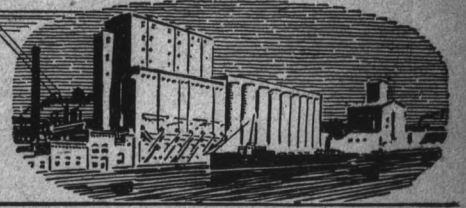


*The Michigan*  
**BUSINESS FARMER**



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Edited in Michigan



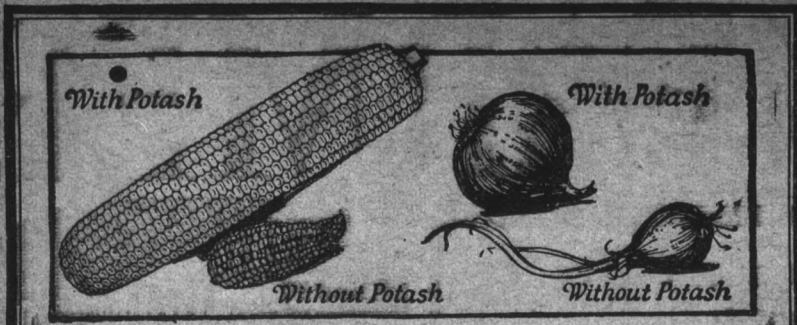
Vol. IX, No. 32-33

MT. CLEMENS, SATURDAY, APRIL 8-15, 1922

\$1 PER YEAR



EASTER



### Potash for Swamp Land

DOES the corn grown on your swamp or muck land look like the large ear or like the small one? The small one shows the kind of corn produced on potash hungry muck land. When 100 to 200 lbs. per acre of Muriate of Potash, or 400 to 800 lbs. of Kainit, are broadcasted on potash hungry muck, full yields of sound corn are produced.

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SOIL & CROP SERVICE, POTASH SYNDICATE  
H. A. HUSTON, Manager  
42 Broadway New York

## POTASH PAYS

### QUALITY MICHIGAN WOOL IMPROVES

C. R. OVIATT, veteran wool grower of Bay county, Frank Geffels of Laingsburg, Shiawassee county, and A. Gee & Son of Stockbridge, Ingham county, indicate somewhat how much better Michigan wool is going to be this year than it was last year, says the State Farm Bureau Wool Department in commenting upon the wool placed in the 1922 pool by these three men, hailing from different parts of the state. The Farm Bureau says that the educational features of the 1922 local grading campaigns are showing up in cleaner, better prepared 1922 wool.

Mr. Oviatt pooled about 1,000 pounds in 1921 and had 550 pounds of discount wool, or 55 per cent of the whole. This year he pooled 2,058 pounds with but 142 pounds of discount of 6.9 per cent of the whole. Messers Geffels and Gee & Son pooled 948 pounds of wool this year without a single pound of discount wool—a pool record. Berry and chaffy wool is seen less and less as the pooling idea goes on. The man who takes care is rewarded for his carefulness when wool is marketed by grades.

The Farm Bureau has lined up 65 local pooling points for the 1922 pool, which begins its local grading campaign in late April. At present wool is being received at the central warehouse in Lansing where a forty per cent advance is being made. The advance will be made at local pooling points and a warehouse receipts will be given for the balance, payable when the pool is closed out.

Conditions seem to be improving in the general wool market situation. Prospects of a higher rate of duty on wools with the passage of a permanent tariff inclines the market to believe that wools certainly will not go any lower than they are now and an improvement in price is not unlikely.

Don Williams, manager of the State Farm Bureau wool pool, reports strong support for the 1922 pool in all parts of the state. All pooling points seem to be of the opinion that 1922 sees the wool market out of the woods and that it is the year that the pool will start in without the market handicaps of the past two years.

### BAKER HEADS GLEANER CLEARING HOUSE

OFFICES of the Gleaner Clearing House Association, potato and bean jobbers, have been removed from Grand Rapids to Greenville. Management has been taken over by State Senator Herbert F. Baker, of Weadock, former president of the Michigan Potato Growers' Exchange at Cadillac.

The organization is capitalized at \$800,000. Nathan F. Simpson, treasurer, stated the offices were being moved to Greenville as another step in reducing operating expenses of the central organization to a minimum.

### TO FIGHT BLACK STEM RUST

A VIGOROUS speeding up of the national campaign for the eradication of black stem wheat rust is being sought by the Wheat Rust Prevention Association, representing 13 middle west wheat growing states. Annual losses in 13 middle west wheat growing states due to the wheat rust parasite are placed at 126,000,000 bushels. Wheat rust is a menace to the American wheat industry and it is said that a delay in speeding up the barberry plant eradication campaign would cost the producers, millers and consumers millions of dollars annually. It is claimed that the barberry plant is growing wild in several of the affected states and that it is spreading rapidly. The American barberry plant is host to the wheat rust parasite. Michigan, according to department of agriculture reports presented to the committee, has 171,000 plants today, but has done eradication work. Without the barberry plant the wheat rust parasite may be controlled. Denmark is said to have demonstrated that back in 1902 when she completely eliminated the barberry plant.

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YOU, need not look further, listed below are three real money saving bargains. Hurry your order, they will sell fast.

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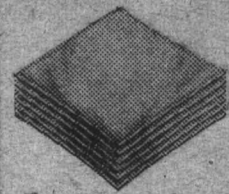
Made from exceptional good material that will give the best of service. Full rubber lined which makes this coat absolutely water proof. Easily worth \$10. Order by No. MBF-4000, sizes 34 to 46. Plus postage.

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MENTION M. B. F. WHEN ANSWERING ADVERTISEMENTS

## Government Spud Estimate Misleads Farmers

### 91 Million Bushels on Hand March 1st Include Farmers' Seed and Consumption Requirements

By THE EDITOR

#### WESTERN UNION TELEGRAM

Mount Clemens, Mich.  
April 11, 1922

C. W. Pugsley,  
Assistant Secretary of Agriculture,  
Washington, D. C.

Bureau of Markets March potato estimate misleading and causing farmers to dump potatoes regardless of effect on market. It is responsible for wide-spread press reports that ninety million bushels remained to be shipped on March 1st. Bureau has failed to make clear that these figures include farmers' seed and consumption requirements and that actually less than fifty million bushels of surplus stock remain to be shipped. Respectfully urge you act to correct this false impression. Editor Michigan Business Farmer.

Up until very recently a large majority of farmers, farm papers and trade papers were ignorant of the true facts as outlined above. Some farmers, however, were familiar with the figures and are still holding their potatoes on the strength of them. The following letter from A. A. Lambertson, a valued M. B. F. subscriber living at Sand Lake, Montcalm county, shows that some farmers are figuring for themselves."

In your last issue you say you are going to have something to say about the potato situation in the near future. Why not figure it this way: Normal consumption of northern grown late potatoes according to best authorities is 400,000,-

000 bushels. Season for consuming them is 9 months, Oct. 1st to July 1st. 400,000,000 divided by 9 is 44,444,444, the amount used each month. Multiply 44,444,444 by 4 and you have 177,777,777 bushels needed from March 1st (when the report was made by the Bureau of Markets) to July 1st, or balance of season. On March 1st according to Market Bureau report there was on hand to be shipped yet by growers and dealers, 48,395,000 bushels. 177,777,777 bushels, the amount required to run us out after March 1st, less 48,395,000 equals 129,382,776 or the number of bushels we will be short. Will we get that many spuds from the south up to July 1st? All things considered isn't there a chance of the northern grown spud having its innings at a far greater price than it has sold for yet this season?

"P. S.—Potatoes around here are cleaned up the closest they have ever been at this time of year."

#### Other Facts to Consider

If the shipments for March equalled those for January and February there would have been left on April 1st only 13,000,00 bushels to be marketed in April, May and June. If the same rate contained for April then theoretically at least old potato stocks would be completely exhausted by April 20th. Of course, this did not happen, but the thought suggests to the reader some idea of how shipments may be cut in two and then some and still easily move all remaining stocks before the close of the season.

Another fact to consider just now is the production in other countries. Nearly every year the producer of the United States meets the competition of Canada whenever domestic prices become at all attractive. But Canada will not have so many potatoes to export this year as last. Her 1921 production was only 107 million bushels as compared with 133 million in 1920. The total 1921 crop of the principal producing countries was 3,120,305,000 bushels as compared with 3,466,507,000 in 1920 (Continued on page 23)

AGAIN we have the fact demonstrated that no matter how beneficent a government bureau may be it can over-turn all its good works overnight by the issuance of false or misleading information. Early in March the trade and newspapers of the country carried headlines announcing that the government had underestimated the 1921 potato crop and that on March 1st over 90 million bushels yet remained in the hands of farmers and dealers to be marketed. The statement threw a scare into thousands of farmers in this and other states who had been holding their potatoes on the strength of the December estimate of less than 350 million bushels, and without waiting to analyze the statement they began dumping their crops upon the market.

All this needless flurry was caused by the publication of a report by the U. S. Bureau of Markets and Crop Estimates placing the total number of bushels remaining in the hands of farmers and dealers on March 1st at 90 million bushels. This was the first March estimate ever issued by the government. There was no basis for comparison of March 1st holdings with other years. The amount looked huge, but in the absence of statistics for other years, no one could say whether it was high, low or average for that date. Weeks passed by before even many dealers realized that the government's estimate of 90 million bushels included the farmers' seed and consumption requirements and thousands of farmers do not know it to this day.

Instead of 90 million bushels to be shipped after March 1st there were actually less than 50 million or one-seventh of the total crop.

During the five months of October, November, December, January and February over 100 million bushels of the surplus had been shipped, leaving less than 50 million to be marketed in the four months of March, April, May and June. During the two months of January and February over 60 million bushels of potatoes moved from producing to consuming points.

## Sugar Factories Jump their Minimum Price from \$5 to \$5.50 Per Ton

REPRESENTATIVES of the beet sugar companies of Michigan and Ohio, at a meeting at Bay City on March 31st decided on a number of changes in the 1922 beet contracts," says Facts about Sugar.

"Those present at the conference were W. H. Wallace, general manager of the Michigan Sugar Company; C. G. Edgar of Detroit, representing the Continental Sugar Company; James E. Davidson, of the Mount Clemens Sugar Company; M. J. Bialy, of the West Bay City Sugar Company; J. C. Ross and E. Wilson Cressey, of the Columbia Sugar Company, and C. M. McLean, of the Holland-St. Louis Sugar Company.

"The modifications agreed upon in the contract consist of a reduction in the price to be charged the farmers for beet seed from 25 cents to 15 cents a pound, and an increase in the guaranteed minimum price to be paid for beets from \$5 to \$5.50 per ton. This payment will be made on the 15th of each month for beets delivered up to the 15th of the month preceding.

"The sliding scale contract, based upon the price obtained by the companies for sugar, is universally used in Michigan and Ohio. Under the new contract payment will be made at the rate of \$5.50 a ton unless the price obtained by the companies for their sugar averages above 5.25 cents a ton unless the price obtained by the companies for their sugar averages above 5.25 cents a pound, New York basis, for the season. For each quarter-cent additional above 5.25 cents, 25 cents per ton will be added to the beet price, making it \$6.25 a ton with sugar at 6 cents.

"If sugar should sell for 6.25 cents a pound, the growers will receive \$6.75 a ton for beets, with another 25 cents a ton added for each additional quarter-cent up to 7 cents a pound, at which figure beets will fetch \$7.75, and \$8 if sugar averages 7.25 cents, while with 8-cent sugar the price of beets will be \$9. For beets

delivered at the factories instead of at field receiving stations, an additional 75 cents a ton above the scale will continue to be paid."

#### THE SUGAR TARIFF

SUGAR in the product of the farm is given a protection of 5 per cent advalorem in the Fordney Tariff Bill now before congress. Refined sugar is protected equivalent to from 80 per cent to 100 per cent, writes T. C. Price, president of the Saginaw County Farm Bureau, to the Business Farmer.

Michigan is protected against Canadian sugar, but the Michigan beet grower receives practically no protection against the Canadian sugar beet. Thousands of tons of Canadian beets were shipped into Michigan to disrupt the Beet Growers of this state when they tried to obtain a conference with the sugar manufacturers.

In view of this fact, the beet growers are asking if the 60 per cent increase in tariff on Cuban raw is an effort to protect the farmer or the sugar manufacturer.

Every farmer uses sugar and as a result he pays 2 cents per pound, one half goes to the government the other one-half to the sugar manufacturer; while the grower with a strong back and a weak head holds the bag.

The trouble has been and is this, the farmer has been led to believe that the raising of beets is an important agricultural pursuit. This is not the case.

The crop of beets for 1920 was 692,445 tons. The following table indicates the importance of the acreage devoted to sugar beets as compared with certain other crops:

Sugar beets	692,455	Tobacco	1,910,800
Buckwheat	730,000	Potatoes	3,952,000
Clover seed	843,000	Barley	7,198,000
Sweet potatoes	1,042,000	Cotton	33,566,000
Rice	1,091,800	Oats	41,835,000

Rye	1,103,000	Hay	56,552,000
Peanuts	1,256,000	Wheat	72,308,000
Flax seed	1,572,000	Corn	100,072,000

Is it not well for the farmer who raises sugar beets to ask in what way their interest is being protected by an increase in duty on Cuban sugar?

The contract price paid the farmer for sugar beets this year is \$5.00 per ton. The average pre-war price with a tariff of 1 cent was \$5.75, which shows clearly that the 60 per cent increase in the tariff does not percolate down from factory to farm.

Many requests come from the beet growers to help them get a different contract. I do not know how we are going to help them unless they all stay by the Growers' Organization. If every man who grows beets will pay into the treasury 5c per ton, it will amount to around \$50,000 per year. Now don't spend this money, but put it out at interest and in 4 or 5 years there will be in round numbers one-half million dollars, which will build a factory and you would not know where the funds came from. Now this is only a suggestion. Perhaps someone else has a better method. If so, let it be brought forward.

We allude to all foreigners as hunkies, but just let me say that Czecho-Slovakia 10 years ago solved her beet problem when they first launched a factory. They tried to buy out a factory, but the company wanted three million for the same. They offered them two million and the company refused it. They bought their site, started to dig a hole in the ground and piled brick upon it, and the company was willing to negotiate and they purchased the plant for one and one-half million dollars. They received \$6.00 per ton for their beets which under co-operation netted them \$10.

Since then there are twenty-eight factories in that country and right now are far in the lead of other producing countries.

# Can the Middleman Be Entirely Eliminated?

*Is it Possible for Farmers and Consumers to Render all the Necessary Services in the Exchange of Commodities?*

J. T. HORNER

Department of Economics, M. A. C.

(This is the fourth of a series of articles on farm economics, written exclusively for the Business Farmer by Dr. Horner. The 5th will appear in an early issue.—Editor.)

LIVING costs have been going up for the past few years at a very rapid rate. It was not until after the beginning of 1920 that there was a general recession in prices and this decline left the price level well above that of 1913. As prices go up and living costs increase it is quite natural that everyone looks for the reason. One reason which has been given for this increase in cost of living has been the expensive middleman system through which our goods and wares are marketed. It has been suggested that the middleman be eliminated, thereby bringing the producer and consumer closer together. The middleman has been called a parasite who does not produce but instead merely takes a toll from the real producer. It will be well to examine without prejudice just what the middleman does and see whether he is useless or not. Can we get along without him?

In a previous article it was stated that in order for a thing to have value it must be such that it will satisfy some want and also be in the right place at the time wanted. Production consists in making goods or services available for use. This might be divided into two general parts. (1) The bringing of the goods into existence and changing the form of them. For example, the growing of wheat and the manufacture of it into flour and then into bread. (2) The transferring the goods to the places where wanted, holding them until the time wanted and transferring them to the person who wants to make use of them. This latter service is marketing.

In order to properly market goods there are certain services which must be performed. These essential market services are as follows: (1) Preparation for market (grading and packing). (2) Storing (holding from the time of surplus until the time of scarcity). (3) Transporting (transferring from the place of surplus to the place of scarcity). (4) Financing. (5) Assumption of risks. (6) Selling. These essential services must be performed in connection with almost every product. Some do not require grading or packing and some are not stored because they are perishable. However, in general the great mass of agricultural products which enter the market requires these services.

Back in the days before modern commerce and industry changed the mode of our living, the farm family produced almost everything it needed. The farm home was a great manufacturing

institution which provided for practically all its wants. There were very few products sold off the farm. Very few goods were bought. It was only such things as could not be grown in the vicinity which were provided by others. Commerce was slight. Markets were practically nonexistent. Every home was almost self-sufficing. Those were the days when we did not have the great middleman system as it now exists. A change took place and industry was moved from the home. The farmer grew things which he could grow the best and sold his surplus. He produced for a market and bought the goods he needed. This industrial revolution—as it is called—took place because machine production and large scale production made lower costs possible. This change made specialization possible and costs became lowered because of the benefits which specialization brought. Instead of every man being a "jack of all trades" he became a specialist and devoted his labor and capital toward the production of certain things. These industrial changes brought about great increases in the earning power of the people and enabled them to get more things for their efforts than was possible under the old system.

The development of the middleman system is merely one phase of this specialization. Instead of the farmer hauling his wheat to the distant market he now calls in the specialist in transportation—the railroad—to perform this service for him. The storage of wheat in large quantities is done by the specialist—the grain elevator. The farmer does not grind his wheat into flour. This service is performed by the specialist—the miller. The farmer does not sell his produce to the consumer; but rather does he turn it over to someone who is a specialist in selling—the wholesaler and retailer. As time goes on this specialization is carried on to a further extent.

At one time the farmer sold his milk direct to the consumer. This system has been displaced by that of the milk distributor who relieves the farmer of the problem of distribution. The potato grower does not sell his produce direct to the consumer. This service is turned over to one who is a salesman. The farmer, without a doubt, has felt that his time is worth more to him on the farm as a grower of produce than at the market place as a salesman. In the city we see that this

specialization has recently been further developed in connection with the bakery. Not many years ago the bakery sold bread direct to the consumer. In many instances the bake shop had its own delivery wagon and made deliveries to the home in the same manner that the grocer does today. This has been changed and the modern baker now sells his bread to the retail grocer. This system has developed because it was more economical than the other. The baker is a manufacturer. The grocer a salesman.

There have been many abuses which have grown up in connection with marketing products and there are, no doubt, many middlemen, who are not honest. Such things, however, are not to be taken as an evidence that the system is necessarily bad. If the public could realize that marketing consists in performing certain necessary services and that the market chain is not shortened by the elimination of a "man" in the process then it would be starting on the way to an understanding of the problem. When an understanding is acquired of the basic principles of any problem then a solution is possible. The middleman performs certain services which are necessary if we are to have the goods we want in the place we want them and at the time we want them. If the middlemen—the local country buyers, railroads, wholesalers, jobbers and retailers—are performing services which are essential to the marketing of products then they are really producers.

It is not to be assumed from the above that the present system of handling goods is perfect and that nothing can be accomplished to improve conditions. Nor, is the above a defense of every middleman who might be in business. No market agency is justified unless the pay which it receives for its services, or in other words its profits, consists in savings which it is capable of making. For example, suppose that it costs a farmer \$10.00 per day to sell a certain quantity of goods to the consumer for \$100. It is to the best interest of everyone concerned if some middleman can buy this produce from the farmer for \$90; sell it to the consumer for \$100 and have left over a profit of \$5.00 at the end of the day. This \$5.00 profit would result because his expenses of doing business were less than those of the farmer. That is efficiency and in general is the reason for the development of the present system of marketing.

The middleman system grew up because of the benefits of specialization and will continue to exist until some other more efficient system is devised.

## Doelle Succeeds Halladay as State Commissioner of Agriculture



JOHN A. DOELLE

Who succeeds H. H. Halladay as Commissioner of Agriculture.

GOVERNOR Groesbeck has appointed John A. Doelle, deputy commissioner of agriculture under H. H. Halladay to fill the unexpired term of Mr. Halladay who resigned April 1st to become secretary of the M. A. C.

Mr. Doelle resigned as a member of the State Board of Agriculture to which he was elected last year to accept his new position. His successor is Mr. Jay A. McColl, of Detroit.

