plant with engine that can be used for other purposes, we can supply that kind of a plant also. The direct con-

nected plant illustrated is our newest model. The 3 1/4-horse power silent engine burns gasoline or kerosene; is throttle governed, air cooled and automatically stops when the batteries are fully charged. The engine can also be used for other power purposes.

To be sure that you get the right plant—right in size and equipment—see the Western Electric man near you. We stand behind him with our forty years manufacturing experience. He can tell you all about Western Electric outfits, motors, water systems, milking machines, irons, vacuum cleaners and other electrical helps for farm and home.

There is a Western Electric man near you. Mail the coupon for Booklet No. MF-10, and we will tell him to get in touch with you.

WESTERN ELECTRIC COMPANY INCORPORATED

Kirby Ave. and Dequindre St.,
Detroit, Mich.

500 South Clinton St., Chicago, Ill.

WESTERN ELECTRIC CO., Inc.

I want to know more about your power and light outfits, so please send your book No. MF-10, "Power and Light."

Name _____

P. O. Address _____

County _____

State _____



PROUTY'S GUARANTEED PRICE LIST

guarantees you more money as the market goes up; no less if the market goes down.

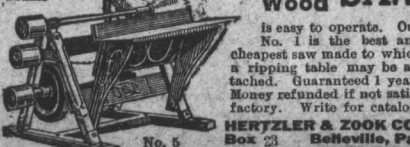
Bigger Prices For Your Furs!
NEW YORK draws the greatest number of fur buyers in the world; eventually they go to Prouty's. That is why New York is the best place for your furs, and Prouty's the surest for highest prices. Prouty's, the oldest fur house in New York, the center of the world's fur wealth, for fifty years has been guaranteeing highest prices. They pay "spot cash."

"GRANDAD SHIPPED TO PROUTY"
WHETHER or not you have been in a habit of sending your furs to Prouty, tag your next catch to us.

New Guaranteed Price List, Free!
J. L. PROUTY'S SONS, INC.
Raw Furs, Ginseng Roots, Golden Seal, Etc.
416-B West Broadway, New York City

\$10,000.00
BACKS THIS SAW

HERTZLER & ZOOK
Portable Wood SAW



is easy to operate. Our No. 1 is the best and cheapest saw made to which a ripping table may be attached. Guaranteed 1 year. Money refunded if not satisfactory. Write for catalog.

HERTZLER & ZOOK CO.
Box 21 Belleville, Pa.



RawFurs

New York—the World's Fur Center

New York, the greatest city in the world, is the center of the World's Fur business. No matter where you ship your Raw Furs, they must eventually come to New York. We are the Fastest Growing Raw Fur House in New York because we always pay the highest market prices.

Our Latest Price List is free on request.

David Blustein & Bro.
168 West 27th St. New York

"Saw Wood!" saw wood for yourself, saw wood for your neighbors, saw wood for the Government, saw wood or freeze. Use a gasoline drag saw that will do the work of ten men. Write for catalogue. Address S. N. CASTLE & COMPANY, Lock Box 102, Constantine, Michigan

FOR SALE

Good Cull Beans for hog feed, \$40.00 per ton, our truck, bags extra. Ask for sample. BAD AXE GRAIN COMPANY, Bad Axe, Mich.

Wanted: Lady or gentleman at once to place a few orders for our paint in each neighborhood preliminary to securing a dealer. Liberal discount to consumer; liberal pay to you. THE X-CEL-ALL COMPANY, Alma, Michigan

TRAPPERS



Get MORE cash for your furs by shipping to Hill Bros. Fur Co.—The Fastest Growing Fur House in America.

WE CHARGE NO COMMISSION

Over 300,000 satisfied shippers send us all their furs. Try us.

FREE Fur Price List, Trappers' Guide, Game Laws, Catalog and particulars of our \$300.00 Cash Prizes to trappers only. All sent FREE. Write today—a postal card will do.

HILL BROS. FUR CO. 352 HILL BLDG. ST. LOUIS, MO.

Wanted: To place a few advertising orders in your locality. Liberal discount on the trial orders to the consumer and liberal payment to you. No selling experience necessary. Clean, legitimate, easy and quick way of making fifty to one hundred dollars Christmas money. Write at once for representation in your neighborhood. The X-CEL-ALL COMPANY, Alma, Michigan

Agricultural Lime
Hollow Building Tile
Drain Tile

J. W. ROLLINSON, 4th Floor Penobscot Bldg., Detroit, Mich.

Wanted Clover Seed & Peas All Kinds

Please submit an average sample of any quantities you want to sell and we will tell you what it is worth either in the dirt or cleaned. We believe we can make you a price that will look attractive. SIOUX CITY SEED CO., Millington, Mich.

We are in the market for Seed Wheat. CARLOTS MAIL SAMPLES Farmers Elev. & Pro. Company, Bad Axe, Mich.

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

Mention The Michigan Farmer When Writing Advertisers

Don't TALK "High Prices" To Me

Let Me Talk About LOW Prices To You! Del Dane, "The Old Stove Master"

I want you to know me. I am smashing prices this year. I am making a country-wide drive on Kalamazoo Stoves, Ranges, and Furnaces. That's why I want to talk low prices.



Send Me Your Name and get my book. It tells the story. Shows you the latest thing in Kalamazoo Stoves, Ranges, Furnaces, Gas Ranges, Oil Ranges and Kitchen Cabinets. Everyone knows Kalamazoo quality. But do you know how much money Kalamazoo prices save you?

You'll Be Glad Write to Del Dane I sell direct from my factories. I ship on 30 days' trial—cash or easy payment—unlimited, unconditional guarantee.

Ask for Catalog No. 113

KALAMAZOO STOVE CO. Manufacturers Kalamazoo, Mich.

A Kalamazoo Direct to You

Get More Money For Your Furs

Ship to Judd Fur Co. this year and get the extra money we pay for skins of all kinds. No commission charges or grading fees come out of your check. **YOU GET IT ALL.** This we guarantee.

The Judd Standard System of Grading also guarantees you higher grading, which means more money in your pocket. Doing business with us also insures your getting your check by RETURN MAIL. Don't overlook this important point.

Thousands of trappers will testify to our "Golden Rule" business methods. Over \$1,000,000 capital proves our responsibility. To get More Money, ship to **JUDD—in Chicago, the Best Fur House in the Great Central Market.** Price lists and valuable trapping pointers sent on postal request. Write for this exclusive information today. Find out how much more we pay. Address

JUDD FUR CO.
1119L West 35th Street, Chicago, Ill.




TRAPPERS AND BUYERS WRITE FUNSTEN FOR FREE

Market Reports, Supply Catalog, Game Laws, Trappers Guide & Shipping Tags

This is going to be one of the biggest years for trappers and fur shippers ever known. More furs needed—fewer men to trap. Get ready early for big money. Look over your traps and supplies now. Get our FREE BOOK—Supply Catalog, Game Laws and Trapping Secrets—all three in one book. Shows furs in natural colors. Factory prices on traps, smokers, etc. Write today—sure!

FUNSTEN BROS. & CO.
of the International Fur Exchange

224
Funsten Bldg.
St. Louis, Mo.

TRAPPERS GUIDE FREE

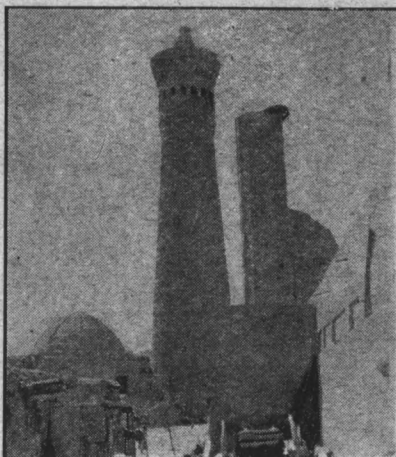
A Visit to an Alfghan Bek

(Continued from page 331).

Nearly every square serves as a market place and on it are erected rough tables with awnings above, the vendors sitting on these tables among their goods. The melon merchants usually have their wares, muskmelons and watermelons, on the ground. The sellers of bread walk around, calling their wares in not so unmusical voices, carrying the round, flat loaves in trays on their heads. Facing one of the largest squares is the palace of the Emir of Bokhara, a large pile with a great arched entrance above which is a clock that was not running at the time of my visit. The natives claimed that the Emir had six hundred wives at that time; quite a modern Solomon! Not very far from the palace stands a tall tower with a winding stairway inside, leading to a sort of balcony at the top, from which until recent years criminals were thrown for the purpose of execution, a very sure means, as the tower is a hundred or more feet in height. I talked with a native who had seen such an execution some years before. Soon after the Russian occupation of Bokhara a stop was put to the practice but the tower still remains.

We fell in with two tea merchants, uncle and nephew, from Samarkand and the uncle invited us to go with him to see the drill and review of a portion of the Emir's army. We took a carriage and drove out to the edge of the city, to a field perhaps five acres in extent. Soon the soldiers began to arrive, some singly from all directions, others marching upon the drill ground by companies. The uniforms were in imitation of the Russian army uniform but the shades of red in the trousers varied greatly so that hardly any two uniforms exactly matched. They were, moreover, extensively patched, the patches often being of entirely different color. The guns were held at all angles and were in very poor condition. Some had bayonets and ramrods, some lacked them, and some had rags stuffed in the muzzle. They were muzzle-loading, percussion cap guns, probably at least fifty years old. With the army came a band of thirty or

the native bread, made of whole wheat flour, and baked in flat, round loaves about eight inches in diameter and an inch or so thick, and grapes and melons, and, of course, tea. The general

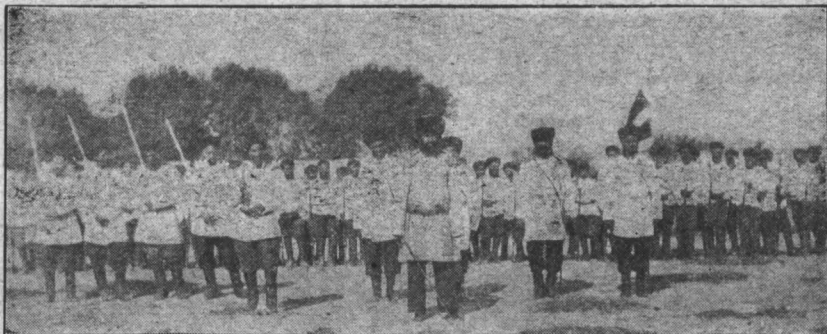


Criminals Were Thrown from Tower.

was curious to find out where we came from. He had heard of America, it seems, for he was a traveled man and had been as far as Moscow, but he had never seen an American before. Seeing my camera he asked if I would photograph his army, to which I gladly assented. I explained that it must be so drawn up that I need not have my camera facing the sun. When the luncheon was over the general called his army to attention and put them through various evolutions, the most amusing being the forming of a hollow square to repel attack by cavalry. While in this formation the men were ordered to aim (without the preliminary order to load or to cock their guns) and then to fire. At the com-

rising. The customer stood in the street at the front of the shop unless a camel caravan passed by, when he would have to scramble into the shop as a camel has a very unpleasant habit of biting a piece out of any unwary person within reach. All the shows devoted to the same things were together, so that on one street were nothing but hardware booths, on another the shops for silks, the spiceries being all together and scenting up the street long before one reached them. Here and there a money-changer sat behind his table ready to change a Russian fifteen copek piece (about eight cents) for four or five ill-shaped copper coins minted by hand and belonging to Bokhara or one of the several khanates formerly existent in Turkestan. These coins in turn were exchangeable for sixteen irregularly round unminted copper disks, looking like short segments of copper trolley wire hammered thin. Although they were worth only about an eighth of a cent apiece they sufficed to buy quite a handful of roasted pistachio nuts. We saw one money changer's table where the owner had gone away leaving his money on the table. People in need of change came up, made the change and departed, apparently never thinking about the fine chance for dishonesty.

We eventually found the Russian with whom I had some business to perform. He lived in the outskirts of the city and had a large garden, as did his neighbors. He suggested that we go, while dinner was in preparation, to visit the garden of a neighbor as it was typical of the better sorts of native gardens. We went afoot, as it was but a short distance, four of us, our



The Army of the Emir of Bokhara.

mand "Fire" every man shouted at the top of his voice, making a rather respectable noise, even if it did not sound exactly like a volley of musketry.

Finally the general lined up his army facing the sun, and then sent an aide to learn if the position suited me. I was mean enough to take two pictures, the first before the general had gotten the men's guns and the officers' wooden rods all at the proper angle (he alone carried a sword), the second picture after all was in order. Then part of the army was dismissed on the spot and the rest marched away to their barracks. As we drove back into the city we passed several of the soldiers removing their uniforms and putting on their native costumes which they had hidden in holes in the walls, under stones, etc., in the fields that we passed.

In the city again we traversed afoot the bazaars, i. e., the streets devoted to shops. These were mostly shaded temporarily by poles across from the roof of one building to that on the opposite side of the narrow street, branches of trees or coarse sacking being spread over these poles so as to produce a sort of dim twilight below. The shops were small, from four to six feet square, about sixteen inches above the level of the street. The proprietor sat cross-legged, in the middle and was able to reach anything without

Russian host, whom I shall call Mr. Lipsky, Mr. Nylo, my interpreter, a servant of Mr. Lipsky's and myself. Arrived at the house Mr. Lipsky's servant pounded at the door and called out a warning for any women to get out of sight, for it was very probable that some member of the household might be out in the courtyard unveiled. When we were informed that the way was clear we entered and found ourselves in a courtyard bounded on three sides by the house and on the fourth by the stable. A servant told Mr. Lipsky that his master was in the garden, so we passed through an archway into the large garden at the rear and found him sitting cross-legged on a little pavilion resembling a bandstand such as one would find in a small country town in America. He was smoking his "chillim" or water pipe. We asked his permission to view his garden and it was granted. His little son and two servants accompanied us as we went along. We inspected the fig trees, testing their fruit, as well as other fruit trees whose season was past. The grape vines showed great promise of fruit but the grapes were not yet ripe.

When we returned to the pavilion we found our host seated on a chair, in full uniform—fur cap, gold braided coat, bejeweled sword, etc., but looking rather ludicrous in his baggy, white, but none too clean cotton trousers.

