

"—for *all* the Farmers of Michigan!"

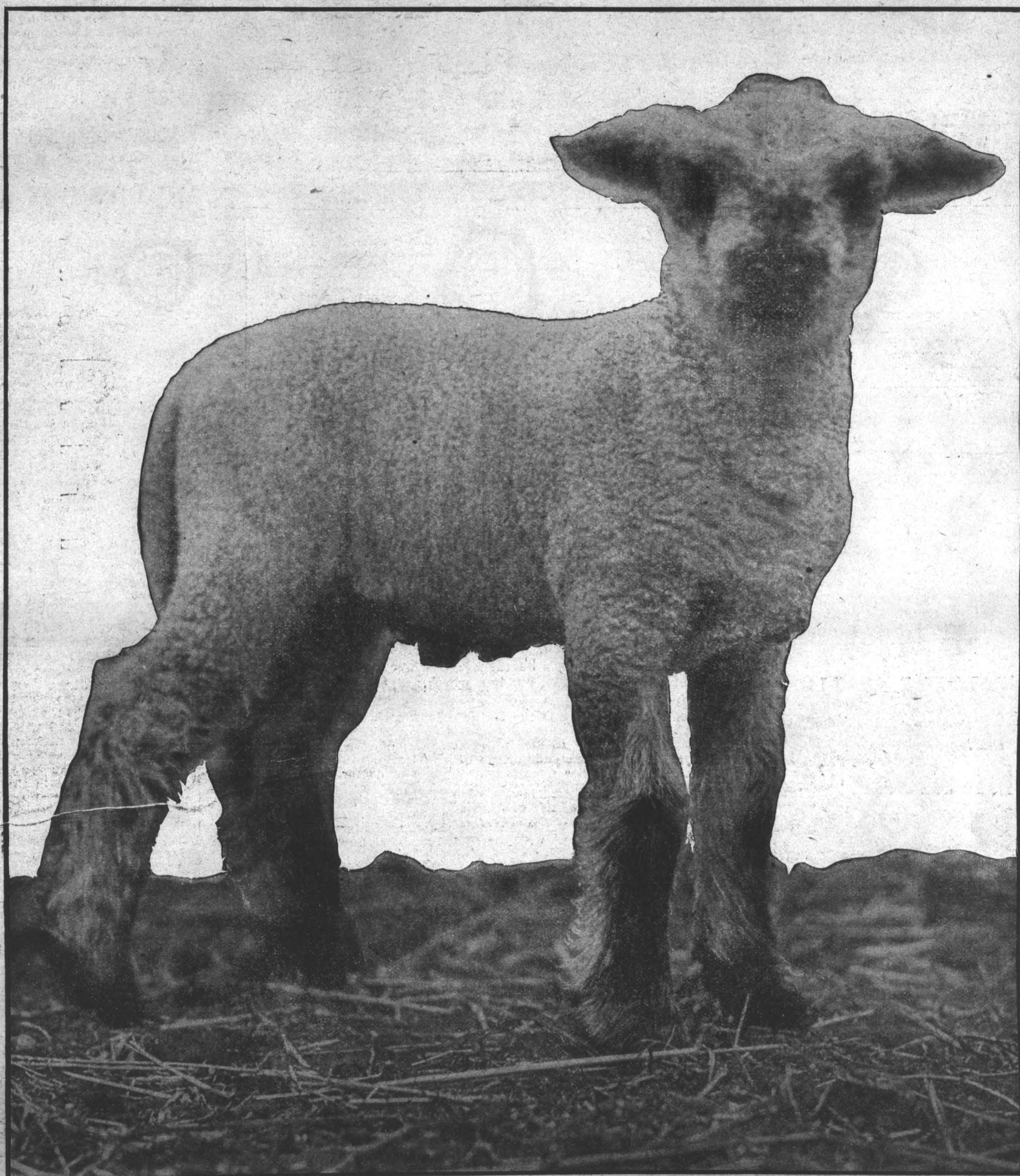
MICHIGAN BUSINESS FARMING

An Independent Farmer's Weekly owned and Edited in Michigan

Vol. VII, No. 24

MT. CLEMENS, MICHIGAN, SATURDAY, FEBRUARY 21, 1920

\$1 PER YEAR



"No shoddy for me," says this new Spring Arrival.

IN THIS ISSUE: The Farmer and His Hired Man—Lupin, the Wonder Soil Builder—The Gas-Driven Interurban Car—Foreign Exchange and the Farmer—Passing of Country Church—

Authorities Agree That Potato Prices Have Passed Season's High Mark

Opinions General That Future Tendency Will be Downward, Though Radical Price Changes Not Expected

Farmers Should Use Caution in Marketing

AT THIS particular season of the year there is always a good deal of speculation as to what course the potato market will follow for the balance of the season. The farmer who is holding stock at this time looks forward with some anxiety to the future of the market. Bermuda potatoes come onto the market in small quantities which gradually increase with the coming of March and by the middle of May the first arrivals from the southern states are in evidence, naturally having an effect upon the demand for old potatoes, which become more marked as the spring advances. The latter part of February also sees a breaking up of the severe weather that normally prevails during January hampering shipments and causing a scarcity at consuming points which sends the price up temporarily. The warm spell of weather during the first ten days of February loosened up the market to such an extent that prices declined from 60c to \$1.00 per cwt. at some consuming points.

For sixty days back we have been urging our readers to keep their potatoes moving. Those who have had warehouse storage facilities have been able to do this, and they undoubtedly appreciate the wisdom of

our advice by this time. Farmers who stored their potatoes in pits and cellars and found it unsafe to open them during the cold weather have, of course, been unable to put their holdings on the market, and will probably suffer some loss by reason thereof. It has been our judgment from the opening of the marketing season last fall that farmers should not chance the market by holding their entire crop this spring, and we apprehend that the steady movement of potatoes during the early fall and winter has been at least partly the result of our suggestions along this line. We now learn that the majority of the Michigan crop was moved during the upward trend of the market, which means that the majority of potato growers have profited by following our advice. In our issue of Dec. 27th, we stated plainly: "It is not wise to place too much dependence upon a continuation of the present demand and prices. We may be greatly mistaken but we feel that potatoes are nearing their highest point."

Potato prices reached their crest about three weeks ago, after which they declined steadily until about the 16th, when the market stiffened

again, ruled firm for a time and now appears to be slowly coming back. We do not anticipate that this upward tendency will continue to the end. We do not anticipate prices will reach former high level. In order to lend weight to our opinion, however, we sent out a questionnaire a few days ago to some leading potato authorities. Of the replies that have come back thus far the most valuable were from the editor of the *Chicago Produce News*, Prof. C. W. Waid of the M. A. C. and Hale Tennant, field agent in marketing, M. A. C., who assisted in the organization of the Michigan Potato Exchange. In reading these two letters, the reader should bear in mind that the one represents the opinion of a potato dealers' produce journal and the other two those of extension specialists at the farm college, and it is perfectly natural that there should be some divergence of views between the two. Each of the letters contain worth-while information and we urge our readers to give them their careful attention.

Produce Journal Expects Temporary Reaction

"—Answering yours of the 10th regarding the future of the potato

market, in our opinion the market will probably firm up and do somewhat better for a while. In fact it looks almost certain that there will be somewhat of a reaction from the steady decline of the last few weeks, but to us it seems that this will not last. There is entirely too much stock back in the farmers' hands to betoken a bright future for the table stock deal. In your own state the farmers have 30 to 40 per cent of their crop still back and the same is true in New York and Maine. Wisconsin and Minnesota have been freer sellers but the latest reports we have indicate there is fully 25 to 30 per cent of the crop still in the farmer's hands. It is therefore our opinion that the future of the table stock deal is none too bright, especially for the late spring. All indications are that the Eastern shore has planted rather heavily and from purchases made on Triumphs in Texas there should be a good volume of this stock moving as we have learned from experience that in these times the consumer is much more lavish in buying than he used to be, that he will not take old potatoes freely when new potatoes are available and this should be a factor in the late spring deal on old potatoes, especially if Texas stock moves early as the present indications would show.

"On seed stock, however, conditions look good. Seed has been held back greatly by the scarcity of cars. On early Ohios the situation is especially good as the holdings are extremely light and there has been no buying from Indiana, Ohio and Missouri and other central western states as yet. It looks as if the Ohios will clean up closely at present prices. Rose are also none too plentiful and there seems to be enough of a trade to clean these up at present prices. Triumphs are the only seed stock that have been more or less plentiful. Texas bought freely and is through. Arkansas and Oklahoma are at present sending in rush orders for Triumphs but the bulk of the buying for Triumphs will soon be over and there may be a decline in the market for this variety as the northern states do not take many Triumphs. This is a frank statement as to the way we view the situation which you may use either for publication or for your personal wants.—*Chicago Produce News*."

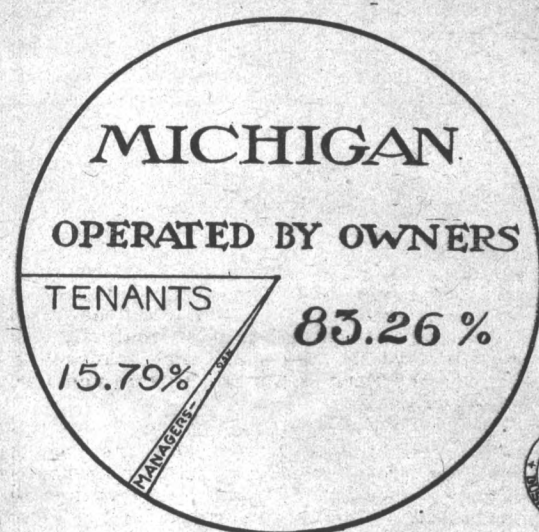
A Comparison of Holdings by Prof. C. W. Waid

"—Replying to your letter of February 10, will say that I endeavored to get some figures from Mr. Church yesterday but his office was closed because of the holiday. I was unable to get anything very near up-to-date and suppose you have all of the figures which I will be able to give you. However I will send them along and you can make use of them if you care to do so.

"According to the crop estimate the total production in the group of twenty-one northern states for 1920 was, in round numbers, 250,000,000 bushels, in 1919, 281,000,000; in 1918, 304,000,000. The holdings in these same states January 1 were: 1920, 91,000,000 bushels; 1919, 122,000,000 bushels; 1918, 151,000,000 bushels; 1917, 14,500,000; in January first 1920 was 10,000,000 bushels, 1919, 14,500,000, 1918, 21,000,000. We were able to get figures from only one state since January 1. According to a report from Wisconsin there were 7,200 cars available for shipment December 1, 1919. February 1, 1920, there were only 2,970 cars left for shipment.

"Judging from these figures it would seem that if the movement of the remaining portion of the crop is made in a general way that prices should hold at a high level throughout the season. If, however, a heavy movement is made at any one particular period it may force prices downward considerably. It would be unfortunate if growers anticipate that by holding to the end of the season they can get much higher prices than at present because if a large number of those holding potatoes should follow this plan it would

(Continued on page 26)



"MICH-I-GAN,
MY
MICHIGAN!"

THREE WEEKS AGO I took this same space to tell the live stock breeders of Michigan that they had, up to now, practiced a profound modesty which, while commendable in the sweet-school-girl-bud-of-sixteen, was hardly heard above a whisper in the brass band of publicity which far less worthy states were tooting and blowing out of the west.

Michigan, the birth-place of the Holstein in America, for instance, was stepping modestly back to let other states pose as the real Holstein centers. This week, I want to direct the attention of every loyal citizen of Michigan to a graphic comparison of a fact vital to every state, i. e., the percentage of farms operated by tenants or owners.

ILLINOIS is a great state agriculturally, famous principally for her corn and its by-product, hogs. She is spoken of regularly as the "first farm state of America." Yet this simple chart, made from the last official figures, the United States census of 1910, shows how far Michigan outranks Illinois in point of farm owners!

No one questions but what the 1920 census now in process of taking, will show even a greater percentage of tenant farmers in Illinois—indications say that there will be more tenants in Illinois, than farm owners on her fertile acres!

We respect the farm tenant—the man who leases from another who owns the land, but his interest in the improvement of his farm, the drainage, buildings and home comforts surely are not to be compared with those of the man who actually owns his farm, fertilizes his fields and looks forward every waking hour to the improvement of his buildings and his families' living conditions.

Here, then, is something more we Michiganders can talk about, can toot our horns about—farmers from other states where land values have already become a speculative menace are looking towards Michigan, they want to come here, buy farms and settle among those, who like themselves own and till their OWN soil!

Wake up, Superintendent of the Public Domain!

Wake up, Agricultural College and you newspapers, Wake Up!

"Michigan, My Michigan," is more than a song to be taught in the little red school house, it is a vital fact that millions of folks all over this great America ought to be told about—that the MY in the song means just what it does in brother Webster's definition of this simple word!

John W. Waid

Publisher of Michigan's
OWN Farm Weekly!

Federal Farm Loan System Attacked by Enemies

Proposed Changes Intended to Cripple Act and Are Contrary to the Farmers' Interests

By W. G. McADOO

Formerly Secretary of the U. S. Treasury

THE ATTACKS now being made in the courts, and in the Congress of the United States, on the Farm Loan Act, and the great system of agricultural credit banks thereby created, indicate a purpose on the part of the majority leaders to yield to the pressure and influence of the Farm Mortgage Brokers and to destroy or so cripple the Federal Land Banks and the joint stock Land Banks that the farmers of the country will again be put at the mercy of usurers and mortgage sharks.

A suit was recently brought at Kansas City, Missouri, attacking the constitutionality of the Farm Loan Act. Judge Van Valkenburg, at Kansas City, decided in favor of the constitutionality of the Farm Loan Law. An appeal was taken to the Supreme Court of the United States where the case was recently argued. If the Supreme Court should sustain the constitutionality of the Farm Loan Act, then the only danger to the Farm Loan System is from Congress.

Prior to 1913, there was a severe money stringency at crop-moving seasons. * * * Credit was largely controlled by a powerful group in New York—commonly referred to as "Wall Street." Doubtless every farmer remembers that in the fall of 1913, the Treasury Department, for the first time in its history, disregarded "Wall Street" and made direct deposit of government money in banks in the crop-moving centers throughout the country on condition that the same be lent to farmers for crop-moving purposes at reasonable rates. This broke up the annual crop-moving squeeze and since 1913, nothing has been heard about tight money and the difficulty of moving the crops.

But this was not enough. The administration realized that, unless remedial credit legislation was promptly enacted, what the Treasury had gained in breaking the selfish control of credit would be lost. Therefore, the Federal Reserve Act was passed, and while it created a great system of commercial credit, it made provision only for the essential short-time credit needed by the farmer. It put the farmer's six months' notes, given for agricultural purposes, such as growing crops or carrying his matured crops when in the form of staple products, upon the same favorable basis as the notes of merchants and other business men when given for commercial purposes.

The farmer's notes of this character were made eligible for rediscount in Federal Reserve Banks just as were the business man's notes. What does this mean? It means that every National Bank can now lend money to the farmer for agricultural purposes or upon the security of staple agricultural products, with full knowledge that it can rediscount such notes in Federal Reserve Banks upon the same favorable terms that it can rediscount the merchant's paper.

Provision for Long Time Loans

But this was not enough. The farmer also needed a system of agricultural credit under which he could borrow on a mortgage on his farm for a long term of years and at low interest rates and be relieved of high charges for commissions, attorney's fees and other exactions which, in times past, have made the cost of money borrowed on mortgage, where he was able to get it at all, so high that he could ill afford to bear it. The farmer could rarely borrow on mortgage for a longer period than five years. Frequently he could borrow for a much shorter time only. He had to submit to arbitrary valuations of his property which were not infrequently lower than was justified and he had to take the money upon any terms the lender imposed upon him. The small farmer who wanted to borrow on mortgage, \$1,000 or less, found it very difficult to get it on any terms. There was little or no credit on farm mortgage for the small borrower.

It became necessary, therefore, to create a farm mortgage system which would give the farmer: first, the long time mortgage loan cov-

ering a period of as much as forty years and repayable on the amortization plan, namely, in annual installments of say one per cent; second, a low rate of interest, which would be uniform throughout the United States, so that farmers everywhere would share equally in the benefits of the system. This could be accomplished only by the creation of Land Banks with power to sell a standard form of bonds based upon the security of the farm mortgages they purchased from the farmer.

It was essential that the mortgages given by the farmer and the bonds issued by the banks upon the security thereof should be exempt from all United States, state and local taxation. Without this exemption, it would be impossible to sell the bonds of the banks at such reasonable rates of interest that the banks in turn could lend money to the farmers on mortgages at a reasonable rate of interest. Consequently, the Congress of the United States, upon the recommendation of the President, passed the Federal Farm Loan Act in July, 1916. Under this law the country has been divided into twelve districts and a Federal Land Bank has been established in each. These Federal

Land Banks are not permitted to lend more than \$10,000 to a single borrower and they cannot lend except upon the co-operative plan through a Farm Loan Association which the farmers have to organize. It was necessary, therefore, to provide another class of banks, which could make loans to farmers desiring to borrow in excess of \$10,000. Therefore, the Act provides for the organization of what is called Joint Stock Land Banks. These banks are permitted to lend direct to a single borrower in any amount up to \$50,000. The Joint Stock Land Banks, like the Federal Land Banks, issue their bonds against the security of the farm mortgages they take. The Joint Stock Land Banks are required to lend on the long time amortization plan at rates of interest regulated by the Federal Farm Loan Board at Washington, just as in the case of the Federal Land Banks. Thus a great system of agricultural credit is created, the short time loans being supplied by the Federal Reserve system and the long time amortization mortgage loans by the Federal Farm Loan system.

Their Need is Apparent

Although the Federal Land Banks have been in operation but little more than two years, they have made loans to farmers throughout the United States aggregating \$285,000,000 at five and one-fourth per cent interest, plus one per cent per annum for amortization, so that at maturity the principal will have been paid in full if the interest and amortization charges shall have been regularly paid as they became due.

The provision that the bonds issued by the Federal and Joint Stock Land Banks and secured by farm mortgages, shall be exempt from taxation, and that the rates of interest shall be regulated by the Farm Loan Board and be uniform in all the states makes it possible for the farmer having good security, even though he lives in a sparsely settled state, to secure credit on just as reasonable terms as the farmer who lives in the

most populous and settled state. But those private money lenders and brokers who for years have fattened at the expense of the American farmer, have fought bitterly this tax exemption feature because they are now forced into competition with the Land Bank system and compelled to lend money on reasonable terms. Threats that the tax exemption on farm mortgages and Land Bank bonds would be knocked out by the present Congress have been confidently made by the Farm Mortgage Brokers of America.

Representative J. W. Fordney, Chairman of the Ways and Means Committee of the House and Representative McFadden, a member of the Banking and Currency Committee of the House have made speeches recently in opposition to the tax exemption clause and these speeches are being widely circulated by the Farm Mortgage Brokers of America.

Senator Smoot has introduced a bill in the Senate to force the liquidation of the Joint Stock Land Banks and Mr. McFadden has introduced a similar bill in the House of Representatives. If the Joint Stock Land Banks are thus destroyed and the tax exemption on farm mortgages and Land Bank Bonds is repealed, the Farm Mortgage Brokers and private money lenders will again have a monopoly of the field of long time agricultural credit and the farmers of the country know what that will mean in high interest rates, commissions, attorney's fees, and other charges on the original loan and large commissions on each renewal if the farmer succeeds in getting a renewal. The cost of money to the farmer will be increased and all the old abuses will be restored; the Mortgage Bankers will not grant the long time amortization loans which the farmer gradually pays off so that the principal of the debt will be liquidated at maturity. Farmers will have to take short time loans on such terms as the Farm Mortgage brokers and lenders choose to make.

Fair Play for Farmers

Why should farmers not have the benefit of exemption from taxation on farm mortgages and the bonds issued by the Land Banks against these mortgages? What is a mortgage anyway? It is merely an evidence of indebtedness. Why should the government of the United States tax the evidence of the farmers' indebtedness? What is the bond of the Land Bank but an evidence of indebtedness issued on the security of the mortgage of the farmer and by means of which the bank is enabled to get the necessary money from investors to lend to the farmer on his mortgage? If a tax is imposed on the Federal and Joint Stock Land Bank Bonds, who will pay it? The borrowing farmers, of course. They will pay the higher interest rates which the bonds will have to carry, if the tax exemption is removed, because the banks will have to charge the farmers a higher rate of interest on their mortgages. If the farmer has paid taxes on his mortgaged farm and on his income as well, why should he be asked to pay taxes on his debt?

The National Banks of the United States own all the stock in the twelve Federal Reserve Banks which have an aggregate capital of more than \$86,000,000. These National Banks are permitted to receive six per cent preferred dividends on their Federal Reserve Bank Stock and in addition, every dollar of that stock and the income therefrom is exempt from all Federal, State and Municipal taxation. All State and Municipal bonds issued throughout the nation are given full exemption from federal, state and local taxation. There are millions of these securities in the hands of the wealthy classes. Why should they have the benefit of exemptions which withdraw hundreds of thousands of dollars of their income from all federal, state and local taxes? Certainly, a tax exemption which will permit the farmer to get credit on

(Continued on page 23)



W. G. McADOO

Farmers, Be On Your Guard

EVER since the farm loan system came into existence the farm mortgage brokers have sought to destroy it. First, its constitutionality was attacked. Then an effort was made to secure the repeal of the section of the law making the bonds tax free. Neither of these efforts has spent its force, and lobbyists are busy in Washington to cripple the measure. Read the accompanying article, and if the federal farm loan system means anything to you, advise your congressman, and particularly the Hon. J. W. Fordney, who is reported to have made speeches in the house against tax exemption, how you feel about it. —Editor.

Effects of Temperature on Productivity of Soils

Temperature in Soils is Largely Determined by the Water Content as a Result of Peculiar Properties of Water

By M. M. McCool

Professor of Soils, Michigan Agricultural College.

(A continuation of Prof. McCool's Exclusive Articles for M. B. F. Readers.)

THE PRODUCTIVITY of the soil depends much upon temperature. It is obvious that all life depends for its existence upon soil temperature and we should know as much as possible about the things that may induce changes in it. Doubtless there are many misconceptions regarding the temperature of soils of widely different texture, topography, surface conditions and others.

The biological, chemical and physical processes of the soil are markedly affected by its temperature. Biologically, the germination of seed, the best growth of plants, the multiplication of the lower soil organisms, the removal of plant-food elements from the soil by the plants and others depend upon it. The winter killing of new seedlings of alfalfa and others in some cases is due to the low temperature of the soil. The special crop adaption of soils is due in part to the temperature relationships.

Many chemical changes that take place in the soil are accelerated by an increase in temperature; the solvent action of water is increased, the rate of formation of nitrates in the soil is more rapid in warm than in cool soils and other important changes that could be mentioned. Several important physical processes that are influenced by the soil temperature should be mentioned, namely, the movement of soil moisture, salts and air in the soil.

Several conditions influence the temperature of the soil. In brief there are two groups, one the intrinsic or those contained in the soil mass, chief of which are radiation, absorption and water content, the other the external consisting of the meteorological elements. Certain of these tend to impart heat to the soil while others take it away. Therefore, a temperature record of a field soil is the resultant summation of the effects of these opposing forces.

Changes of Temperature

The fluctuations in the temperature of the soil are greater at the surface than they are lower down. We have obtained much valuable information pertaining to this subject by means of electric resistance thermometers and others. Records have been kept for about four years. In fact, Banyoncas, of the Soil Department has done more work on this on this subject than any other institution in the world. It is now known that the surface of dry mineral soils during the daytime is higher than the air above on account of the absorption heat, the difference amounting to more than thirty degrees. At night, however, the surface of the soil and the air above reach about the same temperature. Six inches from the surface of the soil the fluctuations are much less. On February 13 the maximum temperature of a soil six inches from the surface was about twenty-three degrees, and the minimum about six degrees less whereas in August the maximum temperature was eleven degrees greater than the lowest temperature. At 12 and 18 inch depths respectively there is usually less than two degrees of difference in the highest and lowest temperatures attained.

The temperature of the soil is usually reversed between day and night, that is when not frozen. This is because the air temperature reverses itself during these periods and the soil receives or loses its heat at the surface more rapidly at a given time than it does lower down. At sunrise, as is usually the case, the temperature of the surface soil is lowest and somewhat warmer below, the temperature of the air rises, of course, the surface soil begins to rise. The warmth passes downward as a wave, but as above stated the lower layers changes less rapidly than those above and again the temperature of the soil mass is reversed.

The daily reversion of the temperature of soils aids in their aeration or ventilation. Air expands greatly in volume when warmed and likewise contracts when cooled. Thus

when the temperature of the soil varies the air contained therein contracts and expands forcing air out when warmed and taking it in when cooled. It is maintained by some that soil aeration takes care of itself, that is where the soils are drained and that the value of tillage in assisting in this process has been overestimated.

Although soils may freeze several inches below the surface their temperature does not go much below the freezing point. One cold day in February when the temperature of the six inch depth of soil recorded 22 degrees twelve inches from the surface it was about two degrees below freezing and eighteen inches from the surface it was at freezing point. Winter injury of crops must be due to the low temperature of the upper layers.

The water content of the soil markedly affects its temperature. This is brought about chiefly by three properties of water.

One of these is it requires much heat to melt a given quantity of ice. Thus soils that contain different amounts of water in the frozen state require different amounts of heat to melt this ice and to warm them. It follows that those soils that contain the smallest quantities of water thaw first in the spring.

Another property of water is its high specific heat. By this is meant the amount of heat that is required to raise the temperature of one pound of soil one degree as compared with the amount of heat required to raise the temperature of one pound of water one degree. The specific heat of water is about five times greater than that of soils. Therefore, water will warm up and cool much more slowly than will dry soils.

The third property of water is its tendency to evaporate. Much heat is required to bring this change about or in other words when water evaporates it uses up heat. The evaporation of one pound of water at 62 degrees, that is its conversion into water vapor at the same temperature requires as much heat as would raise the temperature of about 1,050 pounds of water by one degree. Now when a wet soil receives a large amount of heat from the sun the temperature rises only slightly, because the heat received is utilized in the evaporation of the water instead of going to warm up the soil. Inas-

much as different kinds of soil contain different amounts of water and especially is this true after a rainfall, different quantities of water will evaporate from the surface, and, therefore, these soils will have a different temperature, especially during the warmest part of the day.

The average temperature of different kinds of soil is about the same. Many believe and it is widely taught that sands are much warmer during the growing season than loams and clays. Because of this belief sands are designated as warm soils and loams and clays cold soils. This belief has some justification yet it is greatly exaggerated. Peat and muck soils in reality are cold soils during the spring months.

Our studies show that sands are only slightly warmer soils than the loams and clays. Daily temperature records for four years show that in the spring the sands always thaw completely first, the loams and clays

thaw only one or two days later and the vegetable soils or peats and mucks about two weeks later. Upon thawing the temperature of the sands rises very rapidly and it is quite appreciably above that of loam and clay but it is worthy of note that as soon as the finer soils are also completely thawed their temperature also rises very rapidly and approaches very closely that of the

sands. During the spring and summer months, however, the average temperature of the sands is only about 2 degrees higher than that of loams and clays, and during the fall and winter months their difference is very slight.

Muck and peat may be made earlier soils. They warm up slowly after thawing in the spring, due in a very large measure to the evaporation of water at their surface. This was proved by placing a thin layer of sand over moist sands, loams, clays and peat soils, respectively. Soils covered in this manner, that is after they have thawed, soon reach practically the same temperature. If one so desires he can greatly increase the earliness of peat and muck soils and thus produce vegetables etc., at an earlier date.

The earliness of sandy soils is due to daily temperature changes. This is extremely important. In the afternoon towards sunset the temperature of the sands is appreciably less than that of loams and clays but in the morning at 5 or 6 o'clock it is

somewhat higher than that of the loams and clays. As the sun rises and the air temperature increases the sands warm up faster than the other soils and reach their highest temperature first. As the sun begins to go down and the air temperature likewise falls the sands cool faster than the loams and clays and about midnight their temperature is generally slightly lower than the loams and clays. About 5 a. m. the sands may have a temperature of about 2 degrees less than the loams and clays. When these variations of temperature are averaged it is found that sands are slightly warmer than loams and clays. This property of the sands is favorable to the crops early in the season, inasmuch as they are warm when the sun's rays may be utilized and thus growth may proceed more rapidly early in the season in the lighter soils. Reference is made to the time when temperature is the chief and controlling factor in crop growth.

Covering Soil with Vegetation

Soils covered by vegetation vary less in temperature than when bare. This is because the vegetation forms a uniform covering over surface and controls to a very large extent the receipt and loss of heat of the soils and thus gives them a more uniform temperature. Some of the experiments at this college show that a light dressing of straw markedly affects the temperature of the soil in the winter. One day bare sand was almost as cold as the air temperature or twenty degrees below zero, whereas the temperature of the adjacent soil top-dressed with straw was only slightly below freezing.

This is important in practice. During the summer of 1916 alfalfa was seeded on limed and fertilized, deep sand at the collage farm and attained a height of about eight inches before cold weather set in. During the winter, snow and other protective coverings blew away, but in some spots the soil was covered with straw. The plants were all winter killed on the bare places although heaving did not take place.

Straw stacks rather than be permitted to rot down in place should be distributed on the land. If new seeding or fall seeded grains are top-dressed with it they doubtless will come through cold winters in better condition and, of course, the fertilizing value of it is worthy of consideration.

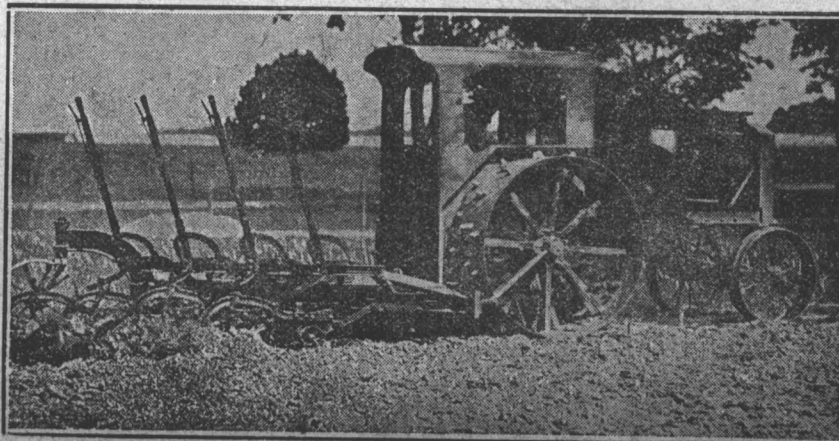
Snow governs the temperature of the soil. In some of the northern counties root crops may be left in the ground all winter without freezing because the snowfall comes early, and remains on the ground until late spring. Where snow was removed from the soil in one case and left on on another the temperature of the soil below the snow was found to be about twenty-five degrees higher than the bare soil. Thus, if snow could be caught and held on exposed places in the field by vegetation or roughened condition of the soil it would be advantageous.

Contrary to the opinion of some, the visit of frosts on muck lands is not due to the nature of the soil but to other conditions. It has been found that the air temperature on a slope is higher than it is over the flat or lower areas. Ten degrees difference in the temperature of the air over a slope and a draw have been reported, the greatest differences being found on those nights when there was little or no wind. This is because the cool air is heavier than the warm and tends to settle over the low or flat areas.

The effect of tillage on the temperature of the soil is slight. Loose or cultivated soils are usually considered to be higher in temperature than if compact or untilled. Our records show that the cultivated soil has only a slightly higher temperature than the other during the spring and summer months. The differences are due to the dry layer formed by tillage, this layer being a rather poor conductor, some of the heat is held in the loose layer. It also loses heat more rapidly than the compacted soil inasmuch as it does not go so deeply into the soil.

Your Soil Problems

LET M. B. F. and the M. A. C. solve your soil problems. The state of Michigan maintains an agricultural college, and the U. S. Department of Agriculture an extension department, employing skilled and experienced men for helping farmers to solve their problems. Use this service. It is free, and Michigan Business Farming will act as a medium to carry it to you. Follow Prof. McCool's discussions closely. If they are not clear to you on any point, or if you have a problem which he does not cover, feel free to write and ask for more specific information.—Editor.



Good plowing with tractor outfit. Note piles of lime to be applied after plowing.



MRS. DORA STOCKMAN

MR. HIRED MAN, I am intensely interested in your letter to *BUSINESS FARMING* which the editor, Mr. Lord, has invited me to answer.

I am interested in the hired man's problem, because he is just one kind of specialist in farming, and all farm problems are of vital interest to other farmers.

It is of vital interest to me as a farmer because many of his problems and mine are the same, and based upon the same fundamental facts.

City vs. Country Living Prices

Now just like a woman, I am going to begin at the conclusion first where the "hired man" says, "here is one good hired man who will move to town before he will stay in the country and live from hand to mouth." That is where the hired men have gone and the farmers, too, and let us see what kind of a trade they have made.

He cites the case of the big farmer who gives the following items to his hired man which if he were to live in Lansing would be equivalent to the following amounts:

Rent, \$35 per mo.	420.00
1 year fuel, oil or coal ...	75.00
Potatoes, average family	
30 bushels	30.00
1 cow, average 3,000 lbs.	
7c lb.	210.00
250 lbs. dressed pork, 18c	
pound	45.00
Product of 30 chickens ..	100.00
52 weeks @ \$10 per week	520.00
Bonus at end of year ...	500.00

Total\$1,900.00
or an average of \$6.33 per day for 300 days.