Although some disappointment is expressed that the governor did not appoint some one who has been more actively identified with agriculture than Mr. Doelle, we are assured that the new commissioner is a man of high principle, energetic and capable, and will make an able successor to his able predecessor. As deputy commissioner of agriculture Mr. Doelle has become thoroughly acquainted with the activities of every bureau within the department and to the latent possibilities, and the Business Farmer is sure that he will have the co-operation of the farmers in helping to develop the State Department of Agriculture into an instrument of greater service to the state's agriculture.

Mr. Doelle was reared on a farm in St. Clair

county and knows something of modern farm problems. As secretary of the Upper Peninsula Development Bureau he has exhibited marked ability as an organizer and promoter, both of which qualities are essential in developing the new department to its highest possibilities.

Mr. Jay R. McColl, who succeeds Mr. Doelle on the Board of Agriculture, is an engineer

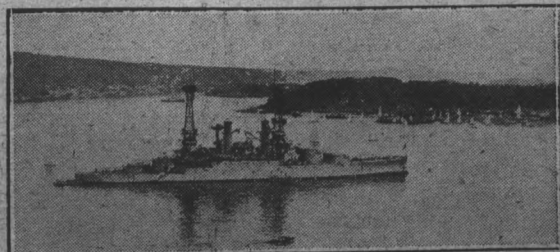
### On Board U.S.S. Connecticut

By THE EDITOR

(Continued from April 1st issue)

THE day after I reached Christiania the city was in much excitement over the arrival during the night of five American men of war carrying four thousand naval marines. The squadron anchored in the harbor for a two week's sojourn as a part of a three months' tour of European waters. For the next few days the people of Christiania were

(Continued on page 23)



Battleship Michigan at anchor in Christiania Harbor. Picture taken by the M. B. F. editor from the "look-out" of the Connecticut.

graduate of the M. A. C., and has the endorsement of the Detroit Alumni Association. He is the first engineer member to be appointed to the board, and his appointment presages an increased interest in the engineering course at the M. A. C.

#### FRIDAY TAKES REINS

Without any ceremony whatever, David Friday walked into the president's office at the M. A. C. on April 1st, and went to work. A statement of some of the policies he will pursue was published exclusively in the April 1st issue of the Business Farmer. He has great plans for the M. A. C. not only as an educational institution but as a medium of practical help to the farmers. Mr. Friday was born on a farm over in the western part of the state and knows from personal experience the hardships and discouragements which often confront the farmer. From the time he was a mere boy he had to work his way through life and it is no small tribute to his character that today although yet a very young man he enjoys the distinction of being one of the foremost economists of the United States, whose views upon business conditions, trade, currency and other economic matters are sought by both private firms and governmental agencies. He will approach the problems of Michigan agriculture from a scientific standpoint and through the various agencies controlled by the college will suggest definite measures bringing the state's agriculture into step with the other thriving industries of the commonwealth. Mr. Friday sees no reason why in a state so favored climatically as Michigan and with such a large consuming population within her borders, her agriculture should not become the most prosperous in the entire United States.



# Farmers Service Bureau



## FARM PAPERS GIVE READERS CONFLICTING ADVICE

**C**ONSERVATIVELY speaking the Service Department receives and answers 1,000 questions every month of the year, upon almost every conceivable topic. Very few of these are published in the columns of the M. B. F. because of the lack of space but every inquirer is given a personal answer in as short a time as is possible to secure the information. It would be but natural that in the press of reading and answering so many communications an occasional mistake should be made, but the Business Farmer prides itself upon the promptness and accuracy of its replies.

In the March 18th issue of the Business Farmer there appeared the following question and answer:

"We have a neighbor who has been cutting trees on the highway. The highway commissioner was notified but paid no attention to it. What should be done to stop this practice?—A Reader, Oceana County, Mich."

"Notify the State Highway Commissioner, Lansing.—Editor."

Coincidentally the same question appeared in the corresponding issue of the Michigan Farmer, but the answer was slightly different. The question and answer in the M. F. was as follows:

"My farm is on a state cement road and I have one large maple tree just outside of my roadline. Can I cut it, or do I have to get permission from the highway commissioner?—Reader."

"The owner of the adjoining land owns the trees and may do as he wishes with it. No permission from the highway commissioner is required.—J. R. R."

Mrs. W. S. Bettys, of Walkerville, noticing the discrepancy between the two replies wrote us as follows:

"What are we poor farmers to do, or how are we to know what to do? I am enclosing clipping from OUR PAPER, also one from Michigan Farmer. Now tell us which is correct."

The editor hastily consulted his copy of the Compiled Highway Laws and got a letter off right away to the State Highway Department.

Section 565 of the compiled highway laws clearly prohibits the cutting or defacing of trees on a public highway without the consent of the highway authorities, and the following letter from the State Highway Department further proves that the M. B. F. was right and the M. F. wrong in their respective replies:

"It is unlawful for any person to cut, injure or destroy any tree or shrub growing within the limit of the public highway without having obtained the consent and approval of the Highway Commissioner of the township provided the tree is growing in a township highway, if it be in a county road, then the owner of the tree must have obtained the consent and approval of the Board of County Road Commissioners, and if the tree is in a trunk line or federal aided road, then the permission of the State Highway Commissioner must be obtained. I trust that you will get it straightened out with your subscribers so that no more trees will be cut in the public highway unless authorized by the highway officials.—Harry H. Partlow, Legal Adviser, State Highway Department."

## TO PREVENT CROWS FROM DESTROYING CORN

Will you please publish or ask your readers a sure remedy to prevent crows from destroying corn when it first comes up in the field?—Mrs. L. M. F., Elkton, Mich.

Numerous methods have been tried to prevent crows from destroying the young plant when it first comes up. They pull up the plant to get at the kernel of corn which they seem to know is at the base of it. Apparently no method has yet been devised that has proven entirely successful, since the crow is a very wise bird and is constantly on the look-out for dangerous situations. The use of copperas water does not seem to be very practical from the fact that if used strong enough to secure the desired results with the crows, the germination of the seed may be seriously injured. A method that has been tried a great number of times and with partial success, at least, is the use of coal tar. The following formula for mixing up and

(A Clearing Department for farmers' every day troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you. All inquiries must be accompanied by full name and address. Name not used if so requested.)

applying this mixture has been taken from Farmer's Bulletin No. 729.

"Put the seed corn in a tight vessel, moisten it with warm water, and stir in about 2 tablespoonsful of coal tar to each bushel of seed. After draining the tarred corn thoroughly to remove any water remaining free, add ashes, land plaster, road dust, or any similar material to absorb surplus tar and prevent the seed from being sticky, or better, after draining, spread the corn on a barn floor or similar surface and let it remain two or three days, when little or no dust will be required. The thinner the tar, the better. Crows rarely pull more than a few kernels of the tarred corn."

Shooting the crows is also partially effective as it scares them from the field and if the trouble is due to the fact that they are nesting in a piece of timber close by, snooting in the timber might be effective in persuading them to change their nesting place to some more distant location.

Crows usually do most of their damage during the morning and are not apt to come around when one is working in the field, especially after they have been shot at.

The combination of these two methods may be fairly useful in driving the crows from your vicinity but they are very hard to control if they are present in the community in very large numbers.—J. R. Duncan, Instructor in Farm Crops.

## TIMOTHY WILL SOMETIMES PRODUCE HAY FIRST YEAR

I would like to learn, through your paper if timothy sown alone in the spring will produce hay the same year?—W. K. R., Bay Port, Mich.

When timothy is sown during the early spring on land of medium to high fertility, a hay crop is sometimes secured the first season. If you are short of hay, it is not advisable to depend upon this practice, but you should rather sow some annual crop that may be depended upon to produce hay the first season.

Sudan grass is sown about the middle of May at the rate of from 20 to 25 pounds of seed per acre, on a well-prepared corn soil. It usually produces a high tonnage of forage.

In the northern part of the state, a mixture of oats and peas sown at the rate of from 2 to 2 1/2 bushels per acre is quite satisfactory.

# RADIO DEPARTMENT

EDITED BY J. HERBERT FERRIS

## WHAT IS RADIO TELEGRAPHY AND TELEPHONY?

With instructions How to Make and Install a Set in Your Home

**O**NE of the first questions asked is "What is radio telegraphy and telephony?" and to answer such a question in these columns we will have to cover it only in a general way. For the advanced experimenter and the student of Radio there are text books, but most of these books are written so that the average person reading it is left in a wondering attitude. Our effort will be to answer this question so that you will have some idea of what Radio is, and how it works. Just because you are not interested at present in radio, it will do you no harm to read this department, because sooner or later you will have a set, and it will be a part of your farm equipment and be given the same care that any other good machinery or tools are given.

In speaking generally of radio telegraphy or telephony we will just use the word "radio" and when special about telephone or telegraph we will add the additional word.

Soy beans may be used in the southern part of the state and when properly cured have about the same feeding value as clover and alfalfa hay. Soy beans should be sown in rows 28 inches apart at the rate of from 35 to 40 pounds of seed per acre.—C. R. Megee, Associate in Farm Crops, M. A. C.

## PERSONAL EXEMPTION

I am a Civil War widow and all I have is my pension for my support. Am exempt on the tax rolls but the village has raised my valuation from \$1,000 to \$1,200 and levied a tax of \$2,400 on me. Now can that tax be returned against my home same as state taxes? Am unable to pay said tax. Please advise me thru M. B. F.—Mrs. C. E. K., Millington, Mich.

Public Act of 1919, page 585, provides that the widow shall be exempt up to \$1,000 valuation on real estate owned as a homestead. It also provides that if the homestead is worth more than \$1,000 it shall be exempt up to \$1,000. I suppose that the board of review has the right to fix the amount at \$1,200 if it is worth \$1,200 and she would be liable to tax upon the amount above \$1,000. They have a right to return the tax but when the same is returned to the Circuit Judge she should make her claim for the exemption and have the same set aside by the Circuit Judge.—Legal Editor.

## REDEEMING LAND IN MORTGAGE FORECLOSURE

Will you please tell me how long a time one has to redeem land that is bought on contract and purchaser fails to pay when mortgage is due? Can holder of mortgage collect interest on second mortgage before mortgage is due if they are not both due at same time? Can farm be sold on first mortgage if second is not due?—E. O., Osceola County, Mich.

Any mortgage whether first, second or third may be foreclosed after default in the terms of the mortgage. If the first mortgage is foreclosed and is not redeemed it will cut off the second and third, if any after the time for redemption expires. A holder of a mortgage has no right to collect interest on his mortgage until it is due unless by agreement of the parties. A second mortgage does not prevent the foreclosure of the first when there is a default in the conditions of the first. There is one year's redemption on mortgages foreclosed by advertisement, from the day of sale.—Legal Editor.

## AUTOMOBILE LICENSE MONEY

We are wondering where the money goes that is collected from automobile licenses. There is a vast amount of it and yet taxes continue to soar.—Mrs. C. B., Byron, Mich.

One-half of the auto license money is retained by the counties for highway purposes. The state gets the other half. It is used for various purposes such as paying state rewards, administration, etc. The state's share of this money in 1921 was \$3,135,040.24.—Editor.

## INOCULATING ALFALFA

Must alfalfa be inoculated before seeding on and where alfalfa or sweet clover have not been grown before? B. V., Marion, Mich.

Alfalfa seed should be inoculated before seeding. Culture for inoculation may be secured from the Department of Bacteriology, Michigan Agricultural College, East Lansing, Mich. The price is 25c per bottle and one bottle contains sufficient material to inoculate a bushel of seed. Directions for application accompany the material.—J. F. Cox, Professor of Farm Crops, M. A. C.

## WHO ARE HEIRS?

How would the property be divided of a man who dies not leaving any deeds or wills? No wife or children. His nearest heirs being one sister, two nieces by a deceased sister and one niece by a deceased brother. The property above being money and real estate.—Subscriber, Midland County, Mich.

If he leaves no father or mother or wife or children it will descend to his brothers and sisters and the children of a deceased brother or sister taking the share their father or mother would have taken if alive. As you describe it the surviving sister would take one-third, the two children of the deceased sister would take another third, and the daughter of the deceased brother would take the other third.—Legal Editor.

## TELEPHONE SERVICE

If our telephone is out of order for several days (sometimes weeks) and we cannot get central, can the company compel us to pay for the time we had no service? Have been told we are not compelled, by law, to pay for something we never got.—L. S., Auburn, Mich.

A telephone company is entitled to a reasonable rate. The subscriber is entitled to reasonable and adequate service by paying such rate. If a subscriber's telephone is out of order, it is the duty of the subscriber to notify the telephone company at once so that a proper record can be made of that particular telephone, and if this telephone is out for any length of time after notice has been made to the telephone company, and the telephone company neglects to make the necessary repairs so as to render telephone service to the subscriber, the subscriber then would be entitled to a certain credit for the length of time the telephone has been out of order.—J. J. Norman, Chief Telephone Inspector, Michigan Public Utilities Commission, Lansing Mich.

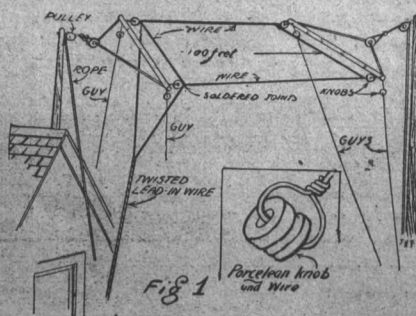
## PERSONAL PROPERTY EXEMPT FROM TAXATION

Can you tell me whether a widow who lives on a rented farm must pay taxes on personal property? —Subscriber, Oceana County, Mich.

On page 554 of the Public Acts of the State of Michigan for 1921, is enumerated a list of the personal property which is subject to taxation and on page 555 a list which is exempt from taxation. The following sections are the most general interest.

"Fifth. So much of the debt due or to become due as shall equal the amount of bona fide and unconditional debts by the person owing; Provided, that if such person shall be the owner of credits that are exempt from taxation such proportion only of his indebtedness shall be deducted from debts due or to become due as is represented by the ratio between taxable credits and total credits owned, whether taxable or not.

"Ninth. The working tools of





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**SHAROOD COMPANY, Dept. ID Minneapolis, Minn.**

every mechanic not to exceed in value the sum of \$100.

"Eleventh. All mules, horses and cattle not over one year old, and all sheep and swine not over six months old.

"Twelfth. Personal property owned and used by any householder in connection with his business of the value of two hundred dollars."—Legal Editor.

### VALUE OF STOCK DOUBTFUL

Will you please tell me thru the Farmers' Service Bureau what you can about the Falls Motors Corporation of Sheboygan Falls, Wisconsin? I have ten shares of common stock, par value \$10 per share. What is the present market price on this stock and where could I dispose of it?—T. M., Adrian, Mich.

Some time ago we denied a certain broker a permit to sell stock of the Falls Motor Corporation which had been outstanding and in the hands of the public prior to August 1, 1918. We regret that this is all the information we can give you as our files do not contain any information as to the present standing of the company.—Railroad Commission of Wisconsin, Madison.

In view of the above information it is clear that the stock is not listed on any stock exchange in Wisconsin and probably has no market value.—Editor.

### CHROME TANNING PROCESS

Can you publish recipe for the new process of tanning leather which they call the Chrome process, making Chrome leather which is claimed to be tougher and longer lasting than leather tanned by other processes?—C. B., LaSalle, Mich.

In regard to Chrome tanning, will say that probably fair success can be attained at home, but the process is too lengthy to describe briefly. Also the process is slightly different for different hides and skins on account of their varying weights, thickness, etc.

Sheep, goat, deer, calf, kangaroo and horse, as well as cattle hides are all tanned by Chrome methods, which undoubtedly produce very durable and soft leathers for many purposes.

The Chrome is also combined with various vegetable, mineral and chemical tannages to good advantage. Dealers in tanning extracts, etc., sell Chrome preparations ready for use and adapted to different skins; they could be made at home but chromic acid as developed in the work is an irritant poison, against which the worker should protect himself. At one time the leather was thought to be poisonous but it is not, as the poisonous acid is neutralized before finishing.—A. L. Harding, Fur Editor.

### LICENSE NOT NEEDED

Does a person have to secure a license to sell home-made candy, and if so, where does he apply for it, and what does license cost?—Mrs. F. N., Grand Ledge, Mich.

No license is required to manufacture and sell home-made candies. There is a federal tax on candies, however, amounting to 3 per cent of the retail price which you must pay. Full particulars can be obtained from the collector of internal revenue, Detroit, Mich.—Editor.

### PLANTING BEANS IN HILLS OR ROWS

Will you please give me a little advise on hilling or drilling field beans? The field I intend to plant is an old orchard, which has not been cropped for years, and is inclined to be weedy. If I planted these beans in hills would I get as large a yield per acre? And about how many quarts of seed will it take to plant an acre 28 inches each way? How many beans would you drop in a hill? If drilled with rows 28 inches apart, how many quarts would you sow to the acre?—W. K., Fowlerville, Mich.

During the summer of 1917, we compared beans drilled in rows at the rate of 40 pounds of seed per acre with beans planted in hills 28 inches each way. The results of this test showed that beans planted with 6 to 7 beans in a hill gave equally good results as those planted in rows.

Beans planted with 6 to 7 beans in a hill require about 30 pounds of seed per acre. Forty pounds gave the best results when planted in rows 28 inches apart. A slight increase was obtained when we planted up to 70 pounds of seed per acre but the increase was not sufficient to pay for the extra seed used.—E. E. Down, Ass't Plant Breeder, M. A. C.

### KILLING CABBAGE WORMS AND APHIS

What is best to use to kill cabbage worms and aphis on cabbage and cauliflower?—C. J., East Jordan, Mich.

On the cabbage and cauliflower I would use arsenate of lead in the ordinary way until the heads begin to form, after which I would use selbore, at the rate of about one ounce to a gallon of water to kill the worms.

The aphis is another matter. I would suggest on cabbage the use of common black leaf 40 at the rate of one part to eight hundred of water with some soap added.

Now on cauliflower I would hesitate to use black leaf 40 because this substance leaves a permanent poisonous residue. I would therefore use the straight nicotine without soap and if I used the nicofume brand I would use the same strength that is; one part to 800. If I use rose-nicotine which is the straight nicotine also I would use it just four times as strong—1 part to 200 of water. Rose nicotine being about 10 per cent in strength and the nicofume being about 40 per cent or straight nicotine. On cauliflower or lettuce I would much prefer to use the straight nicotine because it is so much safer when one is to eat the sprayed product and both of these vegetables have quite a large surface to which a spray could adhere.—R. H. Pettet, Professor of Entomology, M. A. C.

### GRUBS IN HEAD OF SHEEP

I would like to know if you know of any cure for grubs in head of sheep?—E. R., Custer, Mich.

There is no sure remedy for grubs in the head of sheep. Careful and liberal feeding will place the sheep in condition to throw off the grubs without causing any serious injury. All flocks of sheep should be provided with conditions which will prevent this trouble. The first requisite is abundance of shade where the flies which deposit the eggs on the noses of the sheep in the summer will not bother the flock. The best place for the flock to get away from the flies is a dark basement barn where the sheep can lay during the day when the flies are on the wing. Plenty of shade in the pasture is also a great help. Where the above conditions are not available a few furrows should be plowed in the field where the sheep may stir up dust and thus keep the flies away.—Geo. A. Brown, Professor of Animal Husbandry, M. A. C.

### SEND PHYSICIAN'S NAME WHEN HAVING SPUTUM EXAMINED

The Service Bureau in our February 25th issue contained an inquiry regarding the examination of sputum for tuberculosis. In answering the question we advised the subscriber to send a sample of his sputum to the Michigan Department of Health, Lansing, but to first write them asking for container in which to send it. The Department of Health advises us that they have received many requests from M. B. F. readers as a result of this announcement and that they have been making the examinations but find that most of the readers do not send the name of their family physician. If you have submitted a sample write the Department of Health at once giving the name of your physician, if you are intending to send a sample be sure to give the name in your letter. It will not only assist the Department of Health in making a diagnosis but they will be able to give you a more exact answer.—Editor.

### KEEPING SMOKED MEAT DURING SUMMER

Could you tell me some way to keep smoked meats during the summer months? I would like to keep it so I could sell it on the city market in Flint in the summer.—E. S., Montrose, Mich.

Smoke meats which are to be kept over summer should be wrapped in heavy manilla paper and then placed in a muslin sack. The muslin sack being securely tied and then coated with wash which can be made as follows:

Yellow Wash—For 100 pounds of hams or bacon use: 3 pounds ba-

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WHEN WRITING TO ITS ADVERTISERS

rium-sulphate, 0.06 pounds glue, 0.08 pounds chrome yellow (Poison—be careful), 0.40 pounds flour.