A Street Scene in Bokhara.

forty "musicians" with fifes and drums and making a noise worse than the "Streets of Cairo" at the Worlds Fair. After the companies were all lined up the band played the national anthem (whatever it was called) and all the soldiers knelt while it was being played. They were then given the command "Rest," and squatted on their heels and ate bread and melons or grapes, which they bought from hucksters walking up and down the lines. The general and his staff took refuge from the hot sun in the shade of a high mud wall, sitting on beautiful rugs which were spread by servants who presently brought refreshments. Our Samarkand tea merchant, who knew the general, took us over and introduced us. At his invitation we sat down and partook of refreshments after he had asked a blessing. We had

ers and bare feet. He invited us to take refreshments consisting of tea, cakes, candies, nuts and raisins. After that he began to talk. In the Afghan language he asked me where I came from. One of his servants translated this into the Sart language (the language of Bokhara), and Mr. Lipsky in turn translated the question into Russian, Mr. Nylo making the final rendering into English. I answered that I came from America, and back through the different languages the answer went until it reached our host in the Afghan language again. He looked at me in surprise and then with deep interest. "Americoon, Americoon," he said, and then began a most guttural jabbering that reminded me of a couple of dogs having an argument. This when duly translated into Sart, Russian and English was an expression of surprise at seeing an American and an inquiry as to whether Columbus was still a Bek (Prince) in America. I was somewhat taken aback at this, for I hardly expected an Afghan to know about Columbus, but to be asked if he were still alive and a prince in America was still more surprising. I answered that Columbus was dead, news that appeared to interest him very much.

After asking what I was doing in Bokhara he began talking about himself. He was, he said, a Bek in Afghanistan, i. e., a Prince or Chief of one of the districts of which that nation is comprised, all such Beks being subject to the Emir of Afghanistan much as the several kingdoms of Germany with their kings are subordinate to the German Empire with its Emperor. Our Bek had a feud with a neighboring Bek and made a raid with his army and killed seventy or more of his neighbor's subjects. This incensed the Emir who started after him with his army, determined to get his head. He fled to Bokhara where he threw himself at the feet of the Emir of Bokhara and putting his hand on his head said, "My head is yours." The Emir raised him to his feet, made him a general in his army, confiscated somebody's house and garden and gave them to him. So there he was living, with two of his wives, his favorite son, his Arab horses and his slaves, proud of his past deeds and of his high favor with the Emir of Bokhara.


I asked him if I might take his picture and he eagerly assented, asking me to send him a print. The accompanying picture shows him with his son and two servants. I asked him his name and he gave it as Noibhookomi Afghanisti, General of Bokhara, and that of his son as Hoolom Haidar Khan. These were pronounced with a guttural roughness that makes the harshest German or Russian sound smooth and musical in comparison. I attempted to repeat the boy's name but unfortunately neglected "Khan," which means something like Prince. The father was indignant and repeated the name again several times, emphasizing the word Khan until I got it right.

Bek Noibhookomi wanted us to take dinner with him, even offering to send for Mr. Lipsky's cook so that the dinner might be satisfactory to us, but we were unable to accept, much as I would have enjoyed being his guest. As we were leaving he insisted that we see his Arab horses. The last we saw of the grim old man he was getting down, out of his unaccustomed chair and settling down again in comfort, cross-legged on the floor of his pavilion.

AUTUMN.

BY L. M. THORNTON.

The whip-poor-wills are calling
Are calling soft and low,
And back and forth a pheasant flock
Like frightened shadows go.
The highway beckons deep with dust,
And blue the skies and clear,
But the white-winged moth has told me
That Autumn draweth near.



Champion

Dependable Spark Plugs



Big Increase in Porcelain Efficiency

**2½ Times the Resistance
to Breakage from Shock**

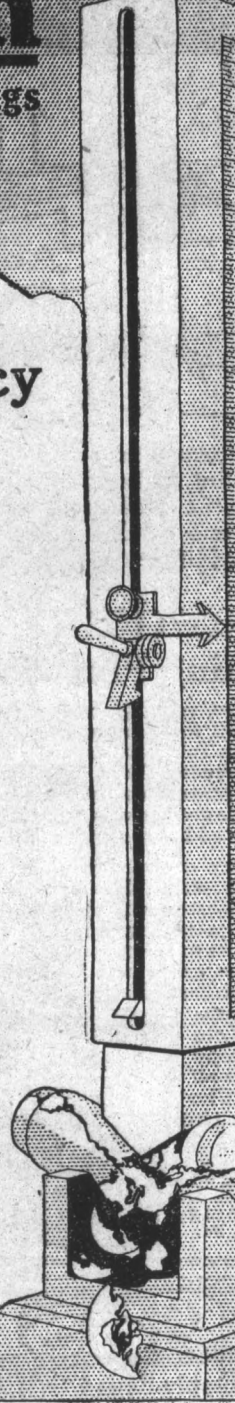
HOW to make porcelain
for spark plug insula-
tion, offer greater resistance to
shock and vibration!

Ten years of original research
work and the three-thousand-
four-hundred-and-fiftieth ex-
periment, revealed the secret.

Champion 3450 Porcelain of-
fers two and a half times the
resistance to shock and vibra-
tion compared with the best
previous Champion porcelain.

What an increase in that de-
pendability which has given
Champions their enormous
prestige.

See that the name Champion
is on the porcelain of the plugs
that serve your motor as well



as on the box. There is a Champion Spark Plug for every type of motor car, motor truck, tractor, motorcycle and stationary engine.

Champion Spark Plug Company, Toledo, Ohio
Champion Spark Plug Company of Canada, Limited, Windsor, Ontario

AUTOMOBILE LOSSES RUIN MANY MEN

The Following Buick Cars Have Been Stolen and Paid For This Fall

Name	Model	Buick Roadster	Factory No.
A. L. Arnold	Owosso	"	243528
G. L. Hahn	Pontiac	"	300136
Paul Marienthl	Saginaw	"	299974
W. N. Wheeler	Kalamazoo	"	247522
J. L. Cohn	Romeo	"	297474
S. R. Anderson	Muskegon	"	156446

Claims Paid in 1918	Fire	Theft	Liability	Amount Paid	Total
	102	132	217	\$25,423.19	\$69,620.18
				19,297.41	
				26,899.58	

Fire losses occur many times in the public garage, and, as cars grow old, there is a greater danger of a back fire or a short circuit.

A few days ago one of our members driving his car away from home left it standing; another driver accidentally bumped into the gas tank, setting the car on fire and burning it.

No man can afford to go without insurance at this time. The Government expects everyone to keep well protected. They encourage insurance of all kinds, especially for those who are poor or in moderate circumstances. A small amount paid makes you safe. When the committee for Liberty Bonds comes, it is a poor excuse to say "My Automobile burned or was stolen or I have a lawsuit to defend, and cannot buy." You can keep yourself safe by carrying automobile insurance, as the cost is only about 2c per day.

Keep Insured In The BIG MUTAL Able To Stand The Shock Of Serious Losses.

CITIZENS MUTUAL AUTO. INS. CO.,

HOWELL, MICH.

Please Mention The Michigan Farmer When Writing to Advertisers

Genuine Home Comforts



IN your new home or when remodeling and modernizing your present residence, provide for one of the material comforts of life—

"Standard" Plumbing Fixtures

If you have running water, you should install these modern conveniences—Bath Tub, Lavatory, Kitchen Sink and Laundry Trays. All these splendid fixtures made by the house of experience are genuine home comforts. They add to the joy of living.

Consult your contracting plumber. Ask about "Standard" Fixtures, which represent highest quality, long manufacturing experience and a wide variety of styles to meet your requirements. The green and gold label on each "Standard" fixture insures satisfaction. Write for a free copy of "Standard" Plumbing Fixtures for the Home."

Standard Sanitary Mfg. Co.
Department 212
Pittsburgh, Pa.



Get Cash

For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are "way up now." Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

WERTHAN BAG CO.
61 Dock St., St. Louis, Mo.
Branch Offices: Houston and Nashville

WERTHAN
PAYS
HIGHEST
PRICES
FOR
EMPTY
BAGS

Only \$2 DOWN ONE YEAR TO PAY

\$38 Buys the New Butterfly Junior No. 24. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here.

Earns its own cost and 30 DAYS' FREE TRIAL more by what it saves in cream. Postal brings Free catalog folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

ALBAUGH-DOVER CO., 2165 Marshall Blvd., CHICAGO

HOOSIER STOVES & RANGES FREE

To try in your home 30 days free no matter where you live. Show your friends, send it back at our expense if you do not want to keep it. Million members of families enjoying the comforts and pleasures of "Hoosier" Stoves & Ranges, perfect bakers and heaters, beautifully finished, smooth latest design, guaranteed for years.

Write for our big free book showing photographs, describing large assortment of sizes and designs of Steel and Cast Ranges, Cooks, Soft and Hard Coal Heaters, to select from, explaining our free trial. (Send postals today.)

HOOSIER STOVE CO.
131 State St., Marion, Ind.

Make Your Bike a Motorcycle

The low cost Shaw Attachment fits any bicycle. Easily put on. No special tools or knowledge necessary. Write at once for Free Book, also about Shaw Motorbicycle, a complete power bike at big saving.

SHAW MANUFACTURING CO.
Dept. 225 Galesburg, Kansas

Honey Wanted
Comb and extracted honey wanted in quantities of 500 pounds and upwards. State quantity and source M. H. HUNT & SON, Box 525, Lansing, Mich.

When writing to advertisers please mention The Michigan Farmer.

Woman and Her Needs

At Home and Elsewhere

"Dear Aunt Mary" Rises to Protest

SOME weeks ago the trials of a young mother of four was referred to in this column. The grandmother and aunt were driving taxis and doing "farmerette" stunts, while the wornout little woman with a six-weeks' old baby, struggled along alone. The article has aroused the ire of a maiden aunt, who quite evidently stayed home to do her bit and got no thanks for it. She writes calling attention to the number of grandmothers and aunts who are slaves to their relatives and makes some very pertinent remarks.

Chief of her contentions is the idea that parents should be left to work out their own salvation, while grandmothers and maiden aunts spend their lives as they see fit. To this I say a hearty "Amen." Any other arrangement is bad for all parties concerned, for the parents, for the relatives, but most of all for the kiddies, who are either pampered and spoiled, or nagged and spoiled according to the temperament of the grownups.

By all means let grandmother and "Aunt Mary" live by themselves. I have in mind several grandmothers, old women now, who, had they done as they wished and gone as a housekeeper at a good wage when they were widowed, would have had several years of independence, work at a good salary, and a snug little bank account. Instead, to save the pride of a daughter

or a son, they have gone to make their home with the young folks. Here, as the writer of the letter suggests, they have not received the ordinary good treatment a maid would get. Instead of being paid wages for work which no hired girl would do, they are told they should be thankful for having such a good home, and all the tiresome tasks which no one else wants to do are told off to them. Peeling vegetables, when their bread and pies could be taking prizes at the fair, washing dishes, mending clothes which are so ragged daughter would never bother with them, staying in evenings, and days as well, with the children, so the young mother can "have a rest," probably sleeping in the same room with two or three youngsters, because they bother the mother, and she must have her sleep, taking the shabbiest room and the pickings of everything, these are the things many a grandmother has had to take, because she hadn't the wisdom or the courage to insist on living her own life.

Most heartily am I in favor of everybody, man or woman, old or young, insisting on maintaining their independence. If you go to live with son or daughter, brother or sister, on anything but a business basis you are doomed. Insist on being paid wages and having your own room and your days out, if you do their work. If they

will not agree to this arrangement, then go out and work for someone else. There are plenty of women who would pay you almost anything you ask these war days if you would help in their homes.

The case referred to in The Farmer, however, was different. The mother in question absolutely could not get domestic help. Her mother and sister were well-to-do and had their own home. They both proclaimed themselves anxious to help in any way to win the war, yet failed to see that their best way to help was to give a lift at home. The idea was that instead of spending all their time on outside work they might both give the daughter and sister an hour or two each day. She would gladly have paid her mother for doing the mending, or the sister for stopping on her way down town every morning and making beds or dusting or washing dishes.

It is simply a case of two extremes. In both cases selfishness is at the root of the trouble. Occasionally grandmother and aunt just naturally can't see anything they might do to help out at home. More often the mother of a growing family thinks she is the hardest used person on earth and accepts all one does as only her right. Sometimes both sides are just and thoughtful, and then we have harmony.

DEBORAH

War-Time Desserts

Kitchen Shots at the Kaiser

Sweet Apple Cobbler.

Pare, core and quarter six sweet and two or three tart apples, and boil in three cupfuls of water for fifteen minutes. Add one-fourth cup of molasses and one-fourth cup of raisins. Place this in a baking dish, and cover with one's favorite biscuit dough. The dough may be made of any of the wheat substitutes in a fifty-fifty combination with the wheat flour—wheat and barley flour, wheat and corn flour or wheat and oat flour are good combinations, following the general directions for making baking-powder biscuit. Cover tightly and steam for forty-five minutes. Remove cover, brush crust over with melted butter or a little molasses, and set in a hot oven for fifteen minutes to brown.

Cereal Fruit Pudding.

- 1 cup cooked left-over cereal
- 1 cup fruit, raisins, dates or figs
- 1 teaspoon salt
- 2 cups milk
- 2 teaspoons butter
- 1 cup fruit juice.

Put the cereal into two cupfuls of water and boil until thick; add the milk and boil slowly for one hour; add the chopped fruit. Brush a baking-dish with butter, pour in the cereal, place in a moderate oven and bake for forty minutes. Serve warm in the dish in which it has been baked, with a sauce made of the fruit juice.

Date Pudding.

- 2 cups milk
- ½ cup corn or maple syrup
- 12 seeded dates cut up small
- 3 tablespoons cornstarch
- ½ teaspoon salt
- 1 teaspoon vanilla.

Mix the cornstarch with one-fourth cup of milk. Heat the remaining milk in a double boiler. Add the corn-

starch, syrup, dates and salt and stir until thick; cover and cook for twenty minutes. Add the vanilla and pour into individual molds to cool. This serves five people. Prunes are good instead of dates.

Peach Shortcake.

Biscuit Dough.—One cup of barley flour, one-half cup rice flour, one teaspoon of salt, four teaspoons of baking powder, two tablespoons of fat, three-quarters cup of milk.

Sift the flour, baking powder and salt, work in the fat, add gradually the milk and mix to a soft dough. Turn the dough out on a floured board and roll it to one-half inch in thickness.

Cut as for biscuit, and brush each with a little shortening.