Below is the wage figured in terms of what of the wages of the hired man who is "going to move to town," would buy in the city.

2 average cows, 6,000 lbs.	
milk @ 7c lb.	420.00
Potatoes, 30 bu.	30.00
Rent, \$35 per month	420.00
Wages, 52 weeks at \$12	
per week	624.00

Total\$1,494.00
or nearly \$5 per day for 300 days.

The prices for these items are for Lansing and could not be duplicated in Detroit where rent as well as the other products is much higher.

The average wage in Lansing, unless for skilled labor, is about \$5 per day.

The Farm Income

Now can the average farmer afford to pay the hired man better wages?

According to the 1910 census the following figures were compiled and arranged by W. J. Spillman, Office Farm Management, Department of Agriculture:

The average farm consisting of 131.8 acres is valued at \$6,433.67.	
Interest on capital invested @ 5 per cent	322.18
Farm family labor income on same	318.22

Farm income, total ..\$ 640.40

The items of income about which no information is available are the value of the milk and cream consumed in the home farm and what the farmer earns for work outside his farm. In some regions this latter item is important. Thousands of farmers receive a large part of their income from labor done for others at times when they do not have profitable employment on their

The Farmer and His Hired Man

How Can the Farmer Keep His Hired Help From Going to the City?

By MRS. DORA STOCKMAN

Lecturer Michigan State Grange and Member State Board of Agriculture

The Hired Man Problem as Seen by the Hired Man

I HAVE been a subscriber of your paper for several years. That's the way I have followed the markets on buying and selling; as you have given so much sound advice to your readers in the past, I would like some of it now. There's an old saying, "Fools rush in where angels fear to tread." I know I'm going to start something, but the hired men of today are farmers of tomorrow.

In your next paper I would like to see these questions: How much should a hired man be paid, so he can feed, dress his family and save a little each week? How much should he be furnished besides his wages?

Can a farmer himself buy clothes, shoes, fuel and everything to keep a family of six on \$12 per week?

Can the farmer himself live on ten cents a meal? For a family of six, if each meal cost 10c per meal, at the end of the week the farmer would be in debt sixty cents. Figure it out, Mr. Editor, for yourself. Where is the man to buy the clothes, shoes and fuel?

One large farmer here has made this contract with his men. He gives them fuel, either oil or coal for a year, potatoes, one good cow, one hog weighing 250 pounds when killed, feeds thirty chickens and furnishes a good house, ten dollars a week, and at end of the year a bonus of five hundred dollars.

Now this same farmer has kept his help four and five years, and they are perfectly contented to stay another year with him. Why can't other farmers who have had their help one or two years, do the same?

Now if there's any big farmer who can pay the same as this farmer has I'm looking for the job at once. If the farmers want good, married men who understand all kinds of farming, dairying, and all kinds of machinery, they will have to pay the hired man enough so he can live.

Here's one good hired man who will move to town before he will stay in the country and live from hand to mouth. A hired man must needs be jack of all trades. In the last year I have not only done the general farm work but have run tractor, overhauled tractor several times, run separator for threshing outfit, played carpenter—all on the big salary of \$12 per week, two cows, notice I didn't say good cows, which will make about \$4 worth of butter a week, and potatoes furnished.

Enough has been said, there are many other hired men getting the same. Give your men a fair living wage, Mr. Farmer, and nine cases out of ten you'll have a man for several years.—A Hired Man, Genesee Co., Mich.

own farms. In other sections of the country this item is unimportant.

The item of expenditure about which no information is obtained is the amount paid for the live stock purchased. This is a very important item in those sections of the country where the fattening of stock is practiced. It is also a considerable sum in dairy regions, but in regions where no live stock except work animals and a few head of miscellaneous stock are kept it is not very important.

So at least one can say that the figures for the farm family income exclusive of interest on investment was no greater than that given, \$318.22.

But you will argue, farm prices have doubled in the last ten years. That is quite true, but it is equally true that the prices of farms, farm machinery, costs of living, and labor costs have more than kept pace with the increase of price of farm products.

Let us now compare the farm owner's income with that of the hired man and we find, figured on the basis of doubled prices of farm products and also adding rent to the family income which is not given in the previous figures:

Labor income of average family \$318.22 x 2 ...	\$ 636.44
Rent for farm home not figured above	420.00
Total	\$1,056.44

We have shown that the average hired man's income according to the figures given by the writer is equivalent to the buying power in the city of \$1,494.00, but the buying power of the farm owner's labor income is but \$1,056.44. The farm owner has the larger income because he has capital invested in his farm and equipment, an amount which in comparison with the farm labor income ten years ago was more than his labor income.

The average farm today would represent also a double amount of capital invested of \$12,887.34, this at 5 per cent interest would entitle the farmer to \$644.36 interest, an amount more than equivalent to his labor income.

Further, Mr. Hired Man, the farm owner's income is based on the labor of the farm family, which includes work of women and children, where your labor income does not include labor of your family.

Manifestly on the present scale of prices, part of your wages are now paid out of the interest the farmer is entitled to on his investment, out of the fertility of his soil, (which would be giving away his farm piecemeal) or out of his own income which is smaller than yours.

If anyone should go to the city it is the farmer where he can get a higher rate of interest for his money, and where his family are not unpaid laborers.

How Have You Solved the Hired Man Problem?

OUR hired man friend who writes above is right in one conclusion, that some farmers can afford to pay their hired men better, but he is wrong in assuming that the majority of farmers can so afford. Some farmers can't keep a hired man. Others seem to have no trouble at all. Good farm help is getting scarcer every day. It is a problem that must be solved. How are we going to do it? The farmer who has had his hired man troubles and the farmer who has solved his hired man problems can HELP us solve this question for all the farmers by telling us their experiences. We want to publish a series of letters upon this subject. Who will be the first to contribute?—Editor.

But Mr. Hired Man and Mr. Farmer, before you go to the city to live, just take a visit to the city and try renting a house, inquire the prices of milk and eggs, pork and potatoes, the price of fuel, water and light bills and taxes. And the fact that the average man in a town like Lansing does not get over \$5 per day.

Then figure it out and see if you want to trade places with the AVERAGE MAN. If you have unusual skill and ability, the city offers a premium for such men and women. The average people in the city live from pay day to pay day.

Rather than leave the business of farming, Mr. Hired Man, will you not help the farmer make the farm business more efficient so that he can pay you better wages?

And more than that help the farmer market his crops so that he will get a larger share of the consumer's dollar. If the farmer got his just share for the crops he produces he could pay his hired help a better income, and Mr. Hired Man you would want to get to buying you a farm of your own. Or if you preferred to live in the city you could live there for less money.

Mr. Hired Man this problem is our problem. We want to help you solve your problem, and we want you to help us solve ours, let us make the farm a desirable place to live. Here's our hand.

Succeeds Hartman to G. R. & I. Agricultural Post



cast glowing tales of the wonderful agricultural opportunities that abide in the section of Michigan that is penetrated by the G. R. & I. lines. Mr. Hagerman's headquarters will be at the G. R. & I. building, Grand Rapids.

MR. D. L. HAGERMAN, county agent for Ottawa county, has been appointed agricultural and industrial agent for the G. R. & I. R. to succeed W. H. Hartman, who resigned to become production manager for the Falk Company of Pittsburg, manufacturers of potato products. Mr. Hagerman is a native of Litchfield, Hillsdale county, and has been identified for a number of years with agricultural instruction. He graduated from the Michigan Agricultural College in 1913, and became teacher of agriculture in the St. Johns High School. Four years ago he was appointed county agent for Ottawa county, a position which he has held up to the present time. Mr. Hagerman's experience fits him well for the larger field he has entered, and we expect to see him spread broad-

Four Thousand Farmers Join Beet Association

Work of Organizing Sweeps Over Territory Like Prairie Fire, Enlisting Support of Over Ninety Per Cent

"AS NEARLY as I can estimate from my own records and the reports of the locals," says C. E. Ackerman, manager of the Michigan Beet Growers' Ass'n, "over four thousand out of the ten thousand farmers who grew beets last year have joined the State Association and agreed not to grow any beets this year except under a contract approved by the Association."

With the campaign scarcely six weeks old over forty local associations have been organized, with duly elected officers and paid-in dues. Each association has opened a banking account in which all dues have been deposited and form the nucleus of a fund which will amply finance the work of extending the local associations and carrying on the fight for a fair contract. In every community where a meeting of beet growers has been called, associations have been effected, with a practically one hundred per cent membership of those attending. Locals were organized last week at Mason, Ingham county; Alma, Gratiot county; Coleman, Clare county; Chesaning, Saginaw county. A complete list of all locals organized will be published in an early issue of MICHIGAN BUSINESS FARMING.

Are the Farmers Backing the Organization?

The manufacturers have laid great stress upon their self-manufactured assertion that the present campaign is the work of a few agitators and small beet growers. They have tried to make themselves and the public believe that the really representative beet growers were not behind the movement. Through the influence that the manufacturers have with some of the newspapers in the sugar beet sections, they have tried to scatter this impression through the press, and many an amusing have been the "news" stories which the papers have printed showing how the farmers were falling all over themselves to sign up the old contract. Not long ago, one of these newspapers carried a story under the caption, "Farmers Buck Organization." It was evident that the printed who set up the heading made a mistake in the wording and substituted a "u" for "a" in the word "buck." At least the heading would have been more nearly correct had it read, "Farmers 'Buck' Organization," for that is what they are doing almost to a man. Hundreds of farmers signed up the old contract without being told by the manufacturers of the additional \$6 per acre charge for labor, and they are now showing their resentment of the deception, and declare they will grow no beets under the old contract.

Manufacturers Stand Pat

As yet the manufacturers show no sign of conceding to the growers, although they have made some admissions which indicate a slight weakening. Writing upon this subject, Mr. Ackerman says:

"The manufacturers seem to admit that the costs to farmers will be 25 to 35 per cent higher in 1920 than they were last year, and 50 per cent more than they were two years ago. They also acknowledge that they cannot get the labor for \$6 extra and are offering the farmers \$4 an acre more as an inducement to stand on the 1917-18 contract. They still have all their field men and many scale men on full salaries (which the farmer pays in field expense) and they are at all our meetings, at all sales, at all places where they meet the farmers, and they tell with such

Farmer vs. Manufacturer

IT IS STATED that the sugar manufacturers made seven times as much profit during the season just closed as the farmers. The following figures were presented by J. C. Ketcham at the annual meeting of the Farm Bureau at Lansing:

Sugar beet tonnage, 1919	1,001,000
Estimated average price to farmer	\$13.00
Total return to farmer	\$ 13,013,000
Cost of producing, (allowing nothing for managerial ability of depreciation (\$106 per acre)	11,707,488
Farmers "profits"	\$ 1,305,512
Amount of sugar (in pounds) produced from 100,001,000 tons of beets	223,223,000
Average wholesale price	\$ 0.12
Gross receipts from sugar	\$ 26,786,760
Estimated value of by-products	2,038,025
Gross receipts (sugar and by-products)	\$ 28,824,785
Estimated beet and factory cost (based on government reports)	18,590,000
Manufacturers' balance, from which to pay selling costs and profits	\$ 10,234,785
Estimated selling cost, based on government reports	1,016,115
Balance, representing net profits (or) SEVEN times the farmers' profits.	\$ 9,118,670

(Note: Many farmers will testify that Mr. Ketcham's estimate of \$106 as the cost of producing an acre of beets is too low, but it serves as a basis of comparison between the farmer's and the manufacturer's respective returns from the industry.)

solemn faces what an awful thing the farmers are doing when they throw up the contracts which the companies are carrying in their pockets unsigned and unreturned and which never would be returned if sugar should drop to 7 cents per pound, and yet they so sadly say, 'what an awful thing it would be if the farmer should cancel a contract.' No consideration seems to enter their minds that the farmer has the same right to cancel when it appears that the shortage of labor, the higher prices therefor, the higher cost of machinery, fertilizer, etc., may cause great financial loss if not cancelled.

"Is a contract legal when one party gets another party to sign and then carries same in his pocket until conditions might make it profitable for him to take his own time and at his own pleasure signing and returning same to the second party regardless of the fact that during that time conditions might have changed so that the first party would profit largely and the second party

lose heavily? Let them start to enforce their contracts on one of our members against his will and we will proceed to enjoin the companies from putting out any of their contracts on the ground that facts will show them to be profiteering and at the same time hampering production of domestic sugar by offering a price that is less than the cost of production which will certainly result in the abandonment of at least one-half of the contracted acreage. The best evidence in the world that the manufacturers are familiar with this fact is their effort to secure twice the acreage needed in order to run their plants to capacity.

"Please make this point plain to our brother farmers through your valuable paper. They have called us a bunch of Bolsheviks and agitators. They have paid for having such statements printed in the press. They have paid for articles intimating that the United States government has been unfair with them because under the Lever Law which prohibits prof-

iteering it would be necessary to set the price of beet sugar at 12 cents although foreign sugar might go to 20 or 30 cents per pound. Can domestic sugar production be promoted by allowing the manufacturers all the profits of the industry and not paying a cost of production price to the farmer for his beets?

"We are out to defend our interests having due consideration for the consuming public, believing that their interests are also our interests because when cost of production and a reasonable profit all along the line of service is paid, consumers will be amply supplied and at the lowest possible price."

More About Sugar Profits

John Ketcham of the Michigan State Grange has compiled figures based on reports to the Federal Trade Commission showing that Michigan manufacturers are making a profit of 50 per cent on every pound they produce. This is on the assumption that the manufacturers have sold their sugar at the prices fixed by the Government. The growers claim to have evidence that they are not selling at the fair prices. There are many "wash sales," they say, through which manufacturers make exorbitant profits.

One Michigan sugar manufacturer is claimed by the beet men to have made \$1,000,000 during the last few weeks by holding sugar. Others are said to have netted more from speculation than from manufacture.

Mr. Ketcham said he could not obtain information that would prove these charges. The evidence gathered by his association is convincing enough, however, so that representatives of the attorney-general of the United States and agents of the department of justice have started an investigation with a view to ascertaining if there has been violation of the Lever Act, he reported.

Figures on Profits

The extent of the profits sugar manufacturers can make without coming in conflict with the law is shown by the fact that the cost of producing beet sugar during the 1918-19 season was \$157 a ton, 7 4-5 cents a pound, which includes money paid to farmers for beets, wages of labor, upkeep and depreciation of plant, interest on investment, salaries of officials. The figures are taken from reports submitted to Congress by the manufacturers when seeking a protective tariff on sugar.

"The manufacturers are producing sugar this year about as cheaply as they did last," Mr. Ketcham said. "They did not pay any more for the beets they are using now than they paid in 1918. Their common labor may cost them a little more, but that would be the main increases. Cost of beets is 72 per cent of the cost of sugar, according to the Federal Trade Commission reports. That big item has stood still."

"With sugar costing less than 8 cents a pound to manufacture, and selling in carload lots at from 11 1-2 cents up, there is a good profit for the manufacturers. Beets, on the other hand, last year, cost the growers \$1.06 an acre. They got an average of \$118.30 an acre for them. The average profit to each farmer was \$118. This is on the assumption that the average acreage was 10. Unless a man gives all his time to beets 10 acres is about his limit."

Holds Estimate Low

"When the beet growers at the (Continued on page 27)



Neighbors

BEET GROWERS: BE SURE TO ATTEND THESE BIG MASS MEETINGS!

Announcement is made by C. E. Ackerman that three big mass meetings will be held at the following places and on the dates named:

OWOSSO, TUESDAY, FEB. 24TH—CARO, WEDNESDAY, FEB. 25th—SAGINAW, MONDAY, MARCH 8TH.

The Saginaw meeting will be a "state round-up" and will come at the conclusion of the membership campaign. It is expected that this will be the largest mass meeting of farmers ever held in Michigan, and every angle of the sugar beet situation will be discussed. Speakers who will attend these meetings will include John C. Ketcham, president of the U. S. Beet Growers' Ass'n, C. H. Bramble, overseer of the Michigan State Grange, C. E. Ackerman, manager Michigan Sugar Beet Growers' Ass'n.; A. B. Cook, farm leader, and aggressive in present fight; Forrest Lord, editor Michigan Business Farming, and others.

Cong. Fordney Backs Down on Bean Tariff

Reported as Saying it is Useless to Introduce Measure at This Session of Congress

WHAT looks like a plain case of politics and "passing the buck" is Congressman Fordney's reported statement that he could "get a bill passed through Congress providing a higher bean tariff, but the president would veto it," and "he could not rally enough Democratic votes to over-ride his veto." The congressman's conclusions are, therefore, that it will be useless to introduce the measure, and that the bean growers must consequently continue to compete with the cheaply grown oriental product.

Well, Mr. Fordney, we are from Missouri, and we like to be shown. We folks back home are getting just a little bit tired of this game of "passing the buck" which the Republicans and Democrats have been playing for the last four years. Congress has consistently blamed the president for everything that has gone wrong and taken all the credit unto itself for everything that has gone right, and the president has had a habit of covering himself with glory over the successful outcome of his plans and of throwing the blame back onto Congress when his plans went awry. There simply isn't any such thing as pinning down responsibility any more, as the average type of office holder is so weak-kneed that he cannot bear the burden himself, but must needs shift it off on to others.

The Bean Tariff

When the delegates from the bean growing states presented themselves before the House Ways and Means Committee, they submitted indisputable evidence that the tariff on beans should be increased. The Democratic members of the committee, conspicuous among whom was Claude Kitchen, former minority leader, examined the proof very carefully, and were finally forced to admit the justice of the growers' claims. If there was any out and out opposition on the Ways

Price of Food Shows Big Drop

THE HIGH COST of living is actually on the downward trend. Prices of eggs, butter and potatoes are going lower weekly. Flour also is coming down—so markedly that the return of the 10-cent loaf of bread in the not too distant future was predicted today.

A 50-cent drop on a barrel of flour was recorded today in the wholesale market; carload lots selling for \$12.50, instead of \$13.

Eggs that retailed today at from 59 to 62 cents a dozen, were selling a few weeks ago at \$1, or over. Butter, which last December sold at 76 cents a pound, is today quoted at 66 to 70 cents, while the wholesale price of spuds, per 100 pounds is now from \$4.65 to \$4.85, as against \$5.25 to \$5.75 two weeks ago.

The bottom has not been reached on these commodities, dealers declared today. Fifty-cent butter is predicted within two weeks.

Decided drops in the prices of meats and provisions seem certain according to packers.—Chicago News Dispatch.

Other news dispatches carry the positive statements that there is no immediate prospect of lower prices on machinery, clothing, shoes and other manufactured products. Once more, Mr. Farmer, you are admitted to the Odorous Order of Goats. Advance and give the counter-sign.

and Means committee to the proposed tariff, it did not make itself manifest during the hearing. The committee left Washington with Congressman Fordney's positive assurance that "everything possible would be done" to speed the introduction and passage of a special tariff bill. The only proviso to this promise was that in case no general tariff bill were introduced at the present session. The committee took the congressman's word in good faith, and virtually leaving the entire matter in his hands, returned home. Since that time numerous letters have gone forward to Mr. Fordney inquiring the progress of the legislation, but such infrequent replies as have been received by MICHIGAN BUSINESS FARMING have been evasive and unsatisfactory.

Now the congressman says that it

is useless to introduce the bill. Why? Because he THINKS the president would veto it, and his efforts would be entirely futile. This statement will appeal to the average bean grower as the weakest kind of excuse for Mr. Fordney's defection in failing to carry out his promise to the growers and do the thing which his own judgment should tell him is in the interest of the majority concerned. We are naturally inclined to wonder just how great Congressman Fordney's influence is among his colleagues. We wonder if he really can muster enough votes to pass the measure? He says so, but there is no evidence to bear out his statement. The congressman reminds us of the man who made out a list of all the men in his town whom he thought he could lick. Casey heard that his name was on the list,

so we went to the booster and said, "I hear yez have my name down wid those whom yez kin lick. Be that thrue?" "Yis," said the other. "Well," rejoined Casey fiercely, "Yez can't lick me," "Are you shure about that?" say the other. "Yis, and I'll prove it to yez." "Well, if what yez say be thrue," says the bold man, "why, I'll scratch your name off the list."

We expect the bean growers to call the congressman's bluff just like that, and have him make good on his boast that he can get his measure through Congress, or else confess that he was just "talking through his hat" for the opportunity it gave him for adding censure to an already much-maligned and afflicted president.

Does the good congressman from the Eighth district think that his constituents would blame him, if after having done all in his power to get the tari bill through Congress, the president then vetoed it? We have never for a moment thought that Mr. Fordney would be able to change the policies of Pres. Wilson, and we are sure that the committee that went to Washington, of which the writer was a member, had no such idea in mind. In fact, the committee was well informed as to the possibility of a presidential veto, and it is no "news" to them that the president still exercises the power of veto, and still adheres to Democratic doctrines. Let Mr. Fordney perform his obvious duty which is to get this bill thru Congress irrespective of what action he may THINK the president will take upon it. Having done this his constituents will release him from obligations. But until he can convince them that he has made every reasonable effort to carry out his promise they will convict him in their own minds of playing politics and "passing the buck."

Interest is Keen in Business Farming's Straw Vote for President

ALTHOUGH M. B. F.'s straw vote for President has been running less than three weeks it has brought in several hundred returns, forecasting an intense interest in the presidential contest next fall. As is usually the case the vote has brought forth a number of surprises. Hiram Johnson leads in the race. Henry Ford is running a close race with Gen. Wood. Lowden shows little strength. Admirers of Wm. Jennings Bryan have sent in so many votes for that doughty political warrior that we feel under the necessity of adding his name to our list of candidates. It isn't supposed to be a popular thing to "be for Bryan," but the editor of M. B. F. isn't a bit ashamed to acknowledge that he has long cherished a secret liking for Mr. Bryan and a great admiration for his sterling personal qualities. (Please do not tell anybody about this. We might be accused of being a Democrat and a disciple of free silver.)

But to return to the straw vote, there are several "candidates" who do not seem to be in the running at all. Among these are Miles Poindexter, Gov. Harding, Gen. Pershing, A. Mitchell Palmer, Wm. E. Borah, Champ Clark. In our March 20th issue we shall drop all names from our ballot who have not received ten or more votes. Votes have been received for the following persons whose names have not been on the ballot: Wm. J. Bryan, Gov. Coolidge of Massachusetts, Eugene Debs, Robert LaFollette, Judge Gilbert Nations, John D. Rockefeller, Col. Goethals, Albert Beveridge.

We are in receipt of printed matter from several of the presidential candidates setting forth their views on national affairs. As space permits we hope to present these to our readers.

Below are a number of letters received from readers with reference to the presidential aspirants:

For Hoover

"In reply to your issue of Feb. 7th as to a candidate for president I

would place Mr. Herbert Hoover in first place. First, because he is a man, an organizer, and I believe he is not a politician. In saying this I do not wish to cast any reflections upon the present incumbent in the White House, because under the circumstances he has done nobly but has lost his health in pursuance of his duties. Second, he is an army man. By that I mean a man made prominent by the past war. Hoover is broad enough to elect a cabinet of men qualified as business men to administer their various departments with speed and efficiency. His platform consists of two words, "I serve." Since you have asked for the vote, Mr. Hoover has stated he is not a candidate, but I believe that if the people will prevail upon him he will accept the nomination. Personally I don't care what party places him as party counts but naught with a man who places country above the dollar mark.—Ralph Stewart, Cass County.

Nominates Goethals

"I see in my M. B. F. that you have started a straw vote for the next president. On looking down the line I fail to find the name of the men that ought to have that honor. May I beg of you to give him that vacant line that I see at the bottom.

General Geo. W. Goethals is one hundred per cent American, and there is no question but what 99 per cent of the men that ever worked under his supervision on the big ditch, or elsewhere, will not only vote for him but get out and work for him. They know he is all wool and a yard wide, and some to spare. We know he stands for nothing but a square deal, regardless of whom it hurts. Very few of the men that worked on the ditch any length of time that did not have some dealing with him in one way or another and they know he is true blue. Hoping to see his name in the next Cussey, Mecosta Count.

Admires Bryan

"There are, no doubt a number of good men listed, and perhaps would be excellent timber for the highest office in the United States. But as I see it, none of those whose names are included in the list have stood up for right and principle in as many good causes in which the voters had to decide in the last twenty years as Wm. Jennings Bryan. He has shown himself a champion for the people in bringing about legislature on more questions than any of those listed, and been found on the right side of the questions that have been settled by the voters in the last twenty years, than any one man that I know of, and even that much hooted-at idea of 16 of silver, to one of gold, of bygone days seems to have come out to his credit since Uncle Sam is converting so many silver dollars into bullion and given us so many new silver certificates to do business on instead. Then his stand on peace between nations I think is admirable, although men yelled like mad at the thought of those trying to settle the trouble between the nations of the world in any other way, than in the war that has cost us so much in life and limb, not to speak of suffering and money that had to be given by those engaged in its prosecution and are still suffering on account of the high cost of living, brought about, not by peace, but as a result of war, and will continue until peace is finally established between the nations again.

"Then prohibition of the liquor traffic, election of senators by direct vote of the people, and many other good things brought about by legislation in state and nation had the help and support of Mr. Bryan; and woman suffrage, which is sure to come soon, is, and has been, staunchly supported by the Commoner and will be largely due to his help and leadership. —A. F. Brown, Alcona County.

Clip the coupon NOW or when you renew your subscription. Don't fail to vote.

CLIP THIS COUPON

My Choice for President

I AM interested in the character of the man who is to be the next president of the United States, and have indicated my choice below:

William E. Borah <input type="checkbox"/>	Herbert F. Hoover <input type="checkbox"/>	Frank Lowden <input type="checkbox"/>
Wm. Jennings Bryan <input type="checkbox"/>	Miles Poindexter <input type="checkbox"/>	Wm. G. McAdoo <input type="checkbox"/>
Champ Clark <input type="checkbox"/>	Wm. H. Taft <input type="checkbox"/>	A. Mitchell Palmer <input type="checkbox"/>
Henry Ford <input type="checkbox"/>	Woodrow Wilson <input type="checkbox"/>	John J. Pershing <input type="checkbox"/>
Gen. G. W. Goethals <input type="checkbox"/>	Leonard Wood <input type="checkbox"/>	
Warren G. Harding <input type="checkbox"/>	Hiram Johnson <input type="checkbox"/>	

Do you favor extension of government operation of railroads for two more years (yes or no) Do you favor the submission of the warehouse amendment?

M
If your candidate is not listed above write in name.

Gasoline Interurban Car is Nearing Completion

Ford Interests at Dearborn Receive First Body Assembly to be Used in Trial Run
on M. C. R. R.—Detroit to Chicago

WONDERS after wonders have been occurring in the machine age of the last few years, fairly revolutionizing many branches of industry. Agriculture has been undergoing a change as great as any other business. The automobile, the truck, the tractor, improved farm machinery of all sorts and better mechanical devices for the house, the dairy, etc., all these and many more have arrived in such rapid succession that a farmer is not easily surprised any more at some new marvel of machinery.

But now Henry Ford comes along with something which is creating a real stir in all lines of business. It is the making of a gasoline propelled interurban car, which can haul long chains of freight cars and passenger cars as well. Just as the nation's highways have been thronged with "tin Lizzies," just so the prophecy is that the rail lines may be crowded with busy gasoline motor transports. Inasmuch as transportation is one of the greatest problems of agriculture, (farmers pay more than half the nation's freight) this announcement is of greatest importance.

Detroit newspapers have been lauding the plans for this new device as a salvation for the car shortage, not only in the cities but between cities as well. Quantity production can be assured by such a great manufacturing concern as has taken over the project.

The body for the first of the internal combustion engine-driven interurban cars, which are to be built by Henry Ford & Son, at their Dearborn plant, arrived recently from the shops of the G. C. Kuhlman Cor. Co., Cleveland, according to the *Michigan Manufacturer & Financial Record*.

The power plant which has been on the testing block undergoing the most vigorous tryouts the last two months, has more than measured up to expectations, according to that publication. The trucks for the first car have been completed. So that it is probable that the car's trial run from Detroit to Chicago, in front of the Wolverine Flyer, on the Michigan Central Railroad, will be staged shortly.

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Henry Ford and the Development of Agriculture



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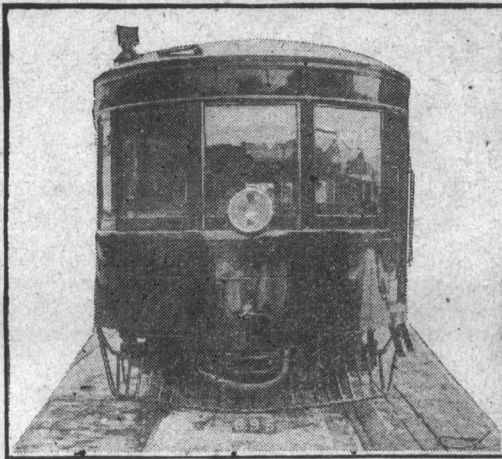
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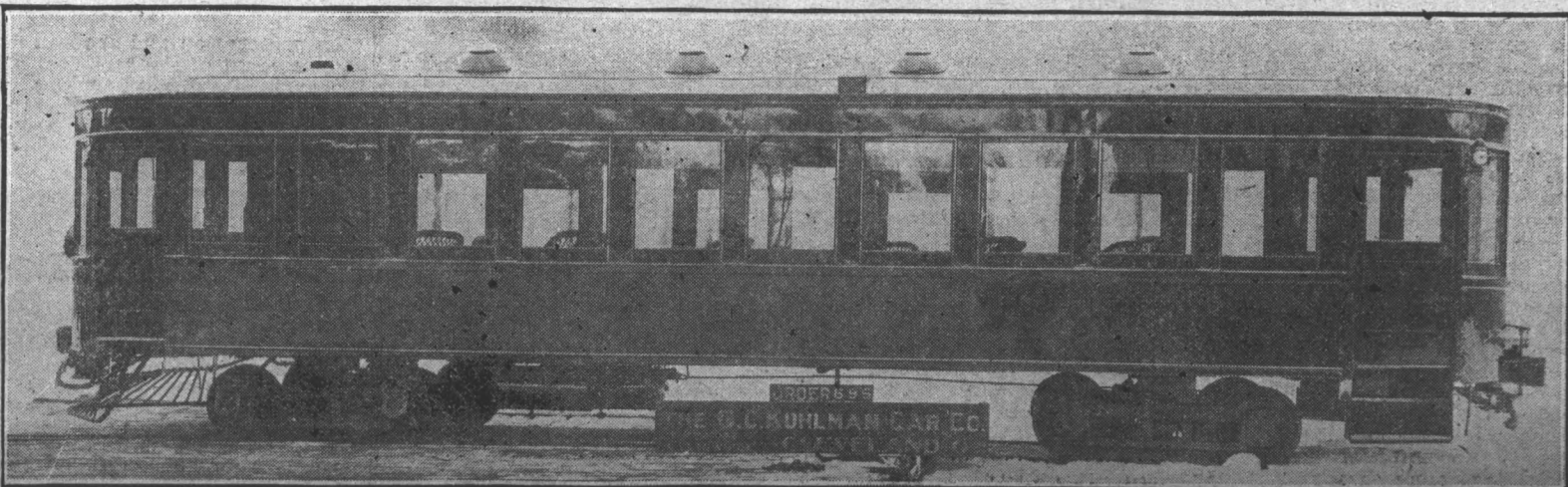
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Mr. Ford's chief engineer added that it was his conviction that steam railroads would be among the first

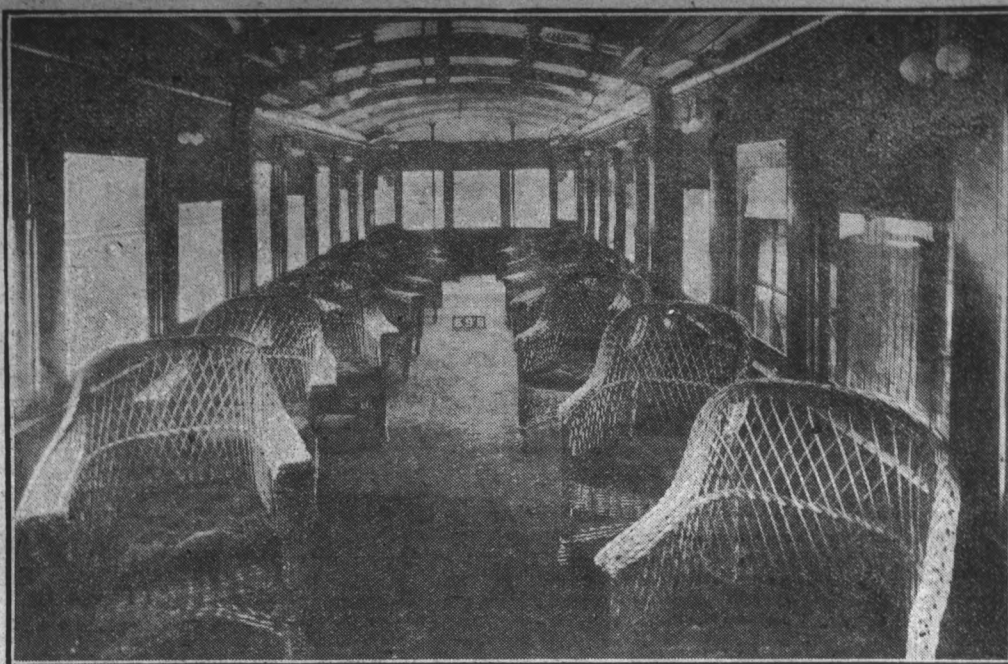
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For suburban traffic, Mr. Sorenson pointed out the cars possess the signal advantage of mobility—that is to say, the fact that they operate in single units would make their use particularly advantageous where a

large number of trains were being operated. Their marked economy over steam locomotives, which consume a large part of the power they generate in pulling their own weight," was another vital factor.