Half fill a pail with water and mix in the flour, dissolving all lumps thoroughly. Dissolve the chrome yellow in a quart of water in a separate vessel and add the solution and the glue to the flour; bring the whole to a boil and add the barium sulphate slowly, stirring constantly. Make the wash the day before it is required. Stir it frequently when using and apply with a brush.

After the meat has been wrapped, placed in the sacks, the sacks tied and treated with the wash, they should be hung in a cool dry place. In hanging the different packages they should be hung by the string which secures the top of the sack and never by the string which was used in hanging the meat in the smoke house. When this string protrudes from the sack it makes it possible for flies to get in and when using heavy paper sacks it is often advisable to place some salt or pepper over the wrapped and tied end in order that flies may not gain access through the folds in the paper.

Where a cement or brick smoke house is available and is fairly well ventilated, it makes an excellent place in which to store the smoked meat unless so exposed to the sun that it becomes too hot.—Geo. A. Brown, Professor of Animal Husbandry, M. A. C.

**RESERVES POSSESSION**

You seem so much like a big brother that I feel just like telling you my troubles and asking advice. My mother decided she wanted to buy another farm so she bought it before she sold this one and not wishing to leave this one without someone on it got us to come and live on it until she did sell it. On Feb. 19 she sold this one and she had 30 days before she had to give possession. In the meantime, or about that same day, the man sold it to another man. Can that man that now has it get rent from us until mother's 30 days are up? He is a banker and tells me that our rent started when he took over the farm. My mother contends that the farm is hers until March 11, and we are still her tenants. Then after March 11 if we wish to stay here our rent begins. Now which is right? Then too, which party is to notify us to vacate? Mother or the present owner? We do enjoy your paper so very much and hope it will always be possible for us to take it.—Mrs. J. S., Pontiac, Mich.

If the seller reserved possession for 30 days there would be no rent due from any one. No notice is required at the end of the 30 days. The deed would become operative at the end of 30 days and proceedings taken against those in possession if they do not vacate.—Editor.

**MIXING SORGHUM WITH CORN FOR SILAGE**

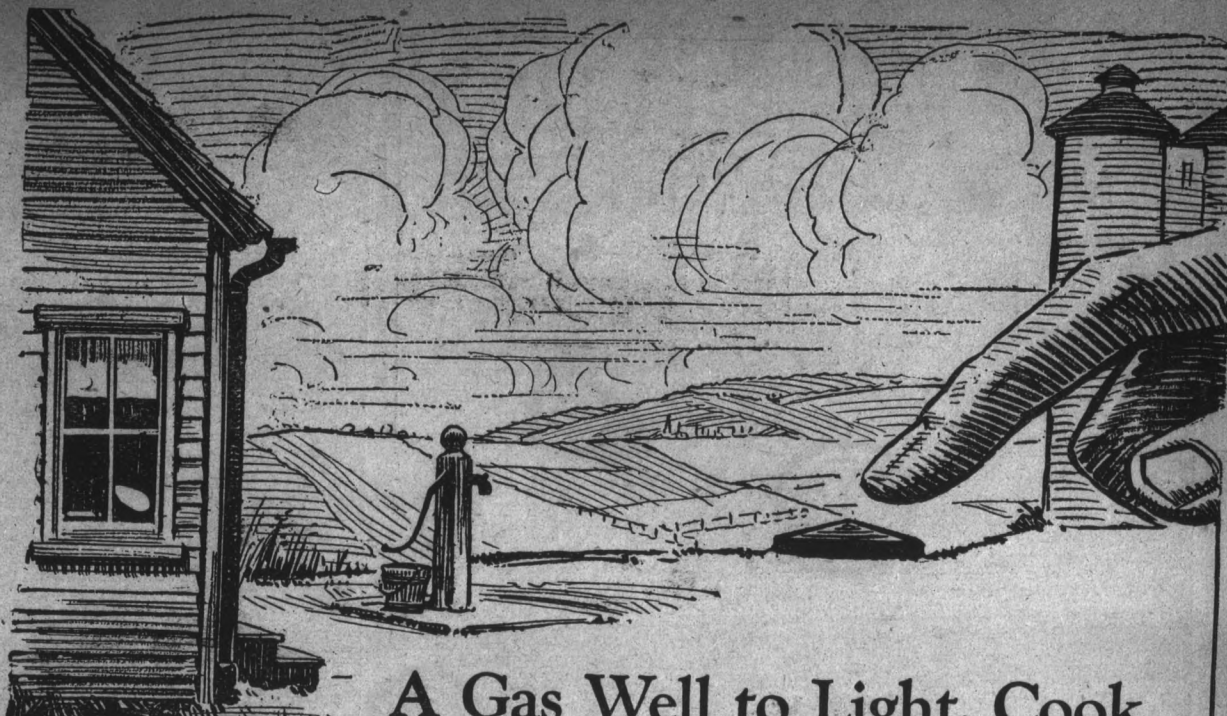
Can you give me any information as to the results obtained from mixing sorghum with corn for silage? How much sorghum should be used to the acre and should the amount of seed corn to the acre be lessened?—A. C., Charlotte, Mich.

There is no advantage in mixing sorghum with corn for ensilage under Michigan conditions. Sorghum yields less per acre and the quality of sorghum is not quite so good. Sorghum is recognized as being next to corn in value as a silage crop, but the tonnage is not quite as great and the silage does not keep quite as well. For silage purposes, sorghum is drilled in rows 36 inches apart, using 6 or 8 pounds of seed per acre. It is cultivated and handled for the silo the same way that corn is handled. The early Amber variety is best.—J. F. Cox, Professor of Farm Crops, M. A. C.

**GRIMM AND COMMON ALFALFA**

What is the difference between Grimm alfalfa and common alfalfa? Do you have to sow lime on hilly soil? It is a clay hill.—A. B., Lapeer, Mich.

Grimm alfalfa is hardier than common alfalfa under Michigan conditions. Fields of Grimm are more enduring and yield more. The Grimm plant differs from the common alfalfa in the tendency of the root system to branch and that of the Grimm to spread out. The flowers of the Grimm are variegated while those of the common are usually bluish or purple. Hilly land which is clay soil, will need lime if acid. Would suggest that you send a sample to the Soil Department of the M. A. C. for lime determination.—J. F. Cox, Professor of Farm Crops, M. A. C.



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**PAY IN A YEAR — NO MONEY DOWN**



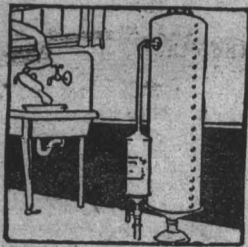
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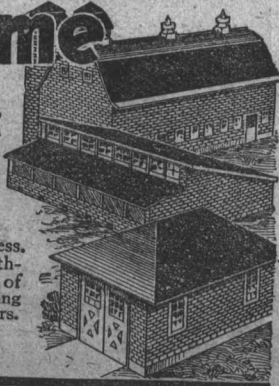
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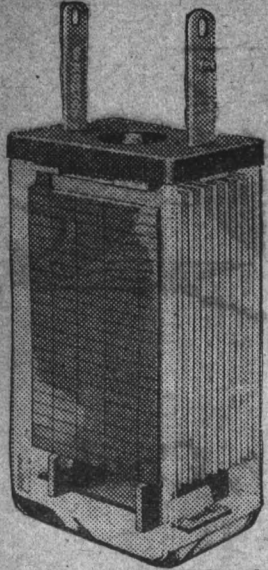
100 Everbearers—100 Senator Dunlop both postpaid anywhere at proper planting time. Send Now. We have 50 other varieties of strawberries; also small fruits, shrubs, trees, cactuses, etc. Free Catalog of everything to plant. Our Reduced Prices will pay you to answer this ad. Write today to The Allegan Nursery, Box 44, Allegan, Mich.

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No matter what kind of a farm lighting plant you have, so long as you use sealed glass cell batteries, if those batteries are worn out or are wearing out, we can supply you with a new set of any capacity from 40 to 320 ampere hour, and

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We'll guarantee you that saving in cash. We'll give you a new set of batteries absolutely guaranteed, as to performance.

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Very often it is possible by renewing the positive plates and separators in a set of glass cell batteries to give you another year or so of life out of your old batteries at a very reasonable cost. The Perfection Battery Mfg. Corporation is one of the oldest farm lighting battery companies in America, in business in Chicago for over 12 years, with highest bank references and a well known reputation in the trade for turning out the best Batteries and plates made anywhere in America. Write us fully giving the name and size of your present plant and the condition of your batteries. We will give you complete information and advice free. Every question you ask will be considered fully and answered completely and personally by our expert in farm lighting batteries. Write today. You will either be able to renew your present batteries or save from \$50 to \$100 on a new set. Address your correspondence personally to

ATTENTION OF  
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# What the Neighbors Say

## STATE HIGHWAY COMMISSIONER ROGERS ANSWERS COUNTY CLERK CASE

REFERRING to an article in your publication over the signature of B. L. Case, County Clerk of Gratiot county, I beg to offer the following:

I do not know whether the author of this communication knows it or not but Gratiot county has been handing in its maintenance payrolls every two weeks for the past year and two years ago submitted them weekly. They are made out in excellent shape by the deputy county clerk who also acts as clerk of the Board of County Road Commissioners.

What may be referred to is a recent letter requesting the equipment and material reports to be submitted at the same time as the payroll. Material reports were formerly submitted quarterly and equipment reports yearly but they all have to be made up from the daily payroll and material purchases.

When it is absolutely necessary that the state stay within its appropriation for maintenance, which has been budgeted in each county, when it must know at all times how much money it has spent and how much remains, would it be good business to wait three months to find out? Inasmuch as the state pays 50 per cent of the cost of this maintenance, is it an unwarranted intrusion in county affairs for it to ask to see where the money goes?

I may also state that one man in the Lansing office handles the auditing of the entire state maintenance work and is able to keep up his work better under the new arrangement because it is more evenly distributed throughout the quarter.

The overhead expenses on the Gratiot county projects built by the state, all of which are 20 foot cement concrete, in 1921, are as follows:

	Total cost including Engineering and Supervision	Engineering and Supervision	Per cent of tax-payers dollar into road	Part of tax-payers dollar into road
T. L. 14 Ithaca.....	\$33,111.01	\$1,371.07	4.14	96 c
T. L. 14 Alma.....	69,467.86	1,548.19	2.23	97.8c
T. L. 46 Breckenridge.....	36,987.22	1,295.73	3.50	96.5c
T. L. 46 Alma.....	10,233.64	944.94	9.23	90.7c
T. L. 46 St. Louis.....	40,106.32	1,277.56	3.18	96.8c
Total cost.....	\$219,906.05	\$6,437.49	2.94	97.06c
County's share.....	\$ 54,976.51	\$1,609.37	2.94	97.06c

Due to the small size of the job and considerable delay caused by city underground work not completed until after the job started, the overhead was high on T. L. 46, in Alma. However, it is felt that the other costs are reasonable as is the average for the whole. Anyone can see that one small job, separated from the others, will cause a higher overhead.

If 97c of every taxpayer's dollar went direct into the road in Gratiot county, where did the money come from to pay that "army of inspectors"? There is one District Engineer and one Road Assistant who handle the work of construction and maintenance in seven counties out of the Lansing office and whose salaries come out of the personal service budget. The cost of this service is not given in the overhead but when it is considered that these men last year handled \$1,500,000 of state road construction, \$1,500,000 of reward construction and maintenance besides, their cost is seen to be small.

Now let us see what effect a further reduction in the overhead expense would have on the taxes in Gratiot county. Suppose we should eliminate all overhead, give no supervision to the work whatever and make no attempt to see that the 97c of the taxpayer's money is wisely and honestly expended. The total cost would then be \$53,367.12 instead of \$54,976.51. The 1921 equalized valuation of Gratiot county is \$45,480,000. If the entire cost of these roads is spread over one year's tax roll, the tax per thousand dollars would be reduced from \$1.2088 to \$1.1734; a saving of \$0.0254. A farmer with 100 acres assessed at \$100 per acre would, therefore, have a reduction in his taxes of 25c. Economy is always to be de-

sired but my experience with the hard-headed business farmer leads me to believe that he would not countenance any such folly. It isn't the 25c of tax on a \$10,000 valuation that is worrying him. It is the other two or three hundred dollars which is and should be demanding his attention.

The ability "to mix cement for a stable floor" is not one of the prerequisites for a place as inspector with the State Highway Department. What is required is a man who will obey orders and see that orders are obeyed. The state specifications are very definite as to just how cement concrete shall be mixed. All cement is tested and sand and gravel inspected by competent engineers. About all the technical knowledge required of the inspector is sufficient intelligence to make out a daily report of the number of feet of concrete run and number of bags of cement that went into each foot of the slab. The ability to handle a two foot rule, time the mixer and see that the number of wheelbarrows of sand and gravel are kept in the specified proportion, is required. Neither the resident engineer who handles two or three jobs nor the inspector who is stationed on one job can alter the specifications in any way without written authority from the Lansing office. Pavements are no longer laid "by ear."

The author of the letter knows, or should know the figures for overhead as his name appears on the warrant in payment for the county's share of trunk line construction in Gratiot county. He knows or should know that the trunk line bridge west of Alma is a contract job and if any money is being wasted in its construction, it comes out of the contractor's pocket and not the state's. The "high-priced" inspector, who incidentally is a resident civil engineer, has had charge of two bridges

this winter besides making numerous bridge and road surveys for future work.

If roads are costing too much, the thing to do is to stop building them and get after that 97c. How can one know whether roads are responsible for high taxes? Take your tax receipt and see just what part of your total tax goes to state and county roads. If you think that your road tax is too high, see that your road officials are advised of your opinions.

Roads are usually built in the places where they are requested by the local road officials and it is not and never has been the policy of this department to build roads against the wishes of a majority of the citizens interested.—Frank F. Rogers, State Highway Commissioner.

## TAKE CARTER'S LITTLE LIVER PILLS

I AM sending you my renewal as I don't want to miss an issue, and I am going to ask you a few questions that are under my lid. Which contract gives the farmer the fairest deal, the sugar company or the so-called Michigan Milk Producers Association? 50-50 to my way of thinking.

What became of the money that was paid in the Sugar Beet Association?

How many pounds did the Armenians gain apiece after they received our donation. I believe I read in one of your issues where Monroe county sent \$400 to Detroit. So it got 30 miles east anyway. I failed to see anything in the papers about them starving after we dumped some grain in the mill.

Why do the farmers have their cows tested for tuberculosis? Is it because the consumer has to pay too

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Sow 7 1/2 as much GRIMM per acre as you would common

GRIMM Alfalfa lessens the cost of production of your meat and milk, hence larger profits. It is relished by all kinds of live stock. It makes a better balanced ration than clover, appears as an appetizer making the animal machine capable of larger production. GRIMM hay is less woody than common. The feeding value of GRIMM is equal pound for pound with wheat bran and nearly equals that of oats. GRIMM hay contains about fifty per cent more digestible proteins than red clover hay, and four times as much as timothy. Due to the low cost of production and high feeding value it is the most economical roughage that you can use. The seeding cost of genuine GRIMM is practically the same as common alfalfa.



Due to the vast amount of common alfalfa, or badly mixed lots sold on the market as GRIMM, many farmers have been hoaxed into raising poor or ordinary crops. On the other hand, from actual observation, users of GENUINE GRIMM are greatly increasing their profits and becoming more prosperous each year.

You will be assured success by sowing this spring CERTIFIED GENUINE GRIMM seed, produced by co-operative growers organizations under strictest field and bag inspection. We are co-operating to make possible for you to get absolutely reliable GRIMM that will give results.

Idaho Grimm Alfalfa Seed Growers Association, Grimm Alfalfa Seed Producers Assn. of N. Dakota

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much for beef or on account of the surplus milk?

Why does our school district have to borrow money from the bank at 7 per cent to pay the teacher and have library money in the same bank at 3 per cent? Our library is full of books now.

Why can't Hank cut freight rates on the D. T. & I? (known around those diggins a few years ago as the D-Tired & Independent and Drunkards, Tramps & Idiots line), but hauling trains now that makes you sit up and take notice.

Now what would be your advice as to this for a dog law? (I am a lover of dogs, but not curs). Put a \$25 tax on a bitch and \$1 on a male. I believe that would help get rid of the mongrel, because if a man had to pay a tax of \$25 he would charge for the pups and would take care of her if she accounted to anything and if she didn't he would kill her.

I have had the good luck to kill three sheep dogs and they were all curs (mixed with brown-leghorns and Poland-China or something like that).

If you wish to publish this please correct mistakes as they didn't have any consolidated schools when I went to school.

Well it has stopped raining and I feel better so will close with my very best wishes to your good paper and your whole crew.—W. B., Monroe County, Mich.

P. S.—I believe (graft) will answer the most of my questions.

Should think you would feel better with that out of your system. Still you've asked some questions that can't be dodged or put aside lightly.

In the milk contract the dealer gets the cream and the farmer the skim; in the beet contract the factory gets the sugar and the farmer gets—dirt mostly.

Part of the money paid into the beet association went to pay the traveling expenses of men who neglected their own work to help farmers get a better beet price. The rest of it is in banks.

We have never learned how many pounds those starving little Armenian waifs put on after they ate the food which the farmers of Michigan gave them. (And it wasn't such a great quantity after all. That \$400 you speak of meant a donation of 10 cents apiece for each farm family in Monroe county.) \$370 of those \$400 have reached Armenia and saved scores of children from the most horrible kind of death. Had Monroe county contributed her quota of \$1500 or 37 cents apiece for each farm family scores of other children might have been saved. But she didn't and so they died. And they're dying every day now whether you read about it in the paper or not.

Bovine tuberculosis? We don't know. See editorial this issue.

Maybe the banker is a member of the school board.

"Hank" wants to cut rates but the Interstate Commerce Commission won't let him. Search us.

Your dog law would transgress Article Three of the State Constitution which guarantees equality of the sexes. Otherwise, it's all right. Talk to George Danz about it. He's your representative.

Many things are wrong, but not everything. Take three pills a day and write us at the end of a week.—Editor.

**A SATISFIED READER**

Enclosed you will find P. O. order for renewal and kindly pardon my carelessness in not sending it sooner as I had no intention of quitting your paper. On the contrary I think the Business Farmer comes the nearest to my ideal of a farm paper of any I have ever seen and I don't want to miss any numbers. I like your good questions, including our banking problems, prohibition, state taxation, that infamous school amendment, etc., and hope you have the nerve to keep it up and by the way what's the matter with O. B. Fuller for a taxpayers' candidate for governor next fall. I think it's about time the people of Michigan showed some appreciation of the watch-dog of our state treasury.—F. E. D., Postoria, Mich.

At last! A reader who agrees with us on every point! You are the second one to suggest Mr. Fuller for governor. Where can he do the people the most good, as auditor general or governor?—Editor.

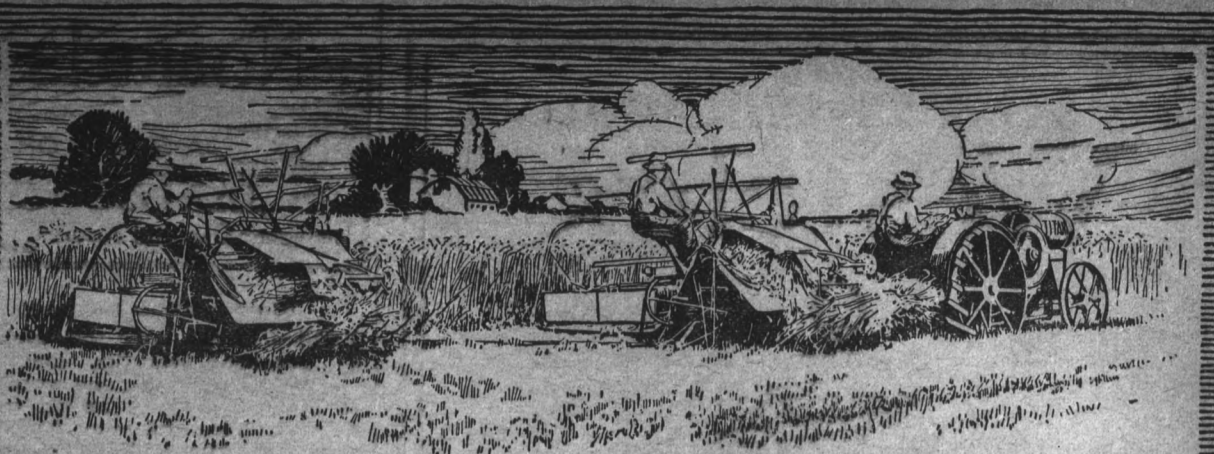
**The Black Watch**

"The wrist watch has done much for our trade."  
"Where is your trade?"  
"It is mainly in Africa. Formerly we couldn't sell a native a watch because he didn't have a pocket to carry it in."