Place two of the rounds together with the greased side in the center, and bake as individual shortcakes. When baked, separate the layers, and place between them a generous amount of sliced canned peaches. Put the top half on again, and serve while still warm, with cream.

Gingerbread.

- 1 cup cornmeal
- 1 cup wheat flour
- 2 teaspoons cinnamon
- 2 teaspoons ginger
- ½ teaspoon salt
- 1 teaspoon baking powder
- 1 teaspoon soda
- 1 cup molasses
- 1 cup sour milk or buttermilk
- 2 tablespoons fat.

Sift the dry ingredients and add the molasses, milk and fat. Beat well and pour into a greased pan. Bake for twenty-five minutes. Notice that this



recipe requires no sugar, and uses cornmeal for half the wheat flour ordinarily used.

ASK FOR THIS BREAD BULLETIN.

One of the most helpful pamphlets that have come out since food substitutes and war breads came into vogue is a bulletin on "Breads for War Time" that has been compiled for the housewives of Michigan by Miss May Pearson, of the Department of Home Economics of the Michigan Agricultural College. Miss Pearson's pamphlet tells how war breads can be made and includes a number of recipes for such breads as standard bread, standard substitute bread with mashed potato, potato bread, oatmeal bread, bean bread, rye bread and bread requiring a small amount of rye and wheat flour.

The booklet, which has been issued by the college for general distribution without cost, can be obtained by writing a card to the Department of Home Economics of M. A. C., and asking for "Extension Course Notes 17."

FOR THE PICKLE SHELF.

Cucumber Catsup.

- 1 dozen large cucumbers
- 1 quart vinegar
- 1 tablespoon salt
- ¼ teaspoon cayenne pepper.

Gather cucumbers before the sun strikes them and keep in a cool place until used. Peel and grate the cucumbers and drain off the water. Heat the vinegar and spices to boiling point; pour at once over the grated cucumber, bottle and seal. Cucumbers bottled in this way retain their freshness, and make a particularly good sauce for steak.

Curry Pickles.

Boil together for five or ten minutes, two quarts of vinegar, one tablespoon of salt, one teaspoon of black pepper; take one tablespoon of curry powder, one and one-half tablespoons of corn starch, four tablespoons of ground mustard, one tablespoon of sugar, or more if desired. Mix these thoroughly with a little cold vinegar, then put into hot vinegar mixture and stir all until it thickens. Take about three hundred small cucumbers and wash thoroughly. If medium-sized ones are used, cut in small pieces. Pour the boiling sauce over the cold cucumbers, bottle and seal.

Picalilli.

Chop fine a peck of green tomatoes and a quart of white onions. Sprinkle with two cups of salt between the layers and let them stand over night. In the morning drain well, add a head of cauliflower separated into small flowerets, one quart of chopped green peppers, two ounces each of cloves, allspice, cinnamon and mace, and four ounces of mustard seed. Stir thoroughly, cover with good vinegar, scald and pack in jars. Cover when cold.

Apple Catsup.

- 1 quart apple sauce
- 1 teaspoon vinegar
- 1 teaspoon cinnamon
- 1 teaspoon cloves
- 1 teaspoon pepper
- 1 teaspoon mustard
- 1 teaspoon onion juice
- 2 teaspoons salt
- 1 pint vinegar.

Simmer slowly until thick, bottle and seal. A similar catsup can be made from plums or grapes, and spiced to taste. Sorghum or molasses may be added if a sweet sauce is liked.

Apple India Relish.

To utilize windfalls and cull apples, the following recipe will be found an economical one.

- 2 dozen medium-size ripe tomatoes
- 6 medium-size onions
- 3 green peppers
- 1 dozen tart apples
- 1 pound seedless raisins
- 1 cup finely chopped celery
- 2 quarts vinegar
- 1½ cups corn syrup
- 3 level teaspoons salt.

Place tomatoes in boiling water for five minutes, remove to cold water, and peel. Take out seeds of peppers, using pulp only. Peel and core the apples. Chop all the vegetables together. Add raisins, vinegar, corn syrup and salt. Cook in open kettle until vegetables are soft—about twenty minutes. When mixture is thick, place it in sterilized jars. Screw covers tight, or bottle and seal with corks and paraffin.

America must literally feed the world during the war and at the same time to prepare to rebuild the world's food supplies when victory brings peace.

We carried the 1918 objectives—wheat, meat, fat and sugar—and now we are settling down to a steady push all along the line.

Don't Nig Use Your Substitutes

In the purchase of Pure Wheat Flour and the substitutes separately there is an opportunity for "nigging."

It does not seem possible that any Loyal Red blooded American would deliberately violate the Food Administration regulations by using the wheat flour and not the substitutes.

In fact no loyal American will do so or can do so, for just as sure as he knowingly violates the Food Administration regulations he is not a Loyal American, but a Slacker.

Because of the fact that

Lily White

"The Flour the Best Cooks Use"

is a 100% wheat flour it is necessary to purchase 25 pounds of either Corn Meal, Corn Flour, Barley Flour, Kaffir Flour, Milo Flour, Feterita Flour and Meals, Rice Flour, Oat Flour, Peanut Flour, Bean Flour, Potato Flour and Sweet Potato Flour or Buckwheat Flour with every 100 pounds of LILY WHITE FLOUR, or any other pure wheat flour. If you desire to use Rye Flour as a substitute, you are required to purchase 2 pounds with every 3 pounds of pure wheat flour, whereas you will note the other substitutes are used on the basis of 1 pound to every 4 pounds of pounds of pure wheat flour.

However by using LILY WHITE FLOUR with the substitutes you will be able to make splendid bread—in fact, really delicious bread, rolls, biscuits and pastries.

Remember the quality of Lily White Flour is unexcelled and, furthermore, it is guaranteed to give perfect baking satisfaction for every requirement of home baking.

Our Domestic Science Department furnishes recipes and canning charts upon request and will aid you to solve any other kitchen problems you may have from time to time. Public demonstrations also arranged. Address your letters to our Domestic Science Department.

VALLEY CITY MILLING COMPANY

Grand Rapids, Mich

FIRST-OLD DETROIT NATIONAL BANK

MEMBER FEDERAL RESERVE BANK

WITH a capital and surplus of \$7,500,000 this bank is able to render a distinctively valuable service to business men or individuals to whom a Detroit connection is desirable.

DETROIT

Smashing Bargain Prices!! For All Repairing Needs

Big Savings for Michigan Farmers

This is your chance to buy best quality Roofing of leading makes, Asphalt Shingles, Building Papers, Roofing Cement, Paints, Wall-board, etc., at prices that hold the record for economy. We are Michigan representatives of manufacturers of the best Roofing and Repairing materials of all kinds. War has stopped big building operations, and our entire warehouse stocks are now offered direct to farm consumers at contractors and manufacturers wholesale prices. But you must act quickly, for these bargain stocks are limited. Right now we can guarantee shipment direct from Detroit at big saving in freight. Tell us your needs. Avoid disappointment. Write for Free Samples and prices today.

WHITE STAR REFINING COMPANY
Avery Avenue and G. T. R. R. Detroit, Mich.
Manufacturers of Extra-Quality Motor Oil

Michigan Farmer Patterns

Any of the patterns illustrated may be secured by sending order to Pattern Department, Michigan Farmer, Detroit, enclosing the amount set opposite the patterns wanted.



No. 2569—Ladies' House Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. It requires for a 38-inch size, 6½ yards of 36-inch material. The dress measures about 2½ yards at the foot. Price 10 cents.

No. 2042—Ladies' Apron. Cut in four large. It requires 5½ yards of 36-inch material for a medium size. Price 10c.

Please mention the Michigan Farmer when you are writing to advertisers and you will do us a favor

Claims Paid In 1918

Losses	Number	Total Amount
Fire	102	\$25,423.19
Theft	132	19,297.41
Liability	217	23,899.56
Collision	44	1,869.25
Total Claims Paid	495	\$71,489.41

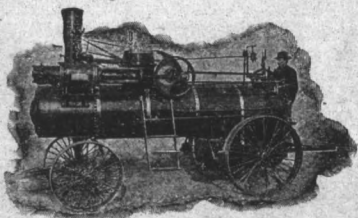
From the above statement automobile owners should remember that the dangers by fire, by theft and liability are about the same and no automobile owner should go a single day without insurance.

A small amount of money paid by each one thrown into a common fund helps the unfortunate. That's the reason that automobile owners throughout the State of Michigan are boosters for the

**CITIZENS' MUTUAL AUTOMOBILE
INSURANCE COMPANY**

O F
Howell, Michigan

BARGAINS USED STEAM ENGINES



Steam The Dependable Power

REBUILT and SECOND-HAND ENGINES, every standard make that have been taken in trade for New Port Huron Machines. Many sizes and kinds give YOU a large assortment to select from. Prices according to quality—every one a good bargain. For Hauling Clover, Threshing, running Ensilage Cutters, Grinding Feed, Sawing Stove Wood, HEATING, and for COOKING FEED, they are just what YOU NEED. Use ANY KIND OF FUEL. Also have Rebuilt and Second-Hand Grain Threshers, Corn Huskers and Shellers, Clover Hullers, Silo Fillers and Portable Saw Mills. If YOU don't want to invest in a new machine here is YOUR OPPORTUNITY to get a good one at small cost. They're all fixed up right (not given a lick and a promise.) Ask for our REBUILT machinery list send FREE.

Port Huron Engine & Thresher Co.
Port Huron, Michigan.

GET MY BARGAIN PRICES ON ROOFING NOW

I PAY the FREIGHT

Write today for my free Ready Roofing Bargain Book and see how my Direct-From-Factory Freight-Prepaid plan of dealing saves you big money on roofing. Don't buy roofing until you see my Money-Saving Bargain Offers.

BUY ROOFING NOW

before prices advance. The same guarantee, the same high quality, the same big values that have made Brown Fence famous are also characteristic of Brown's Ready Roofing. I can save you money—my book will convince you—send today.

The Brown Fence & Wire Co.
Roofing Dept. U
Cleveland - Ohio

THE SELF-OILING WINDMILL

has become so popular in its first three 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. Double Gears are used, each carrying half the load. We make Gasoline Engines, Pumps, Tanks, Water Supply Lines and Steel Frame Saws. Write AERMOTOR CO., 2500 Twelfth St., Chicago



Save the Seed for Victory

THE slogan "Preparedness," when applied to the home garden, means being at least one jump ahead of the garden game at all times. In normal times, it means assurance that gardens are to be fertilized either by green manure crops or other fertilizer. It means that the common insects and diseases should be anticipated and disposed of before they get started. These are not normal times, however, and preparedness means considerably more now than it ever did before. In normal times large quantities of vegetable seeds were annually imported from Europe by American seedsmen. These seedsmen were wont

bulbs may sometimes be planted in the fall, three to four inches deep. The bulbs should be set at distances of about six inches in rows that are three feet apart. Use soil well enriched with decayed manure and slightly cover the bulbs. Seed stalks are soon sent up and will be in blossom early in July. Hot, humid weather with the temperature running over ninety-five degrees when the flowers are in blossom or the seed in the milk, is very detrimental to seed production. The latter part of August, when the seed turns black, the seed heads should be cut and placed on trays or chicken netting to dry. The seed is easily

sweet corn seed has been very difficult to obtain, even at high prices. Northern grown sweet corn is superior to that grown in the west or south. Home-grown seed, if carefully selected, gives excellent results. Some crossing may occur, however, if different varieties are grown together.

Early Crosby, a white variety, and Golden Bantam, a yellow variety, are good varieties for both table and canning use. The seed will mature in most parts of Michigan before the fall frosts.

Select the best, well filled and earliest ears for seed. Sweet corn is even more apt to mold and is more sensitive to cold and wet than field corn. If the ear has not fully ripened on the stalk, it should be husked before the first frost occurs and dried in an airy place, preferably free from frost.

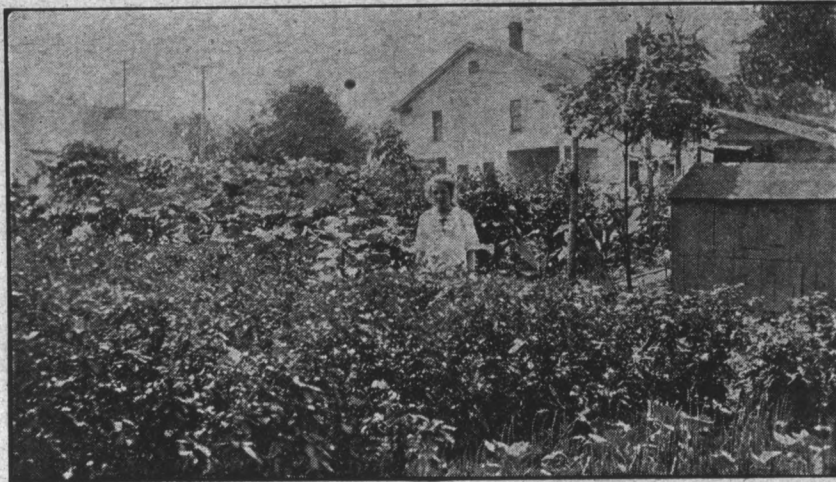
Root Crops.

Beets, carrots, parsnips, salsify, turnips and rutabagas are all biennials which go to seed very readily the second year, under Michigan conditions. A few of the roots of ideal form, size and color, that have been stored over winter successfully may be planted in the garden early in the spring. Parsnips and salsify, however, may be left standing in the field over winter. The roots should be planted two feet apart in rows that are three feet apart. The crown should be lightly covered with soil. During July or August the seed matures and after the plants have been cut and dried in the sun for a few days, the seed may easily be threshed out by hand.

Do Not Forget.

To correctly label all seeds and to keep the different varieties in separate containers.

To store seeds in mouse-proof containers, such as tin or heavy wooden



A Club Girl's Seed Garden.

to have on hand a reserve supply in case of emergency needs. This reserve supply has been drawn on until it is now at the lowest point it has ever reached. This is due, of course, to the curtailed importation, to exportation of some seed stock to war-stricken European countries and to the abnormally large use of garden seeds in this country for war gardens. Then, too, weather conditions have been such as to cause a reduction in seed stocks of radish, spinach, onion, beets, carrots, turnips, cabbage, and other vegetables in some parts of the country.