"I can take this car from New York to San Francisco with only one filling of gasoline," said Mr. Sorenson. "Can any other power unit give that kind of result? Figuring on the basis of five miles to the gallon of gasoline, it would require 600 gallons of fuel for a transcontinental run. That is only 4,200 pounds at the start, and when you figure the weight saved in a car that weighs only eight tons, where some interurbans weigh 34 tons, that doesn't seem at all prohibitive."

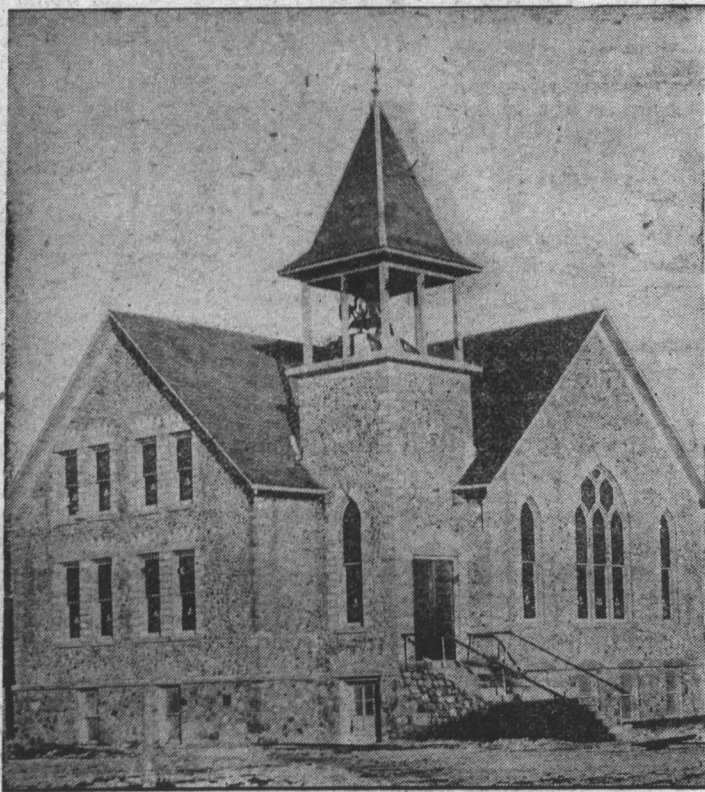
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Interior view of the Ford interurban car.

Are We Witnessing the Passing of the Little Country Church and Pastor?

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"Let not the spiritual and religious spirit that has been fostered for centuries in the little country church, fade and die away."

IF IT BE "that the roots of the religious and moral life of the nation are chiefly in the country church," rural communities are in a fair way to degeneracy, and are becoming means to its downfall, says the Literary Digest. At least this is the conclusion naturally drawn from a three years' survey of Ohio by the Commission on Church and Country Life of the Federal Council of the Churches of Christ in America, which reveals that the countryside is overstocked with churches, too sparsely provided with ministers, and that many of these too-few pastors have been selected without regard to qualification. The result is demoralization of churches and people alike. But where the evil has been recognized and the remedy of interchurch comity and co-operation applied, spiritual awakening has resulted. Having effected cures in particular instances, the commission suggests general application of the remedy.

The results of the survey are summarized in a volume called "Six Thousand Country Churches" (Macmillan) by Charles Otis Gill and Gifford Pinchot. In Ohio more than 4,500, or 66 per cent, of the rural churches have a

member-ship of one hundred or less; more than 3,600, or 55 per cent; have a membership of 75 or less; more than 2,400 or 37 per cent., a membership of 50 or less. Because of the system under which pastors are changed frequently and the divided effort of the ministry among various widely separated churches, the people who live in the rural districts in Ohio receive too little pastoral service. The pay of the

country ministers is small; the support of the church is meagre. In 1917 the majority of the ministers of the largest denomination received less than \$1,100 each, while the average was \$857 and free use of parsonage.

"A most striking illustration of the churches' inefficiency may be found in southern and southeastern Ohio. Here, in a region covering at least eighteen counties, the failure of the churches may fairly be called pathetic. These counties are: Adams, Athens, Brown, Clermont, Gallia, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross, Scioto, Vinton and Washington. In this area, after more than a hundred years of the work of the churches, the religious, social, and economic warfare of the people are going down. Although the churches have been here for more than a century, no normal type of organized religion is really flourishing, while the only kind which, during the past fifteen years, has been gaining ground, the cult of the Holy Rollers, is scarcely better than that of a Dervish. The churches have failed, and are failing, to dispel ignorance and superstition, to prevent the increase of vice, the spread of disease,

and the general moral and spiritual decadence of the people. . . . In no fewer than twelve out of the eighteen counties, the death-rate from tuberculosis is excessive. Reports of the Ohio Bureau of Vital Statistics for the years 1909, 1910, and 1911 (the latest we could secure on the subject) give the average annual rate from this disease for 100,000 persons, as 125 for the whole state. Of the seventeen counties in the state whose death-rate from tuberculosis is 145 or over, all but five are in this region, and of the five one is a bordering county. . . . The number of illegitimate births in the eighteen counties is likewise excessive. The rate per 100,000 population for the state is 43.9. Of the twenty-eight counties whose rate is above the average, nineteen, or 68 per cent., are either in the eighteen counties or bordering on them. No fewer than thirteen or more than two-thirds of the eighteen counties, have an excessive number of illegitimate births. . . . Illiteracy also in the eighteen counties is excessive. The percent of illiterate males of voting age for the state in 1910 was 4.2. There are twenty-nine counties in which that number was exceeded. Of these, fourteen are among the eighteen counties, and five border on them."

These statistical data "do not overstate the urgency of the appeal from the unfortunate overchurched and underministered communities of this section," for "here gross superstition exercises strong control over the thought and action of a large proportion of the people." Immorality, intemperance, and crime are declared to be rife; politics corrupt, and schools badly managed and poorly attended.

As in the eighteen counties some of the older and stronger denominations are well represented—no fewer than 526, or more than one-third of the total number of churches being Methodist Episcopal—"it is evident that the failure of the churches in this area can not be laid to the weakness or poverty of the denominations represented, for they are for the most part neither weak nor poor." On the other hand, "in rural Ohio the worst moral and religious conditions are found where there are the largest number of churches in proportion to the number of inhabitants."

As to the proportion of pastors to population:

"There are twenty-four counties in Ohio in which there are more than 1,000 persons for each resident minister, of which thirteen are among the eighteen counties under consideration and three among the bordering counties. Noble county has a resident minister to every 1,240 persons; Gallit to every 1,396; Lawrence to every 1,450; Pickaway to every 1,458; while Hock-

ing has only one to 1,693, or nearly 1,700 persons."

Here, "as in most rural sections, an absentee ministry is necessarily ineffective." As we read in explanation:

"While the preaching of a good pastor is an indispensable factor in the individual development of his parishioners and in the progress of community life, that of the non-resident is by comparison of little value. It is shooting in the air without seeing the target, like the fire of artillery without the aid of air scouts. There is no greater force for righteousness in a country community than a church with a resident minister, well educated, well equipped, wisely selected, whose term of service is not too short."

"The right kind of resident minister will have a strong and intelligent desire to secure opportunities for the best development of his children and to create a favorable environment for them. He will, therefore, take a keen interest in the schools, in the establishing of libraries, in play and social life, in keeping out evil influences and promoting general decency."

Having thus diagnosed the ailment from which the rural church is suffering, the commission then proceeds to its program for cure. The ministry must be better educated, and more care should be used in selecting pastors for this particular kind of work. Church and minister must receive more support, which, in most instances, the farmers are ready to give. Circuits must be so arranged that the pastor may have more time for each church and congregation. Parishes must be made more compact, and in every township at least one resident minister should be established. Co-operation should be substituted for competition, and this co-operation where necessary, should take the form of a community or federated church. The writers say:

"In view of the urgent needs of the rural communities, as a rule, those methods should be adopted which are most acceptable to the local people whose interests are involved. When the people of a community come to desire united Christian action in promoting community welfare, their zeal will usually be strong enough to overcome the difficulties in the way. But this desirable consummation is greatly retarded where opposition is made by the denomination or its officials. Until the church officials and denominations are able to propose some other practicable plan for the readjustment of church life to community welfare, a plan which can be carried out, the demands of the situation certainly require them to help rather than hinder the movement for the formation of federated churches. In any event they will not be able to stop it."

Gasoline Interurban Car is Nearing Completion

Ford Interests at Dearborn Receive First Body Assembly to be Used in Trial Run
on M. C. R. R.—Detroit to Chicago

WONDERS after wonders have been occurring in the machine age of the last few years, fairly revolutionizing many branches of industry. Agriculture has been undergoing a change as great as any other business. The automobile, the truck, the tractor, improved farm machinery of all sorts and better mechanical devices for the house, the dairy, etc., all these and many more have arrived in such rapid succession that a farmer is not easily surprised any more at some new marvel of machinery.

But now Henry Ford comes along with something which is creating a real stir in all lines of business. It is the making of a gasoline propelled interurban car, which can haul long chains of freight cars and passenger cars as well. Just as the nation's highways have been thronged with "tin Lizzies," just so the prophecy is that the rail lines may be crowded with busy gasoline motor transports. Inasmuch as transportation is one of the greatest problems of agriculture, (farmers pay more than half the nation's freight) this announcement is of greatest importance.

Detroit newspapers have been lauding the plans for this new device as a salvation for the car shortage, not only in the cities but between cities as well. Quantity production can be assured by such a great manufacturing concern as has taken over the project.

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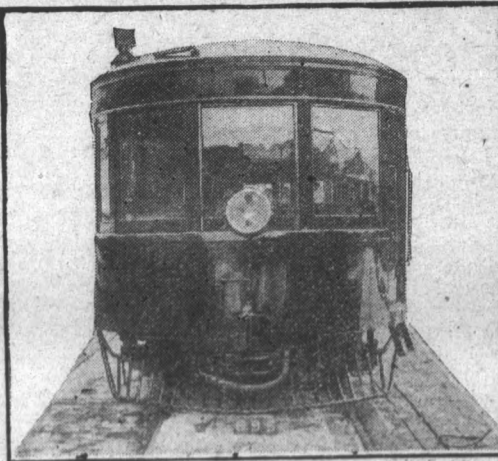
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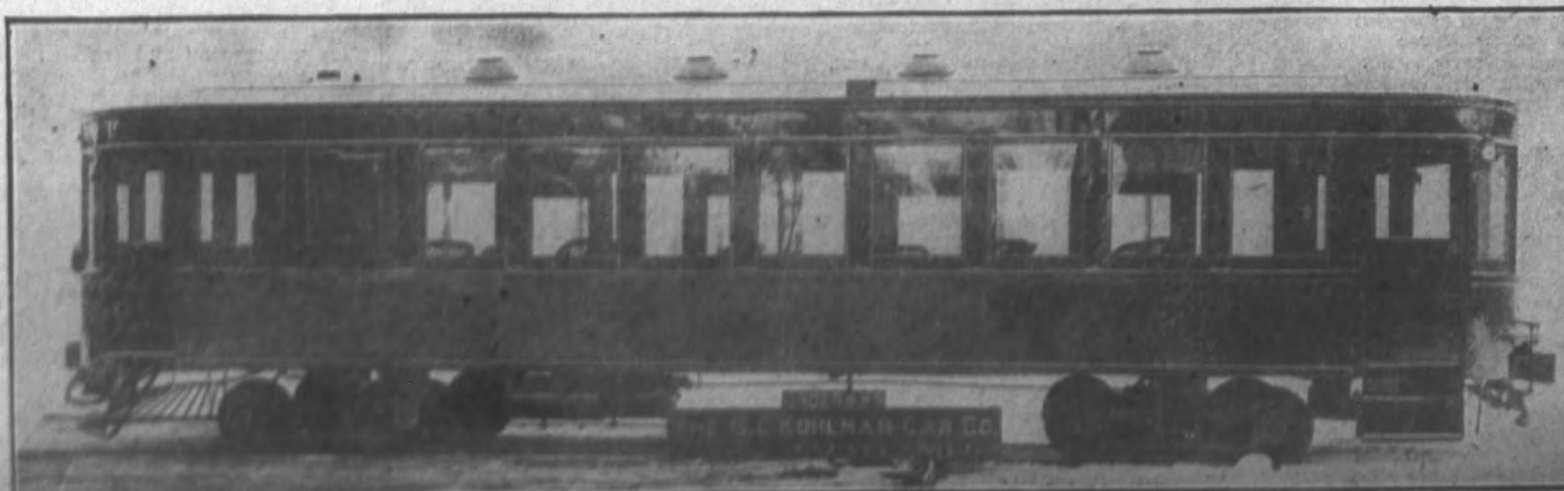
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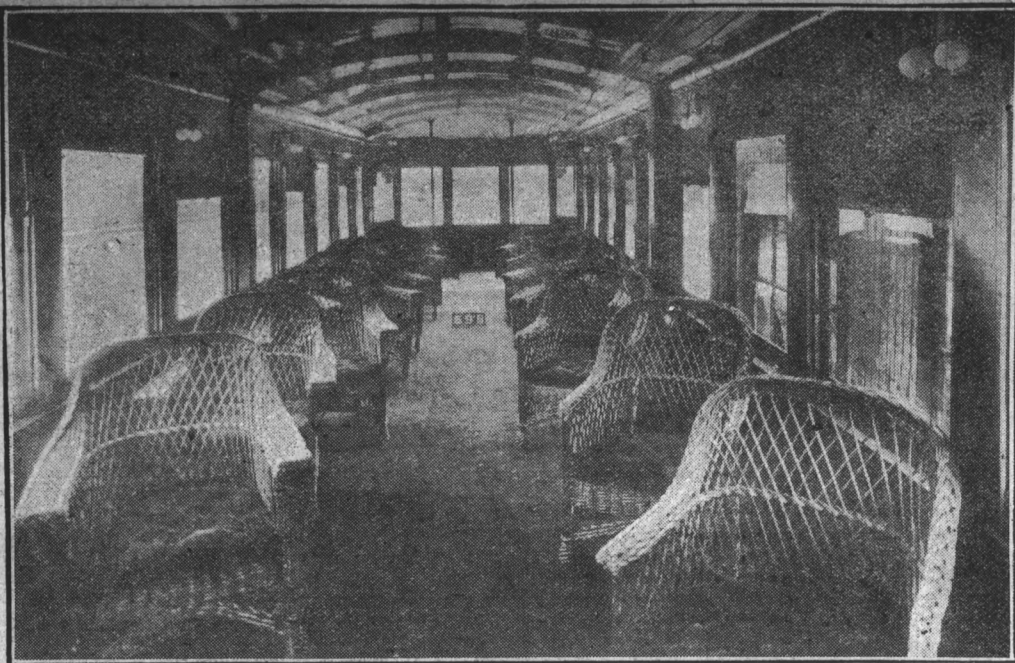
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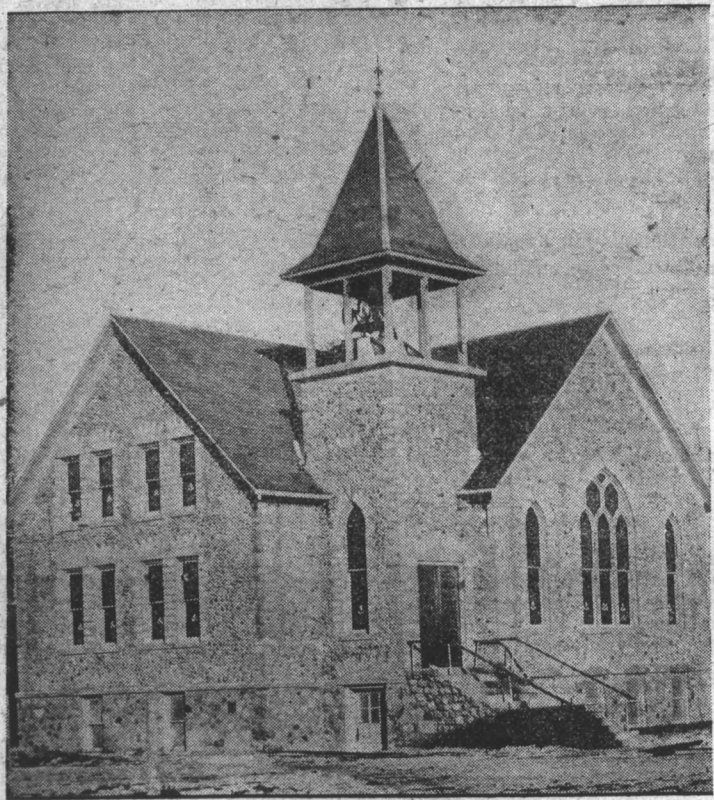
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membership of one hundred or less; more than 3,600, or 55 per cent, have a membership of 75 or less; more than 2,400 or 37 per cent, a membership of 50 or less. Because of the system under which pastors are changed frequently and the divided effort of the ministry among various widely separated churches, the people who live in the rural districts in Ohio receive too little pastoral service. The pay of the

country ministers is small; the support of the church is meagre. In 1917 the majority of the ministers of the largest denomination received less than \$1,100 each, while the average was \$857 and free use of parsonage.

"A most striking illustration of the churches' inefficiency may be found in southern and southeastern Ohio. Here, in a region covering at least eighteen counties, the failure of the churches may fairly be called pathetic. These counties are: Adams, Athens, Brown, Clermont, Gallia, Highland, Hocking, Jackson, Lawrence, Meigs, Monroe, Morgan, Noble, Pike, Ross, Scioto, Vinton and Washington. In this area, after more than a hundred years of the work of the churches, the religious, social, and economic welfare of the people are going down. Although the churches have been here for more than a century, no normal type of organized religion is really flourishing, while the only kind which, during the past fifteen years, has been gaining ground, the cult of the Holy Rollers, is scarcely better than that of a Dervish. The churches have failed, and are failing, to dispel ignorance and superstition, to prevent the increase of vice, the spread of disease,

and the general moral and spiritual decadence of the people. . . . In no fewer than twelve out of the eighteen counties, the death-rate from tuberculosis is excessive. Reports of the Ohio Bureau of Vital Statistics for the years 1909, 1910, and 1911 (the latest we could secure on the subject) give the average annual rate from this disease for 100,000 persons, as 125 for the whole state. Of the seventeen counties in the state whose death-rate from tuberculosis is 145 or over, all but five are in this region, and of the five one is a bordering county. . . . The number of illegitimate births in the eighteen counties is likewise excessive. The rate per 100,000 population for the state is 43.9. Of the twenty-eight counties whose rate is above the average, nineteen, or 68 per cent., are either, in the eighteen counties or bordering on them. No fewer than thirteen or more than two-thirds of the eighteen counties, have an excessive number of illegitimate births. . . . Illiteracy also in the eighteen counties is excessive. The percent. of illiterate males of voting age for the state in 1910 was 4.2. There are twenty-nine counties in which that number was exceeded. Of these, fourteen are among the eighteen counties, and five border on them."

These statistical data "do not overstate the urgency of the appeal from the unfortunate overchurching and underministered communities of this section," for "here gross superstition exercises strong control over the thought and action of a large proportion of the people." Immorality, intemperance, and crime are declared to be rife; politics corrupt, and schools badly managed and poorly attended.

As in the eighteen counties some of the older and stronger denominations are well represented—no fewer than 526, or more than one-third of the total number of churches being Methodist Episcopal—"it is evident that the failure of the churches in this area can not be laid to the weakness or poverty of the denominations represented, for they are for the most part neither weak nor poor." On the other hand, "in rural Ohio the worst moral and religious conditions are found where there are the largest number of churches in proportion to the number of inhabitants."

As to the proportion of pastors to population:

"There are twenty-four counties in Ohio in which there are more than 1,000 persons for each resident minister, of which thirteen are among the eighteen counties under consideration and three among the bordering counties. Noble county has a resident minister to every 1,240 persons; Galit to every 1,396; Lawrence to every 1,450; Pickaway to every 1,458; while Hock-

ing has only one to 1,693, or nearly 1,700 persons."

Here, "as in most rural sections, an absentee ministry is necessarily ineffective." As we read in explanation:

"While the preaching of a good pastor is an indispensable factor in the individual development of his parishioners and in the progress of community life, that of the non-resident is by comparison of little value. It is shooting in the air without seeing the target, like the fire of artillery without the aid of air scouts. There is no greater force for righteousness in a country community than a church with a resident minister, well educated, well equipped, wisely selected, whose term of service is not too short."

"The right kind of resident minister will have a strong and intelligent desire to secure opportunities for the best development of his children and to create a favorable environment for them. He will, therefore, take a keen interest in the schools, in the establishing of libraries, in play and social life, in keeping out evil influences and promoting general decency."

Having thus diagnosed the ailment from which the rural church is suffering, the commission then proceeds to its program for cure. The ministry must be better educated, and more care should be used in selecting pastors for this particular kind of work. Church and minister must receive more support, which, in most instances, the farmers are ready to give. Circuits must be so arranged that the pastor may have more time for each church and congregation. Parishes must be made more compact, and in every township at least one resident minister should be established. Co-operation should be substituted for competition, and this co-operation where necessary, should take the form of a community or federated church. The writers say:

"In view of the urgent needs of the rural communities, as a rule, those methods should be adopted which are most acceptable to the local people whose interests are involved. When the people of a community come to desire united Christian action in promoting community welfare, their zeal will usually be strong enough to overcome the difficulties in the way. But this desirable consummation is greatly retarded where opposition is made by the denomination or its officials. Until the church officials and denominations are able to propose some other practicable plan for the readjustment of church life to community welfare, a plan which can be carried out, the demands of the situation certainly require them to help rather than hinder the movement for the formation of federated churches. In any event they will not be able to stop it."

Causes and Effects of Foreign Exchange Fall

Results of Balance of Trade Working in America's Favor and the Flooding of Europe With

Paper Money and Huge Financial Burdens

By VERNE E. BURNETT

WHERE are we going to come out in all this financial and commercial mix-up with foreign countries, one is likely to ask these days when there is so much in the papers about the foreign exchange dropping almost daily. The fate of numerous kinds of grains and produce seems to hang upon foreign conditions, as to prices, and geography runs amuck in the financial and business world as never before. In fact a farmer or any other business man will do well these days to get a pretty fair idea of how the wind blows in regard to such things.

Although there is much to be said about money, its quantity, comparative values and so on, the world has been for too long a time thinking of international trade in terms of dollars and cents, pounds, marks, francs and lire. The period of reconstruction has brought with it the keen realization that it isn't the money which counts so much after all. It is the exchange of goods that rules business. Money is merely a sign or medium of exchange for the immense quantities of goods which are being bartered off between persons and countries.

Well then, how about this trading of goods? It is all in the favor of the United States and has been for years. Today the results are being reaped in full measure, and in sudden jumps, because it is hard for the world to break away from its old ideas in regard to such things as money and trade. An expression, now pretty widely known, has been created under the name of "balance of trade." That means, for example, if the United States exports eight billion dollars worth of goods last year and it imports only four billion dollars' worth, then our balance of trade for last year was the remainder, or four billion dollars. This balance of trade is in a way to be considered as national profit, because foreign countries are obligated financially to us twice as much as we are to them.

The balance of trade in America's favor started on a grand scale early in the war. It has continued and increased during much of the past year showing little sign of let-up. Therefore, one can see an outstanding reason for the tremendous strength of the American dollar on the money exchanges of the world.

The 1919 custom house figures showed a total of exports from the United States of 7,922 millions of dollars, compared with imports totaling 3,904 millions of dollars, leaving us a favorable balance of trade of 4,018 millions. That sum is truly enormous, and should at least temporarily bolster the international credit of any nation to a high pitch.

There is another element which makes German marks, French francs and other European money almost worthless when compared with the dollar of the United States. This country loaned to Europe approximately nine billion dollars during the war. That means that every man, woman and child in this whole great country of ours has loaned just \$90 to Europe and is the creditor, collectively, for interest upon that amount.

The interest upon that sum annually is about half a billion dollars, due to the United States, and thus it can be seen that some countries in Europe are having tough sledding merely to pay the interest on their debts, to say nothing of paying back the principal.

Inasmuch as it is the world problem now confronting us, we will glide over the conditions in our own country which we know fairly well, and turn the searchlight upon the foreign nations who buy our grain and goods of all kinds. We do not find a world all in tatters, nor yet is it one with much wealth. It is rather mottled picture. Europe had its war profiteers who are now little afraid of letting everyone know of their great riches. Noblemen have sold lands to be subdivided and are flush in many cases. People interested in the cotton cloth industry in Manchester, England, have been

making 90 per cent profit on their investment. The housing problem is far worse in Europe than in America and in many communities production is going forward full blast and prosperity is evident.

But analyze the situation more closely, country by country and you find many factors which cause a doubt as to Europe's ability to pay back to America the enormous war debts plus interest, and at the same time restore the balance of trade and the foreign exchange. Foreign exchange is the expression used to cover the system of comparative values of money. To Americans it means how much the various kinds of foreign money are worth in dollars and cents. For many years the foreign exchange had held firm, before the Great War, and it greatly aided international trade. But now it is the lowest since the Napoleonic wars about a hundred years ago, thus greatly upsetting business.

Great Britain, the biggest and strongest foreign power, is the best fixed of the powers in the war, outside of America. But even Great Britain is having its difficulties. The British pound, formerly worth nearly five dollars, is now worth only a little over three, and still fluctuating sharply. England like other European countries has seen itself fairly flooded with paper money and the gold supply seems to shrink. Even the United States has far more paper money in circulation than ever before—four times as much as before the war, we are told.

England is sorely perplexed with the Irish question, and Ireland in many parts seems to be seething in preparations for an upturn. The British intend to pay the United States all right, no matter how gloomy her outlook may seem. Her whole spirit of gameness was voiced in a statement by a young London bank clerk who came to the office

one morning with many smiles. "The value of the pound has gone up two points in New York," he said to an outsider. The British are confident that their old power will come back some of these days in trade and they will be able to pay off the debts.

The British lost millions of tons of shipping during the war, due to the submarines, and America has gone ahead by leaps and bounds, until there is not so very much difference in the relative strength of the merchant marines of the two powers. The advantage of a strong American marine has been strongly demonstrated during the past year when shipping bottoms were mighty scarce and American grain and goods could be moved and sold while other nations had to wait in line as shipping was rationed out. But Great Britain is building many ships today. Three per cent of her men are reported as unemployed. It might be far worse, considering the demobilization of her great armies, but it might be better.

In general, Great Britain, exhausted though she is by war, has a bright outlook compared with European neighbors. None of the British machinery was ruined by war. She has all her plants running, most of them full blast. Nobility, which used to shun work, has taken to it in earnest. And a mad riot of spending indicates that there must be plenty of money, although some say it is due to a don't-care spirit—"eat, drink and make merry, for tomorrow we get taxed to death." The \$90 owing to each American is pretty safe so far as England is concerned, according to the general outlook.

France is a nation which has fooled experts many times. It is necessary to go back to history to show the character of France. After the great French Revolution, ending in

the wars under Napoleon, the world decided that France was so exhausted that she could never again rise as a power. But she immediately rose among the rest as a financial and political power. Following the war of 1870 when the Germans swept into Paris and a bloody revolution occurred in the gay capital, the world decided that it was probably all up with France and she could never pay the enormous indemnity which the Kaiser demanded. But France in her thrifty, genial way went to work with a will and in a few years dug up enough to clear all the German debt.

Though Frenchmen have plenty of liquor, it is seldom a Frenchman can be found staggering. They drink slowly of the cheap red or white wines, when they finish a hard day's work. The middle-aged and old men who lived on their incomes before the war have gone to work now—their incomes are too small and besides jobs have had to go a-begging. The young women work, whereas they used to live at home. France is thrifty, and although the northern industrial belt is ruined by the German invasion and retreat, there seems to be hope for great prosperity in the future.

The tourist trade is bound to boom up big. The wines, denied an American market, have South America and British Empire markets which are buying more than ever before. Agricultural France has a ready market for all it can produce and her factories are beginning to roar again.

Belgium, although deprived of much machinery because of the German invasion, has got many of her factories to running again. She is overwhelmingly an industrial nation and she is sincerely at work, comparatively free from strikes. There is some labor unrest, but it has not been so big as painted. And there is great loyalty to King Albert and the government.

Germany is going lower and lower in regard to the foreign exchange. The mark, formerly worth between twenty and thirty cents, is now worth slightly over one cent. Bloodshed in the streets of Berlin, riots, isolation from the rest of the world in nearly every way, the Bolshevik menace from Russia—all these factors make for a poor rate of exchange for Germany money. But the Germans are a most thrifty people possessed with great vigor, and the likelihood of future prosperity, though perhaps far off, is quite probable. She has her factories almost intact and is building up the depleted transport and maritime activities. Italy is about as hard up financially as any of the nations right now. Her interest on debts equals her total national income before the war, and the value of the lire is very low. Russia is regarded with suspicion by nearly all other governments and exchange is hazardous in that sector at present, although enormous potential prosperity might be Russia's, once organized permanently.

Only the high spots could be touched upon, in attempting to cover so great a subject in so small a space. It is hard to believe that anything but general prosperity will return when the wounds of war are healed. Peace and prosperity are the normal conditions, and war and reconstruction, the abnormal. Other great wars have appalled the world and pessimists believed prosperity could never return to former heights. Yet prosperity has gradually grown higher and higher. Revolution and panics may yet sweep over the world before the reconstruction will have spent its course as the aftermath of war. But before long, prosperity must return. It is well to be cautious of bad conditions which are entirely possible on the immediate horizon, but speaking with a deeper vision, there is no need of facing what's coming with a long face. And that bugaboo, the foreign exchange, in its downfall, may well be regarded as a barometer showing the business and trade supremacy of our own country over the rest of the world.

Lupine, the Wonder Soil Builder

(The recent articles in M. B. F. on Carl Schmidt's success with crops on sandy lands have brought forth many inquiries from our readers as to the manner of seeding, etc., of lupine and seradella. At our request Mr. Schmidt has supplied us with the following interesting facts.)

LUPINES will grow under conditions no other legume will, i. e., in soil that is practical clear sand, also in soil that has practically no lime. And although it is only an annual, it is very quick growing and also very deep rooting. Because of these reasons it is valuable in fitting barren lands for future use, getting lands ready for a clover catch and building up worn out land on which clover will not grow any longer.

It can be seeded with oats or barley in spring, in this case I prefer to give the oats and barley a good start by sowing the lupines several weeks later than the grain planting. The reason for that is, that when the lupines are planted with the grains, they grow too rapidly, and when the grain is mowed, the lupines are also cut down and they do not recover well from this check.

I have also planted lupines immediately after mowing the grain crop. I have found it desirable to set up the sheaves in long rows following the binder with the disc harrow, then rolling and immediately drilling the lupine seeds. If possible I would drill in the afternoon, where I mowed in the morning.

Sandland should be kept working and shaded as much as possible, as the midsummer's hot sunrays are destructive to the bacterial soil life. Most soils do not need inoculation for this plant, the nodules usually forming quickly and growing to considerable size. In following this method I have found it advisable to allow the plants to grow, until quite severe frosts freeze them down and ploughing the plants under between frosts.

I have also found the plant very valuable in sowing with fall wheat and rye. It makes a growth of six to eight inches, freezes down, acts as a protection against the winter colds, and holds the snows splendidly. It can be used for pasturing, but I do not advise this, nor do I advise cutting the plants for hay, as the seed sometimes develops a dangerous poison, particularly for hogs, although some European farmers have used it for years without ill effect. But its main value is to start growth in barren soils, to bring the soil bacteria into activity and provide humus.

I have used twenty to thirty pounds, per acre, and prefer a mixture of the blue and white blossoming plants. It differs very much from other legumes by producing a heavier crop each year that it is planted in succession.

The resultant green mass is heavy, I have found no other legume to equal it in this respect. I cannot give the approximate green mass weight, as I have always plowed the plants under, and never weighed them. It will be necessary in most cases to use a chain on the plough to turn it under, I have found it cheaper before the war to buy the imported seed than to try and raise it. In later years Nungessen, Dickinson & Co., of Hoboken, furnished me with the seed.

Regarding Seradella my experiments have not been carried on long enough to justify my advising regarding same. But the lupine I can say that it will justify its use in making apparently useless lands useful and fair soils better—Carl E. Schmidt.

How I Have Made a Success of Farming in Western Michigan

Drainage, Crop Rotation, Live Stock Production as Practiced in Missaukee County

By A. M. SMITH

President Michigan Potato Growers' Association

HOW CAN I make a profit at general farming in Western Michigan is a most serious and practical question which has been asked by thousands of farmers in this district and for a good many there has been no satisfactory answer. Many of these have undertaken farming with handicaps too great to overcome, for instance, some have settled on poor land such as jack pine plains, or light pine stump land and without capital have tried to make a home out of almost nothing. Failure sure and heartrending is bound to be the lot of such as a rule. The man who can succeed in the face of such conditions is rare indeed.

Banking conditions have made it very hard for many settlers in Western Michigan. Many of the banks take a discount of 5 per cent and charge 7 per cent interest, making loans cost 12 per cent. Farming is a business where profits are too small to stand such a drag on the business. And so the result has been that the banks have grown rich and the farmers have remained poor.