**All of One Family**

The best proof that all human beings are alike is that each thinks himself a little different.—New York Evening Post.

"Say, Mamma, was baby sent down from heaven?"  
"Why, yes."  
"Um. They like to have it quiet up there, don't they?"



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**A**GRICULTURE, the basic business of America, approaches its busy season with fair weather signals set. Farm prices have climbed higher and general farming conditions are looking upward. Balmy days are at hand, bringing cheerfulness to the countryside. It is time for the farmer to arm himself with efficient tool and profitable method.

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awaits your inspection at the store of the McCormick-Deering Dealer. The old reliable quality can be depended upon, and the prices will reflect the sincere efforts that have been made to supply you with the best equipment at satisfactory figures.

When dependable tools have put your crops in the ground, begin at once to safeguard every step of the way until the harvest is in. Make an early survey of your machines—do it today—so that hay time and harvest may find you ready. As generations before have done, place your reliance in McCormick and Deering binders and mowers and add to the pleasure and security of the harvest by using binder twine bearing the same names. McCormick, Deering, and International twines sell this year at the lowest prices quoted in over five years. The spread today between these highest-quality binder twines and inferior brands is so small that no farmer can afford to take chances.

Do not permit the emergency economies that have been necessary in recent years to impair your good judgment now. Where repairs have carried your machines long beyond their ordinary life of usefulness, replace them with the best that today's manufacturing skill can provide. Our seasonable machines, displayed by all McCormick-Deering dealers, will help you to farm more profitably this year.

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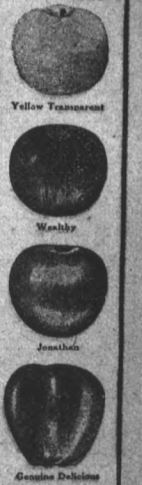
We will send you, by parcel post, all charges paid, our Fine Home Orchard Collection of Eight Choice Apple Tree Grafts, Two Each of Four Splendid Varieties! They are produced by a method that insures every good quality of rapid growth, early maturity and heavy yield, if given the care they deserve. From selected trees the bright new branches, called "scions," are cut off, and each scion is carefully grafted to a one-year apple root, and wrapped with waxed twine, as shown in the picture to the left. The apple tree graft, complete, is about a foot high, and is ready to plant. It takes root at once, makes rapid growth, and in just a short time each of these fine trees will yield bushels and bushels of choice apples.

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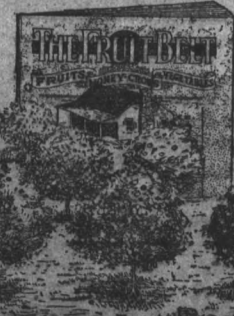
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For an accurate timekeeper and a punctual alarm at an economical price, you will find it hard to beat America, the oldest member of the Westclox family.

America is a neat, upstanding alarm that has kept up with every improvement in time-keeping that has come along.

Yet its price has stayed low. A dollar and a half is really very little to pay for a good clock. That's all America costs.

For the unusual service America gives, you may thank the careful Westclox workmen. They give you the best they know how to make—no matter what the clock's price may be.

The Westclox orange-buff tag is always a promise of good timekeeping for a good long time.

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\$3.50	\$3.50	\$1.50	\$2.00	\$3.00	\$1.50	\$2.50

# Nomads of the North

A STORY OF THE GREAT OUTDOORS

By JAMES OLIVER CURWOOD  
Michigan's Own and America's Foremost Author of Wild Life Romance

(Continued from last week)

**F**OR a month after that night he remained near the cabin. At least once a day, and sometimes at night, he would return to the clearing. More and more frequently he was thinking of Neewa. Early in March came the Tiki-Swao — (the Big Thaw). For a week the sun shone without a cloud in the sky. The air was warm. The snow turned soft underfoot and on the sunny sides of slopes and ridges it melted away into trickling streams or rolled down in "slides" that were miniature avalanches. The world was vibrant with a new thrill. It pulsed with the growing heart-beat of spring, and in Miki's soul there arose slowly a new hope, a new impression a new inspiration that was the thrilling urge of a wonderful instinct. Neewa would be waking now!

It came to him at last like a voice which he could understand. The trickling music of the growing streams sang it to him; he heard it in the warm winds that were no longer filled with the blast of winter; he caught it in the new odors that were rising out of the earth; he smelled it in the dank, sweet perfume of the black woods-soil. The thing thrilled him. It called him. And he knew!

Neewa would be waking now!

He responded to the call. It was in the nature of things that no power less than physical force could hold him back. And yet he did not travel as he had travelled from Chalon's camp to the cabin of Nanette and the baby. There had been a definite object there, something to achieve, something to spur him on to an immediate fulfilment. Now the thing that drew him, at first, was an overpowering impulse, not a reality. For two or three days his trail westward was wandering and indefinite. Then it straightened out, and early in the morning of the fifth day he came from a deep forest into a plain, and across that plain he saw the ridge. For a long time he gazed over the level space before he went on.

In his brain the pictures of Neewa were becoming clearer and clearer. After all, it seemed only yesterday or the day before that he had gone away from that ridge. Then it was smothered in snow, and a gray, terrible gloom had settled upon the earth. Now there was but little snow, and the sun was shining, and the sky was blue again. He went on, and sniffed along the foot of the ridge; he had not forgotten the way. He was not excited, because time had ceased to have definite import for him. Yesterday he had come down from that ridge, and today he was going back. He went straight to the mouth of Neewa's den, which was uncovered now, and thrust in his head and shoulders, and sniffed. Ah! but that lazy rascal of a bear was a sleepyhead! He was still sleeping. Miki could smell him. Listening hard, he could hear him.

He climbed over the low drift of snow that had packed itself in the neck of the cavern and entered confidently into the darkness. He heard a soft, sleepy grunt and a great sigh. He almost stumbled over Neewa, who had changed his bed. Again Neewa grunted, and Miki whined. He ran his muzzle into Neewa's fresh, new coat of spring fur and smelled his way to Neewa's ear. After all, it was only yesterday! And he remembered everything now! So he gave Neewa's ear a sudden sharp nip with his teeth, and then he barked in that low, throaty way that Neewa had always understood.

"Wake up, Neewa," it all said. "Wake up! The snow is gone, and it's fine out today. Wake up!"

And Neewa, stretching himself, gave a great yawn.

## CHAPTER TWENTY-FOUR

**M**ESHABA, the old Cree, sat on the sunny side of a rock on the sunny side of a slope that looked up and down the valley. Meshaba—who many, many years ago had been called The Giant — was very old. He was so old that even the Factor's books over at Fort O' God had no record of his birth; nor the "post logs" at Albany House, or Cumberland House, or Norway House, or Fort Churchill. Perhaps farther north, at Lac La Biche, at Old Fort Resolution, or at Fort McPherson some trace of him might have been found. His skin was crinkled and weather-worn, like dry buckskin, and over his brown, thin face his hair fell to his shoulders, snow-white. His hands were thin, even his nose was thin with the thinness of age. But his eyes were still like dark garnets, and down through the great part of a century their vision had come undimmed.

They roved over the valley now. At Meshaba's back, a mile on the other side of the ridge, was the old trapper's cabin, where he lived alone. The winter had been long and cold, and in his gladness at the coming of spring Meshaba had come up the ridge to bask in the sun and look out over the changing world. For an hour his eyes had travelled up and down the valley like the eyes of an old and wary hawk. The dark spruce and cedar forest edged in the far side of the valley; between that and the ridge rolled the meadowy plain—still covered with melting snow in places, and in others bare and glowing, a dull green in the sunlight. From where he sat Meshaba could also see a rocky scarp of the ridge that projected out into the plain a hundred yards away. But this did not interest him, except that if it had not been in his line of vision he could have seen a mile farther down the valley.

In that hour of Sphinx-like watching, while the smoke curled slowly up from his black pipe, Meshaba had seen life. Half a mile from where he was sitting a band of caribou had come out of the timber and wandered into a less distant patch of low bush. They had not thrilled his old blood with a desire to kill, for there was already a fresh carcass hung up at the back of his cabin. Still farther away he had seen a hornless moose, so grotesque in its spring upliness that the parchment-like skin of his face had cracked for half an instant in a smile, and out of him had come a low and appreciative grunt; for Meshaba, in spite of his age, still had a sense of humor left. Once he had seen a wolf, and twice a fox, and now his eyes were on an eagle over his head. Meshaba would not have shot that eagle, for year after year it had come down through time with him, and it was always there soaring in the sun when spring came. So Meshaba grunted as he watched it, and was glad that Upisk had not died during the winter.

"Kata y ati sisew," he whispered to himself, a glow of superstition in his fiery eyes. "We have lived long together, and it is fated that we die together, Oh Upisk. The spring has come for us many times, and soon the black winter will swallow us up forever."

His eyes shifted slowly, and then they rested on the scarp of the ridge that shut out his vision. His heart gave a sudden thump in his body. His pipe fell from his mouth to his hand; and he stared without moving, stared like a thing of rock.

On a flat sunlit shelf not more than eighty or ninety yards away stood a young black bear. In the warm glow of the sunlight the bear's spring coat shone like polished jet.

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2 Bu.—\$15.00 Bushel

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299 Ely Ave. Dept. X Long Island City, N. Y.

MENTION THE MICHIGAN BUSINESS FARMER, WHEN WRITING TO ADVERTISERS

But it was not the sudden appearance of the bear that amazed Meshaba. It was the fact that another animal was standing shoulder to shoulder with Wakayoo, and that it was not a brother bear, but a huge wolf. Slowly one of his thin hands rose to his eyes and he wiped away what he thought must surely be a strange something that was fooling his vision. In all his eighty years and odd he had never known a wolf to be thus friendly with a bear. Nature had made them enemies. Nature had foredoomed their hatred to be the deepest hatred of the forests. Therefore, for a space, Meshaba doubted his eyes. But in another moment he saw that the miracle had truly come to pass. For the wolf turned broadside to him and it was a wolf! A huge, big-boned beast that stood as high at the shoulders as Wakayoo, the bear; a great beast, with a great head, and—

It was then that Meshaba's heart gave another thump, for the tail of a wolf is big and bushy in the springtime, and the tail of this beast was as bare of hair as a beaver's tail!

"Ohne moosh!" gasped Meshaba, under his breath—"a dog!"

He seemed to draw slowly into himself, slinking backward. His rifle stood just out of reach on the other side of the rock.

At the other end of that eighty or ninety yards Neewa and Miki stood blinking in the bright sunlight, with the mouth of the cavern in which Neewa had slept so many months just behind them. Miki was puzzled. Again it seemed to him that it was only yesterday, and not months ago that he had left Neewa in that den, sleeping his lazy head off. And now that he had returned to him after his own hard winter in the forests he was astonished to find Neewa so big. For Neewa had grown steadily through his four months' nap and he was half again as big as when he went to sleep. Could Miki have spoken Cree, and had Meshaba given him the opportunity, he might have explained the situation.

"You see, Mr. Indian"—he might have said—"this dub of a bear and I have been pals from just about the time we were born. A man named Challoner tied us together first when Neewa, there, was just about as big as your head, and we did a lot of scrapping before we got properly acquainted. Then we got lost, and after that we hitched up like brothers; and we had a lot of fun and excitement all through last summer, until at last, when the cold weather came, Neewa hunted up this hole in the ground and the lazy cuss went to sleep for all winter. I won't mention what happened to me during the winter. It was a plenty. So this spring I had a hunch it was about time for Neewa to get the cobwebs out of his fool head, and come back. And—here we are! But tell me this: What makes Neewa so big?"

It was at least that thought—the bigness of Neewa—that was filling Miki's head at the present moment. And Meshaba, in place of listening to an explanation, was reaching for his rifle—while Neewa, with his brown muzzle sniffing the wind, was gathering in a strange smell. Of the three, Neewa saw nothing to be wondered at in the situation itself. When he had gone to sleep four and a half months ago Miki was at his side; and today, when he awoke, Miki was still at his side. The four and a half months meant nothing to him. Many times he and Miki had gone to sleep, and had awakened together. For all the knowledge he had of time it might have been only last night that he had fallen asleep.

The one thing that made Neewa uneasy now was that strange odor he had caught in the air. Instinctively he seized upon it as a menace—at least as something that he would rather not smell than smell. So he turned away with a warning woof to Miki. When Meshaba peered around the edge of the rock, expecting an easy shot, he caught only a flash of the two as they were disappearing. He fired quickly.

(To be continued)

It always hurts a young man a little when some girl he knows tells him that she is engaged.



# 1/3 more per dollar

## The first guncotton-nitroglycerin dynamite without a headache

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If you have ever suffered from "Dynamite headache," you can appreciate what a boon this new Du Pont explosive is to the farmers of this country—in this one particular alone.

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See your local hardware or general store merchant regarding your season's supply of Dumorite. Write us for descriptive booklet "Farmers' Handbook of Explosives."

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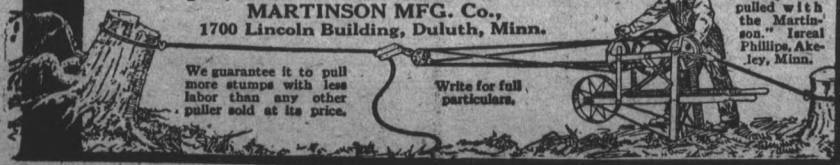
**FREE** We prove to you the truth of our claims on a FREE ten day test on your farm. If the Martinson fails to make good, return it and the deal is off.  
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We want an agent in every community to use and introduce these wonderful tires at our astonishingly

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# The Michigan BUSINESS FARMER



An Independent  
Farmer's Weekly Owned and  
Edited in Michigan

SATURDAY, APRIL 8-15, 1922

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Entered as second-class matter, at post-office, Mt. Clemens, Mich.

## A STATEMENT FROM THE PUBLISHER

'Playin' square and stickin' to principles isn't always easy!

The easiest way, is to play with the crowd that are featherin' their-nests at the expense of the community.

And woe betide him that does not play the game as THEY want it played!

Now, The Business Farmer, may be as full of faults as a porcupine is of quills, but we have never been accused of "laying-down" or "bein' afraid to speak out in meetin'," when it came to fighting the just battles of the farmers of Michigan, our home state.

So, when we began receiving letters a month or so ago from good farmer friends of The Business Farmer, asking if we had "sold out," we gave them little notice. They persisted, however, so that we began to wonder if some one was trying to throw out a smoke-screen, behind which he and his gang could hide during the coming elections.

So perhaps it is best to reiterate this statement and I hope every good friend and reader will pass it along:

The Michigan Business Farmer is OWNED, EDITED AND PUBLISHED IN MICHIGAN and by men born and bred in this state, with no interests in other states. It will continue to serve the farmers and the farming business in Michigan wholly and solely so long as we own and control it and if we ever "sell out" to anyone, a full statement of the fact will be published in these columns.

During the present period of readjustment in both mechanical and other departments, we are issuing every other week, but every issue missed will be credited to every subscriber on our list and their subscription extended accordingly.

It is our intention to resume regular weekly publication dates, just as soon as conditions will permit and in the meantime to continue to give you, to the best of our ability, a real, fair and square, but not afraid, farm paper.

Our greatest asset is YOUR loyalty and friendship!

THE PUBLISHER.

## The Wonders of Radio

"WE old folks," said an aged neighbor of mine the other day, "can't understand this radio business. We thought the telegraph was a wonderful thing. It was invented just a short time before I was born. I remember how people used to wonder what its future would be. One fellow opined that some day every home would have a telegraph instrument. But that was before the telephone was invented. And I remember so well when they were laying the first Atlantic cable

and how bad we all felt when the news came that it had broken. Then came the telephone and the phonograph and the electric light. All these things kept us guessing but this wireless business is the biggest puzzle of all."

Nor is this old friend of mine the only one who cannot understand wireless. It is a mystery to most, a mystery which the average mind will probably never fathom. It takes absolute evidence to convince the average person that a voice can be wafted through two thousand miles of space and be heard at the end of its destination as distinctly as though in the very next room. Mr. Ferris' articles upon this subject will be illuminating but he probably does not hope to explain wireless so that all may understand. Nor is it necessary to understand wireless in order to enjoy its many advantages.

Recently I installed a small wireless receiving set in my house. I prepared to erect my aerial out of doors but a friend advised me to put it in the attic. If it is impossible to comprehend how these sound waves traverse space and are caught up by bare wires lying unobstructed in their path, what shall you say when you are advised to hide your wires behind boards and rafters and shingles? But there comes a time in the life of every amateur radio fan when he ceases to ask questions about the marvels of radio and automatically obeys every suggestion made by his friends. Nothing is any longer impossible. So in the attic went my aerial and down through the corner of a register to a water pipe in the basement went my ground. (Consult Mr. Ferris before you put your aerial indoors. It is better outside.)

I hooked it up Saturday evening, April 1st. With what feverish haste and expectancy did I "listen in" for WWJ, the Detroit News station symbol. All I got was a hum. I adjusted the detector and the tuners. More hum. I adjusted them again and got some more hum, but the only human voices that came to my ears were those of the children who stood around on tip-toe, with mouths open waiting to hear the concert. To make a long story short I spent all Saturday evening, Sunday afternoon and evening, Monday and Tuesday evenings tinkering with the wiring and the adjustments and shouting to the children to keep still. I despaired. Was wireless after all a magician's tale? Wednesday evening I hopelessly put on the head-set and without any enthusiasm manipulated the tuners. Suddenly my heart stood still, a thrill that comes once in a life-time leaped through my veins, for there clear as a bell came, "WWJ, Detroit News Radio Station." Radio concerts are now the order of the evening at our house.

## The Function of Congress

"THE function of Congress," says Percy H. Johnston, president of the Chemical National Bank of New York, "is to inspire rather than reflect the thought of its constituents."

The Johnson theory is not a new one at all. Indeed, it is the oldest theory of government in the world. In the days of Pharaoh, Caesar, Napoleon and even up to the times of Czar Nicholas and Kaiser Wilhelm it was a fairly popular theory with reigning princes. That the people should have any right to say how they should be governed was a most preposterous assumption. The people were "inspired" to adopt the religion of their sovereign and fight his personal battles with neighboring princes. What the people thought about these matters was of no consequence whatever.

Abraham Lincoln said, "This is a government of, for and by the people." That the head of a great banking institution in this twentieth century should question this right of the people to direct their government gives us cause for serious meditation.

## Bovine Tuberculosis

IT is supposed, of course, that science has definitely established a relation between human and bovine tuberculosis. Should there be the slightest shadow of a doubt about it the wholesale slaughter of reacting dairy animals would be one of the greatest economic

crimes of the age. Does the suckling child take the disease from a tubercular mother? Does the milk from tubercular cows always or even frequently or ever contain the germs of human tuberculosis? Is the bovine germ the same as the human germ? Is there any possibility that science has erred? If science has not erred God has. For centuries past man has been drinking the milk of cows believing it to be a wholesome food. For the greater part of this period he had no way of knowing what disease germs it might contain. He knew, of course, that it was easily contaminated and so he used care to keep it clean and pure. But other than that he did not know. He assumed that the giver of all things would not place at the disposal of man a common article of food containing the germs of deadly diseases. But modern science places no such faith in divine providence. It has "discovered" that for all these years man has been drinking germ-laden milk. Does it sound reasonable?

## Reindeer Steaks

A GREAT load has been lifted from the minds of Michigan consumers since the sixty reindeer purchased by the state game department arrived to swell the state's meat supply. Persons who have been unable to eat beef except at fabulous prices may now eat their fill on reindeer meat.

"Should the animals thrive," says David R. Jones, chief deputy of the department, "a great step would be taken toward solving the nation's problem of a dwindling meat supply."