Preparedness at this time, then, means the making certain of next year's supply of garden seeds. Unless an extra effort is made this year, and unless home gardeners come to the rescue, a serious seed shortage may result. The old-time plan of saving one's seeds may be followed with some modification and next year's supply insured.

The following instructions may help some amateur gardeners to insure against a possible shortage. The simple directions included herein can be followed in any home garden. The seeds of annual garden plants are ripened in one season. In the case of biennials, two seasons of growth are required.

Save the Best Plants for Seeds.

This is a fundamental principle of successful seed saving. The best plants are the most productive, of the ideal form, type or quality of the product, freest from disease and earliest in maturity.

Beans and Peas.

Take a few of the best bean and pea plants in the garden and let them mature their seed. Select plants that are productive and that produce the largest and best filled pods. Do not save seed from diseased plants or from spotted pods. Pull the plants and hang them in some airy place to dry, or if mature, shell them and store in a dry place.

Onion.

The onion seed stalk is produced from a full-grown bulb which must be wintered over and planted out the following spring. It is a biennial plant. Only the best bulbs should be set out in the spring for seed production. In sections where the ground is covered with snow most of the winter, the

failed or rubbed out and the light seed is separated from the heavy seed by settling in water. Store, when it is thoroughly dried, in a cool dry place.

Spinach and Lettuce.

Spinach, although a biennial, will often produce seed the first season if the weather conditions are favorable. Plants that are started in the fall produce the best seed crops. It is then handled like lettuce so the directions for the two may be combined. Simply allow two or three of the best plants or plants producing the best heads or tops, to throw up a seed stalk in the early summer. It is well to remember that spinach produces male and female plants, only the latter bearing seed.

Radish.

Radish seed of the very best quality is very successfully grown in Michigan. White Tip, Scarlet Turnip, Scarlet Globe, French Breakfast and White Pearl are the varieties in greatest demand. When the radishes are being pulled in the spring for the table or market, select a few of the best roots for seed production. The tap or lower root should be slim and unbranched and the crown small, with but few leaves, while the radish proper should be firm, of good color and of ideal form. Transplant the selected plants and cultivate as with other crops. The matured plants should be pulled about the latter part of September and dried a few days in the sun. The seed may easily be removed from the pods by flailing or beating by hand.

Tomatoes, Eggplant and Peppers.

Many gardeners have always made a practice of selecting and saving their own tomato, eggplant and pepper seed. Selection should be based on the plant characters as a whole rather than on the characters of an individual specimen. A good plant is one of vigor, free from disease, having the ability to mature uniformly a large number of uncracked, well-formed and perfectly colored fruits. The thoroughly ripened fruits are mashed in a pail and the pail filled with water. After fermenting for a few days, the pulp is washed out, leaving the seeds which have settled to the bottom. These should be thoroughly dried in the sun before storing.

Corn.

During the past few years, good

boxes. A second-story room is the ideal place for storing. Cellars are apt to be too moist and attics too hot.

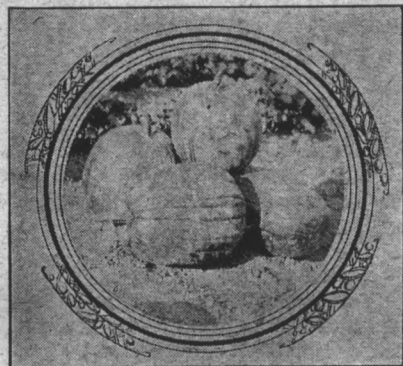
Such seeds as celery, onions and parsnips that quickly lose their vitality, will retain their vigor for a longer period if stored in Mason jars or other containers that are air-tight and moist-proof.

CLUB LEADER GOES TO RUSSIA.

MR. E. C. LINDEMANN, State Leader of Boys' and Girls' Clubs, will depart on October 1 for Camp Sherman, Chillicothe, Ohio, where for two or three months he will serve in the camp recreational branch of the army. At the end of that time he will be detailed to Russia to assist in introducing more modern agricultural methods into the new Russian republic.

For the last six years Mr. Lindemann has been connected with the extension staff of the M. A. C. as state Leader of Boys' and Girls' Clubs. More than forty thousand boys and girls were enrolled by Mr. Lindemann in these junior clubs and instructed by him and other club leaders in such subjects as gardening, poultry husbandry, handicraft work, calf clubs, pig clubs, corn clubs, etc.

Upon his return from Russia Mr. Lindemann expects to resume his connection with the college.



Will Droppings Boards Pay?

For years poultrymen generally have been strong advocates of droppings boards. This arrangement coupled with daily cleaning, has been considered necessary to modern management. Recently the cost of labor has brought about a change. By boarding up a pit under the roosts the droppings collect where they do not become mixed with the straw litter of the house; it is not so necessary to clean frequently as is the case with the boards which are but a few inches below the roosts. It is also easier to protect the roosts from mites if there is no wooden platform directly under the roosts to act as a breeding place for mites.

The advantage of the boards has largely been in the increased floor space covered with deep litter. Under the droppings boards the hens have had a clean place to scratch. With the boarded alley under the roosts the space available for scratching is reduced. However, many poultrymen consider that the saving in time is worth more than the loss in floor space.

A poultry house without droppings boards will not need daily cleaning to keep it clean. At intervals when it is convenient the manure can be removed to the garden. In the small poultry plant, not enough manure accumulates in one day to make it pay to haul it to the fields and garden. A house that has droppings boards which are cleaned daily looks fine, but many poultrymen find the droppings board an expensive method of sanitation.

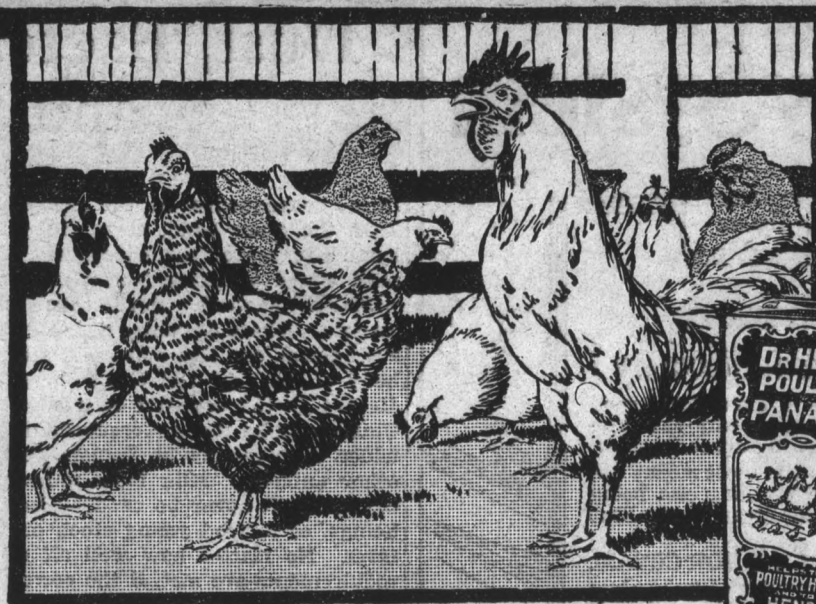
Capital for Poultry

Every farmer who engages in the poultry business soon finds that it is a business proposition the same as any other line of farming. The amount of capital to be expended determines the scope of the business. A careless expenditure of the capital may make dividends impossible. The investment must be balanced properly in order to make the business profitable.

The beginner with poultry frequently makes errors that take years to overcome. Buildings that are too expensive may be a serious error because no money is left for incubators, quality foundation stock, feed bills and miscellaneous equipment. The purchase of too much breeding stock can also be an error if too little money is left for the construction of suitable buildings. When there is not enough capital to properly house the flock it often results in overcrowded birds and this lowers egg production, brings disease into the flock and discourages the owner.

The beginner with poultry must be an optimist but must be sensible at the same time. They must not overestimate the probable returns and underestimate the expenses. In planning the development of a poultry business the farmer should remember every item of expense that enters into the cost of producing poultry and eggs. Then he can divide up his available funds and use so much for buildings, a certain amount for stock and running expenses and the remainder for other items that enter into poultry management on the farm. If too much of the capital is expended for one feature of the business the other operations are handicapped and serious losses may result.

When farmers recognize the possibility of exclusive pork production as a specialized branch of animal industry, and evolve systems of farm management adapted to the business, it will become attractive as a business proposition, and herds of well-bred hogs will become common in many localities where few good hogs are now seen.



START YOUR MOULTED HENS TO LAYING

THE world is calling for more poultry and more eggs. Everybody must speed up—it's a patriotic duty. Now's the time to get ready for regular fall and winter laying.

The average hen lays less than 100 eggs a year. But thousands of hens are laying 200 eggs every year. Why not yours?

Dr. Hess Poultry Pan-a-ce-a will start your pullets and moulted hens to laying promptly.

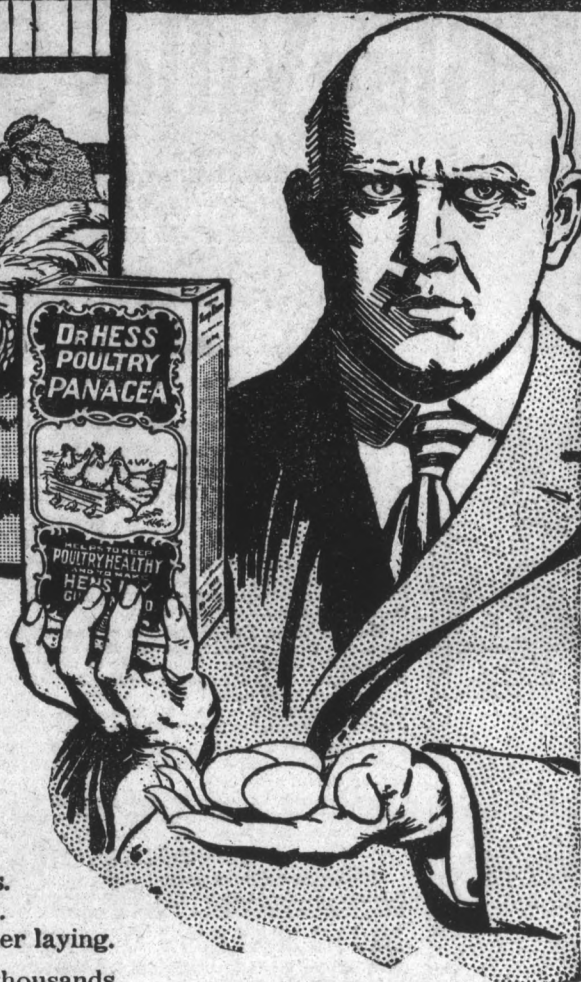
Remember, going through the moult is like going through a long spell of sickness. The egg organs become dormant, but why let nature bide its own time to revive the egg organs? Feed a tonic.

Dr. Hess Poultry Pan-a-ce-a contains *Nux Vomica* and *Quassia*—tonics that promote digestion, that tone up the dormant egg organs. It has *Iron* for the blood, and *internal antiseptics*. This combination will keep your whole flock healthy and start your pullets and moulted hens to laying.

IMPORTANT: If your hens are not yet over the moult, supply them with Pan-a-ce-a daily to give them strength and vitality to force out the old quills and grow new feathers. Always buy Pan-a-ce-a according to the size of your flock—a penny's worth for each hen to start with. There is a package for all sizes of flocks.

You have no chances to take. The dealer in your town who sells Pan-a-ce-a will refund your money if it does not do what we claim. 30c, 75c and \$1.50 packages; 25-lb. pail, \$3.00; 100-lb. drum, \$10.00. Except in the far West and Canada.

Dr. HESS & CLARK, Ashland, Ohio



DR. HESS POULTRY PAN-A-CE-A

Dr. Hess STOCK TONIC

**Keeps Hogs Healthy
Drives Out the Worms**

Dr. Hess Instant Louse Killer Kills Lice

MOLINE TRACTOR FOR SALE

Model "C". Used Very Little.

COME AND SEE IT.

**GEO. S. BIGELOW,
BREEDSVILLE, MICH.**



We Want More Fresh
Hennery

EGGS

Write Us For Prices
F. J. Schaffer & Co.
Eastern Market, Detroit, Mich.

CHICKENS SICK? Roup, Colds, Canker, Limberneck, Sorehead, etc. the best remedy is always FERMOZONE. At most dealers or 75c post-paid with 5 book poultry library free.
GEO. H. LEE CO., Dept. 426, Omaha, Neb.

POULTRY

BARRON ENGLISH 240 EGG STRAIN

White Leghorns most profitable poultry known. Large sized 5 lb. females with long deep bodies and large red combs in every way typical egg-bred Leghorns. Make big profits with our Barron heavy laying strain. Order breeding stock NOW. Pens mated for you for best results. 12 yearling hens and one chl. for \$20. 24 hens two chls. at \$40. Special price on quantity of 100 or more birds. \$100 or over orders Liberty Bonds taken for cash face value. 500 choice selected breeding chls. at \$1.50 each. Write us your wants or order direct from Adv. Devries Leghorn Farms, Box 222, Zeeland, Mich.

Barred Rocks—EGGS FROM STRAIN with records to 290 eggs a year; \$2 per 15. Delivered by parcel post, prepaid. Circular free.
FRED ASTLING, Constantine, Mich.

Buff Leghorns—Now is the time to place your order for next year's stock.
Dr. WILLIAM SMITH, Petersburg, Mich.



Ferris White Leghorns

A real heavy laying strain, trapped 17 years, records from 200 to 264 eggs. Get our special summer prices on yearling hens, breeding males, eggs for hatching, 8-week-old pullets and day old chicks. We ship C. O. D. and guarantee results. Catalog gives prices; describes stock; tells all about our farm and methods; results you can get by breeding this strain. Send for your copy now—it is free.
GEORGE B. FERRIS 224 Union, Grand Rapids, Mich.

FOR SALE—throughbred Barred Rock cockerels from 200 egg strain stock, address **Grand Haven, Mich.**
H.B. PROCTOR,

BREEDING COCKERELS

Bred-to-lay S. C. White Leghorn and Barred Rocks. Would advise ordering early. Price reasonable. Write us your wants. Sunnybrook Poultry Farms, Hillsdale, Mich.

Fowlers Buff Rocks—Booking orders now at a \$2 for 15; \$4 for 30; \$5.50 for 50; \$8.00 for 100.
B. B. FOWLER, Hartford, 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.

Rhode Island Reds—Both combs. No stock for sale until December. **INTERLAKES FARM,** Box 39, Lawrence, Mich.