Then there have been drought and pestilence such as grasshoppers, and frosts spring and fall and altogether the lot of the West Michigan farmer has been anything but rosy.

But in spite of all these drawbacks many farmers have been successful and will continue to be more successful as experience shows them the way to avoid and overcome the mistakes and difficulties of the past and originate new methods and plans for the future. There are certain fundamental conditions to success which I would in the first place set forth. Of course it is not necessary to mention that the personality of the individual is fundamental and that such characteristics as industry, frugality, thrift and honesty, must be inherent in the man who would be truly successful. And there is really no sense in a man attempting to make a real success farming on jack pine plains or cultivating big pine stumps as they produce no crop.

To the man who wants to farm successfully in Western Michigan, I would say first of all get hold of a good piece of land; not less than 80 acres and more if possible up to at

least 160 acres. And this is easily done as there are many thousands of acres of land in this great territory still unoccupied and partly improved which may be purchased on your own terms, if you will look until you find what you want. By good land I mean, clay loam, or heavy sand loam soil underlaid with clay subsoil which is near enough to the surface so that overturned trees bring up the clay.

There may be other types of soil in Western Michigan on which a man may be successful, but in this article I am giving my own views and experiences of the kinds of soil most to be desired.

Then I would obtain lands with slight natural drainage and avoid low and swampy districts on account of dangers from frosts. Having obtained the kind of land most desirable, the lines of farming to be followed to make a success are very simple.

A good crop rotation consists of a cultivated crop such as corn or potatoes, followed by oats with which clover and timothy or alfalfa or alfalfa should be seeded. On this sod before plowing it a coating of stable manure should be spread in moderate amount with a spreader if possible and best results are usually obtained from fall plowing. Crops of potatoes should constitute the money crops from the farm and irrespective of all drawbacks and discouragements should be followed year after year to the limit of the farm to produce and the ability of the farmer to handle.

"My System of Farming"

WHAT IS your system of farming? Of course you follow the regular methods of fertilizing, crop rotation, etc., that have been demonstrated to be correct, but isn't there something you have discovered yourself about a particular method—some new wrinkle—that has increased your yield and your profits. If there is, why not tell M. B. F. readers your experience. It may help them to overcome some problems of their own. Here are some suggestions for you to follow: "How I drained the Back Forty," "How I drove out the Quack Grass," "How I increased my Yield of Oats," "My system of Crop Rotation," etc. Tell us about them—Editor.

Then a herd of dairy cows should be kept. By dairy cows I mean real dairy cows, and purebreds if possible. What breed? Why of course the one you like the best or the one most popular in your district. For myself I like the Guernseys, as they are a cream and butter breed and as butterfat is the only dairy product sold in our county, I want what I consider a good machine for its economical production. Until purebreds can be obtained, high grades headed by a purebred bull are next best. The heifer calves from the dairy should always be raised and kept until they freshen, when any surplus can be disposed of by selling the most undesirable one. For a number of years there has been a great demand at increasing prices for good dairy cows and the writer has found that the raising of dairy cows for market has been much more profitable than the raising of beef steers. The male calves from grade dairy cattle are as a rule not profitable to raise and it usually pays best to dispose of them when they first come in the best way locally. The skim milk in excess of what is used for raising calves should be fed to pigs as they will prove more profitable than male calves.

In some localities winter wheat is being grown and possibly profitably follows oats in a rotation before seeding to the clovers. A corn crop sufficient to fill the silo and a few acres besides, according to varying conditions should always be grown in the rotation and then you have the sys-

tem of farming which I believe most profitable in Western Michigan for the average farmer.

Thus in a nutshell I would say, if you want to make money on good land in Western Michigan, you can do it by growing potatoes as a money crop, by selling your butterfat and hogs to provide revenue for current expenses and by growing as much of your own feed for the dairy as you possibly can. And this you can do as far as roughage is concerned for you can always grow the corn for silage, and even when it does not mature it makes fair silage, and usually the clovers grow splendidly and oats also make a very good crop. The concentrates such as cotton seed meal and oil meal one can afford to purchase and with the splendid pasturage usually to be obtained dairying provides a sure and steady income while at the same time providing the fertilizer so essential to the growing of the cash crop and the up-keep of the soil.

A new money crop for Western Michigan is the sugar beet which is being successfully grown on the heavier lands, and some farmers are growing as high as 15 tons per acre of this crop and this crop fits in, in place of potatoes in the program for success very nicely in that it provides many tons of beet tops per acre of succulent feed for the dairy cow, as well as a sure cash return early in the season.

We believe the system of farming outlined above is the only method so far which has proved successful in a full measure and from personal experience and observation we can recommend it. Of course the reader will understand that the plans and methods proposed above are general and have to be taken in consideration with weather conditions and other circumstances. For instance this year many farmers who lost their seedling last year will have to grow peas and oats for hay and may have trouble getting their rotation adjusted this year, but those difficulties have to be met, provided against and planned for as far as possible by the individual farmer.

How to obtain money at fair rates will be the subject of a subsequent article.

County Agent Demonstrations to Add Interest to County Fairs

Perry F. Powers, Head of County Fair Associations, Would Make Expositions More Educational

THERE isn't the interest there used to be in the agricultural exhibits at the county fairs. Time was when Peter Perkins mammoth "punkin" attracted more crowds than the "hoss races," and all the farmers from miles around would gather about with admiring eyes and vow they'd beat Peter to it next year.

But now the fair authorities have a most difficult time to get the farmers to exhibit. In the first place, every fair in Michigan is guilty of the mistake of offering of trivial premiums for "fifty-eleven" varieties of fruits, spuds, corn, etc., some of which are so rare as to be almost extinct. By splitting up the premium money on a lot of exhibits that ought never to be made, the fair authorities are unable to offer attractive enough premiums on leading varieties to make it an incentive for the farmer to exhibit.

In the second place, the county fair has deteriorated from an exposition of agricultural exhibits to a display of legs and chance games on the Bowery, third-rate horse races on the course, exhibits of new-fangled machinery and flying machines. These are all right, of course. They have their place and serve well enough to attract the city folks—and maybe some of the men folks from the farms like to wander down the Bowery while the wimmin folks are at the baby show or the embroidery exhibit—but anyway those aren't the things that make the fair, and they never will be.

Perry F. Powers of Cadillac, who is president of the State Association of Fairs, realizes the truth of these statements as does every man who

has anything to do with making a county fair a financial success. But Mr. Powers has gone others one step better, and instead of stopping upon the discovery of these truths he has made his plans for putting a little "pep" and interest into the agricultural end of the show, and making the fair what it was originally intended to be—an educational exposition.

Mr. Powers was in Lansing during Farmers' Week and met with the county agents when plans were form-

ulated for carrying out his purpose. From now on, if all the county fair associations adopt Mr. Powers' ideas the county agent will be a conspicuous figure at the fairs and will be just about the "whole show" in the agricultural departments.

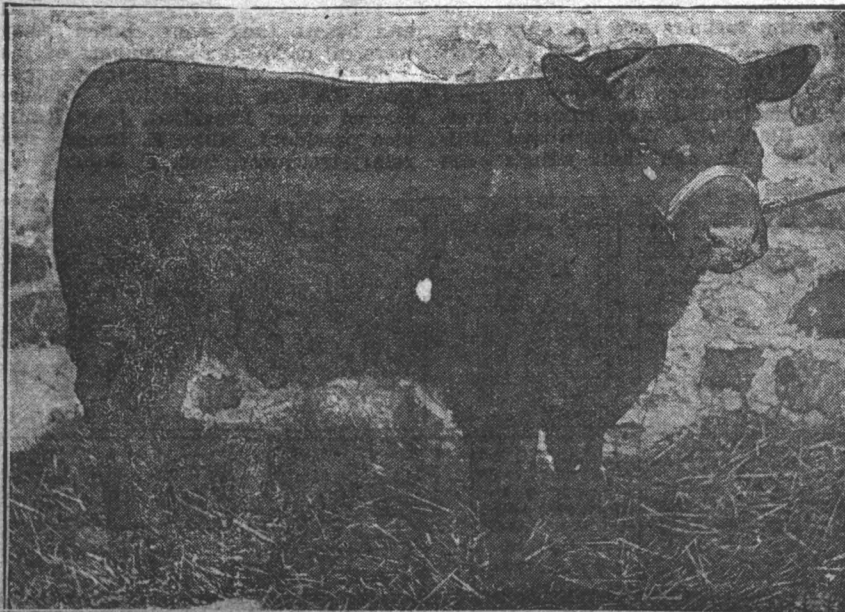
Exhibits of prime specimens of farm products are supposed not only to delight the eye, but to arouse the desire on the part of the beholder to grow specimens as fine and large as those on display. But how to do it—that is the question. One might

stand and admire a prize bull, or apple, or specimen of grain all day long and when night came he would know more how to produce its equal than when he first set eyes upon it. But the county agent is going to provide that connecting link, the "how" of growing high quality crops.

In the future the man who wins a prize at a fair will be expected to give a statement of how he did it—what it cost him to produce it, what fertilizer he used, what methods of seed selection and cultivation were followed, etc.

In the future the fairs will gradually cut down the number of premiums offered and increase the amount on the standard varieties. This is strictly in keeping with the new idea of standardization of varieties and will serve to encourage farmers to discard some of the varieties they imported from York state, or some other place, and grow instead the varieties that experience and experiment prove do the best on our soils and in our climate.

Exhibits will be made showing the comparative costs of different rations for live stock. There will also be exhibits of the amounts and value of rations required to feed live stock for a certain period of time, as well as exhibits of the amount and value of the products or labor which they produced or performed. These will carry to the farmer some practical suggestions that he has never before been able to get out of the agricultural exhibits, and will tend, it is believed, to make him more interested in the county fairs and exhibits than he has been in the past.



Alexander Minty's Jr. bull calf Evocant, of Woodcote, the undefeated champion of his class at all shows, including the International.

CURRENT AGRICULTURAL NEWS OF THE WORLD

GRINNELL

FARMERS ARE SEEKING MICHIGAN LAND

An exceedingly strong demand upon the part of farmers from other states and Canada for improved farms in Michigan, is shown in a statement just given out by the E. A. Strout Farm Agency, detailing the movements of the buyers of 3,668 farms valued at \$17,996,400 sold by that agency last year.

Twenty-seven states and the Dominion of Canada were represented among the buyers of the 321 improved farms sold by the agency in Michigan during the twelve months. The largest number of farm families to come into Michigan from an outside state was contributed by Illinois, which sent 56, while 30 came from Ohio and 20 from Minnesota.

Thirteen former Indiana farmers settled in Michigan during the year, as did ten from Iowa, six from Wisconsin, five each from Missouri and South Dakota, and four each from Canada, Nebraska and Pennsylvania. Colorado, Kansas and Montana each lost three farm families to Michigan and Idaho, Kentucky, North Dakota and Oklahoma lost two each.

The states from which came one farm family each ranged from Arkansas to Connecticut, Vermont to Florida, New York to Louisiana, Maryland, Tennessee and Virginia. Residents of Michigan purchased 138 farms in their own state during the year.

Of the 114 residents of Michigan who purchased farms in other states through the Strout Agency during the year, 54 went to New York, 15 to Vermont, eleven each to Maryland and New Jersey, seven to Florida, six to Ohio, four to New Hampshire, three to Maine, two to Pennsylvania and one to Delaware.

Detroit Milk Price About Average

Retail and wholesale milk prices in Detroit and about 60 of the largest cities in the United States are listed in the current issue of the Market Report, an official publication of the Department of Agriculture.

The retail price of 16 cents a quart paid by Detroit milk consumers is probably the average price throughout the country. In many cities particularly in the south, the price is considerably higher. In other cities it is lower.

Among the cities with Detroit in the 16-cent class are Pittsburg, St. Louis, Richmond, San Francisco, Los Angeles, Sioux City, Duluth, Albany, Fargo, Dayton, Baltimore and Wheeling.

Cities paying 17 cents a quart include, Hartford, Conn., Cumberland, Md., Boston, St. Joseph, Newark, N. J., Oklahoma City, Providence, R. I., Nashville, Tenn., Roanoke, Va., and Clarksburg, W. Va.

Cities paying 18 cents or more ranging as high as 25 cents, are Birmingham and Mobile, Ala., Little Rock, Ark., Bridgeport, Conn., Miami and Tampa, Fla., Atlanta, Augusta and Savannah, Ga., New Orleans, Asheville, N. C., Memphis and Chattanooga, Tenn., and Fort Worth,

Galveston, El Paso and San Antonio, Texas.

Charleston, S. C., and Miami and Tampa, Fla., pay 25 cents a quart for milk while Atlanta and Savannah, Ga., pay from 20 to 25 cents a quart.

The average bulk price per quart paid by Cleveland milk dealers for their milk during January was 8.7 cents a quart. Their wholesale price to hotels, restaurants and other quantity patrons was 12 cents a quart bulk, and 15 cents in bottles.

Among the cities paying 15 cents a quart, retail for their milk were Phoenix, Ariz., Pueblo, N. M., Des Moines, Ia., Rochester, N. Y., Cincinnati and Columbus, O., and Newport, R. I.

Among those paying 14 cents or less were Denver, Colo., Peoria, Ill., Indianapolis and South Bend, Ind., Dubuque, Ia., Grand Rapids, Mich., St. Paul, Minneapolis, Columbus, Sioux Falls, S. D., Salt Lake City, Seattle, Wash., and Milwaukee, Beloit and Green Bay, Wis.

Farmers Needed at Indian Schools

The United States Civil Service Commission announces that Indian schools in many states are in need of farmers to have charge, under the direction of the superintendents of agricultural operations on farms connected with the schools, to give instruction in practical farming, and to do extension and instructional work in agriculture among adult Indians occupying their own farms on reservations.

Applicants will be rated upon their training and experience, and their physical ability, as shown by their applications and corroborative evidence.

Further information and application blanks may be obtained from the secretary of the U. S. Civil Service Board at Boston, New York, Philadelphia, Atlanta, Cincinnati, Chicago, St. Paul, St. Louis, New Orleans, Seattle or San Francisco, or from the United States Civil Service Commission, Washington, D. C.

Mecosta Live Stock Co-operators

The Remus Live Stock Shipping Association was formed April 2, 1918. Last year it shipped thirty-seven cars of stock as follows: Cattle, 303 head; calves, 625; swine, 1,345; sheep, 817; goats, 1. A total of 3,091 head. The total weight of which was 668,267 pounds. The farmers received for this stock \$82,910.16 after all expenses were paid. The cost of selling, including freight, averaged for the year sixty-eight and one tenth cents (68.1 cents) per hundred weight. The average shrinkage between weights at Remus and those at the stock yards was 3.8 per cent.

Whose goat it was we didn't learn but presume it to have been that of some stock buyer of the past, for now the farmers are the only shippers at Remus and during the past year their membership has increased to 256 and stock has been shipped by them from Altona, Mecosta, Rodney, Blanchard, Weidman and Millbrook. Through their efforts the

Pere Marquette railway was induced to build new stock yards at Remus and these are today claimed to be the finest between Petoskey and Detroit.

The coming year looks brighter than previous ones to the association and this venture appears destined to prove as profitable if not more so than the creamery has to the farmers of the community.

Officers for the coming year were elected by acclamation each to succeed himself and are: president and manager, E. E. Compson; vice-president, Geo. Bauman; Sec.-Treas., M. J. Reutz; directors: Elmer Hornback, Lawrence Simon, Valentine Bott, J. K. Hatfield.

Remus Creamery Prospers

The Remus Creamery produced during the past year 220,275 pounds of butter, nearly all of which sold on the New York market as extra. The amount was an increase of 22 per cent over the 1918 figure. From this butter the farmers received \$107,063.93 for their butterfat. The highest price paid per pound for the fat was 80 cents, the lowest 48 cents and the average for the year, 60.9 cents and this money was paid the farmer at his own door. Carriers gathering the cream and delivering the checks.

The creamery has manufactured 60 per cent more butter for the first two weeks in January this year than in the corresponding period of 1919. Not all of this is attributed to winter cows as there are new patrons also to be considered but tendency is toward the winter cow.

Little change was made in the directorate of the company the officers and directors being elected as follows: President, Hiram Karcher; vice-president, Conrad Ulrich; secretary and manager, M. J. Ruetz; Directors, Geo. A. Mosey, J. E. Hornbeck, Tyler Gordon, Lucius Calkins.

Success for Cass City Fair

Cass City Fair at its annual meeting elected Hugh Cooper, president, C. R. Townsend, vice president, Harry Crandell, secretary and George C. Hooper, treasurer. New by-laws were adopted and the matter of holding a night carnival was left to the discretion of the executive board. The financial report showed a balance of \$35 in the treasury and that the association would receive \$619.17 from the state next August. The total receipts for the year were \$4,983.23.

Saginaw Beet Growers Organize

Blumfield township, Saginaw county, sugar beet growers held a very promising meeting, Feb. 6th, 1920, to organize a local branch of the Michigan Sugar Beet Growers Association.

There being a very large crowd and before they went home they were all enrolled as members of the local branch of the Michigan Sugar Beet Growers Association. Officers elected were: President, John Kaul; vice president, Hugo E. Brebs; secretary-treasurer, Geo. F. Sahr.

SEED FRAUDS ENGAGE ATTENTION OF FARM ORGANIZATION

Economic losses to agriculture so appalling in nature that public attention if aroused will immediately be turned to their remedy, are being incurred through the distribution in interstate commerce by certain seed companies of clovers and grass seeds containing noxious weed seeds. This abuse has become so costly that the National Board of Farm Organizations is now initiating a drive for the purpose of calling national attention to the matter with the view of the adoption by congress of legislation which will adequately control the distribution of seeds. Mail order houses, according to complaints made to the Federal Trade Commission, are among the worst offenders.

It is contended that the farmers in Wisconsin suffered a loss through weeds, of \$67,000,000 in 1917. This estimate is given by the Wisconsin Department of Agriculture from investigation by the Wisconsin Experiment Station.

C. P. Smith, the seed inspection officer of Maryland, tells how farmers have been imposed upon by mail order houses which offer as an inducement reduced prices together with a glowing eulogy of the quality of the goods they have for sale. Mr. Smith complains that the houses selling the seeds have failed to give an accurate account of the percentage of weed seed in each shipment. The consequence is that it may cost more to remove the weeds than the revenue produced by the crops would finance.

"Bargains have ever appealed to the average American and bargains in seeds for planting have been no prominent exception to the rule during the recent months of high prices generally," Mr. Smith writes. "Certain mail order houses have taken advantage of recent conditions and have organized a huge business which has reaped them enormous profits at the expense of thousands of American farmers."

Mr. Smith said the distribution of noxious weed seeds has been extensively carried on in Maryland, New York, Minnesota, Michigan and Wisconsin. Other states have been more or less affected by the campaign to get rich quick through the sale of inferior seeds. Mr. Smith has made public the names of the houses responsible for the alleged imposition on the American farmers.

Jackson Premiums Boosted

Twenty-five per cent increase over all premiums of 1919 at the county fair will be offered this year, according to information given out by Fair Manager W. B. Burris. This offer is made as a special inducement to bring more exhibits to the fair.

To Increase Co-Op. Capital

At a meeting of the Farmers Cooperative association of Fowlerville, it was decided to increase the capital stock to a point that would permit the elevator business for the handling of farm grains by the cooperative method.



Delco-Light is Carrying the Comforts and Conveniences of the City Into Farm Homes

It is furnishing bright clean electric light throughout the house and barn—doing away with the smoky, dangerous kerosene lamp and lantern.

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"Hearts of Three"

By JACK LONDON

Author of the "Valley of the Moon," and other stories.

Join the Early Birds and Read this Story

THIS story, which has just gotten under way, has gone such a short distance that one can still get the swing of the thing by glancing over this synopsis. Join the early birds who are getting in on the opening parts of this wonder-story of Jack London's. Francis Morgan, son of a New York millionaire, who had just died, has grown bored by the city's luxury and tameness and has decided to go on an extensive fishing trip. Regan, a former colleague of Francis' father, is plotting to get the young man out of the way so that Regan may be free to manipulate the great Tampico oil-stocks in which young Morgan is heavily invested and in which he has great faith. Regan gets Torres, a dusky-skinned visitor, to lure Francis to the Caribbean islands where a pirate ancestor of Morgan had buried a great treasure. The lure works and young Morgan starts out on the trip alone. Becalmed in a small vessel at sea, he lands on an island whither he had been beckoned by a girl on the shore. As the last installment closed, she had excitedly seized Morgan's hand and led him through the tropical atmosphere of mystery. But you go on and finish it.

IN imitation, such having been her will of him, and such seeming to be the cue of the game, he smilingly pressed his own hand to his heart, although he called neither on God nor the Virgin.

"Won't you ever be serious?" she flashed at him, noting his action.

And Francis was immediately and profoundly, as well as naturally, serious.

"My dear lady . . ." he began.

But an abrupt gesture checked him; and, with growing wonder, he watched her bend and listen, and heard the movement of bodies padding down some runway several yards away.

With a soft warm palm pressed commandingly to his to be silent, she left him with the abruptness that he had already come to consider as customary with her, and slipped away down the runway. Almost he whistled with astonishment. He might have whistled, had he not heard her voice, not distant, in Spanish, sharply interrogate men whose Spanish voices, half-humbly, half-insistently and half-rebelliously, answered her.

He heard them move on, still talking, and, after five minutes of dead silence, heard her call for him peremptorily to come out.

"Gee! I wonder what Regan would do under such circumstances!" he smiled to himself as he obeyed.

He followed her, no longer hand in hand, through the jungle to the beach. When she paused, he came beside her and faced her, still under the impress of the fantasy which possessed him that it was a game.

"Tag!" he laughed, touching her on the shoulder. "Tag!" he reiterated. "You're it!"

The anger of her blazing eyes scorched him.

"You fool!" she cried, lifting her finger with what he considered undue intimacy to his toothbrush moustache. "As if that could disguise you!"

"But my dear lady . . ." he began to protest his uncertain acquaintance with her.

Her retort which broke off his speech, was as unreal and bizarre as everything else which had gone before. So quick was it, that he failed to see whence the tiny silver revolver had been drawn, the muzzle of which was not presented merely toward his abdomen, but pressed closely against it.

"My dear lady . . ." he tried again.

"I won't talk with you," she shut him off. Go back to your schooner and go away . . ." He guessed the inaudible sob of the pause, ere she concluded, "Forever."

This time his mouth opened to speech that was aborted on his lips by the stiff thrust of the muzzle of the weapon into his abdomen.

"If you ever come back—the Madonna forgive me—I shall shoot myself."

"Guess I'd better go, then," he uttered airily, as he turned to the skiff, toward which he walked in stately embarrassment, half-filled with laughter for himself and for the ridiculous and incomprehensible figure he was cutting.

Endeavoring to retain a last shred of dignity, he took no notice that she had followed him. As he lifted the skiff's nose from the sand, he was aware that a faint wind was rustling the palm fronds. A long breeze was darkening the water close at hand, while, far out across the mirrored water the outlying keys of Chiriqui Lagoon shimmered like a mirage above the dark-crisping water.

A sob compelled him to desist from stepping into the skiff and to turn his head. The strange young woman, revolver dropped to her side, was crying. His step back to her was instant and the touch of his hand on her arm was sympathetic.

thetic and inquiring. She shuddered at his touch, drew away and then gazed at him reproachfully through her tears. With a shrug of shoulders to her many moods and of surrender to the incomprehensibility of the situation, he was about to turn to the boat, when she stopped him.

"At least you . . ." she began, then faltered and swallowed, "you might kiss me good-bye."

She advanced impulsively with outstretched arms, the revolver dangling incongruously from her right hand. Francis hesitated a puzzled moment, then gathered her in to receive an astounding passionate kiss on his lips ere she dropped her head on his shoulder in a breakdown of tears. Despite his amazement he was aware of the revolver pressing flat-wise against his back between his shoulders. She lifted her tear-wet face and kissed him again and again, and he wondered to himself if he were a cad for meeting her kisses with almost equal and fully as mysterious impulsiveness.

With a feeling that he did not in the least care how long the tender episode might last, he was startled by her quick drawing away from him as anger and contempt blazed in her face, and as she menacingly directed him with the revolver to get into the boat.

He shrugged his shoulders as if to say that he could not say no to a lovely lady, and obeyed, sitting to the oars and facing her as he began rowing away.

"The Virgin save me from my wayward heart," she cried, with her free hand tearing a locket from her bosom and, in a shower of golden beads flinging the ornament into the water-way midway between them.

From the edge of the jungle he saw three men, armed with rifles, run toward her where she had sunk down in the sand. In the midst of lifting her up, they caught sight of Francis, who had begun rowing a strong stroke. Over his shoulder he glimpsed the Angelique, close hauled and slightly heeling, cutting through the water toward him. The next moment, one of the trio on the beach, a bearded elderly man, was directing the girl's binoculars on him. And the moment after dropping the glasses, he was taking aim with his rifle.

The bullet spat on the water within a yard of the

skiff's side and Francis saw the girl spring to her feet, knock up the rifle with her arm and spoil the second shot. Next, pulling lustily, he saw the men separate from her to sight their rifles and saw her threatening them with the revolver into lowering their weapons.

The Angelique, thrown up into the wind to stop way, foamed alongside, and with an agile leap Francis was aboard, while already, the skipper putting the wheel up, the schooner was paying off and filling. With boyish zest, Francis wafted a kiss of farewell to the girl, who was staring toward him, and saw her collapse on the shoulders of the bearded elderly man.

"Cayenne pepper, eh—those damned, horrible, crazy-proud Solanos," the breed skipper flashed at Francis with white teeth of laughter.

"Just bugs—clean crazy, nobody at home," Francis laughed back, as he sprang to the rail to waft further kisses to the strange damsel.

Before the land wind the Angelique made the outer rim of Chiriqui Lagoon and the Bull and Calf, some fifty miles farther along on the rim, by midnight, when the skipper hove to to wait for daylight. After breakfast, rowed by a Jamaica negro sailor in the skiff, Francis landed to reconnoiter on the Bull, which was the larger island and which the skipper had told him he might find occupied at that season of the year by turtle-catching Indians from the mainland.

And Francis very immediately found that he had traversed not merely thirty degrees of latitude from New York but three hundred years, or centuries for that matter, from the last word of civilization to almost the first word of the primeval. Naked, except for beech-clouts of gunny-sacking, armed with cruelly heavy hacking blades of machetes, the turtle-catchers were swift in proving themselves arrant beggars and dangerous man-killers. The Bull belonged to them, they told him thru the medium of his Jamaican sailor's interpreting, but the Calf, which used to belong to them for the turtle season now was possessed by a madly impossible Gringo, whose reckless, dominating ways had won from them the respect of fear for a two-legged human creature who was more fearful than themselves.

While Francis, for a silver dollar, dispatched one of them with a message to the mysterious Gringo that he desired to call on him, the rest of them clustered about Francis' skiff whining for money, glowering upon him, and even impudently stealing his pipe, yet warm from his lips, which he had laid beside him in the sternsheets. Promptly he had laid a blow on the ear of the thief, and the next thief who seized it, and recovered the pipe. Machetes out and sun-glistening their clean-slicing menace, Francis covered and controlled the gang with an automatic pistol; and, while they drew apart in a group and whispered ominously, he made the discovery that his lone sailor-interpreter was a weak brother and received his returned messenger.

The negro went over to the turtle catchers and talked with a friendliness and subservience, the tones of which Francis did not like. The messenger handed him his note across which was scrawled in pencil:

"Vamos."

"Guess I'll have to go across myself," Francis told the negro whom he had beckoned back to him.

"Better be very careful and utmostly cautious sir," the negro warned him. "These animals without reason are very problematically likely to act most unreasonably, sir."

"Get into the boat and row me over," Francis commanded shortly.

"No, sir, I regret most to say sir," was the black sailor's answer. "I signed on sir, as a sailor, and I can't see my way rowing you over, sir, to certain death. Best thing we can do is to get out of



She advanced impulsively with outstretched arms.

this hot place that's certainly and without peradventure of a doubt going to get hotter for us if we remain, sir."

In huge disgust and scorn Francis pocketed his automatic, turned his back on the sacking-clad savages and walked away through the palms. Where a great boulder of coral rock had been upthrust by some ancient restlessness of the earth, he came down to the beach. On the shore of the Calf, across the narrow channel, he made out a dinghy drawn up. Drawn up upon his own side was a crank-looking and manifestly leaky dug-out canoe. As he tilted the water out of it he noticed that the turtle-catchers had followed and were peering at him from the edge of the cocoanuts, though his weak-hearted sailor was not in sight.

To paddle across the channel was a matter of moments, but scarcely was he on the beach of the Calf when further inhospitality greeted him on the part of a tall, barefooted young man, who stepped from behind a palm, automatic pistol in hand and shouted:

"Vamos! Get out! Sent!"

"Ye gods and little fishes!" Francis grinned, half-humorously, half seriously. "A fellow can't move in these parts without having a gun shoved in his face. And everybody says get out pronto."

"Nobody invited you," the stranger retorted. "You're intruding. Get off my island. I'll give you half a minute."

"I'm getting sore, friend," Francis assured him truthfully, at the same time, out of the corner of his eye, measuring the distance to the nearest palm-trunk. "Everybody I meet around here is crazy and discourteous, and peevishly anxious to be rid of my presence, and they've just got me feeling that way myself. Besides, just because you tell me it's your island is no proof—"

The swift rush he made to the shelter of the palm left his sentence unfinished. His arrival behind the trunk was simultaneous with the arrival of a bullet that thudded into the other side of it.

"Now, just for that!" he called out, as he centered a bullet into the trunk of the other man's palm.

The next few minutes they blazed away, or waited for calculated shots, and when Francis' eighth and last had been fired, he was unpleasantly certain that he had counted only seven shots for the stranger. He cautiously exposed part of his sun-helmet, held in his hand, and had it perforated.

"What gun are you using?" he asked with cool politeness.

"Colt's," came the answer.

Francis stepped out boldly into the open, saying: "Then you're all out. I counted 'em. Eight. Now we can talk."

The stranger stepped out and Francis could not help admiring the fine figure of him, despite the fact that a dirty pair of canvas pants, a cotton undershirt and a floppy sombrero constituted his garmenting. Further, it seemed he had previously known him, though it did not enter his mind that he was looking at a replica of himself.

"Talk!" the stranger, sneered, throwing down his pistol and drawing a knife. "Now we'll just cut off your ears and maybe scalp you."

"Gee! You're sweet-natured and gentle animals in this neck of the woods," Francis retorted, his anger and disgust increasing. He drew his own hunting knife, brand new from the shop and shining. "Say, let's wrestle, and cut out this ten-twenty-and-thirty knife stuff."

"I want your ears," the stranger answered pleasantly, as he slowly advanced.

"Sure. First down, and the man who wins the fall gets the other fellow's ears."

"Agreed." The young man in the canvas trousers sheathed his knife.

"Too bad there isn't a moving picture camera to film this," Francis girded sheathing his own knife. "I'm sore as a boil. I feel like a heap bad Injun. Watch out! I'm coming in a rush! Anyway and everyway for the first fall!"

Action and word went together, and his glorious rush ended ignominiously, for the stranger, aprently braced for the shock, yielded the instant their bodies met and fell over

on his back, at the same time planting his foot in Francis' abdomen and, from the back-purchase on the ground, transformed Francis' flying rush into a wild forward somersault.

The fall on the sand knocked most of Francis' breath out of him, and the flying body of his foe, impacting on him, managed to do for what little breath was left him. As he lay speechless on his back, he observed the man on top of him gazing down at him with sudden curiosity.

"What d'you want to wear a moustache for?" the stranger muttered.

"Go on an cut 'em off," Francis gasped, with the first of his returning breath. "The ears are yours, but the moustache is mine. It is not in the bond. Besides, that fall was straight jiu jitsu."

"You said 'anyway and everyway for the first fall,'" the other quoted laughingly. "As for your ears, keep them. I never intended to cut them off, and now that I look at them closely the less I want them. Get up and get out of here. I've licked you. Vamos! And don't come sneaking around here again! Git! Sent!"

In greater disgust than ever, to which was added the humiliation of defeat, Francis turned down to the beach toward his canoe.

"Say, Little Stranger, do you mind leaving your card?" the victor called after him.

"Visiting cards and cut-throating don't go together," Francis shot back

across his shoulder, as he squatted in the canoe and dipped his paddle. "My name's Morgan."

Surprise and startlement were the stranger's portion, as he opened his mouth to speak, then changed his mind and murmured to himself, "Same stock—no wonder we look alike."

Still in the throes of disgust, Francis regained the shore of the Bull, sat down on the edge of the dugout, filled and lighted his pipe, and gloomily meditated. Crazy, everybody, was the run of his thought. Nobody acts with reason. I'd like to see old Regan try to do business with these people. They'd get his ears.

Could he have seen, at that moment the young man of the canvas pants and of familiar appearance, he would have been certain that naught but lunacy resided in Latin America; for the young man in question, inside a grass-thatched hut in the heart of his island, grinning to himself as he uttered aloud, "I guess I put the fear of God into that particular member of the Morgan family," had just begun to stare at a photographic reproduction of an oil painting on the wall of the original Sir Henry Morgan.

"Well, Old Pirate," he continued, grinning, "two of your latest descendants came pretty close to getting each other with automatics that would make your antediluvian horse pistols look like thirty cents."