Mr. Jones has vision but he has barely scratched the possibilities of the reindeer industry. The reindeer is a very fleet animal. It skims over the snow at twenty-five to thirty miles an hour. Undoubtedly as a mode of travel it is far superior to the automobile, and if gasoline keeps going up there is bound to be a vigorous demand for reindeers. Increasing baldness has caused a substantial inquiry for false hair. Wigs made from the shaggy coat of the reindeer would cover many a bald pate with a dressing of beautiful chestnut hair. Then think of the limitless uses for the antlers. We mention only one here, jack-knife handles. This may not seem important to the average reader until he learns that there is a possibility of shutting out all those 9 cent German knives by Mr. Fordney's new tariff measure which would mean that all American whittlers would have to be supplied from domestic manufacturers.

At first we thought the purchase of these reindeers was just another piece of darn foolishness to spend the taxpayers' money, but we can see now that we were mistaken.

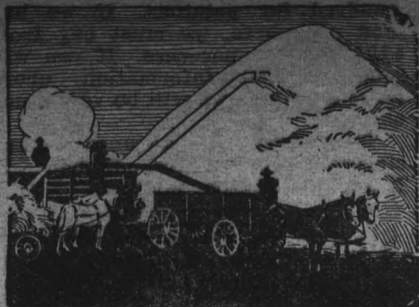
## Dodge Goes to Work

IF the manners of the poor can give the rich any greater amusement than is afforded the poor by the hair-brained escapades of the rich they must do a considerable bit of chuckling. Take that Dodge affair, for instance.

Dodge, condemned to poverty by the will of a parent who was poor and became rich, contests the will and gets a paltry million dollars. He proceeds to spend it in riotous living. His expensive automobile begins to figure in all sorts of joy rides which bring him into the pale of the law. He spends five days in jail for breaking the speed laws. He comes dangerously close to causing the death of a young woman who jumps from his machine running sixty miles an hour. Again the court-room, unsavory publicity, the contemptuous finger of public scorn. Dodge, frightened and sobered by his numerous narrow escapes, throws a bomb-shell into the public by announcing that he is going to work! Before he can carry out his threat, however, his father-in-law nearly chokes to death on the cap of a gingerale bottle and unwittingly discovers another argument against the Volstead act.

This is all in real life, but it would make a corking plot for a comic opera. Why hasn't somebody thought of it?

Sen. Townsend voted for Newberry and Pat Kelley for the right of southern states to lynch. Both are pretty black spots against Michigan's only two choices for United States Senator.



# Make Money With a Red River Special Separator

**Designed Right Built Right Works Right**  
Has the wonderful "Man Behind the Gun," the Big Cylinder, the Beating Shakers, the Graduated Adjustable Chaffer and other improved features that *save* all the farmer's grain and *clean* it fit for market.  
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The Wagnild Threshing Company, Outlook, Montana, write us:  
"We just finished our 1921 run with the 44x64 Red River Special bought in 1917. We made good money this year, cleaning up \$2,000 in 20 3-4 days.  
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**Calkins No Longer Fears the Calving Period**  
Every cow-owner knows the strain of calving on a cow's system. Kow-Kare is so widely used by dairymen before and after calf-birth to strengthen the genital organs and avoid disorders, that we receive yearly thousands of letters from grateful users. G. H. Calkins, Lone, Oregon, writes:

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Kow-Kare is equally sure as a remedy for Barrenness, Abortion, Scouring, Bunches, Milk Fever, Loss of Appetite, etc. All of these ailments result from sluggish genital or digestive organs. It is these organs that Kow-Kare is quick to strengthen and build up.  
At a cost of only a penny a day, Kow-Kare is used in many of the best dairies to offset the severe strain of winter confinement and rough or concentrated feeds. This aid to digestion and assimilation keeps milk production at top notch and avoids breakdowns.  
Kow-Kare will help you to bigger dairy profits; try it. General stores, feed dealers and druggists sell it at the new reduced prices—56c and \$1.25

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**WHEN WRITING TO ADVERTISERS, PLEASE MENTION THE FACT THAT YOU SAW IT IN THE MICHIGAN BUSINESS FARMER. IT WILL HELP BOTH OF US.**

## Uncle Rube Spinach Saus.

**NOTHIN' DOIN'**  
I WUZ out to Amos Spriggins' t'other day—you know Ame an' I've been friends for a good many years. Mebbe you don't know Amos—Well he's an old farmer livin' 'bout 'leven miles out in the country an' he has some kinda queer ideas—sometimes. Amos' one of the kinda fellows that don't believe in payin' much money to barbers, consequently he wears his hair a long time an' his whiskers a longer time. Fact is Amos ain't mowed his whiskers since 'fore the Civil War—if there ever was such a thing as a Civil War—an' so of course his whiskers are 'bout the most prominent part of his makeup.

But never the less an' not withstandin' Amos has some purty fair ideas an' he sez that what the American Federation of Labor is bustin' into now—the tryin' to break the Volstead law an' sim'lar is all tommy rot—he sez if the A. F. L. wants to keep in good with the people they'll let such stuff alone.

An' that ain't all that Amos talked about. Oh, no, not by a long ways, it ain't! He talked about the prices he waz gettin' fer his crops, about congress an' the kind of men we had there—he talked about the graft that wuz goin' on 'almost everywhere an' what ought to be done about it. Fact is, Amos talked about most everything under the sun an' all the time he kept runnin' his fingers through that splendid growth of alfalfa whiskers an' fin'ly he blurted right out "Dang if Rube, you should ort to be president an' then mebbe things could be made diff'rent." Now fearin' that there might be another that thought the same as Amos I just want to say a few words in my own behalf.

I want to tell both my friends, if I have so many, that I am not qualified for the position.

In the first place I don't know how to play golf; I never smoke a pipe; I don't look nice in a palm beach suit; I don't know how to fish for Tarpon—I haven't got a wife to have her picture taken every time she goes to buy a new pair of shoes or a party dress. I never have been accustomed to a secretary to do my work; never been used to entertaining newspaper reporters—I don't know anything about riding on yachts; I don't know Tom Edison or Mr. Hank Ford; I have no big capitalists backing me; I don't know Mr. Hughes or any of the men that formed the articles of the association of nations. I am not in any political ring; I never wore a stove pipe hat nor received letters from Lucy Payne Guston asking me to refrain from any indiscretion, I know nothing about the doings of Wall Street, have no friends there that I know of, know nothin' about vacations, nor private cars; camping outfits nor trips to southern climes.

In fact I can not see that I possess any of the qualities that would go to make a president of the present-day type. An' so I told Amos to jest forget it an' I am tellin' the other feller, if there is one, to do the same.

Now Amos thought this no good reason why I should decline the honor, if honor there be, an' I suppose there must be when it takes a couple of million dollars to git a feller into the place, but I'm jest turnin' the hull thing down flat—'course I could use the wages alright but I've got to see more'n two men gettin' interested 'fore I'd do anything a'tall to start things an' Amos didn't act like he wanted to put up any money an' I ain't got enough to buy a ticket to a real good vod'vil show an' where's the rest of it comin' from? Cordially yours.—UNCLE RUBE.

## LEGALIZED MURDER

Allow me to express my heartiest approval of your editorial entitled "Legalizing Murder." It is the finest article I have read in years, and I would like to see more of its kind. I am convinced that your paper is independent, and that it speaks the plain truth.—Alfred A. Furness, Chicago, Ill.

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Act Now! Order your drum of En-ar-co Motor Oil today. Advise what tractor, truck, automobile or light plant you want to use it for—we will send you the proper grade and guarantee immediate delivery.

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FOR THE SPRING RENOVATING

Resizing

AFTER cleaning, a machine-made pile rug sometimes loses its shape or wrinkles and curls up because the sizing on the back has worn off. Resizing will pay for itself in adding to the durability of the rug as well as making it look much better and can be done at home or by a carpet dealer. The rug should be stretched tight and true and tacked at frequent intervals face down on a floor or some other flat surface where it can remain undisturbed. It should then be sprinkled generously with a solution made by soaking and dissolving 1-4 pound of flake glue in 1-2 gallon of water in a double boiler or a container surrounded by hot water. The rug should be allowed to dry for at least 24 hours. If it is light weight, care should be taken not to put on so much glue that it penetrates to the right side.

Method of Cleaning

Rugs and carpets in rooms in constant use need to be brushed or cleaned with the carpet sweeper every day or two; and once a week thoroughly swept or gone over with a vacuum cleaner, or in the case of small rugs, beaten out of doors. Sweeping should be made as dustless as possible by dampening the broom or scattering crumpled bits of newspaper, moist tea leaves, or one of the commercial sweeping preparations on the surface of the carpet. These methods must be used with care, however, for delicately colored carpetings are especially likely to be streaked by moisture. If a carpet or rug still seems very dusty after cleaning, the surface may be wiped with a cloth wrung as dry as possible from clear water.

One of the great advantages of rugs over carpets is that they can be taken out-of-doors more easily and often to be cleaned, thus removing the dirt from the house with them and lessening noise and confusion within.

A freshly spilled liquid should not be rubbed from a carpet or rug, because this tends to drive it into the fabric. If possible, it should be covered at once with corn meal, talcum powder, blotting paper torn into bits, or any other absorbent material which will take it up and prevent its spreading.

H. & H. soap used with a soft brush cleans the surface of carpet and rugs splendidly. Carpets may be cleaned right on the floor of the room.

The Carpet Sweeper

The efficiency of a carpet sweeper depends in part on how clean it is kept. It should be emptied frequently and the hair and threads cleaned from the brush with a wire hair-brush, old scissors, a currycomb, a buttonhook, or an old coarse comb. Old carpet sweepers can often be supplied with new brushes and rubber tires and made as good as new.

Floor Oil

Which both cleans and polishes. 2-3 paraffin oil, 1-3 gasoline. A tablespoon of turpentine to 1 pint of liquid.

SUGGESTIONS

TO Mrs. F. G.—If you will please send me a stamped, self-addressed envelope I will be very glad to send the baby moccasin pattern. I would have complied with the request if there had been any address but I could not find one.

I wonder how many of the lady readers of the M. B. F. have ever made apple salad. I think you would all enjoy it—if apples were plentiful. Have ready a bowl of whipped cream, pare, core and slice 6 or 8 apples, run thru the food chopper also a cup of nut meats, and mix. It is necessary to fix the apples swiftly so they will not turn dark.

Also Mrs. F. G. I have found nothing to remove vinegar stains from white oil cloth, but other stains I have removed with Bon Ami or Kitchen Klenzer. You also ask for a good jelly-roll cake, here is mine I have used with success for a number of years.

Roll Jelly Cake

4 eggs, 2 large tablespoons cold water, small cup sugar, large cup flour and 2 teaspoons baking powder, flavoring.



Edited by MRS. GRACE NELLIS JENNEY

And Mrs. Jenney if I am not intruding too much would like to send my recipe for canning beef very successfully as "A Reader of M. B. F." requested. Cut in chunks convenient for packing in 1 quart cans, when 1-2 full add a level spoon of salt, fill remainder of can and add a spoon of salt and generous cut of suet, put old rubbers on cans, screw down tight then turn back a very little. If you have no can container

seriously of selling out and coming to New York to buy a farm. We have received catalogues of farms for sale by the Strout Farm Agency in nearly every part of New York and northern Pennsylvania. Some of these catalogues were from Hornell, Cuba, Olean, Ellicottville and all set forth in most glowing terms the advantages of their particular section of New York. Now we would like some facts about New York condi-

THE HOUSE BY THE SIDE OF THE ROAD

THERE are hermit souls that live withdrawn

In the place of their self-content; There are souls like stars, that well apart, In a fellowless firmament; There are pioneer souls that blaze their paths

Where highways never ran— But let me live by the side of the road And be a friend to man.

Let me live in a house by the side of the road

Where the race of men go by— The men who are good and the men who are bad

As good and as bad as I. I would not sit in the scorner's seat Or hurl the cynic's ban—

Let me live in a house by the side of the road And be a friend to man.

I see from my house by the side of the road,

By the side of the highway of life, The men who press with the ardor of hope,

The men who are faint with the strife, But I turn not away from their smiles nor their tears.

Both parts of an infinite plan— Let me live in a house by the side of the road And be a friend to man.

I know there are brook-gladdened meadows ahead,

And mountains of wearisome height; That the road passes on through the long afternoon

And stretches away to the night. And still I rejoice when the travelers rejoice

And weep with the strangers that moan, Nor live in my house by the side of the road

Like a man who dwells alone.

Let me live in my house by the side of the road,

It's here the race of men go by— They are good, they are bad, they are weak, they are strong

Wise, foolish—so am I. Then why should I sit in the scorner's seat,

Or hurl the cynic's ban? Let me live in my house by the side of the road

And be a friend to man. —Sam Walter Foss.

to fit your boiler use slats with something between to keep cans from sticking together. Fill to the top of cans with cold water, bringing to a boil and boil three hours. I keep the teakettle on with hot water to add as it boils away. At the end of that time set the boiler near your work table, have new rubbers in readiness, remove tops also the old rubbers, replace with new ones and screw tops tight, as quickly as possible. I never had a can spoil. Forgive my taking up so much time and space.—Mrs. S. A. T., Matherton, Mich.

TO MRS. J. W. H., FRANKLINVILLE, N. Y.

WE were very interested in your letter published in M. B. F. We live in the Thumb district of Michigan and are thinking

tions from uninterested parties and that is why I am writing to you. Is the land near you hilly or level?

What kind of soil is it? Is the land stony? What crops do you raise? What is the average yield per acre of the different crops? What do you get at your local market for eggs, milk, hay, straw and other farm produce? What weather are you having now? Have you had snow this winter? What kind of roads have you? What kind of schools have you? Why is farm land so cheap in New York? Is the population near you foreign or American?

We are getting 18c per dozen for eggs, \$1.69 per hundred for milk, \$12 per ton for No. 1 hay, no market for straw, 38c per bushel for oats, 50c per bushel for shelled corn, \$1.35 per bushel for wheat, \$5.75 per hundred for beans, \$1.40 per

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I receive many compliments for our patterns and personally I know them to be splendid. They are even better than those the stores sell for 25c and 30c, and these are so cheap and so very pretty. Always keep the date of your order until your pattern is received which should be in one week.



A New Blouse Style 3903. Here is a model that is becoming to stout and slender figures. It has long, pleasing lines, and a pretty collar, that forms revers over the fronts. Brocaded silk and broadcloth is here combined. This is a good model for taffeta, and for pongee, faille or Canton crepe.

The pattern is cut in 4 sizes: 34, 36, 38, 40, 42, 44 and 46 in. bust measure. A 38 inch size requires 3 1-4 yards of 40 inch material.



A Pleasing Model for the Little Miss 3931. The dress with a convenient closing is the one that will best please the little girl who "helps" to get ready for school or play. This model has attractive lines. It lends itself especially well to crepe, linen or repp.

The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. A 6 year size requires 2 3-8 yards of 38 inch material. Blue chambray with motifs in a contrasting color would be good for this design.

Just the Right Suit for the "Little Man" 3923. The straight trousers in this model will readily appeal to every small boy. This suit may be attractively developed in wash or woolen materials. Poplin is good for the blouse, and corduroy or serge for the trousers. One could combine checked gingham and chambray, or use cotton repp in two colors.

The pattern is cut in 4 sizes: 3, 4, 5 and 6 years. A 4 year size requires 2 7-8 yards of 27 inch material. Collar and cuffs of contrasting material requires 3-8 yard.

A Smart Coat Dress Pattern 3776 was employed to make this model. It is cut in 7 sizes: 36, 38, 40, 42, 44, 46 and 48 inches bust measure. A 38 inch size requires 6 1-4 yards of 40 inch material.

Taffeta, broad cloth, satin, velveteen, tricotine, velours, silk, duvetyn, canton crepe, linen, moire and shantung may be used for this style. The width of skirt at the foot is 2 yards.



hundred for potatoes. If we buy land near here, we must pay from \$100 to \$150 per acre. If you will send us some information about these questions we will be very much obliged.

Thanking you in advance, I am, sincerely yours—Mrs. Esther S. Brand, Millington, Mich.

A BABY BOY WANTED

AM writing to see if you will have a few lines printed on the Woman's Page. We are subscribers and think it the best paper printed. Our own department is well worth the subscription price, while Uncle Rube is simply great.

We are anxious to adopt a bright child. Boy preferred, but not too particular. Age up to three years. Isn't there someone among all our readers who wishes a good home among respectable people for such a child? There are no children in family and we are great lovers of children. Want a child simply to love and care for. Any one interested write to—Mrs. Farmer, Saint Charles, Mich., R. F. D. No. 1.

CORRESPONDENTS' COLUMN

Miss R. A. P.—The magazines devoted to the movie such as Film Land, Shadowland, Screenland or Photoplay, have question boxes and answers all inquiries. The address of the best magazines is Photoplay Publishing Co., Chicago, Ill.

If our reader who wants "The Night before Christmas" will send to any book store she may obtain a copy of the poem in a little booklet, prettily illustrated. If she wishes we will send her a type-written copy.

Have any of the readers of the M. B. F. a pattern for an infant's crocheted sweater and booties? If so I would be glad to see your address in this column and I will write to you. Many thanks for all the helps the M. B. F. affords.

I can buy you a book containing directions for 30c that will give what you want.

A pattern order received from Alma with no address. Another from Harbor Beach.

A metal polisher told us to get Electro-Silicon to polish the nickel on our stove. It is the best thing we ever tried. Can be purchased at almost any drug store for 15c.

Mrs. C. H.—Get a good cotton-dye at your drug store for coloring rag-carpet strips.

Mrs. C. G.—If you will send me a stamped and addressed envelope I will give you the name of a firm here who sells seconds in dishes. If I can be of any use to you in choosing them I will be glad to do so.

About the tomatoes, that is a favorite subject with me. I will be glad to take it up soon.

ROSE PLANTS DIE

I am a new reader of your valuable paper and like it very much, especially the Home Department. I see so many questions answered in this department, so would like to ask a few myself. Can the editor or any of the readers tell me through the Home Department of the Michigan Business Farmer what ails my rose plants? I have for several years started rose bushes or plants from cuttings with good success. I started some last fall, they did well for a while, but for the last few months they have what looks like mildew or mold or is it blight? It comes on the leaves in spots, looks like white powder, in a short time the leaves will shrivel or curl up. It will wash off but it comes back on again. I have washed it off with nicotine diluted with water, also with strong soap suds and a few days ago a friend told me to try common laundry bluing, diluted with water. I did try that, they looked nice for a few days, but it is coming back on again. Now can the editor or any of the readers tell me what is the cause and what is the cure? —Mrs. J. W. S., Mason County, Mich.

J. O. CURWOOD'S ADDRESS

Would like to know if any of the sisters have an Auto Knitter that they are not using or cannot make work good on. Would like to rent one for a short time, but it must have full directions with it, as I know nothing about working these machines.

Could you give me the correct address of James Oliver Curwood? For professional reasons would like his address.—Mrs. H. V., Scotts, Mich.

The home address of James Oliver Curwood is Owosso, Michigan.

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## Remarkable Triple Strength Virus Kills Every One Not A Poison

### Marvelous French Discovery

Rats are your enemies. They destroy your buildings, eat your grain, kill your poultry, start fires and spread disease in every community. You need no longer suffer these losses—You can now in a week's time, easily kill every rat, mouse or gopher with Rat Virus, the great French discovery. Our triple strength virus is the most powerful concentrated deadly virus known, the only sure, safe rodent destroyer.



Triple Strength Virus is prepared in a laboratory licensed and inspected by the U. S. Department of Agriculture. Triple Strength Virus is tested on rats, mice and gophers in this laboratory before shipment—it cannot fail.

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Triple Strength Rat Virus is easy to use. Simple directions show how. A single rat eating the virus gets sick with a contagious plague disease that affects and kills all rats and mice in the immediate vicinity. Rats flee because they become infected with a plague that affects the heart, blood vessels, and lungs, destroying the blood corpuscles and causing suffocation. The rats rush outside where they get fresh air and water. When the diseased rats get outside, they never get back for the disease is then so far gone it kills them. No odor, no dead rats to handle, no live rats to kill.

### Special Introductory Offer

We want to prove to you our claim that Triple Strength Rat Virus is the most potent, most powerful—yet non-poisonous and absolutely safe—rat virus on the market. It is a TRIPLE STRENGTH Virus. Contains more living rat virus germs than any other rat killer made and will go one-third to one-half farther. To introduce this powerful Triple Strength Rat Virus, we will make every reader of this paper—for short time only—a special offer of a regular \$2.50 bottle for only \$1.00 postpaid. This \$2.50 bottle Triple Strength Rat Virus is enough to clear a big poultry house, barn or yard of rats and mice.