Rose Comb—Br. Leghorn cockerels \$1.00 each. White Pekin Ducks from best lines in America, \$2.00 each.
Mrs. CLAUDIA BETTS, Hillsdale, Mich.

SILVER, Golden and White Wyandottes, good breeding stock after Oct. 1st, fine lot of cockerels \$3 to \$5 each.
O. W. BROWNING, R. 2, Portland, Mich.

White Wyandotte eggs for hatching also baby-chick out of choice stock; send for a 1918 circular.
DAVID KAY, 709 Norris St., Ypsilanti, Michigan.

GIANT Bronze Turkeys. Big boned young thoroughbreds. Booking orders at early fall prices. Buy early, save money. **N. Evalyn Ramsdell,** Ionia, Mich.

DOGS

Scotch Collie Pups For Sale. Pure bred stock, prices reasonable.
O. E. Hawley, R. 3, Ludington, Mich.

The Blue Valley System

*It Makes Better Butter
It Sells for a Higher Price
It Pays More for Cream*

Why Some Farmers Make More Money!

Scientific methods of treating the soil and good management answer the question why the crop yields (and profits) of one farm will surpass the other.

But the farmer who makes the most money out of his cows and pasturage, everything else being equal, is the farmer who sells his cream to the Blue Valley Creamery Co.

Why? Because **WE PAY MORE FOR CREAM.**

We are the highest bidders in the country today—have been for eighteen years. For this reason our business has grown from one small creamery and a few shippers to twelve large creameries and 150,000 customers.

Each of these 150,000 farmers places a Blue Valley tag on his cans of cream and ships direct to our nearest creamery. This action eliminates the salaries of middlemen and cream wagon haulers. It eliminates the large overhead so necessary to conduct local cream stations—rent of buildings, cost of testing equipment, horses, wagons, etc. And every cent of this saving is returned to the farmer in extra profits for his cream.

We invite you to join these 150,000 customers of ours and share in this saving and extra profits. It is to your interest and advantage to do so.

Besides getting more money for your cream, there is the additional satisfaction of having your empty cans returned immediately and receiving your check by return mail.

INVESTIGATE!

Self-interest should prompt every farmer to look into this matter. Read our guarantee—then write us for full information. Ask for Bulletin No. 12V Address our nearest creamery.

BLUE VALLEY CREAMERY CO.

(Originators of the Truly Co-operative Creamery System—Est. 18 Years)

Chicago, Ill. Indianapolis, Ind. Columbus, Ohio Hastings, Neb.
Clinton, Ill. Detroit, Mich. Sioux City, Ia. Parsons, Kan.
Springfield, Ill. Grand Rapids, Mich. Cedar Rapids, Ia. St. Joseph, Mo.

WE GUARANTEE

That our check in payment for each and every can of cream you send us will satisfy you. We guarantee the safe return of your empty cans. If, for any reason whatever, you are not satisfied, we expect to hear from you. We guarantee to satisfy you perfectly.

BLUE VALLEY CREAMERY CO.

BREEDERS' DIRECTORY.

Change of Copy or Cancellations must reach us Ten Days before date of publication.

CATTLE.

Wildwood Farms

Breeders of Best Strains of
**Aberdeen Angus Cattle
and Duroc Jersey Hogs**

Several young bull calves on hand, three of which are of serviceable age, out of Black Monarch III, three times Grand Champion, Michigan State Fair. Also several AI Brood sows. Will be glad to correspond with you by letter regarding stock. Write

SIDNEY SMITH, Supt.

Wildwood Farms, Orion, Michigan
W. E. SCRIPPS, Proprietor.

WOODCOTE ANGUS

TROJAN-ERIOAS & 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 Good quality bulls of serviceable age and younger. Inspection invited. Geo. Hathaway and Son, Ovid, Mich.

GET GUERNSEYS

If you want to increase your dairy profits you need to know about the cows whose average production, under tests supervised by State Agricultural Colleges, is three times as great as the average of all dairy cows in the United States. Ask for "The Story of the Guernsey."

THE AMERICAN GUERNSEY CATTLE CLUB, Box 1, Petersburg, N. H.

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

Guernseys 45 Registered head, all tb. tested. Nora's May King, son of Imp. May Rose King, heads our herd, 19 of his half sisters sold averaging \$1850 each. His bull calves are booked ahead at reasonable prices. Avondale Stock Farm, Wayne, Mich.

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

Registered Guernseys—that last heifer was sold in first issue, went to Ohio. Another just as good, will freshen this fall—\$300 will buy her—she is worth more. 4 years old. Right in every way. J. M. WILLIAMS, No. Adams, Mich.

For Sale Guernseys: 15 high grade cows and heifers. Reg. May Rose bull 4 mo. old and reg. cows, tuberculin tested. GILMORE BROS., Camden, Mich.

For Sale Entire herd of Registered Guernsey cattle 80 head May Rose Breeding. JOHN EBELS, R. 2, Holland, Mich.



Four Weeks Old Tasted Milk Twice

Grew to be a "WONDER" on

Blatchford's

Sell your milk. Raise big, healthy calves on Blatchford's Calf Meal at 1-4 cost of milk. Make 2 profits instead of 1. Send for Pamphlet "How to Raise the Largest Calves at the Smallest Cost." Blatchford Calf Meal Co.—Dept. 4817—Waukegan, Ill.

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.

I Always Have Holsteins To Sell

If wanting Registered cattle write me your wants before placing your order elsewhere.

L. E. CONNELL, Fayette, Ohio

HOMESTEAD FARMS

A Federation of Interests

Holsteins: From a herd of 50 Holsteins headed by the Bull King Zerna Alcarta Pontiac, son of King Segis Pontiac Alcarta, the \$50,000 Bull, we offer a number of bred cows and heifers, younger heifers and calves, and young bulls.

One particularly high class young bull now ready for service. If you want Holsteins of any class, will you please write to us for descriptions and photographs? Every animal guaranteed.

BLOOMINGDALE FARMS, Bloomington, 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 under strict sanitary conditions. Every individual over 6 mos. old regularly tuberculin tested. We have size, quality, and production records backed by the best strains of breeding. Write us your wants.

R. BRUCE McPHERSON, Howell, Mich.

OAK Leaf Farm. Herd sire Lenawee Pontiac Calamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 796.3, butter 22.51—315 days milk 2372.3, butter 926.75. E. H. GEARHART & SON, R. 4, Marcellus, Mich.

Dust, Bacteria, Bad Odors and Flavors

(Continued from page 323).

little consequence to the consumer. the trouble is invariably with the

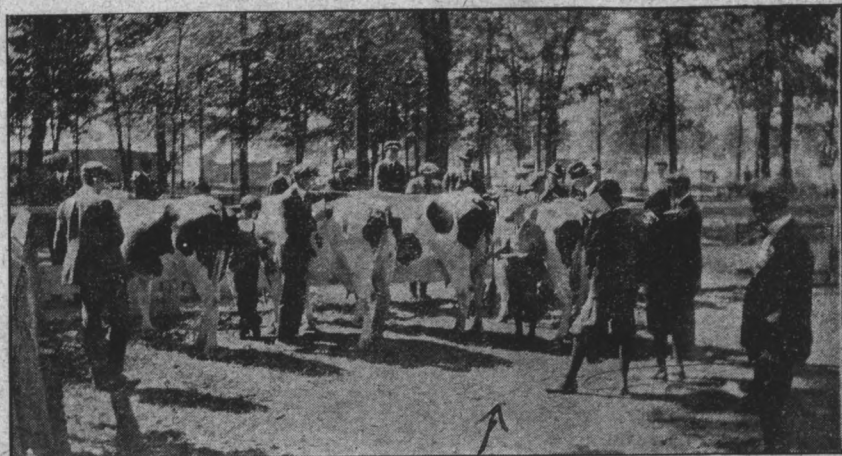
On the other hand, cows that have the local diseases of the udder may give milk which at times is contaminated with the bacteria which cause this disease. There is many a proof that such germs can live and pass into the body of the user and cause the same disease as the cow was afflicted with. This shows us that tuberculosis of the udder may readily be transmitted to other animals. Milk from unhealthy cows should never be used by human beings, or to feed young stock on the farm. No matter how well all other requirements are met, if the cows producing the milk are not in good health we fail.

The milkers and handlers of the milk in the dairy rooms are a prolific source of contamination. Unclean methods of milking and the handling of the products afford opportunities for the pollution of the milk by disease organisms, as well as dust and dirt that adheres to the hands and clothes of the milker. Here is where

the morning's milk, which goes into the cans without being properly cooled. In the fresh milk the bacterial growth soon exceeds that in the older milk that has been properly cooled. Cooling the milk does not kill any of the disease-producing bacteria or the lactic acid bacteria, so that it cannot take the place of cleanliness in the production of milk. All of the bacteria present in cold milk become active as soon as the temperature conditions become favorable. Cleanliness is of first importance, cooling is next.

Dairymen frequently experience considerable difficulty in the work of tracing the source of an unnatural odor or flavor in milk. In such cases it is first necessary to determine whether or not such an odor or flavor is present when the milk leaves the cow or develops later. If any particular cow is giving milk which is tainted it is not due to bacteria, but to other causes.

If the milk from any number of



Michigan Boys Judging Cattle at the State Fair.

such diseases as typhoid, diphtheria and scarlet fever get into milk. Milk as it comes from the healthy cow does not contain these bacteria. They come from the outside after the milk is drawn from the cow. Any person who has been in attendance on a sick person cannot work among the cows or in the dairy room without being a source of danger to all who use the milk from such a dairy. Typhoid, diphtheria and scarlet fever outbreaks without number prove this point with their deadly results.

In the care of dairy utensils there is still further chance of contamination. This trouble is not from bacteria that commonly adhere to these utensils, but from those introduced in handling and washing. The washing and care of dairy utensils is one of the most exacting from the standpoint of cleanliness and the quality of water used. A supply of bacteria-laden water which will leave some of the bacteria on the utensils is an insidious source of danger to those who use the milk. When the milk goes into the utensils there is a fresh supply of food for these bacteria and they begin to grow and multiply with disastrous results. If typhoid germs are in well-water they will have a chance to contaminate any milk that goes into utensils after they have been washed in such water. Numerous other kinds of bacteria, such as those that cause rosy, colored and slimy milk are frequently in well-water that is used in washing dairy utensils.

Cooling the milk immediately after it is drawn from the cow will retard the development of bacteria and the more the temperature is lowered the more the bacterial growth will be retarded. Milk that is promptly reduced in temperature to forty degrees F. and held at that temperature until ready for use will keep for a long time. When the milk is shipped to the city

cows shows the taint the feed or something else which the cattle have found in the pasture is the cause. Carrots, turnips, wild onions, ragweeds, cabbage, off-quality grains and other strongly flavored substances will cause tainted milk. Certain food stuffs for cows not ordinarily considered likely to produce bad-tasting milk will at times do so. Where the flavor is thought to have been caused by something in the ration a change will frequently remove the trouble.

Cows that are kept in the pasture will keep reasonably clean, however, if the pasture is so situated that the cows have access to muddy pools or stagnant ponds they will often stand in the water up to their knees, fighting flies and plastering themselves with mud. This mud dries quickly and readily falls into the milk pail. It is one of the most objectionable forms of dirt because it quickly finds its way through the bottom of the strainer and settles in the pails, cans and bottles. It is also loaded with dangerous bacterial life which have a deleterious effect upon the milk and its products. Cows that are plastered with this kind of mud should be thoroughly cleaned before they are milked.

One of the most prolific causes of trouble during the summer months is that of old, sour strainer cloths which are rinsed in lukewarm water and hung up to dry. These cloths should be put in boiling water and thoroughly cleansed before being used for another milking. Ordinary wire strainers are worse than none at all. They are very difficult to keep clean and are almost worthless for removing fine dirt and dust.

W. M. K.

As soon as we find a well-balanced ration that produces good results, we should stick to it; for changes in the line of feeding are often expensive and produce heavy losses.

Oct 24 1918 - Thursday - Oct 24 1918

Howell Sales Co. of Livingston County

5th ANNUAL SALE

At Sale Pavilion, Howell, Mich.

90 head of Registered Holsteins 90

Mostly fresh cows or cows soon to freshen, a few good heifers and calves, 3 good bulls. We will sell: A 27.64 lb. Jr. four yr. old; A 26.78 lb. three year old and her two year old daughter sired by Beauty Walker Pieterje Prince. A 24.78 lb. daughter of Vale Elzevere De Kol 2nd; A 24.90 lb. Grand daughter of Johanna Korndyke De Kol. Others with good records. Reference Sires: A son of a 45 lb. cow and sired by a 32 lb. son of Rag Apple Korndyke 8th, a son of King of the Blacks and Whites and a 28 lb. cow. A son of King of the Pontiacs and a 31 lb. cow; A son of King Segis Champion Mabel; A son of a 32 lb. cow; A son of 29 lb. Granddaughter of Pontiac Korndyke. All cattle are consigned by Livingston county breeders and are tuberculin tested either by federal veterinary or state approved vet.

Auctioneers: Mack, Perry.

Send For Catalog

JAY B. TOOLEY, Secy.

"THE OCTOBER QUALITY SALE"

100--Choice Registered Holsteins--100

SALES PAVILION

HOWELL, MICHIGAN, OCTOBER 30th 1918

A quality sale, including 97 females and 3 bulls, carefully selected individuals, free from blemishes. Every animal backed by strictest guarantees.

TUBERCULIN-TESTED BY FEDERAL AUTHORITY AND SOLD SUBJECT TO SIXTY-DAY RETEST.

A rare opportunity to select healthy animals for foundation purposes.

Michigan Breeders' Consignment Sale Co.

H.W. NORTON Jr. Mgr., East Lansing, Mich.

SEND FOR CATALOG



15,000 to 30,000
Pounds of Milk

Seventy-seven cows have been admitted to the Holstein Friesian Advanced Register that have produced 7,000 to 15,000 quarts of milk in periods of ten months to a year. The capacity of the Holstein cow for milk is a matter of extraordinary interest.

If interested in
HOLSTEIN CATTLE
Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 164, Brattleboro, Vt.