He bent to a battered and worm-eaten sea chest, lifted the lid that was monogrammed with an "M," and again addressed the portrait:

"Well, old pirate Welshman of an ancestor all you've left me is the old duds and a face that looks like yours. And I guess if I was really fired up, I could play your Port-au-Prince stunt about as well as you played it yourself."

A moment later, beginning to dress himself in the age-worn and moth eaten garments of the chest, he added: "Well, here's the old duds on my back. Come, Mister Ancestor, down out of your frame and dare to tell me a point of looks in which we differ."

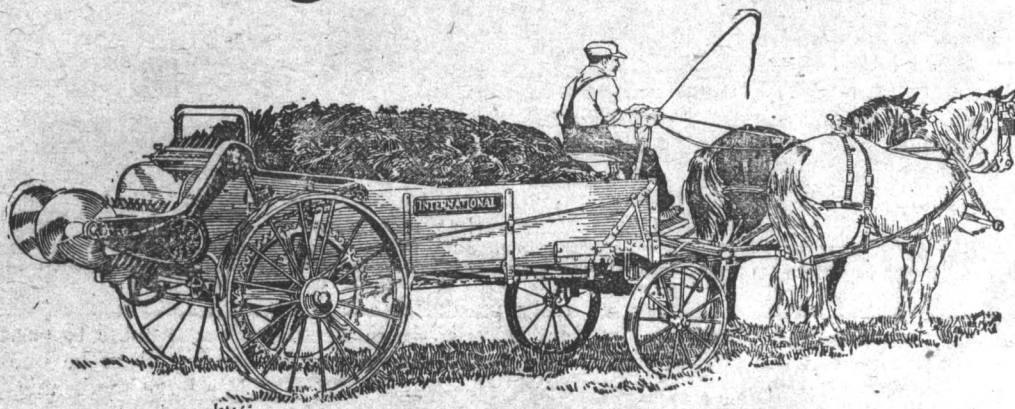
Clad in Sir Henry Morgan's ancient habiliments, a cutlass strapped on around the middle and two flint lock pistols of huge and ponderous design thrust into his waist-scarf, the resemblance between the living man and the pictured semblance of the old buccaneer who had been long since resolved to dust, was striking.

"Back to back again the mainmast, Held at bay the entire crew . . ."

As the young man, picking the strings of a guitar, began to sing the old buccaneer rouse, it seemed to him that the picture of his forbear faded into another picture and that he saw:

The old forbear himself, back to
(Continued on page 23)

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CHICAGO

U S A

—for all the farmers of Michigan—

MICHIGAN BUSINESS FARMING

An Independent Farm Weekly Owned and Edited in Michigan

SATURDAY, FEBRUARY 21, 1920

Published every Saturday by the
RURAL PUBLISHING COMPANY, Inc.
Mt. Clemens, MichiganGRANT SLOCUM.....President and Contributing Editor
FORREST LORD.....Vice-President and Editor
GEO. M. SLOCUM.....Secretary-Treasurer and Publisher
ASSOCIATESFrank R. Schalck.....Assistant Business Manager
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Price-Fixing

THERE IS an old theory that competition is the guardian angel of the Ultimate Consumer. It is supposed to protect him from the greed of the profiteer, to encourage low production cost, high quality, courtesy, prompt service, and all those other nice things with which we used to be familiar. This theory was working more or less satisfactorily when the God of War stepped in, abducted the guardian angel and messed things up in general. The angel has escaped the clutches of the Martian tyrant, but is still singularly annoyed and restrained by the well-meaning attentions of an over-solicitous government, to say nothing of that old flirt, Monty Monopoly, who would pay her board bill if she would let him.

Which is to say that competition, being theoretically, "the life of trade," would actually serve to stimulate production, trade and consumption if allowed unhampered freedom.

Price-fixing is competition's greatest enemy. It abrogates the laws of supply and demand. It sets an artificial value. It protects the inefficient and robs the efficient. It makes fish of one commodity and fowl of another.

Price-fixing may logically and wisely follow monopoly, but has no place in the field of competition. The railroad systems are a virtual monopoly, hence we have the Inter-state Commerce Commission to set the price of their service to the public. The steel, oil, telephone, telegraph, water power, clothing, shoe and certain machinery-making corporations are rapidly assuming the proportions of monopolies, if indeed, some of them may not already be classed under that term. Which certainly means that the time is approaching when their products and service will be subjected to more rigid government control.

Price-fixing during the war and even up to the present moment has been mainly directed at a commodity in the sale of which there is the utmost freedom of competition,—food. There are six million food producers in the United States, all competing with each other to cut down production costs, increase the quality of their product, and all selling freely to the highest bidder. The perishable nature of their product, and the fluctuating values from year to year make it impossible for farmers to connive to monopolize the prices of their goods beyond a certain price or season. And yet, in their frenzied efforts to cut the cost of living, government authorities would throttle this competition and fix arbitrary prices upon the farmer's products.

Michigan Farm Land in Demand

NOTWITHSTANDING the discouragements attendant upon present-day farming there is an unmistakable demand for Michigan farm lands, not only from residents of Michigan but from the "land-hungry" of other states as well. This is disclosed in a recent report issued by the E. A. Strout Farm Agency, which operates in nearly every state in the

union, and last year sold 3,668 farms valued at \$17,996,400.

This statement will serve as ammunition for some of the daily newspaper editors to discharge a verbal broadside upon the pleasures and profits of farming and to take those to task who argue that farming is not properly rewarded. "If farming is in such a bad way as you claim, how do you account for the increase in land values and the demand for farms," the editor of one of the greatest dailies in the middle west propounded to me several months ago. The answer? Prices of almost every important commodity have advanced more than one hundred per cent. since 1914, with one outstanding exception,—land. Land values have increased from 25 to 50 per cent.—not any more—during the same period that other values have doubled. As for the demand for farms, it is only exceeded by the number of farms that are offered for sale.

The most encouraging feature of the Strout report is the fact that more than twice as many non-residents came to Michigan to buy farms as those who left to locate elsewhere. We would suggest to such of our readers who may be planning on selling their farms to locate in other states, that they make a little tour of investigation before the papers are signed.

Confidence

IT'S A great thing to be able to have confidence in other people. But it's a greater thing to so live as to deserve the confidence of others and build a moral fort for its preservation. Misplaced confidence, betrayed confidence, confidence that is held lightly,—they destroy man's faith in his fellow-men.

Scores are the letters received from the readers of Michigan Business Farming declaring their faith and confidence in our principles and approval of our course. "We will abide by your decision," "we depend upon you to tell us which is the right course," "you are the watchman of our rights,"—so run the stream of letters that pour in upon us day after day from all parts of Michigan.

Friends, it is a fearful responsibility that you put upon us. We are but humans. The temptation to take the politic course,—the course that means more business and more friends who know how to get more business,—rather than the more difficult course to which duty points, comes to us as it does to all others engaged in business. We are liable to err. Our judgment cannot be expected to be one hundred per cent. correct. We have made mistakes and we will make them again, but never we hope will the mistake be made because we have deliberately taken the wrong course.

We are here to serve you. We want your opinions and your criticisms, whether they be for us or against us. If you trust us we will try to measure up to your trust. If you put your cause in our hands we will guard it carefully, knowing that to sleep at our post may destroy both your confidence and your cause.

The Farm Bureau and the Railroads

IT IS NOT entirely clear what attitude the State Farm Bureau intended to take upon the question of returning the railroads to the private owners. Nor does the resolution which it adopted make its position any the clearer.

The American Federation of Farm Bureaus adopted a resolution at Chicago last fall favoring the "immediate return of the railroads," but according to a Michigan delegate the resolution was "railroaded" through and there was a question as to whether it represented the honest opinions of the majority of the delegates. In view of the action of the national organization, however, it was anticipated that the Michigan State Farm Bureau would also take a decided stand against a continuance of government control, but the resolution it adopted upon that subject cannot be so construed. This resolution reads in part as follows:

"That this organization is not interested primarily in federal or private ownership of the railroads, but in efficiency of them, ***** with the belief that such service, ***** can be arrived at the sooner under private ownership."

What does this mean? That the Farm Bureau delegates desired the immediate return of

the railroads? It does not say so. The resolution undoubtedly expresses a preference for private ownership, and that's exactly what we have now, but under government operation.

M. B. F. considers it most fortunate for the Farm Bureau that it did not follow the lead of its parent organization and demand the immediate return of the roads, as the question would have instantly arisen as to how representative of the farmers' wishes such a declaration would have been. In our future discussions of the railroad problem we should keep in mind that every farm and labor organization in Michigan up to the meeting of the Farm Bureau had expressed a decided disapproval of the return of the roads at the present time. The State Ass'n of Farmers' Clubs, with one hundred delegates present was the first to take this action. The Michigan State Grange, through its four hundred delegates, followed suit, and the Gleaners' one thousand delegates were unanimous in their similar opinion.

If the Farm Bureau is destined, as many claim, to become the mouthpiece through which agricultural thought is to be disseminated throughout the nation, its leaders and those who are elected to sit as delegates in its business sessions, should be extremely careful about expressing their personal views upon debatable questions, lest they be erroneously taken as the views of the majority membership.

Piffle and Poppycock

IF THERE was ever "much ado about nothing" since the beginning of time, it is this weeping and wailing over the passing of booze. The lengths that men will go to secure a few drops of the outlawed stuff, the fury into which its disciples work themselves over the deprivation of their "personal liberty" the zeal with which politicians proclaim their championship of the citizen's "inalienable right" to make, buy, sell and drink the poison, calling upon every "loyal" citizen to spring to the defense of his constitutional privileges, all might well convince a stranger from another world that the destiny of the universe were in the balance.

Booze is gathering its degenerate forces from the four corners of the nation to stick their trembling fingers into the political pot, and elect men to office pledged to the repeal of the constitutional prohibition amendment. These men need have no special qualifications. They may be horse-thieves, escaped convicts, professional gun-men, or scums of the slums,—if they have enough intelligence remaining in their dwarfed brains to register an effective vote for the restoration of booze, they'll get the votes of all the bums in Death alley and of all the booze-makers on Murder boulevard.

The King "keynoter" of this bunch of hyphenated libertines is Edward W. Edwards, who was elected governor of New Jersey because he promised to resist the enforcement of the federal prohibition law. After being satisfied that he had bit off a bigger chunk than he could chew, he has since contented himself to a cheap defense of the right of New Jersey to decide this question for herself without federal interference. If the state of New Jersey wants to secede from the union so that she may exercise her precious "right" to get drunk whenever she feels like it, let 'er go.

Thank God that the east no longer rules the United States! Intelligence, science, education, invention, agriculture, industry, religion, morality—PROGRESS—have moved westward. For seventy-five years the west has contributed four-fifths of the nation's greatest men, and performed two-thirds of the nation's greatest accomplishments. 'Twas the west that instituted the primary reform. 'Twas the west that secured the direct election of United States senators. 'Twas the west that first raised woman out of the class of half-breeds and jail-birds and gave her the ballot. 'Twas the west that had the strong, virile man-hood to throw off the curse of booze and put upon our statute books an amendment abolishing it forever. It will be the west in the crucial moment when the depraved exponents of personal license meet the stalwart sons of justice who will decide the conflict on the side of temperance and sobriety. Thank God for the west. We live there.

FEDERAL CONTROL OF RAILROADS

In dealing with this question we should take into consideration something more than mere figures of the railroad administration. How much was it worth to the United States to have the railroads under Federal control during the war? Was it worth \$594,200,000, claimed to be a dead loss by the Railroad Administration? If so, then there was no loss. Again, if the railroad magnates were right in their declaration at their recent Chicago convention that a twenty-five per cent. advance in freight rates will be necessary when the roads are returned to their owners, then we should figure twenty-five per cent. on the total freight earnings during the war and enter this sum as clear profits under Federal control. This is no guess work. It is well known the freight and passenger rates did not rise in proportion to other prices. The general public had the benefit of it. Now, will some of you experts give us the figures on this basis? It is a fact that large monopolies can conduct a business much cheaper than small capitalists can, and any figures given the public to the contrary should be questioned very closely. Our public roads, public schools and public postal service are examples of efficiency at low cost, for comparison with toll roads, private schools and express companies. Federal ownership and operation will do the same for the railroads. Why do some of our farm organizations, while contending for co-operative buying and selling, refuse to see the goal when this co-operative principle is applied to Federal ownership of railroads?—A Farmer.

Our congressmen tell us that the roads are going back March 1st. Simultaneously or shortly thereafter, rates are going up, and farmers are going down in their pockets to help pay the 7 per cent. guaranty on watered stock, fat salaries and padded jobs which the railroads have always provided at the expense of the indulgent public. Ah, happy day! No more late trains; cars to burn; twenty-four hour freight service from Detroit to New York.—Editor.

A COMPLETE FARMER SLATE

I was talking with one of my neighbor friends yesterday about the farmers organizing in the state and how your paper was standing by the farmers and giving them the good advice needed in nominating a state legislative and congressional ticket to be voted on at the fall election. I asked him if he was taking the M. B. F. He said that he was not and took a dollar from his pocket and gave it to me to send you in payment of one year's subscription. Now what we want to do is to get down to business and select good men from governor down to coroner. Get them nominated in time for the great battle this fall. I would like to ask the readers of the M. B. F. how many farmers we have in the United States congress. I would like to see a farmer congressman nominated in every district in the state. We can do it if we will get right to work. That will mean for you to drop the two old parties, pull together and victory will crown your efforts.—J. S. B., St. Louis.

If you really want to elect some farmers to Congress, better drop the idea of a new party. Farmers as a class will get behind "farmer candidates," but they'll shy like a two-year-old from the suggestion that they break their old party ties. In a good many of the states of the union, farmers stand ready to scrap the old parties, but not so in Michigan. Don't you think, my M. B. F. friend, that you'll stand a much better chance of electing your men if you nominate them upon the dominant party for the state?—Editor.

WILL STAND BY CAMPBELL

I see by the letters in the M. B. F. that some farmers are worrying because Milo D. Campbell said he was a Republican and didn't promise to do all the impossible things that some would like to have him.

Now, we elected two members on the agricultural board last year and they ran on the Republican ticket, so why can't we elect a governor on the same ticket? I don't see as it makes any difference what ticket he runs on so he is elected. And I would rather vote for a man who made no promises and did something, than one who made a lot of promises and kept none of them. Why split hairs on such



WHAT THE NEIGHBORS SAY



trifles? The main thing is for all to go to the primary and put Milo D. Campbell on the ticket; then put our shoulders to the wheel and elect him. I for one am willing to abide by the judgment of the men that picked him from a list of very good men to be the farmers' candidate. He has made good before and I am sure will not fall down as governor. Farmers, talk Campbell for governor. Don't let the politicians split your vote and slip in some one that they have lined up for the purpose.—G. M. Weaver, Kalkaska County.

Good! We honestly feel that the great majority of farmers and their wives think the same as you do, and will translate their thought into action at the primaries.—Editor.

SITE-VALUE TAXATION

I heartily agree with Mr. Smith in your issue of Jan. 31st. Who will pay the war debts if we "untax wealth?" The income tax rate is being reduced already. Are the war-made millionaires going to be allowed to escape with the plunder? I don't see how Mr. Grenell can be in sympathy with the farmer and at the same time advocate single tax or the "untaxing of wealth." If Mr. Grenell can explain logically how we can untax wealth without over-taxing the poor and middle class I would very much like to have him do so.—Stanley Warner, Barry County.

Our head is in a whirl over this single tax controversy. The exponent says the single tax is aimed at the rich; the opponent says it is aimed at the poor. One farm organization endorses it; another condemns it. Said a prominent man to the writer recently: "The single tax is a beautiful theory, but it has never yet worked out successfully in practice." And there you are. Next.—Editor.

SHALL THE STATE FIX THE PRICE OF FARMER'S MILK

After reading an article in MICHIGAN BUSINESS FARMING, under the above heading, I am led to wonder what kind of fool legislation our great lawmakers will undertake next.

Now if we have elected men to office, who would even try to pass such a law, we should set ourselves to work immediately to put them where they can not do the public such a wrong, and so great an injury.

Why don't they appoint a commission to prevent grasshoppers and potato bugs from traveling right in broad daylight, from one farm to another, or to stop the frogs making such a noise when the ice thaws out of the pond? That would be of more benefit to the public, and would also afford these law makers something to do, but of course it would take men with a little gray matter under their hair, to solve such problems. A few more laws to control the price of farm products, will result in a lot of people going hungry, and it will not be the farmers either. Just why the

law makers want to make the farmers take the rotten end of the deal every time, I don't pretend to know; but that they do is as plain as a mule's ear, or the squeal of a pig.

You say in your editorial concerning this law, that "several of the officers of the Michigan Milk Producers' Ass'n sponsored it." Now if that is true, there are a lot of us that would like to know the names of those officers.—Jesse H. Shales, Washington, Mich.

The officers of the Milk Producers' Ass'n, who favor legalizing the Detroit Milk Commission, unquestionably believe their attitude to be in the best interests of the dairy industry of the state. Attorney General Groesbeck is of the opinion that the milk commission as it now stands, without legal status, is operating in violation of law, and assuming that the producer, distributor and consumer are all satisfied with the commission's work, he proposes to amend the state constitution and make the findings of the commission legally binding on all parties. It is a subject of such vast importance that we feel the matter should be referred to a vote of the members of the Producers' Association, rather than be left to the discretion of a few, no matter how sincere and able their judgment may be.—Editor.

BACKS THE BEET GROWERS' ASSOCIATION

Enclosed find check to renew my subscription to M. B. F. I like the fearless way in which you attack the problems of Michigan farmers and your market reports are valuable to all farmers. Enjoy reading every number.

Have raised sugar beets for 15 years in the last 16. Am done, however, unless the companies concede the demands of the Sugar Beet Growers' Organization. The time has gone by for any corporation to advance the costs \$6 per acre without, at least, consulting the growers on the matter. They fail to consider that farmers' costs had already advanced for labor and taxes and machinery, and in fact for everything they have to buy just the same as for anyone else. But it's the way they have always done. Handed the farmers anything they wished and the farmers have accepted it. A new day is dawning, however. The farmer is thinking more along the line of fair returns and a square deal and the sugar companies would do well to meet the growers and give them a square deal now.

Do the women of Michigan have a right to vote in the presidential election?—W. E. Hill, Genesee County.

The most important question involved in the issue between beet growers and manufacturers is the future status of the farmer as a party to the contract. The farmer who seeks to employ his right to arbitrate the terms of the contract with the manufacturer should have the approval and support of his fellow farmers. Your attitude is right. Answering your question, the women of Michigan may vote in the presidential primary which is held the first Monday in April, when you vote for township officers.—Editor.

The Week's Editorial

WORKING FOR THE STATE

If you were hiring a man to tend furnace you wouldn't ask him how he felt about Mr. Wilson's Fourteen Points. You'd want him to be posted on shoveling coal and cleaning out ashes.

But when the people of the State of Michigan get a man to see that the pure food laws are enforced and milk is sold under proper conditions, the fellow who is picked out for them stands a different test.

James W. Helme used to be state dairy and food commissioner. He had the very important duty of appointing the deputies who carried out the immediate duties of the office. In Grand Rapids the other day he testified before a jury and incidentally told how he chose William J. Mickel a deputy in Grand Rapids. He said, "I appointed him because, many prominent Democrats in Grand Rapids told me that he was a prom-

inent Democrat." It did not appear that anybody knew or asked before naming Mr. Mickel deputy dairy and food commissioner, whether Mr. Mickel could tell a tubercle bacillus from a hunk of cheese. They just ascertained carefully that he was a prominent Democrat.

Some farmers got together in convention a few days ago. They were not politicians, in the ordinary sense, but because they represented one of the state's most important industries, they were naturally interested in the way the business of the state is handled. They passed a resolution to the effect that something ought to be done toward "checking the expensive and extravagant management of state affairs by placing the business of the state on a sound basis. This, we feel, can only be accomplished by a thorough house-cleaning at Lansing."

Maybe so, maybe so.—Detroit News.

GREAT BRITAIN AND FREE SPEECH

Wish to commend you on the last issue (Jan. 7) of M. B. F., as I think it the best one we have read. Just now we read much in the big daily papers

about the drives made against Reds, radicals, Bolsheviks; anything to excite and divide the American people and detract their attention, while the British controlled press and the Tory element select the next president of the United States, so that American men and money may continue at England's disposal. Besides it is a settled purpose to unload the debt of Europe on America. During the war England seized all sources of information, and then fed us on lies. Awful tales of Hun atrocities made up in English newspaper offices and were spread broadcast in this country to develop hatred and divide the people, while England carried away billions of our money, grabbed up everything worth taking, the seas, the islands, the trade routes and added to her empire territory larger than all continental Europe, until the map of the world has become the map of Great Britain. * * * * Yesterday it was the Huns and it kept the people scrapping while England got a new grip on the throats of the Republic. Now it is the Socialists and Bolsheviks that keeps us worried and quarreling, while England selects the men for us to vote for. It also furnishes a convenient argument for a sedition law to deprive citizens of their constitutional rights; meanwhile we are deporting Russians to Russia and Mr. Wilson in absolute defiance of the Constitution and at a cost of hundreds of millions to American taxpayers is using American soldiers to help England and Japan in their war on the Russian people, making enemies of a people who were always our friends. Rid our country of British propaganda and intrigue, which during the last five years have all but made the United States a British subject colony. We must elect men who will respect and restore the Constitution and who will be for America and for America alone. Pro-British candidates may declaim against Bolshevism. This is not the issue and is, therefore, no evidence of their fitness. * * * *

The danger does not come from the small group of noisy Reds. The real danger comes from those who are willing to suppress our rights of representative government and thereby furnish ammunition to the Reds. Congress and that New York assembly have made more Socialists than could be made by Socialistic speeches in many a day. It is only when the people feel that their rights to get what they want through the ballot are being denied, that there is any danger of resort to violence in this country.

It is an odd situation that those who profess most loudly their love for American institutions are the ones who are doing the most to make many people believe the only hope of the people is through direct action. When the people begin to feel that Congress and legislatures are becoming nothing but the tools of big business and carrying out the wishes of the capitalistic class then we are getting on dangerous ground.—D. E. Crosby, R. 1, Fremont, Mich.

Philip Frances has written a book called, "The Poison in America's Cup," which virtually accuses the Wilson administration of being the tool of Great Britain and charges the United Kingdom with almost every conceivable conspiracy against the peace, the policies and the trade of every nation in the world. Had the book been circulated during the war, Mr. Frances would undoubtedly have been put behind the bars for sedition. Mr. Crosby expresses some of the views presented in that book, but in the name of fairness and for the sake of the future peace of the American mind and of the American nation, we caution our readers against a too immediate acceptance of these views. Great Britain may be the arch and dangerous conspirator she has been pictured, and it may be well for the American people to keep their eyes open, but we ought not to convict our Anglo-Saxon relations without more substantial proof than has yet been presented. No matter by whom inspired the onslaught upon the people's rights to assemble and express their views in peace is violation of the Constitution and those who value liberty bought by the blood of their forefathers will resent it as such. Sixty days ago there was a strong probability that Congress would enact some kind of peace-time sedition bill for the restriction of free speech. The flood of criticism that has poured into Washington from all parts of the country against the measure makes it highly improbable that any such law will be enacted.—Editor.



MARKET FLASHES



STRENGTH RETURNS TO WHEAT MARKET

WHEAT PRICES PER BU., FEB. 16, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Red	2.47		2.60
No. 2	White	2.45	2.53	
No. 2	Mixed			

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Red	2.30	2.30 1/2	2.36
No. 2	White	2.28	2.28	2.34 1/2
No. 2	Mixed	2.26	2.27	2.33

After a most unusual slump in the price of wheat, the market shows returning strength. The principal topic of discussion among the traders is the effort of Sen. Gronna, of North Dakota to bring an end to the government's guaranty and let the market take its natural course. It has long been the conviction of this western senator that the government guaranty has artificially depressed the price of wheat, and that prices would go much higher if the restraint of the government were removed. This opinion has been shared to some extent by other western folks. Julius Barnes, former head of the Grain Corporation, takes issue with Senator Gronna's conclusions, and denies that the government's guaranty acts as a deterrent to higher prices. It is Barnes' opinion that the government guaranty is a supporting factor in the wheat market, and that without it farmers would be obliged to sell at a price much lower than the guaranty. We are inclined to an acceptance of this view, not because we are in sympathy with government price fixing, but because we believe the time has gone past when the farmers might receive any material benefit from the removal of the guaranty. Six months ago it might have been wise to bring an end to government control, but the present times are too uncertain, the ability of foreign countries to pay for our wheat is too questionable to chance the open market. In view of the unsettled conditions we feel that the government guaranty on wheat has become, for the first time since it was established, a real protection to the wheat grower. Moreover, as Mr. Barnes points out the government guaranty is not a maximum but a minimum price, and all sales of wheat for the past several months have been made at a considerable advance over the minimum. How much effect the government's control of export licenses, wheat supplies, etc., has had upon the natural movement, and consequently the maximum price, is a debatable question. Speaking of the controversy between Sen. Gronna and Mr. Barnes the Price Current Grain Reporter says:

"Senator Gronna of North Dakota has taken his political life in his hands and turned speculator on a broad scale, announcing himself a rampant bull on wheat. He is so cocksure that wheat would advance if the minimum guaranteed price were at this moment repealed he demands that this be done by Congress instantly, and his complacent committee has reported favorably. As Mr. Barnes has said: 'Only the most colossal egotism would presume to forecast the course of prices in the face of world wide unsettlement, which within the past few days has wrecked the United States export trade by the total collapse of overseas finance.'"

CORN SEEKS HIGHER LEVEL

CORN PRICES PER BU., FEB. 16, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Yellow	1.53	1.43	1.64
No. 3	Yellow	1.50	1.39 1/2	1.60
No. 4	Yellow			1.54

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Yellow	1.36	1.30	1.47
No. 3	Yellow	1.31	1.26	
No. 4	Yellow			

Warmer weather, freer movement, and that old bugaboo, the Argentine situation, acted as bearish influence in the corn market the fore part of last week, but the weather turned colder, the farmers quit selling, and an authentic report from the Argentine exploded the earlier report, and



DETROIT—Grains firmer. French buyers in market for oats and rye. Beans take another drop. Potatoes firm up. Hay scarce and higher.

CHICAGO—Corn receipts small, prices higher. Oats in demand. Hog market very unsettled. Cattle dull.

Weekly Trade and Market Review

THE COUNTRY is well divided in opinion as to what the strange counter currents of soaring prices, falling exchange, increasing exports, declining imports, advancing wages, declining prices on farm goods, and other phenomena of the day portend. A goodly share of the people are having a deliciously good time,—too good to last. The frenzy of spending, speculation, pleasure-grabbing must come to an end. The outpouring of our national wealth into Europe's maw for nothing in exchange but credit must stop. And it will stop to a certain extent. Everyone is agreed on that. The only question is as to what effect the stoppage will have upon domestic conditions. Will it create a surplusage of American-made goods, for which there will be no domestic market. Will it force factories to close, throw men out of work, and drive people farmward? Will it halt industry, hurt agriculture, and increase industrial unrest? What's the answer?

The Price Current Grain-Reporter pessimistically meditates upon the subject as follows:

To not a few the 'Change phenomena of last week raised the question, Has the end come—is the break so long dreaded, with the inevitable reduction of prices, overshadowing the country? Who can tell? Panics so called (business depressions is a better expression) are not made to order, nor are they prevented by talk of "psychology." They come in the natural order of things when commercial credit is exhausted. Credit is always sound when there is negotiable value in goods behind it; it is never sound without. Just now, thanks again to the industrial idler who has been and still insists upon consuming far more than he has produced or produces, and to the flood of exports with little except luxuries coming back, it looks as though the limit of sound credit resting on goods is tending toward exhaustion. The "signs of the times" give pertinence to former Senator Burton's analysis of the "Indications that Precede a Crisis;" (1) High prices; (2) increased activity and formation of new enterprises; (3) active demand for loans; (4) increasing wages; (5) increasing extravagance in expenditures; (6) mania for speculation; (7) expansion of discounts and loans, rising interest rates, still higher wages, strikes and labor shortage. In a word, when consumption outruns production and the world spends its savings, the crisis comes first to an individual or an institution; then to many; finally to all. Whether the start has really been made is still a mooted question. P. R. Johnson, president of Chemical National Bank, is quoted as having said last week: "The demoralization of foreign exchange may deal a blow to high costs of living in America. It will cut down our exports, thus throwing large quantities of American goods on local markets, and will, in all probability, result in a decrease of prices." That would be wholesome and perhaps may be all.

As for farm products, the evil result of high cost of living agitation, and the sudden withdrawal of export orders, is being seen in lower prices. If the recent declines in food values is a barometer of what may be expected to happen to all commodities, then the predilections of the journal above quoted are not amiss. Anyway, we may as well admit that we are facing a critical and uncertain period, but we folks who are interested in farming may receive great comfort in the thought that whatever may happen to the nation's industry we shall be the least affected of all

corn is once more in a favorable, advancing position, on virtually all markets. A recent report of the latest developments in the corn deal is as follows: "The strength is credited chiefly to the reluctance of the farmers to accept present prices and the inability of the roads to carry enough corn to bring pressure on the market. Corn has a way of dropping enough to encourage a belief among the bears that the slump is on. They sell freely only to have the market turn against them and force covering at a loss. This has happened several times and has resulted in shaking the confidence of the believers in lower prices. Bears are in the majority in both Detroit and Chicago and the market flatters their judgment just enough to keep them guessing, but they have not been able to escape with any of their plunder. They have been helped by demoralized stock markets, weak foreign exchange, and high interest rates from time to time, but there is

always one element against them—the supply of grain is small and shows no symptom of increasing. Cash demand takes the corn as soon as it appears on the market and stocks get no chance to increase. As long as this condition remains it appears like a difficult task to get prices materially lower and keep them down.

All of which is exactly in keeping with what M. B. F. has preached for the better part of six months.

OATS ADVANCE WITH CORN

OAT PRICES PER BU., FEB. 16, 1920				
Grade	Detroit	Chicago	N. Y.	
Standard	.90		1.00	
No. 3 White	.91	.87 1/2		
No. 4 White	.90	.86		

PRICES ONE YEAR AGO

Grade	Detroit	Chicago	N. Y.
Standard	.60	.59	.68
No. 3 White	.60	.58	.67
No. 4 White	.59	.57	.65

Despite cancellation of some export orders for oats, this market has

renewed its former strong position and last week saw advances ranging from 1 to 3c per bushel. It is plain that the supply of this grain is limited and that future purchases will undoubtedly be made at higher prices than now prevail.

BEAN MARKET A PUZZLE

BEAN PRICES PER CWT., FEB. 16, 1920				
Grade	Detroit	Chicago	N. Y.	
C. H. P.	6.75	7.50	8.00	
Red Kidneys		14.50	14.50	

We hardly know what to say to our readers this week on beans. After several weeks of declining prices, reports have it that there is a firmer feeling, but if true this has not yet affected the price. There is an inclination on the part of the bean growers all over the country to cut down their acreage next year. A report from Lompoc, California, which is in the heart of the bean growing district of that state, reads as follows: "The acreage planted to small white beans this season in the Lompoc district will be greatly reduced, and mustard, sweet peas, contract beans, onions, potatoes and barley will be planted in their stead. Hundreds of acres have been seeded to sweet peas and mustard and in many places they are now above the ground."

We do not know how Congressman Fordney's renunciation of his promise to the bean growers to try to secure a special tariff bill is going to affect the market. One thing is certain, however, it is not going to restore people's confidence in the market. On the other hand, were a tariff bill enacted during the next ninety days, or any prospect of an enactment, thereby preventing speculators from using the oriental bean as a club to manipulate the domestic market the supply of domestic beans would readily be taken up by the demand at profitable prices to the growers. This is what bean growers all over the country have expected to happen, but thanks to Mr. Fordney, the props have all been removed, and it's hard to tell how far the bottom may drop out of the market. There are six more months yet in which to move the crop. So perk up, and be hopeful.

RYE AND BARLEY

Rye is in good demand and is quoted at \$1.58 No. 2. France is buying considerable rye at this time. Barley quotations are \$2.90 and \$3 per cwt.

POTATOES STEADY AFTER SLUMP

SPUDS PER CWT., FEB. 16, 1920				
	Sacked	Bulk		
Detroit	4.50	4.35		
Chicago	4.25	4.25		
Pittsburg	4.35	4.25		
New York	4.50			

PRICES ONE YEAR AGO

	Sacked	Bulk
Detroit	1.75	1.65
Chicago	1.60	1.55
Pittsburg	1.80	1.85
New York	2.10	2.00

The potato market, after several weeks of uneasiness and lowering prices has taken on a steadier tone and some consuming points note a slight increase in price. The mild weather of late January and early February was favorable for shipment and was the natural cause for the decline. The very severe weather of the present week has probably caught hundreds of cars in transit and we will not be surprised to hear some reports of frost damage, which always has a bad effect upon the market for a few days. The potato situation is thoroughly discussed on page two. Holders of spuds should be very careful in their marketing until a stronger tendency is seen in the market. To unload any great quantity of potatoes at the present time would simply mean making a bad situation worse. The feeling all over the country seems to be that prices will rule fairly steady for the

balance of the season providing caution and good judgment are used in marketing the rest of the crop.