### Money Back Guarantee

Your money back if it fails. Take no chances this year with traps or rat poisons. Only Triple Strength Rat Virus will positively kill rats, mice and gophers and be absolutely safe and sure. Give it according to directions—if after 30 days' trial you find any rats or mice—we will refund your money without question. Send \$1 bill today sure. If not convenient to send \$1 today—just send your name and address, a postal will do—pay postman \$1 and a few cents postage on arrival for regular \$2.50 bottle. Remember it costs you nothing if it does not do all we claim.

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WHEN WRITING TO ADVERTISERS Please Mention The M. B. F.

## The Children's Hour

### LOVE, HAND AND SMILE

There is a light that shines on us from above, And that is the light of our Savior's love; There is a hand that leads the way, And guides us along from day to day. There is a smile that lightens our hearts all the day, And we must always keep in the path, that leads to Jesus some day. —By Bessie Ione Lemon, age twelve Vicksburg, Mich.

Dear Uncle Ned—I just read your letter and thought I would write and tell you I agree with you about a dog trying to imitate music. I wonder if you or any of the cousins have ever read "Michael" or "Jerry" books by Jack London? They are about Irish terriers that sang. I have wondered what made the dogs sing when the piano is played or they hear music. I have reached the conclusion myself that they are trying to imitate the music.—Myrtle Bearss, Owendale, Mich.

Dear Uncle Ned—I have been reading the Children's Hour for years. I have been thinking of writing for a long time. I am fifteen years old, my birthday is the fourth of May. I live on the farm. I liked Nellie Inman's letter. I agree with Wyanda Sanborn, for I do not care about knowing all about the number of pigs and chickens. I have not attended school for over a year and a half and can say I am not nearly so contented and care-free as when I went to school every day. The weather is awful. It has been raining for two days. The trees are loaded with ice.

Why couldn't we have some sort of a discussion. Each one tell their own opinion. We could use life on the farm or city life as a topic. I think it would make it more interesting. It doesn't seem to me people in the city are as healthy as those in the country. Of course I may be wrong. But I just wanted to start something. I am your niece.—Mildred Chase, Stockbridge, Mich., R. 3, Box 59, care H. J. Chase.

Your suggestion is very good and there are many very interesting subjects we might discuss. A few are: What bird is most helpful to the farmer and why? Who is your favorite author and why? What profession you intend to take up when you finish school and why?

Dear Uncle Ned—I will be glad when all the birds get here. Some are here now. We have a large vine by the porch and every summer the birds build nests in it. Last spring two robins built a nest there and hatched four little robins. When the little birds became strong enough to fly they flew away. About two weeks after that two humming birds came and built another nest there. The two nests are there yet.

I go to a country school and have three-quarters of a mile to go. I am in the seventh grade but am taking up all eighth grade work. I am 12 years old. Your loving niece.—Alice W. Wellington, Mayville, Mich.

Dear Uncle Ned—I came from Idaho about five years ago. We certainly had a nice trip. We came on the Milwaukee and St. Paul railroad from St. Maries, Idaho, to Chicago. The trains are run by electric motors over the Rocky mountains. We saw beautiful scenery when traveling over the mountains.

We left Coeur D'Alene, Idaho, on Monday noon and arrived here Friday afternoon. We would have gotten here Friday morning but some box cars tipped over this side of Grand Rapids and we had to go around by the way of Grand Ledge to get to Edmore, then our train was gone so we had to telephone to our folks to have them come and get us and so we ended our journey in a little old Ford. I like Michigan better than Idaho. With love to Uncle Ned and all the cousins. —Doris Wernette, Remus, Mich.

Dear Uncle Ned—I am a girl 17 years old. I live on a 200-acre farm. We have just 84 chickens. We are not going to raise chickens this year. I am going to make a garden this year. I have never made one before, nor even help take care of one. I will make a frame and cover it with fencing. Later I will write and let you and the boys and girls know how I am getting along.—Irene Horton, Fowlerville, Mich.

**OTHER LETTERS RECEIVED**

Viva Lehner, North Star; Earnest Berridge, St. Charles; Beatrice Hunt, Lapeer; Willis Cain, Vandersbilt; Adaline Zylman, Vicksburg; Edna Halmes, Howell; Lena Wiggins, Beulah; Richard Wakulat, Leland; Hazel Potter, Penfield; Winnie LanCaster, Fremont; Mary Allen, Gladwin; Bell Erb, Yale; Arthur Dimers, Cooks; Donald Good, Lake Ann; Evelyn W. Moshier, Mattawan; Pauline Faler, Gladwin; Leo Barner, Ithaca; Burdena Nelson, Cadillac; Frances Inman, Athens; Edna Smith, Leona Loo-good, Woodville; Reva Skinkle, Sunfield; Roscoe R. Davis, Remus; Marion Grieres and Dorothy Caie, Saranac; Leon Beilfuss, Albion; Leone Taylor, Mather-ton; Vivian Cobb, Midland; Elnora Harris, Evart; Sarah Retzlaff, Midland; Ellen Nowland, Boyne City; Alfred Lyons, Middleville; Ella Walsh, Owosso; Ione Storms, Janesville; Tressa Vallard, Frederic; Ethel Green, Wheeler; Gust Falk, Manistee; Luella Smith, Bedford; Mildred Eicher, Ithaca; Emmaline Cosens, Akron; Gladys M. Kitter, Ossineke; Beryl Shields, Alabaster; Velma Boreland, Rose City; Velma Laniman, Marlette; Helene Hasse, Ossineke; Genevieve Kelly, Kenton; Austin Rood, Stanton; Florence Dwight, Govan; Stanley Marten, Florence Marten, Marquette; Leah Dimers, Cooks; Sylvia A. Williams, Dexter; Edith Woodard, Morenci; Russell Gerlinger, Woodland, Michigan.



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31x4 10.95	1.75	1.80	35x4 1/2 19.45	27.95	2.25
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# Radio

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Mr. W. S. Martin, experienced commercial merchant marine operator.

Mr. Charles Marvin, experienced amateur radio operator, well known locally to older radio fans.



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## WHAT IS RADIO TELEGRAPHY AND TELEPHONY?

(Continued from page 4)

out electricity none of these waves or impulses can be sent out, and without electricity or the use of instruments that use electrical principles to operate them, no messages can be received.

Just how these electrical impulses are caused we will take up later on in the year but now we are interested in receiving these many broadcasted messages and music. It will be our aim first to describe the simple receiving sets, and give in detail all instructions how to make them, and give approximate costs, after which we will take up the more complicated ones for receiving distant stations.

It may be well to give here just a few words on the production of these radio waves or impulses. It has been found that every time an electric circuit is broken that slight impulses are sent out, and with the proper instruments these breaks can be heard in telephone receivers. Some transmitting sets use the jumping spark to make impulses, others use a vacuum tube (which has certain working parts inside of it) and also an electric arc is used (this arc is something like the arc lights used in cities). Each method has its advocates, but at the present time the vacuum tube and the arc is used for radio telephone, the tube having the preference.

To receive these electric impulses, or waves, we must have some method of intercepting them or catching them, leading them to our instruments and then detect them, then tune them and then lead them to some instrument that will enable us to hear them, this latter is usually done with a set of telephone receivers. It sounds complicated but it is not, and for those of you who are within 25 miles of Detroit, yes and even farther should be able to hear the Detroit News concerts without trouble with the simplest receiving set. The first set we will describe will be a "Crystal" set.

We will first take up the catching of these waves, and those of you who are interested can start right in to make the parts as I describe them, tho you will not want to put this first part up, till you have the rest of the set made, you can have this part ready and waiting. This first part is the AERIAL, and it catches the waves. In connection with the aerial you will need a good "ground" as it is called, and that is a good electrical connection to the earth. The "ground" will be described later.

The diagram shown here gives you an idea of where to put up your aerial, and gives some measurements. These measurements may vary, but the general length given (150 feet over all length) should be closely followed within a few feet either way.

The aerial consists of 2 wires suspended in the air, from which one wire will lead in to your house then thru your instruments and then to the ground. The aerial should be suspended with rope (clothes line will do) and pulleys so that you can let it down and put it up easily. It should not be placed close to trees, but if one end is fastened to a tree, then the end of the aerial should be at least 10 feet from the nearest branches.

Besides a few nails, screws, rope and small pulleys, which can be found on every farm, it will be necessary to get the following articles. When you come to buying the insulators, knobs and insulating tubes, you can buy the cheap ones or the high grade rubber or electrose insulators, but for receiving, ordinary porcelean knobs and tubes as used by lighting and telephone companies will answer as well as the more expensive ones.

### Articles Needed

- 2 pieces of bamboo fish pole, each 3 feet long (any other light, strong wood can be used instead of bamboo)
- 10 porcelean knobs about 2 inches in diameter, you may need more if you have to carry your wire against a building. Cost 5c each or less. The better grade insulators made of electrose cost from 20c to \$1.00 each.
- 1 6-inch porcelean tube. Cost 5c. You may need more, but as I can not tell just how you will run your wires I only state one. Every place that you run your wire thru a window frame, wall or floor you will need to use 1 tube.

Rubber insulators for wall cost from \$1.00 to \$5.00 each.  
200 feet of bare copper wire No. 12 or 14. Sometimes you can buy some old wire from your telephone company. This should be in as near one piece as possible, as many poor joints are a handicap to good results from any aerial. Cost \$1.50. ALL JOINTS MUST BE SOLDERED for best results.

Now let us start to work, first having made one or two explanations.

One wire in the aerial would do ordinarily, but as we want to get the best reception, and as we add on to our original set, my effort will be not to cause any unnecessary duplication of our past work.

We will speak of the flat top portion of the aerial as "the aerial," and the wire that comes from the end of the flat top portion, into the house and to the instruments as the "lead-in", and the wire that goes from your instruments to the ground connection, as the "ground lead". The higher you can raise your aerial, the shorter it can be, and the lower it is, the longer it must be. The aerial must be guyed so that it can not blow around in the wind.

On top of your house or projecting from the roof fasten a pole, to one end of which you have fastened a small pulley thru which you have run a piece of rope 50 or more feet long. We will assume that the top of this pole is 40 feet from the ground, and that one end of your aerial will be fastened to it. Now about 100 feet from this pole fasten another pulley and rope at about the same height from the ground. This far end can be fastened to a building, windmill tower, pole or tree.

Look at Fig. 1, and fasten 5 porcelean knobs to each bamboo rod. Two of these knobs are for the aerial wires, two for the guy wires, and one for the suspending rope, as fastened to each rod. After you have these fastened on, take the bamboo rods (they are called "spreaders") and fasten them to two trees about 100 feet apart and so that the spreaders are about 3 feet off the ground. Now take your copper wire and fasten it to the spreaders by tying it thru the knobs, so that you have 2 parallel wires that are stretched evenly.

Take the remaining 100 feet of wire, fold it in the middle and twist it into one wire 50 feet long. This can be done by fastening one end to a tree and the other end to a breast drill or brace and bit, and twisting it up, till it will hold its twist. Fasten one end of this twisted lead-in wire to the end of the aerial that will fasten to the pole on your house. Solder the joints.

You now have an aerial with lead-in attached and ready to fasten to your ropes and hoist, with the exception of the guys which will be put on just before hoisting the aerial into place. The guys can be wire or strong cord, seine cord is fine for the purpose.

(To be continued)

### VACUUM TUBE DETECTOR BEST FOR LONG DISTANCES

I am very much interested in the radio department and would like to ask how much Mr. Ferris' receiving set cost, and how high the windmill end of the aerial is and also the poultry house end. Does he hear through a head piece or telephone receiver? Would the DeForest set at \$25, range 45 miles, get anything here? —A. T. S., Cadillac, Mich.

\$50 and I assembled parts, including a 2-step amplifier and storage battery.

The windmill was 40 feet high, and the chicken coop 8 feet. If you read the article carefully, you would have noticed that this was only a temporary aerial put up immediately after the storm of Feb. 22nd. Also might say that the wire was not put up to the top of the tower, but only 8 feet from the ground. The regular aerial is 50 feet high at one end and 25 at the other.

This is heard by the use of a vacuum tube detector, two step amplifier, and finally thru a set of Brandies radio telephone receivers.

The DeForest set at \$25 might, and very likely would, enable you to hear some boats on the lake, and amateur stations near you, but not the radiophone broadcasting stations at Detroit, Chicago and Pittsburgh.

"I'd like to take a Turkish bath but I haven't the price."  
"Don't spend money. Just step into this phone booth and wait until Central gets your number."

WANT TO SELL LIVE STOCK?

AN AD. IN THE MICHIGAN BUSINESS FARMER WILL DO IT



# FRUIT and ORCHARD

EDITED BY FRANK D. WELLS

## SUBSTITUTE FOR GRAFTING WAX

We wish to do some grafting on the trees broken down by the storm. Will putty or paraffin be as good as the regular grafting wax?—E. D., Berrytown, Mich.

Paraffin has been used, but the reports received are not encouraging. We have not tried putty and do not know of anybody who has, but would not consider it desirable. It becomes hard, so must crack if the graft is to grow properly. Stick to wax.

## INSPECTION OF BERRY PLANTS

Should berry plants to be sold in Michigan be inspected?—F. H., Bangor, Mich.

The law states that if berry plants are grown for the purpose of selling them they should be inspected. If the grower retails them he should also take out a nurseryman's license, but he does not need to do so if the stock is to be disposed of at wholesale to a nursery. In either case the plants should be inspected. No nurseryman should buy plants not covered by a certificate of inspection.

An exception is made in case of those who are growing for fruit. Such persons are allowed to sell surplus plants without a license or inspection, unless they are advertising plants for sale, in which case they would be classed as nurserymen.

Postoffices, express and freight companies are forbidden to receive for transportation trees, shrubs and plants without a certificate of inspection.

The owner of a wood lot may sell at retail forest trees from it without inspection, but if a nurseryman buys them they should be inspected.

The law regarding inspection may be a hardship in some cases, but if something of the kind had been enforced half a century ago it might have kept many pests out of the country.

## SPRAYS FOR ORCHARDS

What mixture should be used for spraying apples, plums, peaches and pears? Would you advise a different mixture for each?—E. H., Corunna, Mich.

The early or dormant spray is the same for all trees and it is usually lime-sulphur, because it is both a scale destroyer and a fungicide. When trees are badly infected with the San Jose scale, some orchardists prefer a nuscible oil spray, and it is also more effective on the oyster-shell scale than lime-sulphur, but does not rid a tree of fungous spores. If there is no scale, a weak solution of copper-sulphate, one pound to 50 gallons of water, may be used. This is especially good for controlling the leaf-curl on peach.

None of the sprays mentioned should be used after the leaves are out. Then the different kinds of fruit need sprays to meet their requirements. What will be appropriate for an apple or pear may injure a peach. But that is to be discussed later.

The dormant spray of lime-sulphur is one part commercial solution, or its equivalent in the dry product, to 7 or 8 parts water. If there is no scale, three times as much water may be used, which makes an effective fungicide. But as it is better to be safe than sorry, the stronger spray is advisable.

If the weak solution of copper-sulphate is used the water should have no lime in it. Lime combines with the copper-sulphate to make Bordeaux mixture, thereby weakening the solution. For the same reason copper-sulphate should not be mixed with lime-sulphate. It is of no practical value for the purpose, while it makes the combination less effective.

## GROWING DEWBERRIES

What is the culture of dewberries and what nurseries sell the plants?—H. K., Bloomington, Mich.

Most of the nurseries that handle fruit trees and plants include the dewberry, which is sometimes listed among the blackberries. The variety commonly grown in the north is the Lucretia. The Bartel is rarely found in a nursery catalogue, while other varieties are known to a few localities.

Dewberries are grown much like blackberries, though they will stand a drier soil. In field culture the plants are set in rows about seven feet apart and from three to four feet apart in the row.

The first summer the ground can be cultivated both ways till the vines are large enough to interfere, when they are trained along the rows and the cultivation continued one way. The dewberry propagates from the tips, so there is not a crop of suckers to be cut off, as in the case of high-bush blackberries.

After the first year the vines are tied to wires stretched along the row, about three feet above the ground and fastened to posts or stakes, set close enough to keep the wires in place. Such wires as is used for a grape trellis is advised, as the vines of the dewberry make a heavy load.

After the vines have born a crop they are cut out. This may be done in the fall but is usually left till spring for the sake of the protection the old vines afford to the new growth.

In the spring the vines which grew during the previous summer are tied to the trellis. If too long they are cut back. This is about all the pruning required, as the young vines are allowed to run on the ground during the summer, merely being trimmed along the rows to keep them out of the way of the cultivator and the berry pickers.

For garden culture the plants are tied to a stake, one for each hill. They can then be planted four feet apart each way. The same plan is sometimes followed in field culture and is to be advised where the land area is limited.

When new plants are wanted the tips of the new vines are buried in the fall after they have stopped growing. They can also be propagated by root cuttings, but growing from the tips is the easier way. The tips take root as easily as black-cap raspberries.

As has been stated, the Lucretia is the variety grown in the north for market. The variety first came into general notice in 1886. The fruit is large, of good quality and ready for market several days ahead of the high-bush blackberry. The vine has proved hardy, productive and capable of thriving on a sandy soil. This combination of virtues has enabled it to secure a place of its own among fruit growers.

## DON'T POISON THE BEES

Is there a law to prohibit the spraying of fruit trees with a poisonous solution at a time when bees are liable to be killed by it?—N. S., Brighton, Mich.

The law on the subject forbids the use of poisons on trees or shrubs during the period when bees are at work on the blossoms, or from the time the buds open till the petals begin to fall. A pamphlet containing the law on spraying may be had by writing to Prof. L. R. Taft, State Inspector of Orchards, Lansing, Mich.

Letters received pertaining to the elderberry would indicate that the fruit is now attracting considerable attention. The only variety we have seen listed is Adam's Improved, but it is probable that there will soon be many more. Meanwhile, it is not necessary to depend upon nursery stock. Select the most desirable bushes you can find next fall. In the following spring take some bushes from this stock and plant in a rich, moist soil. Give as thorough cultivation as practicable. It may be that the result will be nearly as satisfactory as though nursery stock were planted. Try it.

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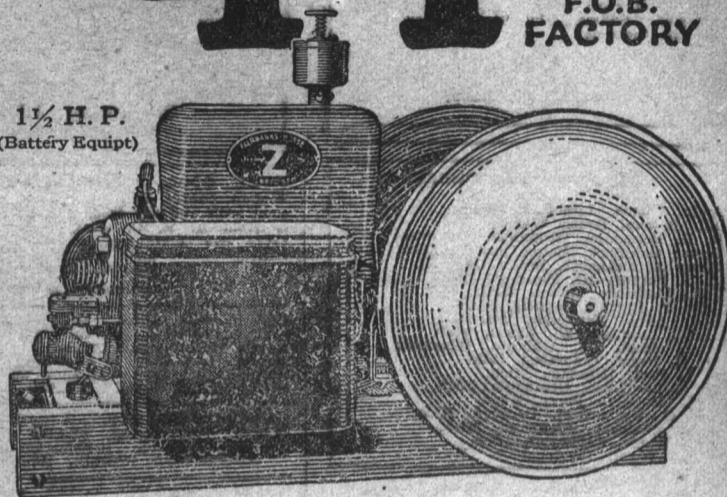
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(Battery Equipt)



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To meet the needs of those who want a thoroughly dependable engine at a comparatively small investment, we have designed this new engine. It is a genuine "Z," and is built to the same high standards. Its remarkable value has been made possible by scientific study and large production facilities. We believe it one of the greatest engine values in years.

The new "Z" Engine has simple, high tension battery ignition; suction fuel feed; hit and miss governor; positive lubrication; quiet running spiral cut gears; generous bearing surfaces; renewable die-cast bearings; parts liable to wear are made of hardened and ground steel. The crankshaft, connecting rod and camshaft are drop forgings. The safety

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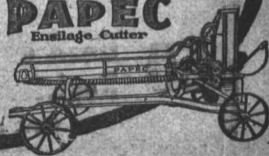
THROWS AND BLOWS

P. B. Messick, Middletown, Del., writes, "We used your L-16 3-knife Papec with a Fordson tractor in 1919 and did excellent work, but it seems there is no limit to the machine's cutting capacity, as this year we put 140 tons of silage away in 14 hours and then did not keep her full." The powerful Papec is guaranteed to cut and elevate more silage, with the same power, than any other blower cutter.