Jack Bill
Winn--Wood Herd
Registered Holsteins
Sire in Service
Flint Maplecrest Boy

Who is bred for real production his sire Maplecrest Korndyke Hengerveld is one of the best bred long distance bulls in the world. He or his dam are brother or sister to six cows with records above 1,200 lbs. of butter in one year and ten more above 1,000 lbs. in a year. Flint Maplecrest Boys' Dam is Gluck Vassar Bell 30.57 lbs. of butter in 1 day, 32 lbs. in 30 days. Butter fat test 5.7%. Is there a reason why Flint Maplecrest Boy is not one of Michigan's greatest young sires. None of his females are for sale until after we test them. But we have 10 of his bull calves from 2 to 9 months old, with A. R. O. dams which we now offer for sale at prices any dairy farmer can afford to pay. Just tell us the kind of a bull you want.

JOHN H. WINN, Inc.
Lock Box 249, Roscommon, Mich.

The Pontiac Herd
"Where the Champions come from"

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

Do you want a Pontiac in your herd?

Pontiac State Hospital, Pontiac, Mich.

"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.

The Traverse Herd
This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27 lbs in 7 and 10.35 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices but hurry for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Michigan.

Parham's Pedigree Stock Farm offers Reg. Holstein cattle, Chester White Swine, extra bargains in calves and fall pigs. Bulls half price. R. B. PARHAM, Bronson, Mich.

\$50 Liberty Bond gets 1 mo. old gdson of Maplecrest Korn. Heng. dams are granddaughters of Pontiac Maid 30.21 lb. Heifers same age breeding \$150 terms Hard free tuber. M. L. McLaurin, Redford, Mich.

Want Yearly Records?

Our new sire has four sisters whose semi-official records are 677, 742, 913 and 946 pounds of butter in one year respectively at 2 to 3 years of age. His dam is a daughter of Friend Hengerveld De Kol Butter Boy, four of whose daughters have records over 1000 pounds and she is also a granddaughter of Pontiac Aagie Korndyke, with six daughters above 1000 pounds of butter in one year.

Peaceland Stock Farm, Three Rivers, Mich.
C. L. Brody, Owner Port Huron, Mich.
Charles Peters, Herdsman

DO YOU WANT

A Holstein Bull calf ready for service with exceptional breeding? Write
HILLCREST FARM,
Kalamazoo, Mich.

For Sale Registered Holstein Cow 6 years old good size & color easy milker, gentle & kind. Fresh Sept. 24 with heifer calf sired by grandson of King Fyane Segis. (Sire of 50 lb. cows) Price of both \$250. Also 2 heifers sired by above bull soon be 2 years old, good size and color. Bred to 30 lb. bull. Dams good A. R. O. cows, write for prices.
WALNUT STOCK FARMS, Clio, Mich.
R. I. L. J. Benjamin & Son, Prop.

HOLSTEINS of quality. Bull calves from dams with records high as 31 lbs. in 7 days. Also colts puppies. E. A. HARDY, Rochester, Mich.

For Sale Cheap 2 Holstein bull calves, born Jan. 28 and Mar. 22, both from 29.42 lb. sire. One from 23.80 lb. 4 years old dam, also a few females. A. F. LOOMIS, Owosso, Mich.

REG. Holstein: Bull calf born Dec. 26, 1917, a splendid individual, straight, deep bodied & white, 7 nearest dams have A. R. O. records, that average butter 7 days 22.21 lbs. milk 497 lbs. W. B. Reader, Howell, Mich.

Registered Holsteins. To make room for cows or bred heifers to freshen soon.
CLARE W. WILSON, E. 4, Mason, 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.

The Jersey
Dollars in profit go with Jerseys. They actually "milk money." They feed less. They look real value. Jerseys are a gilt-edged investment for the one-cow home or the hundred-cow dairy farm. There are a thousand proofs of Superiority. Write to Breeders for prices and pedigrees. Let us send you "Jersey Facts", free.
The American Jersey Cattle Club, 246 West 23rd St. New York City

Lillie Farmstead Jersey Cattle. Several heifers bred to freshen next fall. Also a few heifer and bull calves of choice breeding. Colon G. Lillie, Coopersville, Mich.

For Sale Choice Jersey bull registered, age 22 months. Strain St. Lambert and Majesty. Markings solid color, black tongue and switch. Reason of sale, related to owner's herd.
SEYBURN FARM, R. 7, Pontiac, Mich., Tel. 710F4.

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

Maple Lane R. of M. Jersey Herd. Bulls, bull calves and heifer calves sired by one of the best grandsons of Poggi 99th of Hood Farm and out of R. of M. dams.
IRVIN FOX, Allegan, Mich.

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

THE Wildwood Jersey Farm offers for sale choice bull calves for fall service from R. of M. daughters of Majesty's Wonder by Majesty's Oxford Fox. Herd tuberculin tested. When looking for a sire to head your herd, get a Majesty. Alvin Baldwin, Capao, 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. Deane, Ypsilanti, Mich.

Meridale Interested Owl No. 111311 heads my herd. Bull calves from this great sire and out of R. of M. dams for sale. C. B. WEHNER, Allegan, Mich.

HEREFORDS

3 Extra nice yearling heifers. 3 extra nice heifer calves old enough to wean. 4 extra nice bulls from 8 to 12 mos old not related to heifers. Prince Donald, Farmer and Perfection Fairfax breeding. If interested come and see them.
ALLEN BROS., Paw Paw, Mich.

Herefords Polled and Horned blood lines perfection and Prime Lad 8th breeding. Prices reasonable. **COLE & GARDNER,** Hudson, Mich.

BIDWELL SHORTHORNS
For Beef and Milk.

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 Farm
Shorthorns

Sires in Service: Fair Acres Goods and IMP. Lorne-Michigans Grand Champion Bull. Attend the Shorthorn Sale at Lansing Oct. 9th. We invite you to inspect the cows and heifers we have listed in this sale.

C. H. PRESCOTT & SON, Herds at Prescott, Mich. Office at Tawas City, Mich.

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.

The Kent Co. Shorthorn Breeders Association are offering some choice animals at reasonable prices. Write your wants.
L. H. LEONARD, Sec., Caledonia, Mich.

SHORTHORNS
Cows, heifers & young bulls for sale at farmers' prices; herd catalog mailed free. Horrieton Farms, Hart, Mich.

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

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

Shorthorn Bulls ready for service of the choicest breeding. Write me you wants.
A. A. PATTULLO, R. 4, Deckerville, Mich.

For Sale Shorthorns of Quality Scotch and Hope, Avondale, Maxwellton Sulton and White Hall Sulton by the Oscola Co. Shorthorn Breeders Ass. **JOHN SCHMIDT, Sec.** Reed City, Mich.

Six Registered Shorthorn bulls for sale. Prices right.
E. R. HAWLEY & SONS, R. 3, Stockbridge, Mich.

GUERNSEY BULLS
Eighteen months old and younger. Grandsons of Golden Noble II; free from disease. Guaranteed in every particular and at farmers' prices.
J. L. SNYDER, East Lansing, Mich.

FOR SALE 3 ear loads of dehorned 2 yr. old grade Durham steers.
BANGLER & Mc GINNESS, Lake City, Mich.

For Sale 1 Scotch heifer coming 3 years old, with the best of Scotch breeding. Also some very nice Dairy bred Shorthorns of both sex.
T. I. MARTIN, R. 1, Ionia, Mich.

HOGS

Durocs. Choice spring pigs out of selected sows and sired by our best hard boars. They are of the big type, strong boned, smooth and of excellent quality and include some of the most popular blood lines such as Orion Cherry King, Top Col. Defender, Brookwater etc. Prices reasonable. The Jennings Farms, Bailey, Mich.

DUROC BOARS
Big long, tall, growthy boars. The kind that will add size and growth to your herd. Biggest March farrowed pigs in country. Weigh 200 lbs. not fat.
NEWTON BARNHART, St. Johns, Mich.

DUROC Jersey Spring boars for sale. Good breeding and hard bone. Prices and descriptions on request.
J. D. CRANE & SON, Plainwell, Mich.

Duroc Jersey King Cal. Write for prices and description.
W. C. TAYLOR, Milan, Mich.

DUROCS April and May pigs of both sexes sired by a Defender bred boar. For prices etc., write
WELLS PARISH & SONS, Allendale, Mich.

DUROC JERSEYS
E. D. HEYDENBERG, Wayland, Mich.

Choice Duroc Jersey Gilts For Sale.
CAREY U. EDMONDS, Hastings, Mich.

Duroc Jerseys for sale. Spring & fall pigs of both sexes also Shorthorn bulls milking strain.
CHAS. BRAY, Okemos, Mich.

Duroc Jerseys Big heavy boned spring boars winners at State and County Fairs. Place order early.
F. J. DRODT, R. 1, Monroe, Mich.

For Sale Pure Duroc-Jersey pigs, either sex, long, big bone, prolific kind, ready for shipment about Oct. 15th. \$10.00 each. crated f. o. d. Bankers.
B. E. KIES, Hillsdale, Mich.

Crandell's Big Type O. I. C's
Champion herd everywhere shown in 1917. Herd headed by five champion boars. Our sows won Senior, Junior and Grand Champion prizes at Illinois, Missouri, Ohio and Michigan 1917. Special prices on all spring pigs. Get our catalog it is free.
Crandell's Prize Hogs, Cass City, 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—Free Money from Hog Raisers.
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

Chesters May boars. Sept pigs in pairs or trios not akin from mature stock of the best blood lines obtainable.
F. W. ALEXANDER, Vassar, Mich.

Chester White Boars and sows, spring farrow, Polled Durham calves, Shropshires, good ones.
FRANK BARTLETT, Dryden, Mich.

LAST fall gilts all sold, have a good lot of last spring pigs from 3 sires good growthy stock. Farm ½ mile west of depot. Citizens Phone 124.
OTTO B. SCHULZE, Nashville, Mich.

BRED GILTS and SERVICEABLE BOARS
J. CARL JEWETT, Mason, Mich.

O. I. C.'s a few choice Apr. and May pigs either sex and 4 reg. Holstein heifers.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. & Chester White Swine
Strictly Big Type with QUALITY. Have a few spring pigs either sex for sale. They are of the right stamp, good enough to be shipped C. O. D.
NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

O. I. C. spring pigs for sale. I ship C. O. D. and guarantee to please.
F. C. BURGESS, R. 3, Mason, Mich.

L. S. P. C. all sold out, except the largest farrow. H. O. SWARTZ, Shoolcraft, Mich.

Big type P. C. Big boned fellows from Iowas greatest herds, special prices on spring boars and choice bred gilts.
E. J. MATHEWSON, Burr Oak, Mich.

Big Type Poland Chinas. Spring pigs for sale. Healthy and growthy. From large litters. Prices right.
L. W. Barnes and Son, Byron, Mich.

LARGE Type P. C. Just 5 choice summer gilts bred for July and August farrow. Come and see them.
W. J. HAGELSHAW, Augusta, Mich.

Big Type P. C. Spring Boars for sale, also Hampshire shire Ram lambs.
A. A. WOOD & SON, Saline, Mich.

Large Type P. C.
Bred gilts and boars all sold nothing to offer at present.
W. E. LIVINGSTON, Parma, Mich.

Large type P. C. fall gilts up to 365 lbs. ready to ship bred for Aug. and Sept. farrow. Fall sale Nov. 29.
Wm. J. CLARKE, R. 7, Mason, 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.

OLD FASHIONED Spotted Poland-China Hogs Spring Gilts and Fall Gilts bred or unbred, reasonable.
J. M. WILLIAMS, No. Adams, Mich.

Pedigreed Big type Poland-China pigs, both sexes, Aug. farrow free Certificates of Registry, reasonable prices.
LONE CEDAR FARM, R. 2, Pontiac, Mich.

Big type P. C. Boar one yearling. Large and fine every way 2 fall yearling 10 Apr. boars. Write for prices. Satisfaction guaranteed.
R. W. MILLS, Saline, Mich.

Big type P. C. Boars all ages the kind that make good, meet me at the fairs.
R. R. LEONARD, St. Louis, Mich.

Yorkshire Gilts
(Pigs that are Pigs)
For fall or Winter Breeding. Address
OAKCROFT, R. 7, Pontiac, Mich.

Registered Hampshire spring boars now ready at a bargain. Bred gilts in Dec.
JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP

Hampshire
Shropshire and Oxford, either sex, send for circular and prices.
KOPE KON FARMS, Kinderhook, Mich.

Hampshires am offering for sale 10 yearling Rams also 5 ram lambs
F. A. SIMMONS, Rockford, Mich.

"STRAIGHT BROOK STOCK FARM"
Hampshires. I have 22 yearlings and 20 ram lambs for sale. Best of breeding. J. B. Welch, R. 1, Ionia, Mich.

Some Good Breeding Ewes and registered RAMS for sale.
Barnard Sheep Ranch, R. 5, Clare, Mich.

Additional Stock Ads. on Page 343

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, October 10.

WHEAT.

The demand for wheat is well sustained. The grain is now being freely taken by millers and exporters. Flour is also in good demand. The visible supply shows an increase of 7,285,000 bushels for the United States. A year ago No. 2 red wheat sold on the local market at \$2.17 per bushel. Present prices here are unchanged from last week as follows:

No. 2 red wheat	.....\$2.22
No. 2 mixed	..... 2.20
No. 2 white	..... 2.20

CORN.

Further declines in corn have followed the appeal of the Central Powers for peace. The bearish attitude has also been supported by good weather and heavy receipts from farmers. The movement to primary markets shows some increase. Consumption, however is healthy, there being a decrease in the visible supply of 8,000 bushels. One year ago No. 2 corn sold in Detroit at \$1.99 per bushel. The present prices here are:

No. 3 corn	.....\$1.25
No. 3 yellow	..... 1.35
No. 4 yellow	..... 1.25
No. 5 yellow	..... 1.15
No. 3 white	..... 1.35

Chicago prices show a wider decline than in Detroit, with No. 2 yellow now quoted at \$1.50; No. 3 yellow at \$1.35 @1.38; November corn \$1.14%.

OATS.

Oat prices have been pulled down by the decline in corn. The average yield of this grain in Michigan as shown by returns of threshermen is 40.38 bushels per acre. This grain is in good demand from cereal interests, millers and for eastern shipment. A year ago the local price for standard oats was 62c. Present prices here are:

Standard	.....71½
No. 3 white	.....71
No. 4 white	.....70

RYE.

Rye has come in for a little more attention the past week, with the local price advance 1c, or \$1.62 per bushel for Cash No. 2 at Detroit. The visible supply has increased 894,000 bushels during the week.