HAY PRICES TAKE JUMP

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	33.50 @ 34	32.50 @ 33	31.50 @ 32
Chicago	34.00 @ 35	33.00 @ 34	31.50 @ 32
New York	37.50 @ 38	36.50 @ 37	35.00 @ 36
Pittsburg	37.50 @ 38	36.50 @ 37	35.00 @ 36

	No. 1 Light Mix.	No. 1 Clover Mix.	No. 1 Clover
Detroit	32.50 @ 33	31.50 @ 32	31.50 @ 32
Chicago	33.00 @ 34	32.00 @ 33	31.00 @ 32
New York	41.00 @ 42	39.00 @ 40	37.00 @ 38
Pittsburg	36.50 @ 37	35.50 @ 36	34.50 @ 35

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	25.50 @ 26	24.50 @ 25	23.50 @ 24
Chicago	25.00 @ 26	24.00 @ 25	23.00 @ 24
New York	28.00 @ 29	27.00 @ 28	26.00 @ 27
Pittsburg	28.50 @ 29	27.50 @ 28	26.50 @ 27

	No. 1 Light Mix.	No. 1 Clover Mix.	No. 1 Clover
Detroit	24.50 @ 25	23.50 @ 24	23.50 @ 24
Chicago	25.00 @ 26	24.00 @ 25	23.00 @ 24
New York	25.00 @ 26	24.00 @ 25	23.00 @ 24
Pittsburg	25.50 @ 26	24.50 @ 25	23.50 @ 24

Eastern markets which were affected by the heavy snow last week, are now strong and higher, says the Hay Trade Journal. Supplies are light and the demand created by the lack of value of motors during the blizzard, caused a good demand for hay. Central Western markets are steady to easy according to the amount of offerings, which have increased considerably during the past ten days.

DETROIT PRODUCE-MARKET

The decline that was expected in the poultry deal never came. The week closed with nothing on hand and a firm market. More poultry could have been sold without bringing any weakness. Dressed calves were steady and hogs easy. Butter is steady and quiet. Fresh eggs are in fair supply, but there is enough demand to hold the market firm. Very few Michigan eggs are coming to market, the supply being from the south and southwest. There is a good deal of difference in the quality, which accounts for a range of 1c in prices. A slightly firmer tone is shown in the apple market, but trade continues quiet.

BOSTON WOOL MARKET

Michigan and New York fleeces: Fine unwashed 68@72c; delaine unwashed, 92@95c; 1% blood unwashed, 80@82c; 3-8 blood unwashed, 68@69c. At the London wool auction sales prices were unchanged. Americans bought the best breasy merinos and crossbreds.

LIVE STOCK PRICES AT CHICAGO

Weekly average prices at Chicago for good native beef cattle, hogs and sheep, per 100 pounds, and weekly average weight of hogs (highest average on record), have been compiled as follows by the Price Current Grain Reporter:

1919—	Cattle	Hogs	Sheep	1918	1917
Feb. 15	15.85	17.85	10.60	236	232
Feb. 22	15.80	17.65	11.80	233	232
Mar. 1	16.90	17.52	12.50	227	233
Mar. 8	15.75	18.20	13.50	230	239
Mar. 15	16.20	19.15	13.75	229	249
Mar. 22	16.10	19.50	14.50	235	237
Mar. 29	16.10	19.42	14.50	232	239
Apr. 5	16.00	19.90	14.25	228	241
Apr. 12	15.80	20.30	14.00	232	242
Apr. 19	15.85	20.45	14.50	229	242
Apr. 26	15.80	20.80	15.10	232	243
May 3	15.70	20.45	13.80	233	241
May 10	15.40	20.90	13.50	233	241
May 17	15.10	20.65	13.85	232	237
May 24	14.90	20.85	11.30	231	240
May 31	14.15	20.25	11.05	232	231
June 7	13.50	20.20	10.70	232	232
June 14	13.50	20.35	8.40	231	236
June 21	13.50	20.40	9.30	232	235
June 28	13.65	20.80	8.75	233	237
July 5	13.85	21.30	8.80	238	238
July 12	15.10	21.95	9.05	239	245
July 19	16.00	21.35	9.30	242	244
July 26	16.50	22.20	11.00	246	245
Aug. 2	10.25	21.95	10.00	245	240
Aug. 9	16.85	21.05	9.85	244	242
Aug. 16	17.30	21.25	10.00	246	237
Aug. 23	15.95	19.50	10.25	250	248
Aug. 30	15.00	18.70	8.50	242	245
Sept. 6	15.75	18.45	8.75	255	252
Sept. 13	15.50	17.35	7.90	255	251
Sept. 20	15.25	16.95	8.25	249	245
Sept. 27	15.60	17.00	8.20	256	242
Oct. 4	16.00	15.75	8.10	249	230
Oct. 11	16.10	15.00	8.15	241	236
Oct. 18	16.65	14.50	7.20	242	232
Oct. 25	16.20	13.10	9.20	235	230
Nov. 1	15.80	13.55	7.65	229	229
Nov. 8	15.50	14.75	7.60	230	231
Nov. 15	15.50	14.60	8.00	226	225
Nov. 22	14.50	14.10	8.75	224	226
Nov. 29	14.90	13.30	8.80	222	225
Dec. 6	15.10	14.00	9.40	222	225
Dec. 13	14.65	12.80	9.00	224	222
Dec. 20	13.50	13.90	9.25	227	224
Dec. 27	13.90	13.52	10.10	224	225
1920—					
Jan. 3	14.25	14.25	10.00	224	226
Jan. 10	14.65	10.65	225	229	
Jan. 17	14.00	14.85	11.25	225	228
Jan. 24	13.65	15.25	12.20	230	230
Jan. 31	13.70	15.40	13.35	232	231
Feb. 7	13.80	14.75	13.00	229	237

CHICAGO LIVE STOCK

Good to choice, \$14.75@16.50; medium to good, \$13@14.75; fair to medium, \$11@13; common to fair yearlings, \$11@13.75; good to prime yearlings, \$13.50@15; prime cows, \$11@11.75; medium to good, \$8.25

@10.50; Cutters, \$6@6.50; canners, \$5@5.75; common heifers, \$7.50@8; prime heifers, \$11.50@12; choice heifers, \$10@11.50; medium heifers, \$9@10.50; choice to prime butchers bulls, \$9@10.75; heavy bolognas, \$8@8.25; medium to good, \$7.25@2; choice veals, \$16.50@17; heavy veals, \$10@14.

HOG TRADE UNEVEN

Good to choice heavy, \$14.40@14.75; fair to good heavy, \$14@14.40; good to choice medium, \$14.75@15.26; good to choice light, \$15.20@15.40; fair to good mixed, \$13.50@14.50 heavy and mixed packing, \$13.50@13.75; common and heavy packing, \$12.75@13.25; pigs, \$13.50@14.75.

MUTTONS LOSE EARLY GAIN

Fed wethers, all grades, \$14@15.50; cull wethers, \$10@11; native ewes, \$12.50@13.50; western ewes, all grades, \$12@13.50; cull ewes, all grades, \$7@8; breeding ewes, yearlings \$12@14.25; bucks and stags, \$6.50@7.50; breeding ewes aged, \$9@12.50; western lambs, choice, \$20.50@21.25; western range lambs fair to good, \$19.50@21.50; feeding lambs, \$16@18.

FUTURE OF BEEF

Beef values declined in spite of a lighter January movement. Why? Simply through lessened demand. There is less beef going abroad and our local demand has not been sufficiently strong to offset it.

Now with every evidence of goodly cattle supplies in the country what does the immediate future offer? A higher market? We doubt it greatly. When we look back to 1913 we find our food values have increased 50 to 200 per cent. But isn't it reasonable to conjecture that there is a limit and that possibly in some quarters at least that limit has been reached? We should so govern our operations therefore that we shall be able to meet changing conditions without regarding them as revolutionary or as anything more than the natural result of readjustment in the general order of things.—N. H. S., Clay, Robinson & Co., Chicago.

SAGINAW MILLING CO. LOSES LICENSE

Julius H. Barner, wheat director, announces that the licenses granted to the Saginaw Milling Company, of Saginaw, Mich., with a branch at

Richmond, Va., have been revoked, effective at noon, Jan. 29, 1920, until further notice, the Wheat Director license being revoked in its entirety and the Food Administration license insofar as the dealing of the above company in wheat and wheat products are concerned. The Food Administration licenses of this company were revoked for failure to keep accounts and render reports as required, and taking unjust and unreasonable profits in excess of permitted margins above proven cost of production during the ten months' period ending June 30, 1918. Due to the revocation of the Food Administration license and because of misconduct leading up to such revocation the company's Wheat Director license was revoked.

SEEDS

Timothy seed has advanced 20c and in alsike declined 25c. Red clover seed is firm and active.

They all like M. B. F.!

I would not be without M. B. F. for many times its cost. Therefore, have decided to renew up to 1924, five years.—A. G., Quimby, Mich.



Endurance Makes Hudson the Largest Selling Fine Car

More Than 80,000 Owners Value That Quality Most Because It Means Long Dependable Service, Free of Car Troubles

Hudson outsells all the world's fine cars, only because of qualities that count in every day service.

Chief of these is durability. All motorists so regard it.

And endurance is written everywhere in Hudson history.

Since Hudson made its unrivalled endurance records, it has led all other fine cars in sales every month and every year.

That proves how experienced motorists judge car worth.

How Hudson Gained Leadership

It was not speed that gave it sales leadership; though Hudson holds more stock car speed records than any car, and with cars embodying the Super-Six principle won more points in speedway racing than the fastest special racers ever built.

It was not power; though Hudson holds the fastest time ever made up Pike's Peak, in the classic of all hill climbs.

These Qualities Inspire Pride In Hudsons

They are valued of course by more than 80,000 Hudson owners. They contribute to the rounded supremacy of performance which distinguishes the Hudson everywhere. And it is natural to feel pride of ownership, and affection for a car that none can rival in fleetness, or in hill-climbing.

But few will ever care to use the full limit of Hudson speed. Few will meet hills to test its limits of power.

What does count every day of use is sure, dependable transportation. What does count after many months of service is the way Hudson retains its smooth, silent powers of superior performance, undiminished.

It means the assurance and reliance in your car that you feel in a watch that has served you for years, and never gave you cause for doubt. You are not disturbed by speculation regarding probable car troubles. Because with Hudson, car troubles are not thought of because of their remoteness.

And remember that the Super-Six principle which accounts for all Hudson's speed, endurance and performance records, is exclusive in the Hudson. No other maker can use it. For the Super-Six motor, which adds 72% to Hudson power, without added weight or size, was invented and patented by the Hudson.

Mark How Hudson Now Fulfills Its Prophecy

Every year has seen some improvement in the Hudson. The new models approach nearer the builders' ideal than they ever believed practicable. It is today a finer machine than those early models, which made performance records, no other car has equalled.

Hudson also leads in style. Its influence shapes motor design each year.

Demand for such advantages as Hudson's inevitably means that immediate delivery is not possible for all who want them. Many have waited months for the model of their choice.

Even should you not want your Hudson until next year, now is not too early to place your order.

Hudson Motor Car Company, Detroit, Mich.



The Farm Home

A Department for the Women



TO BRIGHTEN COUNTRY LIFE

Edited by MABEL CLARE LADD

The Voice of the Women

A-rocking of the cradle we have wondered,
A-stitching with the needle we have thought
Of nationhood and of its seething problems
And fair solutions wrought and to be wrought.

We pondered and we wondered in the silence,
We taught our little children as we might;
And sometimes in the quiet we were dreaming
Of the time our lives might rise into their right.

The time when we might think and speak unhampered
And voice our aspirations for the race,
And join in world-emancipating campaigns,
And walk beside our men with even pace.

The "process of the suns" has brought the dawning
Of the day, the dreamed-of day, and yet we pause;
Afraid, yet not afraid, we tread the portal
Of this new world with its problems and its laws.

Yet shall we venture forth on its arena
And offer of our best as woman's meed,
Bracing our strength of soul into its service
And stinting naught that we may meet its need.

Yea, sisters, shall we venture woman-hearted,
That from the sphere of home our lives may bear
The best, the truest, tenderest of its spirits
That every sphere of humankind may share.

Year, brothers, we come forth to walk beside you,
To bear with you all chances of the way;
Adventuring our all in the endeavor,
That we together reach the Better Day

HERE'S a restlessness in the air; a longing for something different. Dissatisfaction with present surroundings is rampant. It's the will-o'-the-wisp call of spring. Every year it comes with the first balmy breezes and many there are who are led to believe that they should make a change of some kind, and under the spell of the elusive spring days take a drastic step, only perhaps to afterwards regret it.

It's the mothers of the land who must direct the steps of the children, keeping them busy, and yet keeping them interested in their work.

There is perhaps, no better, more instructive occupation for the youth of the land than the Boy Scout movement, and while it is not so easy for the children of the country to organize, still they can at least be taught by the parents the rudiments of the Scout law. Books for Boy Scouts can be secured for a very little and these the boys will enjoy reading, and in the hazy spring days, they will find much joy in learning to build fires the Scout way, while the Scout Oath is one which every boy in the land would do well to take. When the boys realize that the biggest men of the nation today are looking to them to fulfill the oath to keep themselves "physically strong, mentally awake and morally straight" and to serve God and Country, they will be glad to qualify for this work and in so doing, their energies will find a healthy outlook.

So much for the boys—and so little for the girls. Continually we hear this cry: And yet the girls can be organized into community welfare clubs with meetings directly after school. And their organization can be known as the Chorus Club, where they meet to have a "sing fest."

It was demonstrated during the war that everyone likes to sing—at least to try to sing—that it is a natural outlet for human emotions—and it was because of this known tendency that music leaders were provided for every camp, whose duty it was to lead in the singing.

At college, the favorite twilight pastime of the girls is to gather around the fire at twilight and—just sing. Everything they know they sing, some perhaps out of tune, but nobody cares, for it is an expression of happiness, an outlet for their feelings, and something to do.

Have you thought of organizing a Community "Sing"? If not, why not sound out your neighborhood and you will be surprised to find how many will be glad of the opportunity to meet at the homes of their neighbors once each week and just sing. It's an opportunity to get together, to exchange ideas and to broaden our visions as well as to give expression to ourselves through song equally good for young and old.

HELPFUL HOUSEHOLD HINTS

A SMALL PIECE of gum camphor placed in a vase of water will keep cut flowers a long time.

Orange fritters are a delicious accompaniment to fried ham.

The addition of a tablespoonful of cream to brown gravy makes it deliciously brown.

Scraps of cream cheese may be made useful by mixing them with butter and milk, or a little cream. This should be spread on thin, wafer-like crackers, made into sandwiches and served with salad.

Cheese may be kept soft and good for a long time if wrapped first in a cloth wrung in vinegar, and then in a dry cloth.

One large tablespoonful of butter, blended, will thicken a half pint of milk and water for sauces.

A raw potato cut in half and rubbed on fingers stained with vegetable parings will remove the discolorations.

When cleaning delicate fabrics, lace, ribbons, plumes, etc., use a mixture of gasoline and flour. Mix this as you would flour and water. Dip the articles in and scrub them thoroughly.

When necessary to boil a cracked

egg add a little vinegar to the water; this will prevent the white from boiling out.

Horseradish is much improved for table use by mixing it with sweet turnips or rutabaga, one part of the latter to two of the former.

Whip cream in a pitcher instead of a bowl. You can do it in half the time and without spattering.

By wetting a spoon with which you are to serve jelly, you will find that the serving is more easily accomplished.

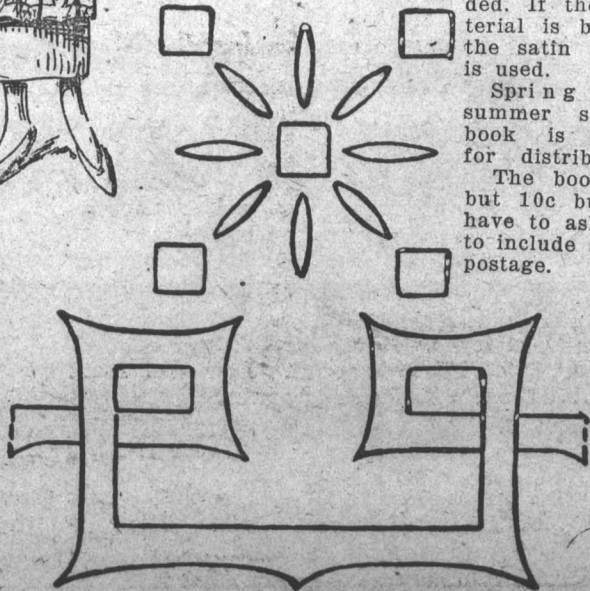
HOME NEEDLEWORK

ALREADY Milady is wondering what she shall have for spring, and thinking about her wardrobe. If the dress is to be made at home, and any fancy work done on it, it is indeed high time that it were begun for time slips away and when those first lazy days of spring catch us, there is no desire to sew.

The dainty model shown this week will attract the girl and younger married woman who is slender. It has the new neck line and short sleeves, and is dressy enough to wear anywhere. For the young Miss who embroiders and wishes to cut expenses, this dress is "just the thing." When the material is silk, rope floss is used or beads follow the outline and the edge is not padded. If the material is batiste, the satin stitch is used.

Spring and summer style book is ready for distribution.

The book is but 10c but we have to ask you to include 5c for postage.



Women in Politics

Conducted by JUDSON GRENELL

LAND, LABOR, WEALTH, CAPITAL

THE VOTING woman will always be misled as to what to vote for, unless she has an understanding as to the source of wealth. It may sound to her unreasonable to be told, for example, that the paper money she regards with so much favor, is not wealth, but that gold and silver coins, which are much less desirable for trading purposes, are actual wealth. So far as she can see they perform the same function—she exchanges them for those things that satisfy her desires.

If paper money was real wealth, all that it would be necessary to do to make everybody wealthy would be for the government to set the printing presses going, and to give everybody all the "money" desired. But experience has shown that the larger the supply of paper money, the less will the dollar buy. It is said that when the South, during the civil war of the '60s, was "on its last legs," a Richmond citizen was compelled to take to market a wheelbarrow of paper money in order to buy a peck of potatoes.

A few words on what wealth consists of is not out of place in this brochure.

Land

The first factor in creating wealth is land. Nothing can be produced except from land or upon land. And in this connection the word "land" is used as embracing all the natural forces of the world—even the universe—air, water, electricity, etc. It means more than the mere soil.

Labor

The second factor in the production of wealth is labor. Labor, applied to land, produces wealth. It is a short-sighted person who says: "I am not a farmer; I do not use land." Everyone uses land; it in some form sustains life; it is walked on; slept on. Between the miner taking ore out of the ground and the farmer guiding his plow through the crop-yielding soil there are a thousand and one activities; and in proportion as each activity is a necessary part in making a plow, those thus engaged are land users.

In fact farming is the only employment in which all mankind may engage and be sure of a living. "Mother Earth" is no flight of imagination.

Wealth

In proportion as labor is intelligently applied to land will wealth be produced. Here the instructor, the investigator, the recorder, the scientist, even the banker, helps to make labor productive. Each is entitled to such reward as will adequately repay him for his exertion. And when finally the harvest—say wheat—is ready to be transported to the mill to be ground into flour, its distribution will not be fair unless each factor in its production is equitably remembered.

Capital

When the excess of wealth above the immediate needs of the producer is used to produce more wealth, it is called capital. A barrel of flour in the kitchen bin is wealth; a barrel of flour in the store to be exchanged for money is capital. The iron ore (land) manipulated (labor) into a baker's iron stove is capital. The greater the accumulation of capital used productively, the richer society becomes, and the more productive is labor.

Rent

For the use of land, rent is paid; for labor, wages are tendered; and capital is reimbursed by interest. As land is not the product of labor, it is not capital, nor is labor skill capital. Yet just as paper money performs the same function as does metal money, so do land and labor at times apparently perform the functions of capital. However, in the discussion of eco-

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Any time that any one wants a delicious drink with a real, satisfying, sustaining food value.

We guarantee its purity and high quality. We have been making chocolate and cocoa for nearly 140 years.

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It is hardly possible to insist too earnestly upon the supreme importance of an abundance of fat-nourishment during the winter to keep up energy and body-warmth.

Scott's Emulsion

is an easily assimilated fuel-food that is of particular advantage to those who feel winter's cold overmuch. Scott's nourishes the whole body and sustains strength.

Be sure it Scott's.
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Try Ki-moids for Indigestion.

Michigan New Ground

Berry Plants — The kind Baldwin grows on his Big Berry Plant Farms have deep, heavy roots — are hardy and healthy. They start their growth quickly, produce largest fruit crop.

IT'S READY FOR YOU.

Baldwin's Big Berry Plant Book will be sent on request. It's a down-to-date Fruit Grower's Guide, beautifully illustrated, chock full of useful information on best ways of growing strawberries and other small fruits. Our plants all freshly dug to fill your orders. Scientifically packed for safe shipment. Write tonight — get our book and start right.

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Mixed Alsike and Timothy

Greatest of hay and pasture combinations. Extra choice seed tested for purity and germination. Write for free samples and our big catalog of field and garden seeds. Wonderful values in Clover, Alsike, Millet, Field Peas, Rape, etc.

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THE ADAMS SEED CO., Box 16 DECORAH, IA.

nomie problems, it is necessary to keep in mind that these things—land, labor, wealth, capital—are really different; to indiscriminately use them as meaning the same thing is only to create confusion.

A person can at one time be a land owner, a laborer, a capitalist. Into which class he falls depends upon the extent of his stake in the land, whether his labor is his principal means of livelihood, or the quantity of capital he possesses. From what source does he obtain the greater portion of his income? That is the determining factor. One with brains and experience can do society a greater service as a director of production than as a manual worker. The rewards for all are greater—greater in every direction. Increased production insures a decreased first cost that inevitably results in lower prices. In this benefit the entire community eventually shares. That is one of the reasons why the arts and invention have made the luxuries of one generation the necessities of the next; the prices have fallen so that the things produced are within the financial means of the mass.

Landlords

The land owning class is in a peculiarly happy position. As population increases, without any effort on the part of the land owning class the value of land constantly tends to increase. This is caused by competition for its use; there is a restricted supply. Things produced by labor will bring in a free market only the cost of production, because production is unlimited, and prices constantly tend to this minimum. But as a land is a fixed quantity, and an absolute necessity if there is to be any production at all, its ownership gives a monopoly as positive as anything that can be imagined. Wages and interest may decrease, but rent, for land, is sure to increase with increase of population.

Exploitation

No Michigan woman voter should look with complacency on the flow of wealth into the possession of those who do not earn it. For such flow must of necessity be at the expense of those who produce the wealth. It is exploitation. By keeping in mind the supreme fact that wealth is produced by labor, and by labor only, it is not hard to distinguish between the rightful ownership of wealth, and to so vote as to favor the producer as against the exploiter.

Most people are wealth producers. The scientist who extracts plant food from the air, and so helps the farmer to make two blades of grass grow where only one grew before, should not his reward be large?

To frown upon the possession of unearned wealth is to help protect the home against some more or less insidious kind of robbery. Let the frowning be followed by that right action which reflects itself in the results coming from placing a ballot in the ballot box.

The Little Things of Every Day

Through little things she shows her love:
The Little Things of Every Day.
I think this earth must live and move
Thru women dear who ease our way.
The world applauds our outward life:
(It does the same for many more!)
But she and I—we know no strife;
There are no ashes on our floor!

My socks are whole; my coffee good;
I find the water warm to shave;
(And I have never understood
The way my collars dodge their grave)
She always knows where I have hid
The letter that I want so much;
Oh! Things do just as they are bid!
My tie comes right at her first touch.

The Little Things of Every Day!
In these she shows her love for me.
I dread each hour when she's away;
My life gets so complex, you see.
I lose my shirts and never can
Remember where I put my hat,
(I'm just a simple, selfish man,
But, Ah! she likes me, 'spite of that.)

All I can do is take her hand
When sunrise slips past sentries red,
And tell her that I understand
The 'homely halo' round her head.
(Some men would say she'd have more
style
Without her cap that looks so old,
But I don't mind, I have her smile,
Besides—the bacon might get cold!)

Of super-women, fine and brave,
I've read a lot; I say no more;
Except that they would never save
The thing you dropped outside the door.
Let poets rave of beauties fair,
Of women clever, brilliant, gay.
My woman does three times her share;
The Little Things of Every Day!

—H. C. L. J.



Never in the world were there doughnuts like Calumet doughnuts. In no others will you find that toothsome, tender goodness. It's the same with all bakings.

CALUMET Baking Powder

Makes Most Palatable and Sweetest of Foods

Never anything but the very best—light, flaky and wholesome—because this 30-year favorite of leaveners is absolutely pure in the can—pure in the baking. Contains only such ingredients as have been officially approved by United States Food Authorities.

Made in the world's largest, cleanest, most modern Baking Powder Factory.

You save when you buy it—moderate in price. You save when you use it—has more than the ordinary leavening strength—therefore you use less. You save materials it is used with—never fails. Order today. Improve the quality of your bakings. Reduce baking costs.

Calumet Doughnuts
1/2 Cup sugar, 1 Egg, 3 Level teaspoons shortening, 1 Level teaspoon salt, 1/2 Cup milk or water, 2 1/2 Level teaspoons Calumet Baking Powder, 2 1/2 Level cups flour. Lemon and mace flavor.

How to make them—Cream sugar and shortening together, add well beaten egg, then add milk. Next mix in flour and baking powder well sifted together. Work dough as little as possible. Turn out on well floured board and roll out quarter inch thick; cut with doughnut cutter and fry in boiling hot fat.

Valuable 72-Page Cook Book
Handsomely illustrated in colors. Most complete and dependable recipe book ever issued. Hundreds of helps in reducing household expense. Scores of selected recipes. Better ways of making better foods. Send slip found in can of Calumet and three 2-cent stamps to help cover cost of packing and mailing. Calumet Baking Powder Co., 4100-4124 Fillmore Street, Chicago, Ill.

BEST BY TEST

YOU SHOULD KNOW HOW TO VOTE INTELLIGENTLY

on great political issues. Send 25c for "What Michigan Women Should Know About Voting," by Judson Grenell, to Waterford Publishing Company, 308 Thompson St., Ann Arbor, Mich.

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You can save more money and make more money if you plant Isbell seeds. It means sure crops, big crops of the kind that bring the most cash. Isbell's Seeds have that reputation among more than 200,000 users. Whatever your demands may be, Isbell seeds will meet your needs, —the best seeds you can buy. That's a proved fact because they are

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Isbell's Seeds
"As They Grow, Their Fame Grows"

Michigan is acknowledged the best seed growing state in the Union and Isbell's grow their own seeds. You buy direct and are thus assured of quality, hardy, early maturing, pure, rugged seeds of the best that 41 years of experimenting, developing and study can produce. This makes sure crops, —big sure yields and satisfaction.

Free Farm Seed Samples—Free Catalog
Just send the coupon or post card. Tell us which samples you prefer. We will send them Free, without obligation, with the new 1920 Isbell catalog. The more you know about seeds, the better you will appreciate Isbell quality and this wonderful buying guide. Write today.

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Gentlemen:—
Please send me these samples and 1920 Catalog.
Clover — Barley — Oats — Alfalfa — Corn — Timothy

Name _____
Address _____



DEAR CHILDREN: This is the time of the year when old Biddy is clucking around for getting that eggs are high and mother would like to have her lay instead of insisting on sitting on that nest all day. But there is a reason for it. The old hen wants some little chickens of her own, and if you can persuade mother to give you a setting of eggs with the promise that if you will take entire charge of the old hen while she is setting; give her food and water, and that when the chickens hatch you will, under the direction of mother, feed the little chickens, water them, see that they are under cover the cool spring nights, you will find that you will have started a nice little account of your own. And you can gain thereby a vast knowledge of business methods. You don't see how? You have seen chickens hatched out all your life and never thought much about their being any business connected with it? Just listen. If you will but put all your attention to this game, you can learn how to conduct a poultry farm of your own when you are older, how much it costs, etc.

In the first place, mother should charge you with the regular cost of a setting of eggs. Then you will be charged with the price of the mother hen. Now secure a book and put down this cost on the debit side of your little book which you will call your Poultry Ledger. Charge up the amount of feed you give the mother, and when the chickens are hatched the amount of feed it takes to feed them. Be sure they have plenty of water and a nice green place to run in, and in the early spring you can sell all the roosters as spring chickens, pay mother for the setting of eggs, the mother hen and the feed used, and then you can continue to feed the pullets until they begin to lay and then from the sale of your eggs you will have a nice little bit of spending money if you have been successful and you will have learned a good bit of bookkeeping, as from all the sales you will make, you will place the amount you get on the credit side of your ledger, and at the end of the season you will know just how much it costs to raise chickens and get them ready either for market or laying when they begin to pay for themselves. I would be glad to have as many children as try this experiment write me, as it will be interesting to know how many little business farmers we have among our readers. Affectionately yours, LADIE.

Answer to Last Week's Puzzle

Six answers—
One is 10 T and 14 S.

YEARS ago, when fires were not as easily started as they are now, because there were no matches, the Indian was compelled to find something to take the place of matches. He had several schemes. He made sparks by striking pieces of flint together, or started the fire by whirling an arrow with the end embedded in soft dry wood, by means of his bow cord. A contrivance similar to the drill shown was also used for starting fires, the whirling motion of the drill shaft heating the wood and causing it to burn. By driving a brad in the end of the old fire lighter we will make a drill. While some people were using the drill for starting fires the Chinese were using it for drilling spots on dominoes and chess men.

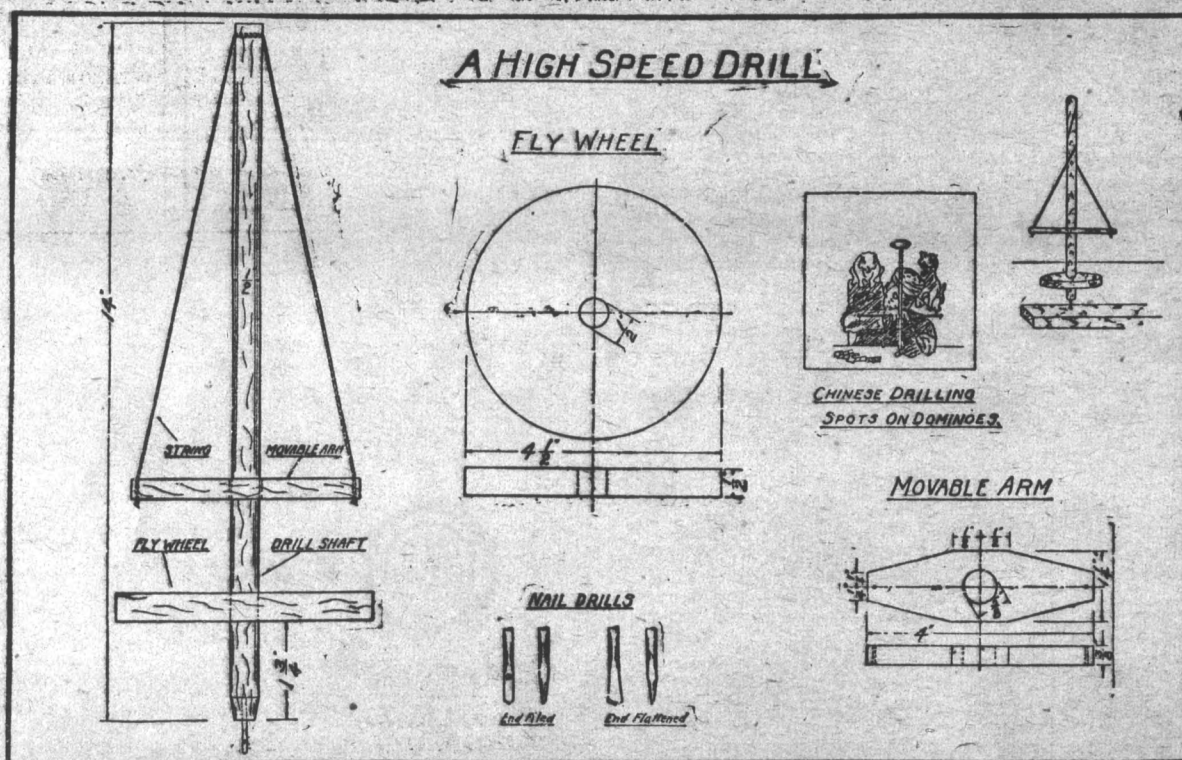
The drill shaft may be a piece of round stick that you may be able to pick up or it may be shaped from a piece of straight grained wood. If you are going to make the shaft plane a piece of the proper length one-half inch square and then plane off the corners, finishing till perfectly round with sandpaper. Bore a hole through the top end for the string. Point the other end of the shaft for the drill and make drill point by either flattening the end of a finishing nail after driving it into shaft and filing off the head or filing it to shape.

Make the flywheel of heavy wood, as the heavier the wheel the better the drill will work.

Fish line or other stout cord should be used for assembling the

movable arm to the shaft. The string must not be stiff but very pliable so it will wrap about the shaft easily. Tie a knot in the string each side of the shaft, this will keep the string from slipping through the hole in the shaft. Thread the ends of the string through the holes bored in the ends of the movable arm and knot two or three times.

To operate the drill wind the string around the shaft by turning the movable arm on it. Then press down on the arm, releasing the pressure as the arm reaches the end of the downward stroke, this will cause the string to wind in the opposite direction on the shaft raising the arm for the next stroke. It will require a little practice to operate the drill evenly.



The Wonderful Adventures of a Raindrop.

By Ethel Allen Murphy

PART V.