Write for free catalog. It shows why the Papec is supreme with men who know. If you own a silo or intend to buy one this year, state the size, also your dealer's name and address. We'll mail you free 60-page Account Book, worth a dollar to any farmer.

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PAPEC  
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PLEASE MENTION THE MICHIGAN BUSINESS FARMER  
WHEN WRITING TO ITS ADVERTISERS



VETERINARY DEPARTMENT

DR. W. AUSTIN EWALT, EDITOR

PREMATURE BIRTH

I would like to know what is the matter with my brood sows. I have three brood sows, two of them farrowed the 17th of March and one the 18th, this last one had seven nice pigs and still has them all but the other two had 17 between them and they both lost all of theirs. This is their first litter. The three sows were bred to the same boar.

These two sows pigs were real smart when first born but were very red with scarcely no hair. They lived to be from one to four days old.—C. A. T., Osceola County, Mich.

Premature birth may have been the exciting cause, or the sows were perhaps too fat and did not get sufficient exercise before farrowing; they will no doubt do better next time.

HORSES ARE OUT OF CONDITION

I have a team of horses that are nearly bare along their backbones and necks and also on the sides. I have examined them but cannot find any lice and they don't seem to have the itch for they don't rub themselves. I give them 4 quarts of oats 3 times a day but they don't seem to pick up. They are poor and are not doing well.—F. H. K., Oxford, Mich.

Your horses are out of condition and blood very bad. Give them each one tablespoonful Fowler's solution of arsenic three times a day and have your druggist put up the following condition powders: Powdered nuxvomica, ginger and gentian of equal parts one ounce, powdered capsicum one ounce and add sufficient soda

bicarbonate to make one pound, mix all together and give one tablespoonful three times a day.

The local treatment consists of some good skin lotion, I would advise using zinc sulphate and sugar of lead, equal parts one ounce, add sufficient water to make one quart. Apply to affected parts morning and night. (Shake well before using.)

If you will use the above treatment, and feed eight quarts of oats in place of four for a month or so you will be surprised with the results.

RING WORM

I would like to know what causes cows to lose their hair in spots. These spots are about the size of a half dollar.—Mrs. G. G., Hesperia, Mich.

I would say this condition might be what is known as "Herpes Ton-surans," or better known as Ring Worm. In all cases it is well to apply tincture iodine over an area considerably larger than the seat of the trouble. Where dry scabs have formed they should be removed before the iodine is applied. When some of the formations occur on the upper eyelid, where the iodine applications can not be made, powdered iodoform should be pressed into the active area after the growths have been removed.

V. Lidgard, of Hesperia, Mich., has purchased a direct son of the world's champion boar Great Orion Sensation, Dam Choice Lady A. to head his herd. With this new addition he places his herd in class A as he was already carrying winning blood lines.

L. T. P. C. \$15-\$20-\$25

We are offering our 1921 fall crop of pigs at the above prices. They are sired by Hart's Black Price and Right Kind Clan. F. T. HART, St. Louis, Mich.

GLADWIN COUNTY PURE BRED LIVESTOCK ASSOCIATION. Hereford, Shorthorn, Jersey and Holstein cattle; Duroc-Jersey, Poland China and Hampshire hogs; Oxford, Shropshire and Hampshire sheep.

A place to buy good breeding stock at reasonable prices. FRED B. SWINEHART, President, Gladwin, Mich. O. E. ATWATER, Secretary

Attention! Farmers and Breeders

As we have had numerous inquiries regarding the use of our boars on brood sows, outside of our own, we wish to announce that we have reserved three boars of the following breeds for this purpose:

Berkshire, Poland China, O. I. C.

These pure-blood, registered boars are from prize winning stock and are the correct type.

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POLAND CHINA

boar pigs. Sired by P's Clansman 391211. Michigan's 1920 Gr. Champion boar, and by Smooth Buster 39323, Michigan's 1920 1st Jr. Yearling Boar. Immune by double treatment. Priced to sell. Write or see them. Free livery to visitors. A. A. FELDKAMP, Manchester, R. R. No. 2 Mich.

POLAND CHINA BRED GILTS

Bred to Hillcrest Liberator by Liberator Leader the 1920 Grand Champion and to Big Prospect by Liberator Buster the 1921 Grand Champion. They will start you right in the breeding industry. Exceptional bargains. Write for prices. HILLCREST FARMS, F. B. LAY, Kalamazoo, Mich.

Big Type P. C. Sows bred to Big Bob Mastadon, gilts bred to a son of Peter Pan, that sold for \$1,075 cash Jan. 5. C. E. GARNANT, Eaton Rapids, Mich.

FEW NICE GILTS TO FARROW LAST OF April and first of May. At prices any farmer can pay. H. O. SWARTZ, Schoolcraft, Mich.

DUROCS

FOR SALE FINE GILTS DUE TO FARROW in April and May. HARLEY FOOR & SONS, Gladwin, Mich., R 1.

HERE I AM AGAIN

FOR SALE—March and April, Pigs, Reg. to buyer. Sired by Yoneda Model Orion and Orion Col. Dams, Farmers prices. Heavy boned type. Shipped C. O. D. Write for prices before buying. V. LIDGARD, Hesperia, Mich.

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TRIED sows and gilts bred to or sired by Peach Hill Orion King 152489. Satisfaction guaranteed. Come look 'em over. Also a few open gilts. INWOOD BROTHERS, Romeo, Mich.

AM SELLING A GREAT OFFERING OF DUROC BRED SOWS AND GILTS

March 4th, mostly mated to Orion Grant Col., a son of Ohio Grand Champion. Get on mailing list for catalog. W. C. TAYLOR, Milan, Mich.

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We usually have good boars and sows of all ages for sale. Reasonable prices. LARRO RESEARCH FARM, Box A North End Detroit, Michigan.

DUROC JERSEY BOARS. Boars of the large, heavy-boned type, at reasonable prices. Write or better, come and see. F. J. DRODT, R 1, Monroeville, Mich.

BRED GILTS ALL SOLD—BOOKING ORDERS for spring pigs sired by Fannie's Joe Orion and Pathfinder Orion. Farmers' prices. H. E. LIVERMORE & SON, Romeo, Mich.

WE OFFER A FEW WELL-BRED SELECT. Wad spring Duroc Boars, also bred sows and gilts in season. Call or write. MCNAUGHTON & FORDYCE, St. Louis, Mich.

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Fall pigs, either sex, sired by Michigan Orion Sensation and Michigan Demonstrator. Can furnish pairs and trios not related. Price \$20 and \$25, registered in your name. Also few sows and gilts bred for April, May and June farrow. MICHIGANA FARM, PAVILION, MICH.

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DUROC JERSEY BRED GILTS WEIGHING 325 to 350 pounds, May farrow; price \$50.00. JOSEPH SCHUELLER, Weldman, Mich.

THE FINEST DUROC JERSEY HOGS in Michigan. Nearly 100 to choose from. Bred Sows, Gilts, Fall pigs, either sex. Write us your wants. Farmer prices. SCHAFFER BROS., Leonard, Mich., R 1

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HAMPSHIRE, A FEW GILTS TO OFFER. Place your order for spring pigs. J. W. SNYDER, St. Johns, Mich.

BUY HAMPSHIRE SOWS BRED FOR SPRING litters. Fall pigs, both sexes. Holstein bull calves, Collie pups of. NEWTON BROS., Freeport, Mich. (P)

O. I. C.

REGISTERED O. I. C. BRED GILTS FOR June and July farrow. Also a few service boars. J. R. VAN ETEN, Clifflord, Mich.

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A few good yearling rams and some ram lambs left to offer. 25 ewes all ages for sale for fall delivery. Everything guaranteed as represented. CLARKE U. HAIRE, West Branch, Mich.

\$10.00 BUYS A FINE DELAINE MERINO Ewe Lamb 1 year old, \$15.00 buys Ewe with lamb by side. These prices are right. LAPHAM FARMS, Pinckney, Mich. (P)

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Write Dr. W. Austin Ewalt, Mt. Clemens, Mich. for thoroughbred pedigree Collie puppie; bred from farm trained stock that are natural heelers with plenty of grit. All Puppies guaranteed.

SILVERCREST KENNELS Offer For Sale Pure-bred Collie puppies; white also, sable and white. Natural heelers. W. S. HUBER, Gladwin, Mich.

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We have a few good Shetland Ponies for sale; prices ranging from \$75.00 to \$100. Write JOHN FARMER, R 2, Stockbridge, Mich.

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The most complete selection in America of these popular breeds. International and state fair winners.

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On Tuesday, April 18th, 1922, at ten o'clock A. M., at my farm (formerly known as the Boyd Farm) one mile east of Jeddo, St. Clair County, Michigan, on the Harris Road

The Following:

Table with 4 columns: No., Name, No., Name. Lists 20 registered Holstein cows with their respective numbers and names.

The following are eligible but not registered:

5 Two year old heifers 2 Yearling heifers 16 Heifer cows

Also will sell, at auction, my farm of two hundred acres. This farm is clay loam, well drained, good buildings, good water. For full particulars, address

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For convenience of out of town customers, automobiles will leave the Federal Commercial and Savings Bank, Port Huron, at 9 and 9:30 o'clock, Tuesday morning, April 18th, to carry prospective buyers to property.

R. C. CARLTON, Clerk. GEORGE DUMITRU, Owner.

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FOR SALE—TEN REGISTERED JERSEY Heifers from three months to one and one-half years old. Sophia's Tormentor breeding. Herd under Federal and State supervision. A. H. DONALDSON, Fenton, Mich.

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FOR SALE—REGISTERED AYRSHIRE bulls and bull calves, heifers and heifer calves. Also some choice cows. FINDLAY BROS., R 5, Vassar, Mich.

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TWO YOUNG RED POLLED BULLS FOR sale. Sired by Cosy-Ells Laddie. He took the prize at six State Fairs. PIERCE BROS., Eaton Rapids, Mich., R 1

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FOR SALE, REGISTERED BIG TYPE Poland China Spring pigs. Sired by Pankow's Monster, the offspring of Disber's Monster and named by Defender and Master's offspring. Can furnish trios. Order early, prices reasonable. Chestnut Dale Jersey Farm, Edward Pankow Montague, Mich., R 1. (P)



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GREAT LAYERS.  
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White Leghorns, Anconas, Barred and White Rocks and R. I. Reds, the popular laying strains. High record, expert Hogan tested flocks only. Preference given early orders. Chicks delivered by Parcel Post, and full count strong live chicks guaranteed. 14th season. Fine instructive poultry catalog and price list free. Place your orders now for May and June delivery. We want to show you that we deserve your business. Write.

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Order your Baby Chicks now from selected heavy laying strain single comb White Leghorns, English strain Brown Leghorns, Anconas and Reds. Send for price list.

HILOREST HATCHERY, R 2, Holland, Mich.  
Day Old Chicks. Standard varieties. Make your selections. Catalogue and price list now ready.  
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### BABY CHICKS

FULL LIVE COUNT GUARANTEED

From hens of Heavy Laying Strains White and Brown Leghorn and Anconas, 50, \$7; 100, \$14; 500, \$67.50 Barred Rocks and S. C. Reds, 50, \$8; 100, \$16; 500, \$77.50. Prepaid Parcel Post right to your door. Order now from this add.

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S. C. White Leghorn Chicks, R. C. Rhode Island White Chicks, Missouri Contest Strain. Large, with capacity for eggs which they DO lay. Only the best grade. Write for terms.  
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**WE HAVE THE BEST LAYING BREEDS ON EARTH**  
Barron English White Leghorns, also American White Leghorns, S. C. Brown Leghorns and Anconas, 25,000 large strong super-hatched chicks per week from Hogan tested flocks culled out semi-annually by our poultry experts.

17 YEARS OF CAREFUL BREEDING FOR EGG PRODUCTION  
You get the advantage of 17 years of careful breeding which brought our flocks up to their present high standing.  
Our wonderful winter layers are headed by large, vigorous and pedigreed sired males of exceptional quality.  
**THOUSANDS OF SATISFIED CUSTOMERS MAKE BIG MONEY**  
Mr. F. L. Hess, Chicago, Ill., writes, "I averaged 112 eggs a day from 140 of your pullets and sold \$158 worth of eggs in February."  
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**RAISE GOOD STOCK AND REAP A GOLDEN HARVEST**  
Intelligent chick buyers of today take no chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equalled.  
**WE SHIP SOME 400,000 CHICKS EACH SEASON**  
We ship by PARCELS POST, PREPAID, and guarantee 100 per cent live delivery. Send for our catalogue and prices today.

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# BABY CHICKS

FROM PURE TOM BARRON English White Leghorns PEDIGREED MALES HEAD OUR FLOCKS

Greatest layers known—All on free range—Bred for heavy egg production. Buy the best and make a success—Write today

This hen imported direct from Tom Barron. Record 278 eggs 1 year

Also heavy laying Brown Leghorns and Anconas—All chicks send P. P. Prepaid and Live Arrival guaranteed—SEND FOR OUR FREE CATALOGUE TODAY

**SUPERIOR FARMS AND HATCHERY, Box 2052, Zeeland, Mich.**

# BUSINESS FARMERS' EXCHANGE

50 A WORD PER ISSUE—3 insertions for 10c per word. Farm for sale ads. not accepted for less than 3 times. Twenty words is the minimum accepted for any ad. in this department. Cash should accompany all orders. Count as one word each initial and each group of figures, both in body of ad. and in address. Copy must be in our hands before Saturday for issue dated following week. The Business Farmer Adv. Dept., Mt. Clemens, Michigan.

### FARMS & LANDS

**EIGHTY-ACRE FARM, ALL CLEARED,** good soil, fine buildings, good location, easy terms. CHAS. WUBBENA, Standish, Michigan, Box 954.

**EXCEPTIONAL BUILDINGS, LOCATION,** soil, 143 acres, main road, town mile, priced right. Want farm nearer Detroit. ERNEST LAFLEUR, Vermontville, Mich. (P)

**120 ACRES NUMBER ONE LAND, BEST** of buildings, fruit, timber. One mile to Dixie Highway, station, church, school. 30 miles from Detroit. R. W. ANDERSON, Clarkston, Mich. (P)

**68 ACRE FARM FOR SALE.** MARTIN SMITH, Rhodes, Mich.

**80 ACRE FARM, CLAY LOAM SOIL,** good buildings, all improved, deep well, orchard, easy terms. A. C. CROSS, West Branch, Mich. (P)

**A BIG BARGAIN: 100 A. FARM, GOOD** soil, location, buildings. For description and terms address OWNER, CLOVERDALE FARM, Hesperia, Mich. (P)

**FOR SALE, 192 ACRES GOOD DARK CLAY** ground, brick house, bank barn, close to town. All machinery good as new. Everything necessary on large farm, including tractor, four horses, thirteen cattle, 16 fall pigs. 9 brood sows coming in last of April. 130 hens, 15 tons hay, 600 bu. oats, 800 bu. corn, 60 bu seed beans. All ready to start in farming. \$130.00 per acre. Address BOX 78, R. 1, Pigeon, Mich P.

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**120 ACRE FARM FOR SALE, 70 ACRES** under the plow. Clay loam soil. 8 thousand dollars worth of buildings. Cheap for cash or will take home and lot. For particulars write PETER SAWYER, Whittemore, Mich., R 2. (P)

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**FOR SALE, 80 ACRE FARM; ALSO 40** acres, halfway between South Lyon and Whitmore Lake on state road. Well seeded, 12 acres alfalfa. Ideal for dairying or general farming. Poor health, must sell. One-third cash balance easy terms. Address BOX 75, Rushtown, Mich. (P)

**FOR SALE OR TRADE FOR SMALLER** farm, 160 acres, best of soil, good buildings, a dandy stock farm. 35 A. improved, 20 A. seeded. Price \$3000. part cash, balance easy terms. JACOB SWARTZ, Glennie, Mich. (P)

**FOR SALE, 230 ACRE STOCK FARM, 2** miles from Clifford on gravel road, 2 basement barns, 12 room house, tenant house, good garage, grainary, silo, orchard and fences. 20 acres timber. For quick sale will take \$50 per acre. One-third down, will take some trade. C. A. JAYNE, Clifford, Mich. (P)

**FARM FOR SALE—TO SETTLE ESTATE,** 160 acres in Oscoda County, Mich.; 70 acres tillable; small house; good 36x56 basement barn; orchard; 80 rods to state road; 4 miles to market. For terms write HOWARD LADD, Harsey, Mich.

**FOR SALE, 110 ACRES, 95 CLEARED, 15** wood. Good commercial apple orchard, fair buildings, Price \$4000. Would exchange for 40 acres in Kent Co. value to \$3200. CHAS. PARKES, Traverse City, Mich. (P)

**120-ACRE MICHIGAN FARM—3 HORSES,** Poultry, 6 Cows and Calves, hog, complete equipment, feed included; handy busy R.R. and college town near beautiful lake; 50 acres rich loamy tillage, wire-fenced pasture; plenty wood; 50 apple trees, other fruit; pleasantly situated cottage, barn, poultry house. Other interests force sale, all \$3,350, only \$1,500 needed, easy terms. Details paid 88 Illus. Catalog, 1,200 Bargaies. FREE, STROUT FARM AGENCY, 814BE, Ford Bldg., Detroit, Mich.

**40 ACRE FARM TO SELL, 100 RODS TO** new brick up to date high school employing seven teachers; 1-2 mile to town of 800 population which has many business opportunities. Inquire of BOX 145, Alba, Mich. (P)

**IF YOU ARE LOOKING FOR A FIRST** class farm listen—80 acres good A1 land that will raise any kind of crops, wheat, corn, beans, potatoes, sugar beets. Good house, barn and other buildings. Two orchards and well located, 1-4 mile from school, two miles from town, good market. Must sell on account of sickness. For particulars write to D. A. FOLEY, Turner, Mich.

**80 ACRES ANTRIM COUNTY, FIFTY** hardwood timber. Balance cleared. Buildings. Good farming section, good roads, near market and school. Price \$2500. Terms, Address BOX F, care Michigan Business Farmer, Mt. Clemens, Mich. (P)

**80 ACRE FARM 2 1-2 MILES FROM** railroad station. House, barn, silo, etc. Price \$2800. JOHN CHAMPNEY (Owner) Rapid City, Mich. (P)

**BEFORE BUYING A FARM, GET OUR** free list of 50 good farms, 5 acres up. DECOUDRES, Bloomingdale, Mich. (P)

**40 A. WIS. FARM NEW RICH SILT LOAM** soil. Half cleared, buildings worth half price asked. 2 1-2 mi. Co. Seat. on trunk highway. Certified seed potatoes, registered stock. \$2800. half cash. H. L. BROWNELL, 4751 Trumbull, Detroit, Mich.

**POULTRY FARM FOR SALE 25 ACRES.** 5 room new bunyakow, new 12x18 garage, close to Fenton. Price \$2500. F. F. SPIEGEL, Fenton, Mich.

**80 A. SANILAC COUNTY; 2 MILES FROM** busiest town in county. Good buildings. Good roads. Best soil. BOX 100, care Michigan Business Farmer, Mt. Clemens, Mich. (P)

**TRUSTEE'S SALE OF STOCK AND TOOLS** known as the A. L. Van Sickle & Sons stock at the A. L. Van Sickle farm 1 1/2 miles west of Maple Rapids, Mich., April 19th, 1922, sale commences at 10 o'clock sharp. 23 head of Holstein Cows, Registered. The entire herd has passed its second Clean Tuberculin Test. 4 Bull Calves, 7 Heifer Calves and 2 Yearling Heifers, all eligible to Registration. C. E. HANDLER, Auctioneer; F. G. CASTERLINE, Trustee.

**EIGHTY-ACRE FARM, ALL CLEARED** good soil, fine buildings, good location, easy terms. CHAS. WUBBENA, Standish, Michigan, Box 954.