BARLEY.

Very little of this grain is reaching the market, especially that grown in Michigan, as practically all of it is wanted for consumption in the districts where grown. Yields have generally been good in northern states. At Detroit the latest sales were by sample at \$1.98@2.10 per cwt.

BEANS.

The yield of beans in this state is not going to be as large as was earlier estimated. According to the threshermen's returns to the Secretary of State the average of the acreage so far threshed is 9.38 bushels. As a result, Detroit prices have advanced to a basis of \$9.25 per cwt. According to reports from various sections of the state, farmers are receiving all the way from \$7@8.50 per cwt. Reports from the east show that the trade is improving a little, although quotations remain unchanged. At New York the best pea beans bring \$11@11.25, and common to fair \$10@10.75 per cwt. The Chicago market is rather quiet, with the trade confined to navy beans, which are quoted at \$10.50@11 for the choice hand-picked Michigan stock.

SEEDS.

There is an active demand for seeds, and prices are holding steady as follows: Prime red clover \$22.50; alsike \$18.25; timothy seed \$5.

HAY.

The shortage of the hay crop is making it difficult for buyers to have things their way in the market here or elsewhere. Prices remain firm and those wanting the feed are taking it despite the high quotations. The local prices are:

No. 1 timothy	...\$29.50@30.00
Standard timothy	28.50@29.00
No. 1 mixed	... 24.50@25.00
No. 1 clover	... 23.50@24.00

FEEDS.

Prices for mill feeds are higher than last week as follows: Bran \$35@35.50;

middlings \$37@37.50; coarse corn meal \$60; cracked corn \$61; chop feed \$45@48 per ton in 100-lb. sacks.

POTATOES.

The peak movement of potatoes has passed and daily shipments now run between 800 and 900 cars. However, the movement in Michigan is gradually increasing, although the total number of cars started in seven other states exceeded those rolling in this state on Tuesday. In the majority of the northern markets liberal supplies are reported. While prices are tending to lower levels, the change the past week has been small. U. S. Grade No. 1, round whites are selling in Detroit in bulk at \$2. At Cleveland the same grade brings \$2.50; at Buffalo \$2.35@2.50; at Pittsburgh \$2.35@2.40 (sack-

ed); at Cincinnati \$2.50; at Indianapolis \$1.85. The federal crop report for October shows a gain from 384,529,000 bushels to 391,279,000 bushels since September 1. Michigan's crop has increased from 28,856,000 bushels to 30,287,000 bushels according to the same authority.

APPLES.

The present movement of apples is liberal with prices showing a tendency downward. In the producing sections growers are getting from \$3.25@5.50 per bbl, according to varieties and grades. At Benton Harbor, Mich., the leading winter varieties are bringing up to \$5.50 per bbl. Much of the marketing this year is being done in bushel lots. At Detroit, Wealthy, Alexanders and Kings are bringing \$1.25

@2 per bushel, orchard run with culls removed.

BUTTER.

A steadier feeling prevails in the butter trade, although the market is on a lower basis than a week ago. At Detroit fresh creamery extras are now bringing 55½c; do firsts 55c. At Chicago the range is from 51@56c, and at New York 56½@59½c. The Philadelphia market quotes extra creameries at 59c and fancy prints at 64@66c.

CHEESE.

The trend of prices in the cheese market is upward with production below normal and the buying element showing no signs of slowing up on the demand. Daisies now bring 34c at Detroit, 36½@37c at Chicago. Jobbers pay 33@33½c for fresh specials, 32½c for average run in New York City. The Philadelphia market is firm at 31@33c.

EGGS.

Although consumption is being restricted somewhat by high prices, the receipts are not adequate to prevent further advances. Current offerings from Michigan sell to jobbers in Detroit at 47c, with firsts in new cases at 48½c; storage packed firsts at 42@43½c. At Chicago the trade is paying 47@48c for firsts, 45@46½c for ordinary firsts. The New York trade rules steady, with nearby western goods quoted at 50@75c. Philadelphia market is firm at \$15.90@16.20 per case for western extra firsts and \$15.30@15.60 for do. firsts.

DETROIT CITY MARKET

Farmers continue to do a big business on the municipal markets. Potatoes bring \$1.50@1.65; onions \$1.15@1.50; tomatoes \$50c@1.50; cabbage 60c; parsnips 90c@1; pears \$1.75@2; apples \$1.25@2; eggs 68c.

DRAFT ADVISERS NAMED FOR MICHIGAN.

They Are to Work with the District Boards and Present Needs for Skilled Farm Workers.

The Department of Agriculture today announced the appointment of the following men to act with the district draft boards of Michigan as advisers regarding agricultural needs:

C. L. Brody, Port Huron, Mich.—Agricultural adviser to district board (eastern) Division No. 2, with headquarters at 2130 Penobscot Building, Detroit, Mich.

A. B. Cook, Owosso, Mich.—Agricultural adviser to district board (eastern), Division No. 3, with headquarters in the Federal Building, Lansing, Mich.

T. F. Marston, Bay City, Mich.—Agricultural adviser to district board (eastern), Division No. 4, with headquarters in Eastern City Hall, Bay City, Mich.

James J. Jakway, Benton Harbor, Mich.—Agricultural adviser to district board (western), Division No. 1, with headquarters at 406 Peck Building, Kalamazoo, Mich.

R. D. Graham, Grand Rapids, Mich.—Agricultural adviser to district board (western), Division No. 2, with headquarters in the City Hall, Grand Rapids, Mich.

F. H. Vandeboom, Marquette, Mich.—Agricultural adviser to district board (western), Division No. 3, with headquarters at the Michigan College of Mines, Houghton, Mich.

The agricultural advisers are not to be members of the district boards, but are to furnish to the boards facts relative to farm-labor requirements, not only of their own districts but of the entire country. Such information will be supplied to the advisers by the Department of Agriculture. The advisers also may concern themselves with individual cases before the district board. County agents of the Department of Agriculture have been supplied with questionnaires to be sent out for the purpose of securing facts about the farm-labor needs in the counties.

PRICES FIXED BY THE DETROIT MILK COMMISSION.

The Detroit Milk Commission, at its meeting on September 27, fixed the price of milk in the country at \$3.40 per one hundred pounds for the month of October. For the month of November, the price in the country will be \$3.55 per one hundred pounds. This applies to milk in the first freight zone, testing 3.5 per cent.

Live Stock Market Service

Reports for Thursday, October 10th

BUFFALO.

Our market here today was taking pigs at \$18.50; other grades \$10; lambs \$17; calves up to \$19.25. No cattle were offered on today's market.

CHICAGO.

Cattle.

Receipts 23,000. Market opening is very slow; lower on all except the best corn-fed steers.

Good to prime choice steers \$15@19.60; common and medium butchers \$9.75@15; heifers \$7.35@13.75; cows \$7.60@13.25; bologna bulls \$7.25@13.50; canners and cutters \$6.60@7.50; stockers and feeders, good \$10.50@13.75; do, medium \$7.50@10.50.

Hogs.

Receipts 27,000. Market is 15@25c lower.

Tops \$18.60; heavy \$18.25@18.50; mixed and light \$18.10@18.60; packers' hogs \$17.25@17.50; medium and heavy \$17.35@18; light bacon hogs \$17.75@18.25; pigs, good to choice \$16.25@17.25; roughs \$16.75@17.20.

Sheep and Lambs.

Receipts 32,000. Market slow and steady.

Choice to prime lambs \$16@16.50; medium and good lambs \$13.75@16; culls \$8@12.50; medium, good and choice feeders \$13@14.50; choice yearlings \$12.25@12.75; medium and good yearlings \$11.25@12.25; wethers, medium and good \$10.25@11.50.

Reports for Wednesday, October 9th

BUFFALO.

Cattle.

Receipts five cars; market is 25c higher; prime heavy steers \$15@16; best shipping steers \$13@14; medium shipping steers \$11@12; best native yearlings \$9.50@10; light native yearlings, good quality \$13@14; best handy steers \$11.50@12.50; fair to good kinds \$10.50@11; handy steers and heifers, mixed \$9.50@10.50; western heifers at \$9.50@10.75; state heifers \$7.50@8.50; best fat cows \$10@11; butcher cows \$7.50@9; cutters \$6@6.50; canners at \$4.50@5.75; fancy bulls \$9@10.50; butcher bulls \$8@9; common bulls \$6@7; best feeders \$9@11; medium do. \$8.50@10; stockers \$7.50@8.50; light common \$6.50@7; best milkers and springers \$10@15; mediums \$7.50@9; common \$5@7.00.

Hogs.

Receipts 10 cars; strong; heavy and yorkers \$18.75@18.85; pigs \$18.25.

Sheep and Lambs.

Receipts two cars. Market is steady; lambs at \$16.50@16.75; yearlings \$11@12.50; wethers \$10.50@11; ewes \$9@10; calves at \$7@19.

CHICAGO.

Cattle.

Receipts today are estimated at 14,000 head, including the usual fair percentage of westerns and grassy natives, with no prime corn-fed steers offered. Prices for the better class of beef cattle are firm, but otherwise steers are weak and largely more or less lower than at last week's close. Canners and cutters are mainly steady but to a large extent butcher stock is

DETROIT

Cattle.

Receipts 3,099. Market closed steady. All grades 50c higher than last week's close.

Best heavy steers	.....\$12.00@14.25
Best handy wt bu str.	10.00@11.00
Mixed steers and heifers	9.50@10.00
Handy light butchers	8.50@9.00
Light butchers	7.50@8.00
Best cows	9.00@9.50
Butcher cows	7.50@8.25
Cutters	6.50@7.00
Canners	6.00@6.50
Best heavy bulls	9.00@9.50
Bologna bulls	8.00@8.50
Stock bulls	7.50@8.00
Feeders	9.00@10.00
Stockers	8.00@8.50
Milkers and springers	\$60@125

Veal Calves.

Receipts 1,043. Market steady.

Best	.....\$18.00@18.50
Others	..... 7.00@14.00

Sheep and Lambs.

Receipts 4,797. Market 25c higher than Wednesday for lambs; sheep are steady.

Best lambs	.....\$15.75@16.00
Fair lambs	..... 14.50@15.25
Light to common lambs	10.00@13.75
Fair to good sheep	9.50@10.00
Culls and common	5.00@7.00

Hogs.

Receipts 8,003. Market 15@25c lower than yesterday. Hogs \$17.50@17.65; mixed hogs \$17.75@17.85.

off 15@25c for the week. The stocker and feeder trade is smaller than last week, and the poorer lots are irregularly lower, most stockers and feeders selling at \$9@12, with thin undesirable stockers going to killers at large declines. About 65,500 cattle have arrived on the market during three days, comparing with 53,147 for the same time last week, and supplies are again excessive. Common to prime native steers are quotable at \$10@19.60, with butcher cows and heifers at \$7.30@15, canners and cutters at \$6.25@7.25, range steers at \$10.50@17.50 and stockers and feeders at \$7.25@12.90. The best veal calves bring \$18.

Hogs.

Receipts for half of the week amount to 74,000 hogs, comparing with 66,270 for the same time last week. With estimated receipts of only 15,000 hogs today, the market is steady to about a dime lower, sales ranging at \$17.15@18.80, while most of the pigs are selling at \$15@17.25. Prime heavy barrows top the market, with the best light hogs selling at a discount of 10 cents or more.

Sheep and Lambs.

Receipts for the first half of the week amount to 140,100 head, comparing with 126,949 for the same time last week. With estimated arrivals of 42,000 head today, the market is fairly active at generally unchanged prices, range lambs being salable at \$13.50@16.25, native lambs at \$10.50@16, yearlings at \$10@12.75, wethers at \$10@11.75, ewes at \$4.50@10.50 and bucks and stags \$7.50@8.50. Feeding lambs are salable at \$14.40 for the best down to \$11 for common lots.

GROWING AND MARKETING POTATOES.

(Continued from page 326.)

crop so as to realize top market prices before shipments from a distance can come in and lower the prices. In such a locality one can frequently sell his crop at from seventy to eighty cents per bushel when growers in other localities are selling their crop for fifty cents per bushel.

During the past few years many growers in localities where the crop makes a good yield, but is not quite good enough for market are finding it profitable to grow seed potatoes for growers in other localities. Arrangements are made with a number of reliable growers in a locality to grow so many bushels or acres at a fixed price or a price a few cents above the general market. These potatoes must be grown from selected seed and the crop given good care from start to finish. Growers in several southern localities and also in some of the irrigated sections have their seed grown in this manner. It is an arrangement that works to the advantage of both grower and buyer and eliminates the selling problem for farmers who live outside of the more favored potato-growing regions.

STATEMENT OF OWNERSHIP AND MANAGEMENT OF THE MICHIGAN FARMER, PUBLISHED WEEKLY AT DETROIT MICHIGAN, REQUIRED BY THE ACT OF AUGUST 24, 1912.

Editor, I. R. Waterbury, Detroit, Mich.

Managing Editor, M. J. Lawrence, Washington, D. C.

Business Manager, I. R. Waterbury, Detroit, Mich.

Publisher, The Lawrence Publishing Co., Detroit, Michigan.

Owners holding one per cent or more of total amount of stock:

M. J. Lawrence, Washington, D. C.

Carrie J. Lawrence, Washington, D. C.

P. T. Lawrence, New York City.

Estate of M. L. Lawrence, Cleveland, Ohio.

Citizens' Savings & Trust Co., Trustee, Cleveland, Ohio.

Nellie B. Lawrence, Guardian, Cleveland, Ohio.

Mrs. G. B. Rogers, Cleveland, Ohio.

Lillian Cotton, Cleveland, Ohio.

E. D. Pope, Cleveland, Ohio.

R. M. McConville, Cleveland, Ohio.

Kate E. Munsell, Detroit, Mich.

F. H. Nance, Lakewood, Ohio.

Neff Laing, Philadelphia, Pa.

J. F. Cunningham, Lakewood, Ohio.

I. R. Waterbury, Detroit, Mich.

Known Bondholders, Mortgagees and Other Security Holders—None.

(Signed)

I. R. WATERBURY,
Business Manager.

Sworn to and subscribed before me this Thirtieth Day of September, 1918.

CLARENCE E. HAMLIN.

Notary Public.

TRACTOR

Specifications for 173 tractors, operated machines, plow information, etc., in 180-page Tractor

FIELD BOOK

Sent postpaid for 25 cents, stamps or coin. Get posted on ALL makes before you buy.