"AT LENGTH our stream joined a great big, big stream. The stream was so big that we thought we had met the sea. But we had many, many miles to go yet, and many were the sights we saw. At length we rolled in a great, wide, slow-going, yet powerful stream, out to meet a moving mass of waters. "When the first shock came we had to drop a lot of our soil that we carried, and then we parted around a fan-shaped island that people called a delta. I wonder how many soldiers in the United States School Garden Army have gardens in the rich, rich soil like that of the delta! Where is New Orleans, Garden Lady? Somehow I fancy that the last great city we passed was New Orleans, and as we joined in that vast stream that bore us toward the sea I think I heard the waters whisper and say, "It is the Mississippi—the Father of Waters. And there are thousands upon thousands of gardens tended by the children of the United States School Garden Army in the states through which the Father of Waters passes."

"But now we felt a shock go thru us and a new salty tingle ran into us. The moon's power, too, drew us with great force. When the first shock came we had to drop a lot more of our soil that we had carried. But finally

I was out into the wavy course of the great ocean current that bore me to the great open sea.

"Now we knew the sky as we had never known it. It seemed to mingle with us, yet to be always calling us!

"Far, far off," we said, "the ocean and sky meet and mingle as the rivers did in the sea. And always we had dreams of some great joy that was coming to us out of that sky. Voices came to us out of those great spaces—the breezes, the great sweeping winds, and the thunder called to us. We could not understand it all, but we were sure that some day we should rise into that other sea above us.

"One day great happiness filled us. It seemed that out of that sky somebody was smiling a warm, loving, golden smile on me. Somebody was calling to me without any sound, drawing me, trying to lift me. I felt that it was a lovely Sun Spirit who loved me. Then I felt myself grow full of warmth and joy. I became all light and floaty. I felt myself rising up! Up! Up! I left my heavy salt grains in the ocean. Oh, it was wonderful! Such warmth was all about me that I melted into the air, where I seemed to be rocked asleep at the heart of a golden mist in a warm, happy dream. Such a wonderful dream, Garden Lady." (To be continued)

OUR BOYS AND GIRLS

Dear Laddie:—This is the first time I am writing to you. This is the second year my father is taking the M. B. F., and we all like it very much. I am 13 years old and am in the 6th grade. My teacher's name is Sister Bertha. She is a very good teacher. We have four horses, six cows, five sheep and about 70 chickens. As my letter is getting long I will close hoping to see it in print. You will find my story below.—Mary Gross, Eagle, Mich.

The Bird's Nest

A little bird was looking for a place to build her nest. She could find no place she thought would be safe enough. At last she flew into the loft where the farmer kept his corn. There she saw just what she wanted. The farmer's coat was hanging on the wall. She would build her nest in one of its pockets. Soon she had the prettiest nest you ever saw and it was so safe. It was not long until there were three little birds in the nest. One morning the farmer came in and took his coat from the nail. When he saw what was in the pocket he laughed and laughed. He hung the coat up again and went to tell his wife. When the birds flew away he took the nest and has it yet.

Dear Laddie:—This is my first letter I have written to you. I like the Children's Hour fine. I am 12 years old and in the 7th grade at school. I have a very nice teacher. I have three brothers and two sisters. My brothers' names are Cecil, George and Francis. My sisters' names are Bonnie and Doris. We have two miles to go to school, but we go with our brother as he goes to high school, three miles. I live on an 120-acre farm. We have quite a number of Chester White Hogs. My father gave one to me but I had bad luck with it, as it died today. My mother has given me half share of the chickens if I take care of them. I am going to try my luck raising them next year. I hope to see this letter in print. I would like to have the girls write to me.—Thelma Westalls, Breckenridge, Mich.

Dear Laddie:—I am a girl 11 years old. There are three of us children, my two brothers, Blaine and Allen, and myself. We live on an 80-acre farm. My father keeps quite a few cows and we send our milk to the Perrington condenser. For our pets we have four cats, Pinky, Buster, Beauty and Billy; two rabbits, Polly and Peter, and a dog named Bonny. Our school is about 20 rods from here and we have a good teacher, Miss Donehue. I am in the eighth grade. My father has taken the M. B. F. two years and likes it very much. I like to work the puzzles out. I hope to see this, my first letter in print.—Your little friend, Eloise Barrett, N. Shade, Gratiot Co.

Dear Laddie — I have written to you before and I saw my letter and story in print. We used to live on a farm in Clare but moved to Saginaw. I like it here. I have five blocks to go to school. I go to the Emerson school. My teacher is Mrs. Rademaker. We have taken the M. B. F. for over a year and like it. I received a thrift stamp last year for my story. Well as I have a few more minutes, will tell you what I got for Christmas. I got a new dress, a nail file, some jewelry, a box of stationery and 4 handkerchiefs. A nice skating place is here, at Hoyt Park. Well I will close—Hilda Reynolds, Saginaw.

Dear Laddie:—I am a boy 11 years old and in the 6th grade at school. I have two brothers, Harold, 16, and Gerald, 9. I have no sisters. We have 12 head of cattle, three horses Prince, Maude and Nell, and 9 pigs. Mother has two turkeys and about 200 chickens. My grandfather takes the M. B. F. and likes it very well. —Arligh Schofield, Farwell.

a mainmast, cutlass out and flashing, facing a semi-circle of fantastically clad sailor cutthroats, while behind him, on the opposite side of the mast, another similarly garbed and accoutred man with cutlass flashing faced the other semi-circle of cutthroats that completed the ring about the mast.

The vivid vision of his fancy was broken by the breaking of a guitar string which he had thrummed too passionately. And in the sharp pause of silence, it seemed that a fresh vision of Sir Henry came to him, down out of the frame and beside him, real in all seeming, plucking at his sleeve to lead him out of the hut and whispering a ghostly repetition of:

"Back to back against the mainmast
Held at bay the entire crew."

The young man obeyed his shadowy guide, or some prompting of his own profound of intuition, and went out the door and down to the beach, where, gazing across the narrow channel, on the beach of the Bull, he saw his late antagonist, back up against a great boulder of coral rock, standing off an attack of sack-clouted, machete-wielding Indians with wide sweeping strokes of a driftwood timber.

And Francis, in extremity, swaying dizzily from the blow of a rock on his head, saw the apparition, that almost convinced him he was already dead and in the realm of the shades, of Sir Henry Morgan himself cutlass in hand, rushing up the beach to his rescue. Further, the apparition, brandishing the cutlass and laying out Indians right and left was bellowing:

"Back to back against the mainmast,
Held at bay the entire crew."

As Francis' knees gave under him and he slowly crumpled and sank down, he saw the Indians scatter and flee before the onslaught of the weird pirate figure and heard their cries of:

"Heaven help us!" "The Virgin protect us!" "It's the ghost of old Morgan!"

Francis next opened his eyes inside the grass hut in the midmost center of the Calf. First, in the glimmering of sight of returning consciousness, he beheld the pictured lineaments of Sir Henry Morgan, staring down at him from the wall. Next, it was a younger edition of the same, in three dimensions of living, moving flesh, who thrust a mug of brandy to his lips and bade him drink. Francis was on his feet ere he touched his lips to the mug; and both he and the stranger man, moved by a common impulse, looked squarely into each other's eyes, glanced at the picture on the wall and touched mugs in a salute to the picture and to each other ere they drank.

"You told me you were a Morgan," the stranger said. "I am a Morgan. That man on the wall fathered my breed. Your breed?"

"The old buccaner's," Francis returned. "My first name is Francis. And yours?"

"Henry—straight from the original. We must be remote cousins or something or other. I'm after the foxy old niggardly old Welshman's loot."

"So'm I," said Francis, extending his hand. "But to hell with sharing."

"The old blood talks in you," Henry smiled approbation. "For him to have who finds. I've turned most of this island upside down in the last six months, and all I've found are these old duds. I'm with you to beat you if I can, but to put my back against the mainmast with you any time the needed call goes out."

"That song's a wonder," Francis urged. "I want to learn it. Lift the stave again."

And together, clanking their mugs, they sang:

"Back to back against the mainmast,
Held at bay the entire crew..."

CHAPTER III.

BUT A splitting headache put a stop to Francis' singing and made him glad to be swung in a cool hammock by Henry, who rowed off to the Angelique with orders

from his visitor to the skipper to stay at anchor but not to permit any of his sailors to land on the Calf. Not until late in the morning of the following day, after hours of heavy sleep, did Francis get on his feet and announce that his head was clear again.

"I know what it is—got bucked off a horse once," his strange relative sympathized, as he poured him a huge cup of fragrant black coffee. "Drink that down. It will make a new man of you. Can't offer you much for breakfast, except bacon, sea biscuit, and some scrambled turtle eggs. They're fresh. I guarantee that for I dug them out this morning while you slept."

"That coffee is a meal in itself," praised Francis, meanwhile studying his kinsman and even and anon glancing at the portrait of their relative.

"You're just like him, and in more than mere looks," Henry laughed, catching him in his scrutiny. "When you refused to share yesterday, it was old Sir Henry to the life. He had a deep-seated antipathy against sharing, even with his own crews. It's what caused most of his troubles. And he's certainly never shared a penny of his treasure with any of his descendants. Now I'm different. Not only will I share the Calf with you; but I'll present you with half as well, lock, stock and barrel, this grass hut, all these nice furnishings, tenements hereditaments, and everything, and what's left of the turtle eggs. When do you want to move in?"

"You mean...?" Francis asked.

"Just that. There's nothing here. I've just about dug the island upside down and all I found was the chest there full of old clothes."

"It must have encouraged you." "Mightily. I thought I had a hammerlock on it. At any rate, it showed I'm on the right track."

"What's the matter with trying the Bull?" Francis queried.

"That's my idea right now," was the answer, "though I've got another clue for over on the mainland. Those old timers had a way of noting down their latitude and longitude whole degrees out of the way."

"Ten North and Ninety East on the chart might mean Twelve North and Ninety-two East," Francis concurred. "Then again it might mean Eight North and Eighty-eight East. They carried the correction in their heads, and if they died unexpectedly, which was their custom, it seems, the secret died with them."

"I've half a notion to go over to the Bull and chase those turtle-catchers back to the mainland," Henry went on. "And then again I'd almost like to tackle the mainland clue first. I suppose you've got a stock of clues, too?"

"Sure thing," Francis nodded. "But, say, I'd like to take back what I said about not sharing."

"Say the word," the other encouraged.

"Then I do say it." Their hands extended and gripped in ratification.

(Continued next week)

FEDERAL FARM LOAN SYSTEM ATTACKED BY ENEMIES

(Continued from page 3)
reasonable terms is no more heinous than a tax exemption in favor of the stock holdings of the National Banks in the Federal Reserve Banks and in favor of wealthy people who invest their money in state and municipal and county bonds, the income of which cannot be taxed one cent by federal, state or local governments.

In order to establish successfully the great commercial credit system represented by the Federal Reserve Act and the great agricultural credit system represented by the Federal Farm Loan Act, I think that the Congress was justified in granting exemptions from taxation of the stock held by the National Banks in the Federal Reserve Banks and of the farm mortgages and bonds of the Federal and Joint Stock Land Banks; but if the exemptions from taxation in favor of the Agricultural Credit System are to be repealed, then with equal justification the exemptions from taxation in favor of the commercial credit system should be repealed.

Apparently, in the eyes of these selfish interests, the farmer is entitled to no consideration; and it is

equally apparent that in their eyes capital and wealth are entitled to every consideration.

The agricultural class, upon whose prosperity and welfare the life of the people of the United States depends, will not now consent to see this great Land Bank System destroyed for the benefit of those who for years have taken advantage of the farmer's necessities by selling him credit at extortionate rates of interests and on hard and unsatisfactory terms.

I do not say that there should be no amendments to or changes of the Farm Loan Act. The system is new and the test of experience will undoubtedly show that beneficial amendments of the law may from time to time be made.

The Federal Farm Loan System must be preserved. The tax exemption on the mortgages given by the farmers to the Federal Land Banks and the Joint Stock Land Banks and upon the bonds issued by these banks

must be continued so that the great basic industry of agriculture, upon which rests the prosperity of all, will not be burdened unnecessarily. The business of food production is fundamental. No one must be permitted to collect one cent of unjust tribute from it.

The highest producer in the St. Joseph Cow Testing Association for the month of January was a full-blooded Jersey owned by E. E. Sheap, of Sturgis. She produced 1,086 lbs. of milk with a test 6.6 per cent and a butterfat of 71.6.

There were 6 cows that produced over 50 per cent. of butterfat; there were 17 cows that produced over 40 per cent. of butterfat; there were 34 cows that produced over 35 per cent. of butterfat. Of these 13 were Holsteins, 12 were Jerseys, 7 were Guernseys and the rest were scrubs.—Richard Strabbing, Tester St. Joseph Co. Association.

Your father probably bought APEX Seeds from this house

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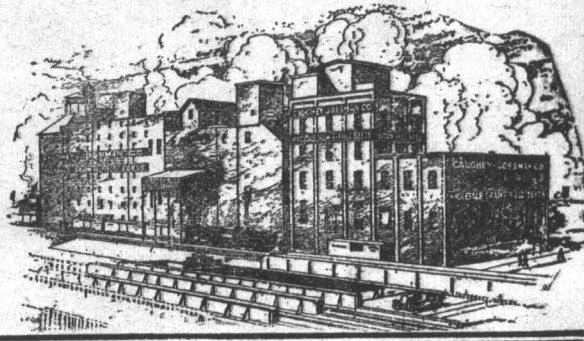
APEX seeds are strictly Northern grown—vigorous, rugged, sound—especially suited to Michigan soils and climate.

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We offer your choice of twenty brands of thoroughly cured, fine drilling fertilizers. All the Acid Phosphate you want. Mixtures containing from 1 per cent. to 15 per cent. Potash Delivered prices on request. State requirements.

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HERE ARE THE REASONS

Because it packs the loose soil just enough to enable the plant roots to take hold, pressing out all air spaces.

Because it cuts and crushes every clod that impedes the young plants.

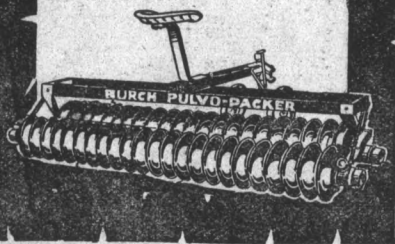
Because it creates a mulch that holds back the evaporation of moisture.

Because its heavy spring construction gives maximum efficiency to the rear section, insuring perfect work at light draft.

Because it is built to stand up, with the best materials put together right.

See it at the Burch dealer's or write to us for our special Catalogue NP3 which describes it fully.

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Oxheart Carrot . . . 05	English Wonder Peas . . . 10
Golden Bantam Sweet Corn . . . 10	Ruby King Pepper . . . 05
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OPTIONS ON GERMAN MARK

Several of our subscribers have sent us literature from a New York broker advising the purchase of "options" on German marks. These circulars make the following alluring statement: "Right now we firmly believe options on foreign currency offer an unusually attractive investment opportunity. True, there is a speculative investment involved which makes them all the more attractive, but just the same the chance for substantial profit making seems so nearly assured as to render the speculative risk small in comparison. For example, every increase of 1 cent on an option of 10,000 marks, francs or lire mean a profit of \$100; or 100,000 marks, francs or lire a 1-ct. increase equals a profit of \$1,000." This concern offers "options" on 10,000 marks for \$40, on 25,000 for \$85, on 50,000 for \$160, etc. As a final bait this tempting bit is offered: "In 6 months \$40 invested should return a profit of \$1,800; \$300 to \$350 invested should return a profit of \$10,000."

When a man offers you an investment proposition that may pay a dividend of from 7 to 10 per cent, look into it. It may be worth something. But when a man mentions dividends of 100 per cent and 4,000 per cent put another lock on your money vault. It's a terrible temptation and stronger men than you have succumbed to it. Anyone who buys options or titles to the coin of foreign countries is taking a hundred to one shot. If Germany can pay her war debts and bolster up her credit, in a long, long time, the German mark may creep back to par value. If Germany breaks under the strain and the Bolsheviks get control of the government we may expect a repudiation of the coin of the realm, in which case holders of options and German marks will be able to turn their holdings over to the children as playthings. If there were any present confidence in the early restoration of German, French and Italian credit, their coin wouldn't go begging for a market. You couldn't buy it at two to ten cents on the dollar. And if the government and business men of other countries have no faith in the early strengthening of that credit, why should you?—Editor.

(Since the above was written German marks and other foreign coins have declined still further in value, and the end is not yet.)

MICHIGAN SENATORS

AND REPRESENTATIVES

Will you kindly tell me the names and addresses of my senators and representatives at Washington, D. C.—F. E. M., Hemans, Mich.

Senators—Chas. E. Townsend, Jackson, Mich., and Truman H. Newberry, Detroit, now on trial at Grand Rapids

FARMERS SERVICE BUREAU

(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.)

for violation of the election laws. Your representative is Louis C. Cramton, of Lapeer. Mr. Cramton has shown himself a consistent friend of agriculture, and M. B. F. feels that the seventh congressional district is fortunate in having Mr. Cramton for their representative.—Editor.

WIRE WORMS

Please send me some simple and easy way to get rid of the wire worms. They work on our potatoes and spoil them for selling or eating. They work mostly in the clay.—J. R., LeRoy, Mich.

The control of wire worms is very difficult—in fact, we know of no way of getting rid of them effectively. They are most inclined to work on soils that are poorly drained although in some cases they do much damage on soil that is well drained. Plowing the land in the late fall and letting it remain in the rough during the winter months will reduce the number of wire worms but will not kill all of them. Wire worms and white grubs are most likely to occur where a sod land has been plowed for potatoes. In case either of these insects are known to be present in large numbers in the soil it is a good plan to plant some other crop than potatoes and one on which they can do little harm, for a year or so after the sod has been plowed. Regretting that we cannot give you a more satisfactory means of controlling this insect but hoping that this information will be of some service to you.—O. W. Wald, Extension Specialist, M. A. C.

OLD NEWSPAPER DEBT

I would like to ask what is the law in regard to collecting for newspapers. One was sent to my boy seven years old. We rejected the paper and also 'phoned to have it stopped, but they kept sending it. Now they have sent me a letter threatening to sue me if I do not pay within ten days. Will I be held for the pay as we never signed for the paper.—W. H. W., Lenawee County.

Pay no attention to the threats. If you can show that you ordered the paper stopped, we do not think they can force you to pay. The sure way of preventing trouble of this kind is to notify the mail carrier not to leave the paper in your box. He is instructed to notify the postmaster, who in turn sends the publisher a notice, who under the law is required to stop the paper and to pay the return postage on all he sends you after notification has been given him.—Editor.

CONGRESSIONAL ELECTION

I would like to ask you to publish in the M. B. F. when the congressional primaries are to be held in Michigan, and what form is used in getting candidates' names on the ballot.—J. S. B., St. Louis.

United States congressmen are elected every two years. They are nominated on their respective party tickets at the primary election, held

the last Tuesday in August of every even year. The nominee on each party ticket becomes the candidate for that party at the election in November, and the person receiving the highest number of votes, declared elected. To become a candidate for congressman and have his name printed on the ballot, a man or his friends must file with the secretary of state thirty days before the primaries a number of petitions equivalent to not less than two per cent., and not more than four per cent. of the total vote cast for the secretary of state in his district at the preceding general election.—Editor.

RED KIDNEY BEANS

I am a farmer living in the north central part of Midland county. The farmers in this section of the county are too far from the railroad, it being from five to ten miles, to raise sugar beets for a cash crop, and so the majority of us have been depending on beans, that is, navy or pea beans.

Now the price of white beans has not been high enough so that any great number of the farmers in this community have been able to raise them at a profit.

The price of red kidney beans looks very attractive to myself and many others in this community and what I am getting at is this: Can we raise red kidney beans in this climate? Can they be threshed with the common beater? Do they require any different planting conditions, care or harvesting than the white beans and can the local elevators handle them without special machinery?

I would also like to hear from some farmer who has red kidney beans for sale and the price of same, also how many to sow per acre. I would respectfully suggest that you answer these questions through the columns of your valuable farm weekly as I think it would be of interest to a number of farmers in all parts of the state. I will support Milo D. Campbell for the nomination and election for governor.—E. S. M., Hope, Mich.

Red Kidney Beans can be successfully grown in all parts of Michigan where White Beans are raised. The same machine is used in threshing Reds as the other dries. The planting conditions are practically the same. It is advisable not to plant as many beans in hill. If the soil is heavy, we would recommend planting less than where it is light, as the Red Kidney has a heavy foliage. The conditions of harvesting are the same as White Beans. No special machinery is used. We recommend forty to forty-five pounds to the acre.

We are paying farmers six and one-quarter today on handpicked basis for White Beans, and twelve and one-half on handpicked basis for Red Kidneys. We believe that the Reds will be worth about twice as much as the Whites for another year, and will continue to be much higher.—Lewellyn Bean Co., Grand Rapids.

SENSE AND NONSENSE

Necessities and Luxuries

"Just bought a fine motor-car for immediate delivery."

"What style car did you get?"

"A 'Dashing Demon Six.' Now, if I could only get a half a pound of sugar somewhere the whole family would be happy."

A KICK

Rooster—Why do you stand those eggs on end. Do you want to raise a family of acrobats.



Help Wanted

Nancy was saying her prayers. "And please, God," she petitioned, "make Boston the capital of Vermont."

"Why Nancy!" exclaimed her shocked mother. "What made you say that?"

"'Cause I made it that way on my examination-papers today and I want it to be right."

Illogical

Lenine, says a message, declares that Great Britain must recognize Russia. Meanwhile the Bolsheviks are doing their best to make it unrecognizable.

A PUZZLER

Bug—The doctor said I should take a mustard bath, but how can I take a bath with dry mustard?



Common New York Incident

A man from the backwoods of Western America visited New York for the first time one Christmas and went into a restaurant to have his Christmas dinner.

All went well until the waiter brought him a napkin. The eyes of the backwoodsman flamed and, pulling a six-shooter from his hip-pocket, he told that waiter his mind.

"You take that blamed thing away at once," he said, evenly. "I reckon I know when to use a handkerchief, without having them darned hints thrown out!"



STUCK UP

What became of that snobbish brother of yours?

Oh, stuck up to the end—he died on flypaper.

Uncle Rube Spinach Says:

CHEER UP—YOU'RE A LIVIN'

COMES the joyful news that the cost of livin' is a-goin' up, way up, twenty-five per cent or more, the amount, no doubt, dependin' on how many more investigatin' clubs are formed an' how much money will be at their disposal. Prob'ly you've noticed that as soon as a thing has stood a real thorough investigation the price has been boosted up a few notches. Sugar you know, an' bread; shoes an' sauerkraut; limberger cheese an' shavin' soap; oh yes, the investigators are the boys that can whoop the prices up; long may they wave! Mebbe I hadn't ort to a said that, some folks might think I meant to hang 'em, but I can't rub it out so I'll let 'er go jest as she is.

Well, anyway, we're told that shoes will probably be higher 'n'count of the awful prices farmers are a-gittin' for their beef hides. I've been told by shoemakers that from 90 cents to a dollar an' a quarter will cover the leather cost in any pair of shoes, so I guess shoemakers must be gittin' awful high wages or somethin'—that's why shoes cost so much, don't you see?

Men's clothes must be higher on 'count of the turrible price farmers are a gittin' for their wool. A man well-versed in the makin' of men's clothing, said jest a few days ago that in men's suits, that sold for from 50 to 70 dollars, there could only be about five dollars' worth of scoured wool, an' in suits costin' at retail today, from \$75 to \$100, seven dollars would cover all the cost of the finest scoured wool that could possibly be put in.

Women's clothes are also goin' higher—well we might say let 'em go—we don't care if the women don't—gosh! They've been a-goin' higher an' tighter for three or four years now an' we're kinda gittin' used to it—but if they're goin' to cost more, why, we want to kick right now. Why the dickens, should women's dresses cost so darn much money when there is so little to 'em? Well the great cry goes over the land that lack of production an' high wages are the cause of the raise in prices, this from the manufacturers an' the jobbers an' the profiteers, or whatever they be. Lack of production an' high wages?

The labor unions say: "Give us less hours an' more money; cut down from 10 or 12 hours to six or eight an' production is one of the causes of the lower the cost of livin'. Now, it looks to a man on the fence that if lack of production is one of the causes of the high cost of everything, then shorter days, seems like, would make a greater shortage—an' create a higher price. Shorter hours in the factories means increased expense to the farmer; he must compete with the hours an' wages paid in the city, if he has any help at all, consequently he must have a higher price for his products, an' for every extra nickle paid the farmer, the middle men, the real money-makers, get a quarter or more. An' so the cry goes out agin'—livin' has gone up; give us more wages an' shorter days, an' when the end will come no livin' man can tell, it's a continuous circle an' unless somethin' is

done to remedy things there will be much sufferin' an' death among those who, with a fixed income, too often pitifully small, can not keep up with the risin' prices an' sooner or later must giye up the unequal struggle.

Jest natcherally now, you ask, "What's the remedy for all this sort of thing?" Well, by gosh! There don't seem to be any remedy; the government through the attorney general an' others, has spent millions of dollars jest investigatin'—'course there's been a few little fellows—profiteers on a one-horse scale, so to speak, arrested, men who have taken in profits of a hundred dollars, have been prosecuted vigorously we are told, an' mebbe they should ort to be prosecuted. The idea of takein' jest a few hundred dollars when the opportunity was wide open to take millions, shows that such men are not safe to be at large; they might git in the way of the big profiteers an' cause 'em more or less trouble, don't ya know? Anyway the remedy don't seem to lay in investigatin' committees, that's a cinch; an' somehow it don't appear to me as anyways likely that shortenin' the hours or raisin' wages will solve the problem. Cuttin' a quarter time off'n a day's work wouldn't increase production more's I c'n see; kinda looks like tween the producer of raw material an' the consumer of the finished product. Surely five dollars' worth of wool in a 70-dollar suit of clothes, don't look as though the grower of wool was makein' a heluvalot out of the clothin' business. Seems like somebody in between must be gittin a rake-off somewheres don't you think?

The National Clothing Men's Association has adopted resolutions pledgin' themselves to "co-operate in the prosecution of profiteers in the clothin' business," but wisely adds, "there ain't any such animals," an' so there you are, nobody to blame an' so of course, no remedy.

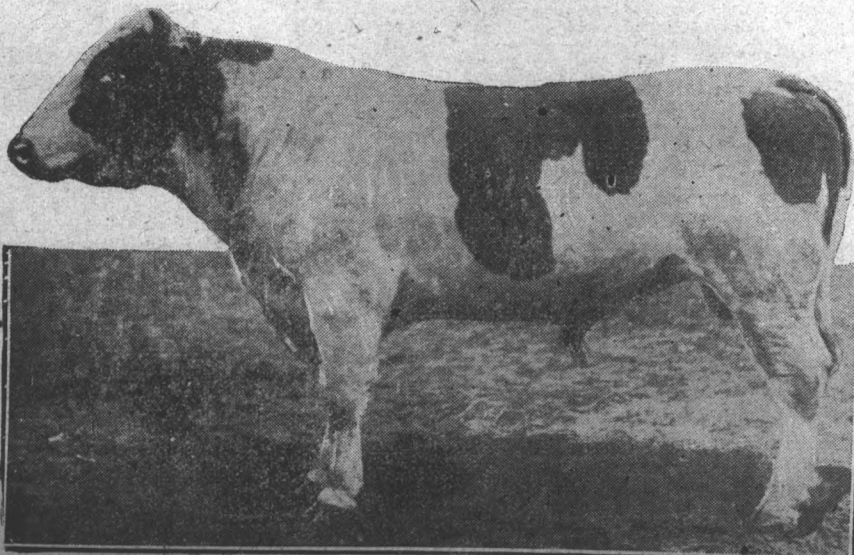
Here's what John H. Copper, president Copper & Copper, says: "We may keep high wages; we may keep our present scale, and still reduce the cost of living by a simple remedy—WORK—good, hard, honest, faithful service, not eight hours, rather 10 and then some. Let us for one year, at least, resolve to work, and work like H!!" Can anybody offer a better solution? Cordially—Uncle Rube.

WORDS OF APPROVAL FROM M. B. F. FOLKS

It's a pleasure for me to renew my subscription to your paper—money well spent I think—hope the Farm Bureau is a go. Our county has not been canvassed yet. Would say that I am anxiously waiting for the time to come.—Fred Haight, Ionia County.

Am enclosing money order for \$2 and another coupon duly filled out. Consider M. B. F. an indispensable help to every progressive farmer.—Daly & McCallum, Cheboygan County, Mich.

Hurrah for a farmer governor! And whoop it to 'em, Mr. M. B. F. All we want is a square deal. Keep M. B. F. coming every minute.—G. F. Kremer, Clinton County.



King Pontiac Lunde Korndyke Segls, son of the great King of the Pontiacs, heads the fine splendid herd of Mr. T. M. Sprague, Battle Creek, Mich.

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planters have a special attachment for mixing the fertilizer with the soil. If you have one, be sure to attach it. If fertilizer is applied broadcast, sow it evenly. Fertilizer should not be applied to grass or grain that is moist. Apply around, and not on, other plants.

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MISCELLANEOUS

CUMBERLAND RASPBERRY PLANTS FOR sale. Planted by the twenty-five, fifty, hundred and thousand. The most extensively grown of any blackcap. Send for price list. **ELMER H. NEVINS, Nurseryman, Ovid, Mich.**

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\$2.95 M-N'S RED RUBBER BOOTS FIRST quality factory sub perfects, all sizes. Hip and thigh lengths \$4.95. Sent post free. **DAVIS BROS., 210 S. Wash. Ave., Lansing, Mich.**

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MICHIGAN BUSINESS FARMING
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County Crop Reports

CHIPPEWA—In the Michigan Business Farming issue of Jan. 17, 1920, W. P. H. asks if grain can be kept in concrete flood granary. He is answered by a manager, farm & cement products. I wish to advise W. P. H. that such granary will mold grain on a cement floor. I have built more than one granary and took all precautions but the result is the same: moldy grain on bottom if left for any length of time. I am not a county agent nor have I cement or lumber for sale, but advise anyone wishing to build a cement granary to lay in dove tail strips when building cement floor of granary on which to nail a board floor, leaving strips slightly more than flush. Also to stand dove tail strips when making forms for side walls on which to nail bin supports. The side walls do very well without lumber lining, but floor never.—**J. L. R.** The following prices were paid at Brimney:—Wheat, \$2.30; oats, 85; hay: No. 1 timothy, \$25, No. 1 light mixed, \$24; potatoes, \$2; hens, 20; springers, 22; butter, 60; buttermilk, 70; eggs, 60.

GENESEE—Farmers are working up wood, doing teaming, and attending auction sales, besides doing their regular chores. The weather has been warmer and we have had quite a bit of snow lately. Crops are not harmed at present for they are protected by snow. The farmers are selling some potatoes, hay and live stock. Auction sales are plentiful and prices received are working lower. Several farms are for sale and the owners intend to go to the cities. There will be an extreme shortage of farm help this year.—**C. W. S.** The following prices were paid at Flint:—Wheat, \$2.45; white, \$2.43; corn, \$1.50; oats, 90; rye, \$1.35; hay: No. 1 timothy, \$27@30; No. 1 light mixed, \$25@27; beans: Pea, \$6.25; red kidney, \$11; potatoes, \$2.75@3; onions, \$6.50; cabbage, \$7; cucumbers, \$2.50; hens, 24; ducks, 32; geese, 28; turkeys, 40; butter: creamery, 60, dairy, 55@60; eggs, 50@55; sheep, \$9@10; lambs, \$12@13; hogs, \$15.50@15.75; beef steers, \$9@10; beef cows, \$7.50@8.50; veal calves \$17@18; apples, \$2@3.

MANISTEE—The farmers are making good use of the nice weather this last week, cutting wood, hauling manure and other odd jobs that will help out when spring comes. A few have flu again this winter in these parts. Farmers' Institute and Mid-winter Fair at Bear Lake this week. Those that are logging have been doing good work these last few days, also the gravel haulers on county roads. The buyers are quoting prices on potatoes again, but claim they can not get cars to ship and do not care to stock up very much.—**C. H. S.** The following prices were paid at Bear Lake and other points in the country:—Wheat, \$2.10; corn, \$1.40; oats, 90; rye, \$1.30; buckwheat, \$1.45; beans: C. H. P., \$6; red kidney, \$11.50; hay: \$32@35; rye-straw, \$10; wheat-straw, \$12; oat-straw, \$16 potatoes, \$3; hens, 25; springers, 25; butter, 55; buttermilk, 58; eggs, 50; beef steers, \$8 alive; beef cows, alive, \$5; veal calves, \$20@25 dressed; hogs, alive, 13, dressed, 17 1-2.

MANISTEE—The farmers are cutting wood and doing chores. A few are trying to log a little but it takes most of their time breaking roads. The weather has been very cold and blowy most of the time, but the last few days have been fine. The roads are getting so a team can get over them without much trouble. Not much selling in this corner of the county. Buyers have stopped buying potatoes and there is not much else to sell here. Not much being bought except feed. Hay is high and hard to get. At that straw is in good demand.—**C. H. S.** The following prices were paid at Bear Lake and local markets:—Wheat, \$2.10; corn, \$1.40; oats, 90; rye, \$1.40; buckwheat, \$1.30; beans: C. H. P., \$6.25; red kidney, \$10; hay, \$35; rye-straw, \$15; hens, 25; springers, 25; butter, 55; buttermilk, 60; eggs, 50; beef steers, 8; beef cows, 7; veal calves, 20 dressed; hogs, 13.