# MISCELLANEOUS

### TOBACCO

**TOBACCO HOME SPUN—EXTRA FINE** Chewing, 10 lbs. \$3.00; Smoking 10 lbs. \$2.00, 20 lbs. \$3.50. PRODUCERS EXCHANGE, Mayfield, Ky. (P)

**KENTUCKY LEAF TOBACCO, 3 YEARS** old, nature cured. Don't send a penny, pay for tobacco and postage on arrival. Extra fine quality chewing or smoking, 10 lbs. \$3.00; medium quality smoking, 10 lbs. \$1.25. FARMERS' UNION, D57, Hawesville, Ky.

**TOBACCO: KENTUCKY'S PRIDE, RICH** mellow chewing or smoking 10 lbs. \$3.00. Mild smoking 10 lbs. \$2.00; 20 lbs. \$3.50. FARMERS CLUB, Mayfield, Ky.

**LEAF TOBACCO, 3 YEARS OLD. PAY FOR** tobacco and postage when received. Chewing 5 lbs. \$1.50; Smoking 6 lbs. \$1.00. FARMERS' GRANGE, No. 94, Hawesville, Ky.

**TOBACCO, KENTUCKY'S NATURAL LEAF,** Mild, Mellow smoking 10 lbs. \$2.25; Hand selected chewing 3 lbs. \$1.00. Free receipt for preparing. WALDRUP BROTHERS, Murray, Ky.

**FREE SMOKING TOBACCO—SMOKE ON** us. Write for free sample. HAWESVILLE TOBACCO CO., Hawesville, Ky. (P)

**TOBACCO: NATURAL LEAF, SWEET AND** mellow chewing, 10 lbs. \$2.75. Smoking 10 lbs. \$2.00. JNO. SANDERSON, Mayfield, Ky. (P)

### NURSERY STOCK AND SEED

**WOLVERINE SEED OATS, HEAVY YIELD-** ing variety, clean and bright, strong in test, offer 2000 bu or any part at 65c per bu., sax extra P. O. B. Vassar, Michigan, subject to prior sale. Samples mailed on request. CLARENCE HEINLEIN, Vassar, Michigan, R D 4.

**CERTIFIED RUSSET RURAL SEED POTAT-** oes grown from Hill selected stock \$5.00 per 150 lb. sack. TWIN BOY FARM, Alba, Mich. E. D. Post, Prop. (P)

**SEED OATS FOR SALE—4920, PEDI-** greeed. Also hay, 3 miles straight west of Clarkston, Mich. R. W. ANDERSON, Clarkston, Mich. (P)

**BIG BARGAIN—12 LUCRETIA DEWBERRY** No. 1 root plants and 20 Concord grape cuttings for \$1.50 postpaid. Raise your own apple trees from apple grafts, 5c each. Get list of other bargains. Varieties true to name. BEN L. MARSHALL, Paw Paw, Mich.

### STRAWBERRY PLANTS

**STRAWBERRY PLANTS FOR SALE. SEN-** ator Dunlap, Gibson and Dr. Burrell. 40c per hundred, \$5.00 per thousand. Progressive Everbearers \$1.00 per hundred, \$10.00 per thousand. ROBT. DE GURSE, Ovid, Mich.

**100 BEST BLACK RASPBERRY \$1.75;** Grape vines 1c up; Asparagus \$7 per 1000, 5000 @ \$25; Peach Trees 15c up. Wholesale price list free. 100 Everbearing Strawberry, 100 Dunlap and 25 Extra Early all for \$2, postpaid lower Mich. GOBLEVILLE MICH. NURSERIES. (P)

**STRAWBERRY PLANTS—SPECIAL OFFER!** 450 Senator Dunlap, 150 Waufields, \$2.00; postpaid. Senator Dunlap \$4.00 per 1,000; \$2.25 per 500; not prepaid. Satisfaction guaranteed. Catalog free. Write today. HAMPTON & SONS, Bangor, Michigan.

### BEEES AND HONEY

**BEE HIVES, SECTIONS, COMB FOUNDA-** tion, smokers, etc. Complete outfits for beginners with or without bees. Agents for A. I. Root Co. goods in Michigan. Send for catalog. Beeswax wanted. M. H. HUNT & SON, 533 N. Cedar St., Lansing, Mich.

# MARKET FLASHES

## TRADE AND BUSINESS REVIEW

**R**EPORTS on business conditions, the country over, indicate a decided broadening in the demand for the necessities of life and a disposition to make plans for the future that show increased confidence in the early arrival of an era of prosperity. Of course there is as usual, of late, a lack of uniformity in trade developments, tradesmen in some districts coming strong with their orders for spring goods while others are still inclined to be conservative, ordering only enough goods to take the place of articles recently sold. Some business lines are feeling the depression which naturally follows the calling of a country-wide coal strike.

The demand for many lines of basic materials, used for manufacturing purposes, is increasing by leaps and bounds; this statement applies to iron ore, coal, lumber and all other building material. Those who have been looking for lower prices for high-grade lumber are surely doomed to disappointment; the key to the situation is the extremely active export demand for all of the better grades of lumber. The foreign builder is looking for high-grade lumber and experience has taught the American builder that the best is the cheapest in the long run when applied to the lumber problem; the competitive demand for all of the better grades of lumber is the under current that is causing quotations to firm up all along the line.

Since the last writing, the automobile business has gone forward rapidly, until many of the leading plants are on nearly a normal pro-

Edited by H. H. MACK

## MARKET SUMMARY

Wheat easy. Corn and oats firm at higher prices. Trading in all grains quiet. Beans steady. Butter higher and eggs unchanged. Demand for poultry light. Dressed calves and hogs steady. Trading in cattle slow. Sheep steady. Hog market active.

(Note: The above summarized information was received AFTER the balance of the market page was set in type. It contains last minute information up to within one-half hour of going to press.—Editor.)

duction basis. The demand for motor trucks is improving, every day, the old idea that horse-drawn vehicles will soon play a return engagement, has been exploded and is no longer even thought of by dealers, who have a large delivery, distributed over a wide area. The demand for tractors is, just now, at its height and is, in fact, much more active than was looked for by dealers and manufacturers or the public at large.

Country dealers in farm supplies are said to be suffering more this spring than for many years because of the ultra conservative attitude of the average American farmer; the volume of sales is not large enough to yield an adequate income when the extremely narrow margins, upon which business is now done, is taken into consideration. In connection with current failures in business a mixed situation exists; failures in March reported to Bradstreet's number 2,307 with liabilities totaling \$57,515,590, comparing with 1,500 failures with indebtedness of \$68,698,350 in March, 1921.

of this week but continued unchanged at Detroit.

### RYE

Rye prices declined some week before last but during last week demand suddenly sprang up and the price turned upward. Cash No. 2 is \$1.01 at Detroit and \$1.00 1-2c at Detroit.

### BARLEY

There has been practically no change in the barley market and the tone of the market is about the same as it has been the past several weeks. Barley is \$1.25@1.35 per cwt., at Detroit and 60@67c on the Chicago market.

### BEANS

The bean market continues its firm and upward trend with only

BEAN PRICES PER CWT., APRIL 11, 1922			
Grade	Detroit	Chicago	N. Y.
C. H. P.	6.90	7.60	7.20
Red Kidneys		5.82	
PRICES ONE YEAR AGO			
Detroit			C. H. P. 3.25

occasional reverses. Jobbers are quoting the wholesale trade and canners \$7.20 to \$7.25 per cwt., for Michigan C. H. P. beans. Jobbers are offering country elevators from \$7 to \$7.10 per cwt., depending on freight rate. Country shippers are paying farmers \$6.50 per cwt. With five months yet to go before a new crop will be on the market and old stocks down to rock-bottom the farmer will be excused for letting his imagination run wild on the future of the market.

### POTATOES

The potato situation is covered so completely on page three of this is-

SPUDS PER CWT., APRIL 11, 1922		
Grade	Sacked	Bulk
Detroit	2.40	
Chicago	1.55	
New York	1.80	
Pittsburg	1.83	
PRICES ONE YEAR AGO		
Detroit		4.05

sue there is little that need be added here. Reports have it that Long Island and New York state stocks are about exhausted, but Maine still has considerable potatoes to ship. The supplies in most of the other states are getting fairly low, recent shipments having made a deep inroad upon them. The New York potato market was steady last week, but the Chicago market was slow with prices inclining lower. Detroit, on the other hand, advanced 25 cents per 150 pounds, best quality bringing \$3.25.

### HAY

Scarcity of receipts has caused the hay market to firm up and near-

City	No. 1 Tim.		Stan. Tim.		No. 2 Tim.	
	Light Mix.	Clover Mix.	Light Mix.	Clover Mix.	Light Mix.	Clover
Detroit	20.00 @ 21.48.00	@ 20.17.00 @ 19.28.00 @ 28.				
Chicago	24.00 @ 21.					
New York	24.00 @ 21.					
Pittsburg	23.50 @ 22.25.50	@ 22.20.50 @ 19.				
MAY PRICES A YEAR AGO						
Detroit	19.00 @ 20.17.00	@ 18.16.00 @ 17.				

ly all grades are selling at top prices. Demand is exceptionally good at many points and prices are slightly higher in some instances. Receipts are expected to increase in the near future.

### LIVE STOCK MARKETS

Chicago had a steady cattle trade, last week, with a close not unlike that of the week before. Arrivals were 2,200 head larger than the week before but more than 7,000 less than for the same day last year. The quality was extremely common, heavy steers being scarce, led in the demand and close a trifle higher

**WHEAT**  
During 10 days previous to Saturday, April 10th, wheat showed lit-

WHEAT PRICES PER BU., APRIL 11, 1922			
Grade	Detroit	Chicago	N. Y.
No. 2 Red	1.40		1.45 1/2
No. 2 White	1.37		
No. 2 Mixed	1.37		1.38 1/4
PRICES ONE YEAR AGO			
	No. 2 Red	No. 2 White	No. 2 Mixed
Detroit	1.43	1.41	1.41

tle life and prices declined but on Saturday of last week they turned upward and on the opening day of the present week advances were noted on nearly all markets. At the present time the market as a whole seems to be in a very good condition. Exporters have not purchased much wheat from the country during the past fortnight but it is said that Germany is trying to arrange purchases of large quantities from Argentine on credit. Should this be arranged satisfactorily it will no doubt increase the demand for American wheat as other European countries will be forced to turn to the American market for supplies. Complaints come from the wheat sections that the crop has not responded to the growing weather the way it should.

### CORN

There has been a downward tendency to the corn market at Detroit

CORN PRICES PER BU., APRIL 11, 1922			
Grade	Detroit	Chicago	N. Y.
No. 2 Yellow	.64	.59 1/4	.76 1/4
No. 3 Yellow	.62 1/2		
No. 4 Yellow	.61		
PRICES ONE YEAR AGO			
	No. 2 Yell	No. 3 Yell	No. 4 Yell
Detroit	.62	.59	

the past two weeks and prices are some lower. During the first half of the fortnight prices declined 2 1-2c at Detroit but during the latter half tendency to decline was not so pronounced and prices were only off 1c, making a total of 3 1-2c for the two weeks. The Detroit market has been dull. Offerings have been small and buying, both domestic and foreign, of a slow nature. At Chicago there has been a firm tone to the grain the major part of the time. It is said that this has been due to the influence of wheat and to lack of selling pressure rather than to active purchasing. Buying at this point has been light, domestic demand being very dull and exporters practically ignoring the market. Corn consuming industries are curtailing their production owing to the poor demand for their products. Receipts have been light, Chicago receiving 1,523,000 bushels last week. Reports from the corn belt show the weather to be unsettled and spring work being delayed. On the opening day of the current week the market gained strength and prices advanced some.

### OATS

Oats continue to follow the trend of other grains and there is quite

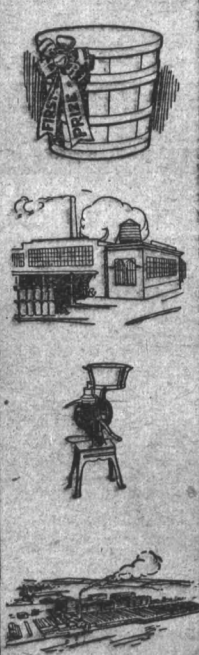
OAT PRICES PER BU., APRIL 11, 1922			
Grade	Detroit	Chicago	N. Y.
No. 2 White	.42	.39 1/2	.46 1/2
No. 3 White	.40	.37	
No. 4 White	.36		
PRICES ONE YEAR AGO			
	No. 2 White	No. 3 White	No. 4 White
Detroit	.43	.41 1/2	.38 1/2

a steady tone to this market. This course grain advanced on the Chicago market during the opening day

## Any one of these Reasons puts the De Laval in a class by itself -



- Over 2,500,000 De Laval Separators in use—about as many as all the rest combined.
- Won 1,091 grand and first prizes at all important expositions and fairs in the world during the past 40 years.
- De Laval butter has won first prize at every meeting of the National Buttermakers Association, with but one exception.
- 62% of the separators in Minnesota, the largest butter state, are De Laval's. (Based on investigation by prominent farm paper.)
- Practically all creameries use De Laval Power Separators.
- Endorsed, recommended and used by Government experiment stations, colleges, dairy authorities and leading dairymen everywhere.
- Thousands in use from 15 to 20 years, and still doing good work.
- De Laval Separators have led in every important separator improvement since Dr. De Laval invented the Separator over forty years ago.
- Made in the world's largest and best-equipped separator factory.
- Backed by the most thorough system of service—over 50,000 agents the world over.



Go over a De Laval point by point. Compare it with any other separator made, and you too will decide that it is the best in every way, and in the end the least expensive.

The De Laval Separator Company  
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165 Broadway 29 E. Madison St. 61 Beale St.

There is a De Laval Agent near you. See him about getting a De Laval

Sooner or later you will use a **De Laval** Cream Separator and Milker

Sold on such easy terms that you can use it while it pays for itself

than the week before. Steers of common quality and yearlings were barely steady on the close. Eastern trade in dressed beef was active under small supplies and prices for the week showed a gain of 50 cents to \$1 per cwt., according to locality. The only influence that prevented a strong upturn in cattle prices, both alive and dead, was the impending Jewish and Christian holidays which occur during the current week; a slackening in demand for all kinds of dressed meat is looked for during the holiday season referred to. Plants that produce kosher beef will not operate April 13, 14 and April 20 and 21. Stockers and feeders were dull and slow. The live cattle and dressed beef trade is gradually working to a better footing and when the April non-meating period is passed a better demand and higher prices may confidently be looked for.

The sheep and lamb trade, in Chicago last week, was just about an even deal with that of the week before; arrivals were light, early in the week, a fact that stimulated both demand and market values. Late in the week, most of the early gain was lost and the trade closed just about on an even keel with the week before. The demand for fat ewes was strong to .25 cents higher in price.

The first spring lambs of the season came to hand, last week, in Chicago and brought from \$16 to \$22 per cwt. The bulk of the yearling lambs, now arriving, are clipped and they sell for the most part, between \$13 and \$14.50. The highest price of the season, \$16.50, was paid last week, for handy-weight woolled lambs; several loads were shipped east from Chicago that cost that price. Feeding lambs were scarce but were quoted 25 cents lower than last week's close, owing to lack of demand.

The live hog market held firm and steady all last week with prices tending upward; with the exception of one week, receipts were smaller than for any week since October of last year. Total shipments, from Chicago, exceeded 25,000. It was one of the few weeks, during the past year, when local packers and shippers competed strongly with each other for the hogs on sale and from first to last it could well have been termed a "sellers' market. Heavy packing kinds and the cheaper grades of light weights were active all the week.

**GOVERNMENT SPUD ESTIMATE MISLEAD FARMERS**

(Continued from page 3)

and a five year average, 1909-1913, of 4,398,140,000. While the production in European countries affects us only remotely in normal years, it has quite an important influence when it is abnormally large or our crop abnormally small.

The Business Farmer has taken the position that if the government's December estimate of 346 million bushels is correct considerably higher prices would be seen. We believe that had it not been for the ill-advised and misleading report of March 1st potato prices would be much higher than they are today. The issuance of that report has delayed somewhat the improvement which we have maintained would be seen in this market, but we do not believe it has destroyed all chances for better prices. This is merely an opinion. The figures and facts related above are gathered from official and supposedly reliable sources and will help any farmer to figure out for himself as closely as it is humanely possible for anyone to figure it out what may be expected in this market the remaining ten weeks of the season.

**ON BOARD U. S. S. CONNECTICUT**

(Continued from page 4)

amused, entertained, shocked and horrified by the antics of these blue jackets let loose from the iron discipline on board their boats.

Although Norway prohibits the sale of "hard" drinks, the sale of light wine and beer is permitted, and it didn't take long for some of those lads to get beastly drunk upon the stuff which some of our anti-prohibition friends say should be legalized in this country. I was proud to mingle among these handsome, care-free

sons of the greatest democracy on earth, but my pride gave way occasionally to shame and sorrow when I saw some of them, yet in their teens, stretched out drunk and sick full length upon the greensward of the parks.

Through my interpreter I made the acquaintance of a Norwegian exporter who before the war was the largest ship owner and exporter in the city of Christiania. He had made and lost a fortune in American cotton. This man invited us to be his guests at the merchants' club, an exclusive organization made up of merchants of the city. During our two hours' visit there our host consumed rather generous quantities of hard drinks which he had no difficulty in getting from the waiter. At an adjoining table was a noisy group, the center of which was a young man who between drinks of gin and whisky kept his companions hilarious with witty Norwegian stories. My host informed me that the young man was a nephew of the prime minister of Norway, who would be a very fine gentleman, were it not for his prohibition leanings. It was he, who during the war, had been responsible for the prohibition of hard drinks and even though the war was over, he persisted in his opposition to anything harder than fourteen per cent champagne. But despite the worthy prime minister's best efforts here was his nephew well started on a drunken orgy that might have lasted far into the night had not the young man's wife, a most attractive young woman, arrived on the scene and after a few companionable drinks with the P. M.'s N., induced him to depart for home.

Hard liquor was everywhere in evidence. The hotels were infested with bootleggers and drunkenness was common. The above-mentioned host told me that the above-mentioned P. M.'s N. was quarantined at his summer home twenty miles away one day and called him on the telephone asking him if he couldn't bring him out a case of whisky. The P. M.'s N., though the A. M. H. was joking when he replied, "I'll have you out a case in fifteen minutes." The A. M. H. borrowed his neighbor's aeroplane and in exactly fifteen minutes landed in the P. M.'s N., back door-yard with the case of whisky.

The apparent plentitude of hard liquor, the ease with which it was obtained, great difficulty experienced by the Norwegian government in stemming the illegal traffic in gin and whisky which was and still is carried on along Norway's extensive sea-coast, convinced me of the utter futility of trying to improve, let alone solve, the drink problem by the legalizing of the lighter beverages.

(The above is the ninth of a series of articles on the editor's European experiences. The tenth will appear in an early issue when it is hoped that more space will be available to permit of the telling a more detailed and interesting way.)

**Business Farmers' Exchange**

(Continued from page 21)

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**HAY WANTED: WE DO AN EXTENSIVE** Hay and Grain Brokerage business in eastern North Carolina, and are always in the market for Hay. Either buy direct, or sell on commission for your account. We prefer to handle direct from the farmer. Inquiries solicited. Reference gladly furnished. JOHNSON & GEER Wholesale and Commission Merchants, Selma North Carolina.

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832	.29 1/2	8	32	12	6.2	9 1/2	9 1/2	12 1/2
8320	.36 1/2	8	32	6 1/2	7.7	9 1/2	9 1/2	12 1/2
9390	.41 1/2	9	39	6 1/2	8.7	9 1/2	9 1/2	12 1/2
H 832	.37 1/2	8	32	12	8.6	10	10	11
H 939	.42	9	39	12	9.7	9	10	11
H 9390	.57	9	39	12	13.1	9	10	11
H 1047	.47 1/2	10	47	12	10.9	9	9	9
E 939	.57 1/2	9	39	12	14.1	9	9	9
E 9390	.80	9	39	12	19.6	9	9	9
E 1047	.65 1/2	10	47	12	16.	9	9	9
E 10470	.91 1/2	10	47	6	22.3	9	9	9

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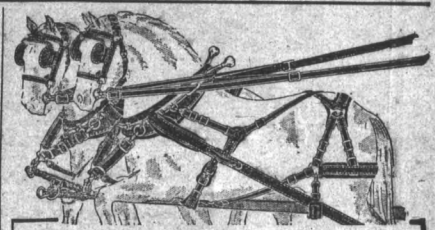
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