FARM IMPLEMENT NEWS
795 Masonic Temple, CHICAGO

Mr. POULTRY FARMER:

We make a specialty of White Henner Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henner Whites—We remit same day shipments arrive. Ship Often—Ship by Express

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment.

CULLOTTA & JUELL

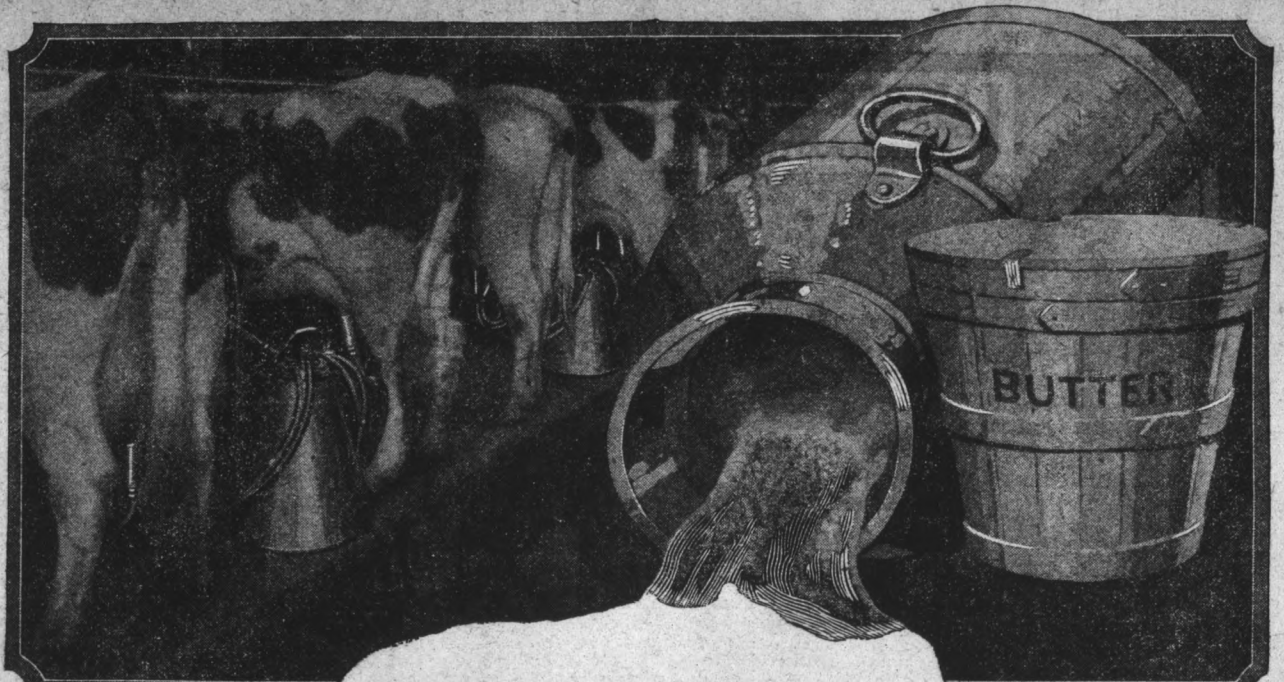
Eastern Market, Detroit, Mich.

We handle only on commission. No merchandise competition with your goods. Highest prices possible obtained on arrival, 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.

Eggs. Etc.—Small consignments from very attractive prices NOW. Prompt returns always. Refer to Dan or Bradstreet. Ship us your next case. ZENITH BUTTER & EGG CO., 170 Duane St., New York, N. Y.



You should use UNICORN DAIRY RATION

Because—it will make more milk and cut down your milk costs.



Because—you can save from 10 to 20% of your feed costs through the use of fewer pounds of grain per cow and the increase in milk or fat per cow.

Because—there is 10% more available food material in Unicorn than in any ration on the market.

Because—it saves labor and the mistakes of mixing and feeding. It is always uniform and reliable.

Because—Unicorn Dairy Ration is suitable for feeding alone, or can be fed with home-grown corn, oats or barley. Unicorn contains ample protein and may therefore be used either as a protein feed or as a complete ration.

Ask your dealer or write

CHAPIN & CO.,
Dept. M, Chicago

An Organization for Michigan Farmers

More than \$1,000,000.00 of business written the first year. This proves the demand for our Company.

More than \$120,000.00 of first real estate mortgages on deposit with the state treasurer which proves our responsibility.

Your liability can be protected by our reliability

This is no time to take long chances. In these critical times "safety first" should be the watchword.

Cooperate with us and insure your livestock against death from accident and disease and thus save more than \$3,000,000.00 annually to the farmers of Michigan and to society.

Consult our local agent in your vicinity.

MICHIGAN LIVE STOCK INSURANCE COMPANY

Colon C. Lillie, Pres. Harmon J. Wells, Sec.-Treas.
319 Widdicomb Bldg., Grand Rapids, Mich. Graebner Bldg., Saginaw, W. S., Mich.

SHEEP

AUCTION SALE

of Reg. Shropshire, Wed. Oct. 16

7 miles southwest of Lapeer. On account of my husband's death, am obliged to sell my entire flock of 120 Reg. Sheep, 66 head of ewes mostly young, 10 head of yearling rams, 24 head of ewe lambs, 23 head of Ram lambs, sired by my imported 2 yr. old Berry 163 Ram which also is included in sale. Will meet all A. M. Trains at Lapeer.

Mrs. CARIE GIBSON, Lapeer, Mich.

Registered Shropshire yearling and ram lambs with best of breeding and size. Prices \$40 to \$60 also a few bred ewes at \$30.

H. F. MOUSER, R. 6, Ithaca, Mich.

Shropshire Am offering 8 yearling rams now. Also 12 young ewes for December delivery.

C. J. THOMPSON, Rockford, Mich.

Shropshire yearlings and ram lambs, one Kope Kon 2 yr. old ram. All wool-mutton type.

G. P. ANDREWS, Dansville, Mich.

Registered Shropshire yearling ewes and Registered Shropshire yearling rams. Representatives of this flock have given satisfaction in many states since 1890. Priced to sell.

C. Lemen, Dexter, Mich.

Brookside Farm offers Shropshires of quality, 10 ewes 40 rams.

DAN BOOHER, R. 4, Ewart, Mich.

Shropshires 15 yearling rams 30 ram lambs 25 B. D. KELLY & SON, ewes 30 ewe lambs. Priced right, Ypsilanti, Mich.

FOR SALE Shropshire Ram lambs 10 bred ewes and 10 Ewe lambs. ARMSTRONG BROS., R. 3, Fowlerville, Mich.

For Sale Oxfords

1-2 year old ram beauty, 3 good yearling rams at farm prices, also few good ewes, Can breed to our Canadian ram and ship Dec 1st. if desired.

GEO. T. ABBOTT, Palms, Mich.

OXFORD RAMS

1-2 year old, 3 yearlings and 6 lambs. All reg.

EARL C. McCARTY, Bad Axe, Mich.

Reg. Oxford ram lambs; come by auto and take the R. choice at \$30 and \$35 fine stock. 2 S. 3 W. St. Johns.

J. R. HICKS, St. Johns, Mich.

Choice Oxford Yearling Rams For Sale

H. B. PETERS, Carland, 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 Oxford Sheep, Yearling and ram lambs.

H. W. MANN, Dansville, Mich.

OXFORDS LAMBS

and yearling rams. O. M. York, Millington, Mich.

Improved Black Top Delaines. Sixty Reg. Rams to choose from. NEWTON & BLANK, Hill Crest Farm, Perrinton, Mich. Farm situated four miles south of Middletown.

LINCOLNS

Good Lincoln rams and ram lambs also a few ewes bred if desired for sale. E. Knight, Gagetown, Mich.

Have a few good yearling and ram lambs Also a limited amount of young ewes. HARRY POTTER & SON, Davison, Mich.

Merino and Delaines having size, covering, oily fleeces, quality, rams worth the price, write wants. S. H. Sander, R. 2, Astabula, O.

For sale 48 breeding ewes one to four years old Hampshire and Dorsets all fine grade. One 2 years old Dorset Ram Registered. Box 15, Irons, Mich.

Cotswold, Lincoln, Lesters, Tunis, Hampshire and Shropshires, all recorded papers with each. LEROY KUNEY, Adrian, Mich.

HORSES

Horses Will Be Horses Soon

We have on hand at all times a choice selection of young Percheron Stallions. Also have a few good work horses that we are offering to exchange for young stallions.

PALMER BROS.,

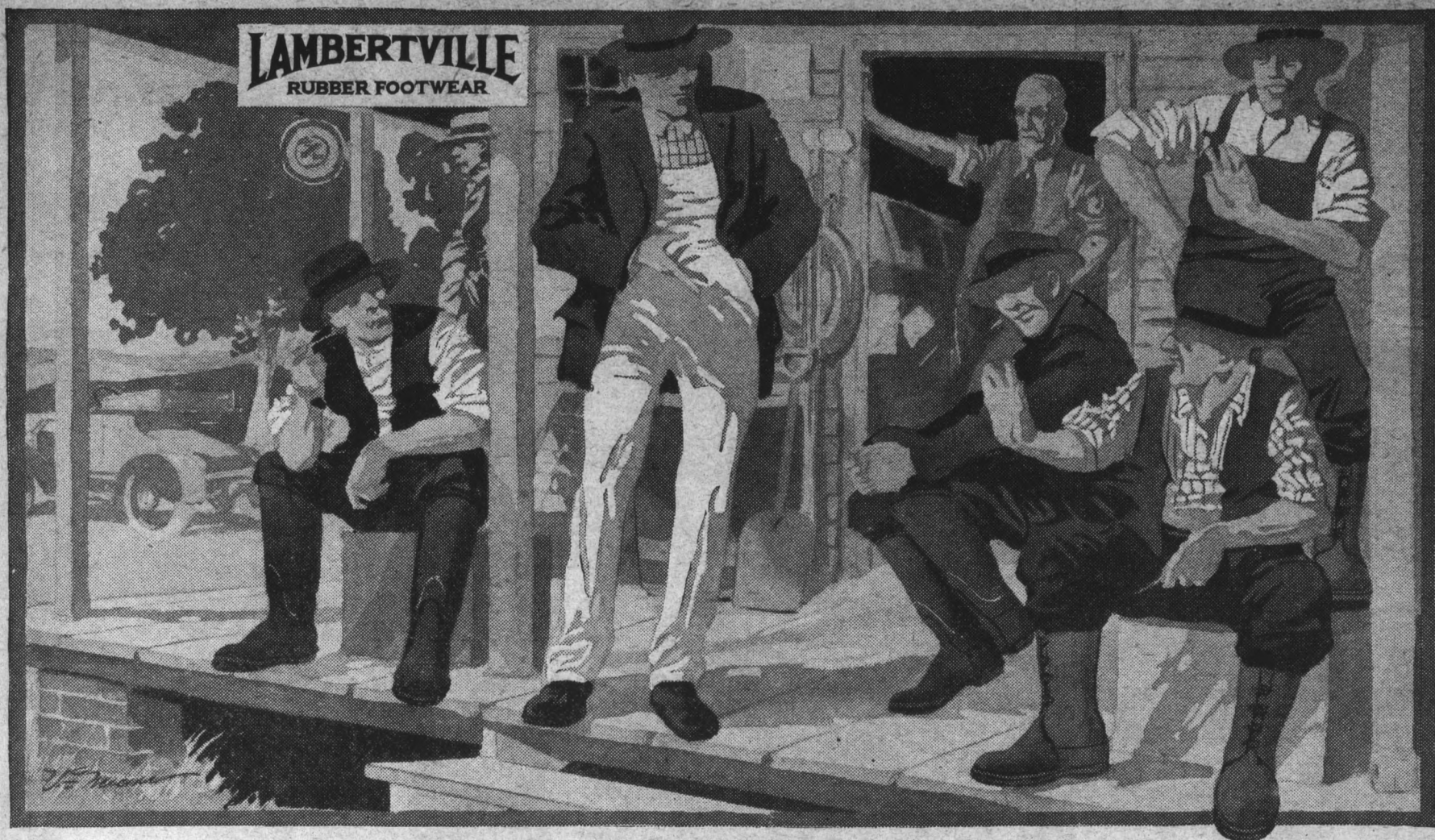
R. R. Orleans, Belding, Mich.

Percherons, Holsteins, Angus, Shropshires, Durocs DORR D. BUELL, Elmira, Michigan.

Percheron Stallions and mares of reasonable prices; inspection invited. F. H. KING & SON, Charlotte, Mich.

Percherons for sale. Stallion three years old. Mare six, at the right price to close out. E. J. ALDRICH, Tekonsha, Mich.

Auction Sale of Reg. Perch., Reg. Shorthorns and Duroc Hogs, Tuesday Oct. 29th. write for sale list. J. M. Hicks & Sons, R. 2, Williamston, Mich.



“Anybody want to sell his Lambertvilles?”

“There’s not another pair in the store. John says he sold out and he’s got word from the factory that there’s not enough Lambertville goods to go around because most of them are going to fill Government orders. I know war’s war and we must make sacrifices; but I’ve got a lot of wet work to do and I can’t get along without Lambertville boots. Come on Joe—or you Bill—what’ll you take for your Lambertvilles?”

The above is by no means an unusual or over-drawn incident. It will be difficult to buy Lambertville Footwear this season. The Government is getting nearly all we can make. The man who finds a dealer with an odd pair or so of his size in stock is fortunate.

If, through these unusual circumstances, you are forced to buy some brand of footwear that

you do not know and that is perhaps of lower quality than Lambertville, take them only as a temporary substitute. Your dealer will have the old familiar and reliable Lambertville goods just as soon as conditions are normal.

If you are disappointed, don’t blame the dealer. It is his loss, and our loss as well, if your needs cannot be met, and we ask that you take the disappointment patriotically as a temporary substitute.

We make our promise both to you and to the trade that a full line of Lambertville Footwear will be available as soon as the Government demands are lessened. In the meantime, make your old boots and shoes last as long as you can, and if you are lucky enough to find a dealer with Lambertvilles, buy them on sight.



If your dealer hasn't the style you have been wearing, perhaps he has one of the other numbers. Any Lambertville is a good purchase.

LAMBERTVILLE RUBBER CO., LAMBERTVILLE, NEW JERSEY