INGHAM—Week of very good weather, thawing a little most every day. The roads are now passable. Lots of sickness and several deaths from flu. Three auction sales for next week. Farms are changing hands. Prospect of our stock-buyer, who has bought stock and shipped for years, going in with the Shippers' Ass'n. Good prospects of farmers either buying or building an elevator at Mason. Let the good work go on.—**C. I. M.** The following prices were paid at Mason Feb. 6:—Wheat, \$2.30@2.40; oats, 80; rye, \$1.55; beans, \$6.50; potatoes, \$2.25; hens, 22@25; ducks, 18@23; butter, 55; buttermilk, 61; eggs, 60; lambs 18; hogs, 14; beef steers, 8@12; veal calves, 18.

MONROE (W)—We have had a week of warmer weather and the sleighing is all gone. In some places the roads are very icy. Farmers are not doing very much besides chores. Auction bills are being tacked up and it looks as if there would be quite a good many changes this spring. Labor is just as scarce as last year and the farmer is up against it. Some say work what land you can and let the rest go. That does not sound very good when you go to pay your taxes.—**W. H. L.** The following prices were paid at Petersburg:—Wheat: red, \$2.15, white, \$2.15; corn, ear, \$1.80; oats, 82; rye, \$1.37.

MONTCALM—The farmers are hauling potatoes and getting up their summer wood. Farmers in this neighborhood are doing chores for each other as the flu is severe. Some families are all sick in bed and the best take care of

them.—**B. B. W.** The following prices were paid:—Wheat, \$2.50; corn, \$1.60; oats, \$1.10; rye, \$1.68; hay: No. 1 timothy, \$30; No. 1 light mixed, \$28; straw-rye, \$13; wheat-oat, \$15; beans: pea, \$8, red kidney, \$14.75; potatoes, \$3.50; onions, \$2.50; hens, 24; springers, 22; ducks, 18; geese, 18; turkeys, 30; butter, 65; buttermilk, 68; eggs, 48; hogs, 15; veal calves, 8@16.

JACKSON, (N. E.)—The past week week has been changeable weather but there is little doing among the farmers. Chores and cutting wood are the main jobs on foot at present. Winter grains are again covered with snow but the ground remained frozen during a recent thaw thus saving the crops. Prices took a tumble the fore part of the week but have recovered slightly, except beans and they are going lower. Reports indicate the farmer stands to lose in Congress on the bean tariff. No price, no beans will be the slogan for 1920. Unable to give prices on live stock as all is now shipped co-operatively.—**A. F. W.**

LAPEER—Farmers are busy cutting wood and attending sales, and there are a good many to attend. Everything selling good. Some farm changing hands at very good prices. Some hogs and cattle going to market.—**C. A. B.** The following prices were paid at Imlay City:—Wheat, \$2.25; corn, \$1.40; oats, 80@85; rye, \$1.30@1.40; beans, \$6.50; hay, \$22@25; rye-straw, \$6@8; potatoes, \$2.25; onions, \$2; hens, 22; springers, 22@24; butter, 57; buttermilk, 59; eggs, 50; wool, 60; beef steers, \$9@10; beef cows \$6@8; veal calves, \$12@18; sheep, \$6; lambs, \$15@17; hogs, \$13.

CALHOUN—Farmers are doing their chores. The well ones are taking care of the sick. The saw mill has shut down on account of the grip. Not much moving on account of sickness. The following prices were paid at Battle Creek:—Wheat, \$2.40@2.38; oats, 85c; rye, \$1.40; hay: No. 1 timothy, \$30; No. 1 light mixed, \$30; straw-rye, \$12; wheat-oat, \$13; potatoes, \$3; hens, 25c; butter, 55; lambs, 10@15; hogs, 59; beef steers, 8@10; beef cows, 5@7; veal calves, 10@16.—**C. E. B.**

SANILAC, (N. E.)—January passed without customary thaw. February has come in milder. Fields fairly well covered with snow at this writing, which will help wheat and meadows. Some hay and grain moving. Clover seed being sold quite freely. Stock wintering good. Farmers seem to have plenty of feed. The order of the day seems to be hauling coal, (when car arrives) fertilizer and manure, and doing the necessary chores. Politics warming up some.—**G. T. A.** e;Jo5.5 \$re!::F ETET ET ET H TH

MEDLAND—The following prices were paid at Midland, Mich., by Orr Bean and Grain Co., on Feb. 13:—Wheat, S. 2.40, F. 2.35; corn, shelled, \$1.40; oats, 82; rye, \$1.40; buckwheat, \$2.85; beans, \$6; barley, \$2.75; peas, \$3.90.

POTATO PRICES HAVE PASSED HIGH MARK

(Continued from page 2)
mean disappointment to all of them. It is my opinion that one reason for the unusually high prices for the last few weeks has been the inability to move potatoes as freely as would have been possible if more cars had been available. Growers who are in a position to sell at present prices and hold in the hope of securing higher prices are taking chances. On the other hand, for a large number of them to endeavor to get into the market at once for fear the prices will be lower later would force prices down unduly. As has been previously stated what is needed is a uniform movement of the balance of the crop for the remaining portion of the season.—**C. W. Wald, Extension Specialist, M. A. C.**

Hale Tennant Thinks High Point Reached

"Your letter of February 10, relative to prospective potato prices, is received.

"There seems to be a pretty general conviction around operators in potatoes that the recent high mark in prices would not be equaled again during the season. My judgment would be that the market will decline for some little time until a point is reached where the shipment is inclined to be checked, with a final raise at the close of the movement, but this is simply a rough guess.

"In a recent visit with Mr. Church he indicated that the crop movement seemed to be pretty much in line with the final estimates of their department, and if this true, I hardly expect to see potatoes reach a very low level at any time during the movement. The recent prices have, no doubt, some effect in slowing down consumption, which should be taken into consideration.—**Hale Tennant, Field Agent in Marketing.**

Duroc Breeders Have Successful Sale

THE MICHIGAN Duroc-Jersey Breeders' Association held their First Annual Sale Feb. 6th at the Agricultural College, Lansing, Mich. The sale was a success from every standpoint, it being the object and desire of the association to sell to farmers in all parts of the state, believing this would wake up the community they went to and create sentiment for better hogs, and demonstrate the worth of the Duroc. The sale was well attended, the work of the auctioneer, Col. Andy Adams of Litchfield, Mich., and assistants, Dr. Hutton, of M. A. C., and J. E. Reuppert, of Perry, was "near professional" and very satisfactory. This being our first sale it was decided by the members not to consign any "show stuff", but put in a good high class lot of pork producing individuals, that will make good with the farmers, and be a credit to the consignor and the breed. One of the most gratifying features of the sale was the fact that there was but one purchase made by a consignor, which is conclusive evidence that it was a clean-cut transaction from start to finish.

We wish to thank those in authority at M. A. C. for their kindly indulgence in granting permission to use the building and grounds for our sale.

The average price paid for bred sows was \$101.00, the highest priced sow sold at \$150.00 and was consigned by W. C. Taylor, of Milan, Mich. The top gilt sold for \$140.00 and was consigned by J. B. Miller, Ithaca, Mich.

Sales follow, consigned by Michigana Farm, Pavilion, Mich.:
Chaselin Farm, Northville, Mich. \$ 80.00
Harold Coffman, Casnovia, Mich. 102.50
J. L. and J. E. Norris, Casnovia, Mich. 90.00
(Boar) Chaselin Farm, Casnovia, Mich. 110.00

Consigned by Rush Bros. Romeo, Mich.:
Wheaton, Bath, Mich. \$110.00
J. L. and J. E. Norris 80.00
Consigned by Brookwater Farm, Ann Arbor, Mich.:
G. L. Holmes, Eaton Rapids, Mich. \$100.00
G. A. Brown, East Lansing, Mich. 130.00
Burton Bros., Niles, Mich. 102.50
(Boar) Chaselin Farm, 70.00
Consigned by W. C. Taylor, Milan, Mich.:
U. J. Brindley, Coleman, Mich. \$ 80.00
Harris, Coleman, Mich. 80.00
(Boar) J. H. Burger, Saginaw, Mich. 36.00
Alfred Monk, Dundee, Mich. 150.00
Consigned by Henry Phillips, Milan, Mich.:
(Pig) Oscar Kochale, Middleville, Mich. \$ 40.00
E. J. Brindley 107.50
C. B. Burk, Homer, Mich. 87.50
Consigned by Burt Portland Cement Co., Bellevue, Mich.:
Chas. Bray, Lansing, Mich. \$100.00
(Boar) L. Chapman, East Lansing, Mich. 57.50
W. H. Knickerbocker, East Lansing, Mich. 90.00
Consigned by F. J. Drodt, Monroe, Mich.:
Vern Towne, Eaton Rapids, Mich. \$ 80.00
(Pig) Joseph Stark, East Lansing, Mich. 41.00
Orla Eager, Howell, Mich. 92.50
E. J. Brindley 62.50
Consigned by Inwood Bros., Romeo, Mich.:
(Pig) C. U. Edmonds, Hastings, Mich. \$ 36.00
R. L. Craig, Grand Ledge, Mich. 75.00
Consigned by J. B. Miller, Ithaca, Mich.:
J. L. and J. E. Norris 140.00
Consigned by Alex. Brown, Homer, Mich.:
G. A. Brown 130.00
Chaselin Farm 100.00
Consigned by Newton Barnhart, St. Johns, Mich.:
(Pig) Robins 32.00
(Pig) E. T. Leipprandt, Pigeon, Mich. 60.00
Chaselin Farm 140.00
H. S. Herriott, St. Johns, Mich. 140.00
(Pig) 40.00
(Pig) 40.00
Consigned by Alfred Monk, Dundee, Mich.:
Chaselin Farm 77.50
H. D. Boardman, Jackson, Mich. 80.00
—J. B. Miller, Sec'y.

Four Thousand Farmhrs Join Beet Ass'n

(Continued from page 6)

Saginaw convention, Dec. 8, submitted figures showing their cost an acre to average \$106. they did not figure anything for management or depreciation. They figured labor only, and they put their own labor in at rates from 35 to 50 cents per hour."

Opposition Dwindling

Gradually the little opposition that has shown itself to the beet growers' demands is being levelled, and all forces who ought to support the beet growers' rights are uniting harmoniously. Even the Michigan farm paper which in its issue of February 7th, opined that the beet growers' efforts were belated and accused the leaders of the movement of encouraging the curtailment of a necessary food product, has, true to our pre-

diction, come down off the fence, but the straws which showed which way the wind blows enticed it to the ranks of the growers, instead of the manufacturers of which fact we are glad to bear testimony.

The Farm Bureau has taken immediate action upon the recommendation adopted at the Lansing meeting, and Mr. Ashley M. Berridge, a member of the executive committee, has been delegated to attend the meetings of the growers and acquaint the public of the true facts through the Bureau's publicity department.

Thus, with the united efforts of all interested in Michigan agriculture, there can be but one outcome of the contest—success for the sugar beet growers.

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Bred to
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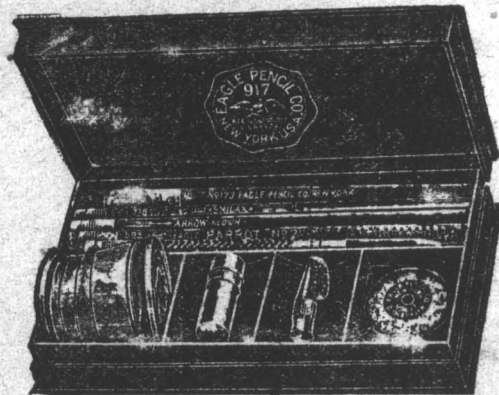
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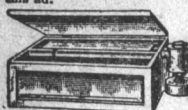
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Profitable Growing of Beef Cattle

(The second installment of this article, taken from Farmers' Bulletin, No. 1075.)

Double Nursing

DDOUBLE nursing is a modifica-
tion of the systems described
and is very economical when
properly applied, but is not practiced
very extensively. In this system
about half of the cows of the herd
nurse 2 calves each and the other
half, from which the calves are tak-
en, are milked. This plan works ex-
ceptionally well when all the cows
in a herd are heavy milkers.

The breeding herd may be so
handled that either spring or fall
calves are raised. The best time to
have calves dropped is a question
frequently debated among cattlemen.
Some prefer having calves dropped
in the spring (late in February, in
March, or early in April,) while oth-
ers prefer having them dropped in
the fall (September and October.)
As a rule the question should be de-
cided by individual farm conditions,
taking into consideration the feed
supply, pasture, equipment, and la-
bor.

When calves are dropped in the
spring one wintering is saved; they
do not require so close attention
during their first winter, when car-
ried over as stockers; cows may be
wintered more cheaply by using a
greater amount of coarse roughage;
less labor is required to handle the
calves during the winter and less
pasturage is required during the
summer, since cows and calves run
together.

When calves are dropped in the
fall the cows are in better condition
at calving time; they give more milk
for a longer period; the calves make
better use of the grass during their
first summer; they escape flies and
heat while small, and are weaned at
the beginning of calving time.

Other advantages of each method
over the other might be mentioned
but those given are the most import-
ant. In either case the calves should
be dropped within a period of not
more than 60 days, to give as much
uniformity as possible to the calf
drop.

Spring calves should be weaned
before the end of the pasture season
in the fall to allow them some time
on grass if winter pasture can
not be provided. If they are to be
finished as baby beef they should go
into dry lot at the end of the pasture
season and be ready for market the
following June or July.

Fall born calves should be wean-
ed after they have been placed on
pasture in the spring and grad-
ually increased allowance of grain
should be given them, with hay and
silage added later in the summer.
For baby beef they should go into
dry lot for finishing at the end of
the pasture season, and be ready to
market in December or January.

Calves which are not intended for
baby beef need not receive grain so
early or in so large quantities, be-
cause they are making their growth
without fattening. They can utilize
much larger amounts of roughages,
such as stalk fields, meadows, silage,
and straw, with a pound of cotton-
seed meal as a supplement. A regu-
lar fattening ration need not be
supplied until the calves are mature.

The Kind of Herd Bull to Use
Buying a good herd bull is the

first step in growing better calves at
much less cost per pound. In com-
mon or native-cow herds, calves sired
by purebred bulls weight on an av-
erage about 125 pounds a head more
when 1 year old than calves of the
same age sired by the average run of
scrub bulls, and they will sell for
about 2 cents a pound more as stock-
ers and feeders. Two-year-old steers
sired by good, purebred bulls weigh
on an average about 200 pounds a
head more than steers sired by scrub
bulls, and sell for about 4 cents a
pound more as stockers and feeders.

This difference in price of the two
classes of calves and steers applies
not simply to the difference in weight
but to the total weight. For instance,
in the case of yearlings, scrubs weigh
about 300 pounds, and when they sell
for about 9 cents a pound as stockers
and feeders, they bring \$27 a head,
while grades at the same age weigh
about 425 pounds, and will sell for
about 2 cents more, or 11 cents a
pound, bringing \$46.75. Two-year-
old scrubs weigh about 525 pounds a
head, and assuming that they sell for
about 8 cents a pound, will bring \$42
a head, while grades of equal age
weigh about 725 pounds, and at 4
cents more a pound (about 12 cents)
as stockers and feeders, bring \$87.

A still more interesting story may
be told in favor of steers sired by
good pure-bred bulls when the two
classes are fattened and sold for beef.
For instance, throughout the year 1918
scrub steers sold at about 10 to 12
cents a pound, while the better class,
or grades, went from 16 to 18 cents.
Nor is this all. Two-year-old scrub
steers weigh about 525 pounds, and
when fed a fattening ration for 120
days they will scale possibly 700
pounds. Two-year-old grade steers
weigh about 725 pounds, and after a
fattening ration for 120 days they
will then weigh about 965 pounds. At
1918 prices the fat scrubs would sell
for about 12 cents a pound and the
fat grades for about 16 cents, the
scrubs bringing \$84 a head and the
grades \$154.40.

These figures show a difference be-
tween the values of the two classes of
yearlings and two-year-olds as stock-
ers and feeders, and of fat steers, re-
spectively, of \$19.75, \$45 and \$70.40
in favor of those sired by a good
pure-bred bull.

There is practically no difference in
the cost of feed for the two classes of
calves up to the yearling age, but
from that time on grades develop
more capacity and require more feed
than scrubs. The difference in cost of
feed, however, is a very small item
when the values are taken into con-
sideration.

The big difference lies in the kind
of bull used.

Care and Feed for the Bull

The bull should be the best-cared-
for individual in the herd. Not only
should he have special feed at times
but he should be kept in a separate
paddock or lot and should not have
the freedom of the herd except during
limited seasons of the year. Unless a
special lot can be provided, some
means of giving the bull exercise
should be devised.

The bull should be well fed during
all seasons of the year, but especially

GESTATION TABLE FOR COWS (283 DAYS)

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Day of mo. bred	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1	11	11	10	9	8	11	10	11	11	11	10	11
2	12	12	11	10	9	12	11	12	12	12	11	12
3	13	13	12	11	10	13	12	13	13	13	12	13
4	14	14	13	12	11	14	13	14	14	14	13	14
5	15	15	14	13	12	15	14	15	15	15	14	15
6	16	16	15	14	13	16	15	16	16	16	15	16
7	17	17	16	15	14	17	16	17	17	17	16	17
8	18	18	17	16	15	18	17	18	18	18	17	18
9	19	19	18	17	16	19	18	19	19	19	18	19
10	20	20	19	18	17	20	19	20	20	20	19	20
11	21	21	20	19	18	21	20	21	21	21	20	21
12	22	22	21	20	19	22	21	22	22	22	21	22
13	23	23	22	21	20	23	22	23	23	23	22	23
14	24	24	23	22	21	24	23	24	24	24	23	24
15	25	25	24	23	22	25	24	25	25	25	24	25
16	26	26	25	24	23	26	25	26	26	26	25	26
17	27	27	26	25	24	27	26	27	27	27	26	27
18	28	28	27	26	25	28	27	28	28	28	27	28
19	29	29	28	27	26	29	28	29	29	29	28	29
20	30	30	29	28	27	30	29	30	30	30	29	30
21	31	Dec 1	29	28	27	31	30	31	Jul 1	31	31	30
22	Nov 1	2	30	29	28	Nov 1	30	2	Aug 1	31	31	30
23	3	3	31	30	29	3	31	3	3	3	3	2
24	4	4	Jan 1	30	29	4	4	4	4	4	4	3
25	5	5	2	31	30	5	5	5	5	5	5	4
26	6	6	3	3	3	6	6	6	6	6	6	5
27	7	7	4	4	4	7	7	7	7	7	7	6
28	8	8	5	5	5	8	8	8	8	8	8	7
29	9	9	6	6	6	9	9	9	9	9	9	8
30	10	10	7	7	7	10	10	10	10	10	10	9
31	11	11	8	8	8	11	11	11	11	11	11	10

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so just previous to the breeding season. The bull's ration may consist of roughages mainly, but a small quantity of grain also should be used.

The exact quantities of feeds that should be given depend largely upon the size, age, and individuality of the animal, and the ration must be varied according to requirements. As a general rule excessive quantities of silage should not be fed to a bull doing heavy service. A safe rule to follow is to feed one-half as much silage as would constitute a full ration for an average cow.

Care of the New Born Calf

If the breeding cows are in a vigorous, healthy condition at time of calving they will probably need little, if any, assistance. While it is true that most calves born need no assistance whatever, yet it is true also that many that die would have lived had they had assistance at the proper time. As soon as the calf is born it should have the fetal membrane removed from its nose and mouth at once. Unless the calf is strong and vigorous, insert a finger into the mouth and give the tongue a slight pull. Pressure on the ribs may be necessary sometimes to stimulate breathing. Allow the cow to dry and care for the calf alone. Afterwards the calf may need some assistance to find the udder. The calf should get the first milk—the colostrum—which acts as a mild purgative unless the cow's udder is feverish.

The calf should make fast continuous growth from time of birth. A common expression among beef-cattle growers is, "Keep the stomach of the calf full of milk and grain at all times." Give it all the milk from its dam, for a short period at least, unless too much milk is produced.

Feeding Calves

The success of growing cattle for market depends to a large extent upon the start which is given the calves. This, aside from the calf's breeding, is probably the most important consideration. Without the proper breeding a choice steer is rarely if ever produced, but the same is equally true of the feed and early care of the calves. No matter what system of breeding is practiced, the calves should have the best possible start. In straight beef production only a small quantity of feed in addition to milk is needed for the calves up to weaning time, but nevertheless they should be taught to eat grain and hay so that the transition during weaning will not result in loss of flesh.

When calves are intended for baby beef they should be started on some grain when between 4 and 6 weeks old. A mixture of equal parts, by weight, of shelled corn, whole oats, and wheat bran is satisfactory. The corn and oats may be fed ground until the calves become accustomed to eating; then they may be fed whole. When fed whole they are less likely to cause scours. The grain allowance should be increased gradually up to weaning time so that the lack of milk will not hinder growth and fattening. In other words, calves intended for baby beef should be kept on full feed from the time they are started on a supplemental ration until they are sold.

Calves from cows that are milked should be taught also to eat supplemental feeds within a few weeks after birth. The quantity of grain and hay consumed at first necessarily will be limited, but should be increased gradually until the calf can do without milk when from 6 to 8 months old. Fall calves that are fed skim milk and supplemental feeds during the winter months put on very good gains on pasture the following summer.

The protein requirements of the growing calf should be amply supplied. After weaning, legume hays and silage may form the greater part of the roughage and one-half to three-fourths of a pound of cottonseed meal or linseed meal given in addition to grain. The grain ration may be increased gradually until the calves are receiving a fattening ration.

COX SALE, FEB. 26th

On February 26th, Mr. Wm. Cox, of Williamston, Mich., sells 20 head of breed sows and gilts, and four service boars. Anyone in the market for the Prolific Big Type Poland China hogs will do well to write Mr. Cox for his catalog and plan to attend the sale, but if unable to do so please send your bids early to me in care of Mr. Cox and I assure you that you will be pleased with the business that I will conduct for you. I will guarantee to please you and I charge no fee.

Mr. Cox's herd will be in excellent shape by sale day and unless something unforeseen happens they should be a great boon for Poland China history for Michigan as I believe it will be the last sale for this winter season. Mr. Cox is selling some of the best of his herd as he wished to make this sale a success as he plans for another sale next year.

Mr. Cox is a splendid man to meet and a gentleman and I am sure that he will use you right and be glad to meet you personally.

All aboard for Mr. Cox's sale, and do not forget the place and the date. Send your bids to Felix Witt, in care of Mr. Wm. Cox, of Williamston, and he assures you, you will be pleased.—F. Witt, Fieldman, M. B. F.

Veterinary Department

COW DRIED UP IN LEFT QUARTER

I have a cow which after last year's calving dried up on the left hind quarter. She calved again a few months ago and dried up on the left front quarter, so she is dry on both leftside quarters. There seems to be a lump above the teats inside the udder. I have used milking devices with more harm than success. The cow eats and seems to be O. K. with no fever at the udder. Can you advise what I can do to get the milk going again? The other two teats are milking all right.—H. G. D., South Branch.

These cases usually start with a slight inflammation of the mammary gland; and almost without exception, even approved treatment and most careful handling, these attacks ultimately impair the function of the gland involved. In the early stages the local signs of inflammation are usually confined to one quarter of the udder; later both quarters on one side or both front or rear quarters may be involved. In rare cases the entire udder is involved.

In the early stages a good cathartic should be given, hot applications applied to the udder for twenty-four hours; keep the affected quarter milked out as much as possible. The more experience one has regarding the value of a milk tube in these cases, the more he is inclined to discard them; it being almost an impossibility to use a milking tube in a stable without infecting the quarter.

If the case is of long standing and the inflammation has subsided, with the quarter lost, any attempt to restore the same will be a disappointment in nine cases out of ten.—Veterinary Editor.

TEETH TROUBLE

I have a colt three and one half years old who is not in very good condition, although I have been feeding him two quarts of oats and the same amount of bran three times a day with stock food.

Also as soon as a horse is put on he will slobber worse than usual when fed on clover in the spring. Is this the cause of his hard keeping, and what is the cause and remedy?—W. J. T., Bentley, Mich.

The evolution of the permanent molar teeth has considerable to do with a colt's condition at this age; the third molar reaches the alveolar margin at 3 years, expels the temporary shell at 3 and 3 1-2 years and gains the table level at about 4 years; it is also at this age the intermediate or center front teeth erupts, therefore the gums are swollen and very sensitive. It is also at about this age a colt is very susceptible to stomach worms. Give this colt the following at one dose:

Santonin, 20 grains; oil terebinth, 3 ounces; aloes barb., 6 drams; Ol. Linc., 1 pint; followed by alterative tonic consisting of—

Terri Sulph. ex. 1 ounce; Quinine sulph. 1-2 ounce; Powd. Nux Vomica, 1 1-2 ounce; Powd. Gentian, 3 ounces; Potassium Nit., 1 12 ounces. Mix and divide into 12 powders. One three times a day.

MEAT ALL RIGHT

I butchered a male pig that I supposed had been properly castrated, but found one of its testes near its bladder. Is there anything that can be applied or any way of curing this meat to make it free from smell and fit for us to eat?—Subscriber.

In this case your pig was a Cryptorchid. The testicles of a cryptorchid may be found floating anywhere within the abdominal cavity. The testicle is usually small, undeveloped and its secretion is sterile. It may develop to the normal size, or even larger, after the opposing testicle is removed by castration, but its secretion remains sterile through life, therefore the meat is free from odor and will make perfectly wholesome meat.

"This nation depends more on dairy foods for its physical welfare than any other foods, and the dairy farmer truly performs a tremendous service in the production of such foods."

—P. M. SHARPLES

"There are no substitutes for dairy foods."

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HIS advice on modern dairy equipment can mean a lot to you. He stands ready to help the farmer, and his sound judgment on farm and dairy equipment can be relied upon—proved by the fact that he sells the Sharples Suction-feed Cream Separator.

He has elected to sell the Sharples only after a careful study of all cream separators. He has proved to his own satisfaction that the Sharples "does" skim clean at any speed." He will gladly demonstrate that fact to you.

The Sharples Suction-feed has other exclusive features; simple, one-piece bowl (no discs), knee-low supply tank, automatic once-a-month oiling system, simple construction that means longer wear. Let the Sharples dealer in your neighborhood show you how these features (found on no other separator) will increase your dairy profits.

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We guarantee correct weights and Tests.
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Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, limber neck, etc.
At dealers or postpaid 75 cts. with 6 book Poultry Library.
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Write for Special Price
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BREEDERS' DIRECTORY, MICHIGAN BUSINESS FARMING, Mt. Clemens, Michigan.

CLAIM YOUR SALE DATE

To avoid conflicting dates we will without cost, list the date of any live stock sale in Michigan. If you are considering a sale advise us at once and we will claim the date for you. Address, Live Stock Editor, M. B. F., Mt. Clemens.

Feb. 21, Duroc, Linehan, Pfaff and Robt. Reynolds, Swanton, Ohio.
Feb. 26, Poland Chinas, William Cox, Williamson, Mich.
March 3, Duroc-Jerseys, Thos Underhill & Son and Albert Ebersole, Salem, Mich.
March 8, Jerseys, Henry J. and Carleton R. Lewis, Ypsilanti, Mich.
Mar. 26, Angus, Michigan Aberdeen-Angus Breeders, Saginaw, Mich.
April 12, Holsteins, J. P. Olcott, Perry, Michigan.

CATTLE

HOLSTEIN-FRIESIAN

MR MILK PRODUCER

Your problem is more MILK, more BUTTER, more PROFIT, per cow.
A son of Maplecrest Application Pontiac—132052—from our heavy-yearly-milking-good-but-ter-record dam will solve it.

Maplecrest Application Pontiac's dam made 35,103 lbs. butter in 7 days; 1344.3 lbs. butter and 2342.2 lbs. milk in 365 days.

He is one of the greatest bred long distance sires.
His daughters and sons will prove it.
Write us for pedigree and prices on his sons.
Prices right and not too high for the average dairy farmer.

Pedigrees and prices on application.
R. Bruce McPherson, Howell, Mich.

For Sale: Registered Holstein bull calf from 24 lb. dam and 31 lb. sire, price \$100. Born, Oct. 18, 1919. Wm. Griffin, R. 5, Howell, Mich.

HOLSTEINS

FOR SALE

Fourteen head of high grade registered stock to be closed out. For particulars and pedigrees address:

E. P. KINNEY
East Lansing, Mich.

TWO GREAT BRED BULLS

One a fine, beautifully marked son of KING PONTIAC HENGVERVELD FAYNE the hundred thousand dollar son of KING OF THE PONTIACS from a 23 lb. Jr. 3 year old daughter of a near 32 lb. Jr. 1 year old cow, whose sire was from a 30.50 lb. cow and this heifer is just one of the choicest heifers of the breed. Good for 80 lbs. at next freshening. If interested write for extended pedigree and price. Guaranteed right. The other a son of the above sire out of a 20 lb. Jr. 2 year old granddaughter of KING KORNDYKE SADIE VALE. Where can you get better breeding?

JAMES B. GARGETT, Elm Hall, Mich.

FOR SALE

PURE BRED HOLSTEIN

An A. R. O. full sister to SPOTTED LIZZIE 3rd.
One thousand pounds of butter in one year.

Details upon application to

WILLIAMS AND WHITACRE
ALLEGAN, MICH. R. F. D. 4

HERE'S A BULL GOOD ENOUGH TO HEAD A REGISTERED HERD

A grandson of the \$50,000 bull. His dam a 20 lb. Jr. 4 year old. Next dam a A. R. O. cow. Come and see his dam and his sisters and his fine heifer calves. This bull is coming 2 yrs. old, 90 per cent white. You will not be disappointed if you come to see him. Pedigree on request. Price \$350. Herd free from abortion.

H. E. BROWN

Breeder of Reg. Stock Only. Breedsville, Mich.

BULL LAST ADVERTISED SOLD TO

Mr. F. W. Alexander, Vassar, Mich. Now offer a bull two years old about 1-2 white and straight as a line (sired by MAPLE CREST KORNDYKE HENGVERVELD and from FLINT ULTRA NUDINE) 23.22 pound daughter of FLINT PRINCE. Bull registry 76 per cent same blood as KING FLINT. If you want a direct descendant of BUTTER BOY ROSINA now is your chance.

Price \$200.

ROY F. FICKIES, Chasaning, Mich.

BULLS NICELY MARKED, GOOD BONED

bull calves out of A. R. O. and untested dams, at reasonable prices.

TRACY F. CRANDALL, Howell, Mich.

"Breeding--Individuality--Production"

That's our motto. We make it possible through our two herd bulls—one a 38 lb. son of the \$30,000 sire, King Korndyke Pontiac Lass, the other a 36 lb. son of King Korndyke Sadie Vale, "the greatest sire of his generation." Our matrons are strong in King of the Pontiacs, King Segis, Hengerveld DeKol and Ormsby blood. We've been at it since 1906. Usually something to sell. Write us.

BOARDMAN FARMS
Jackson, Mich.

BAZLEY STOCK FARM

YPSILANTI, MICH.

Offers 2 grandsons of KING OF THE PONTIACS, also 2 sons of A. R. O. granddaughters of KING OF THE PONTIACS.

Price \$100 to \$175

Herd under state and federal inspection. All bulls offered for sale are from A. R. O. cows. Address all correspondence to

JOHN BAZLEY
319 Atkinson Ave., Detroit, Mich.

REGISTERED HOLSTEINS FOR SALE. FOUR bull calves sired by a son of King Segis Champion Mabel. He is a double grandson of King Segis De Kol Korndyke. Dams are heavy producing young cows. Prices reasonable, breeding considered.

G. & P. DeHOOP, Zeeland, Mich., R 4

WOLVERINE STOCK FARM REPORTS GOOD sales from their herd. We are well pleased with the calves from our Junior Herd Sire, "King Pontiac Lunde Korndyke Segis" who is a son of "King of the Pontiacs" from a daughter of Pontiac Clothilde De Kol 2nd. A few bull calves for sale. T. W. Sprague, R. 2, Battle Creek, Mich.

MUSLOFF BROS.' HOLSTEIN

We are now booking orders for young bulls from King Pieter Segis Lyons 170506. All from A. R. O. dams with credible records. We test annually for tuberculosis. Write for prices and further information.

Musloff Bros., South Lyons, Michigan

LONG DISTANCE HOLSTEIN CALVES OF EITHER SEX

Can spare a nicely marked heifer backed by seven dams that average above 1200 lbs. butter and 24,000 lbs. milk in one year. Choice Duroc Sows.

A. FLEMING, Lake, Mich.

BULL CALF LAST ADVERTISED SOLD.

Nicely marked, straight back line, a fine individual, large growthy fellow with the making of a large bull. Would do someone a lot of good. Dam has a 27 lb. record, a large cow and a great milk producer. Sire a son of Friend Hengerveld DeKol Butter Boy, one of the great bulls.

JAMES HOPSON, JR.

Owosso, R 2, Michigan

TWO BULL CALVES

Registered Holstein-Friesian, sired by 39.87 lb. bull and from heavy producing young cows. These calves are very nice and will be priced cheap if sold soon.

HARRY T. TUBBS, Elwell, Mich.

BROOKSTON FARMS REGISTERED HOLSTEIN BULL

Calves for sale, sired by MARYLAND BELLE CLOTHILDE No. 154358, born Dec. 14, 1914. A grandson of Colantha Johanna Lad, one of the greatest living sires and of a 31.44 lb. daughter of Sir Korndyke Manor De Kol. His two nearest dams average 25.80 lbs. butter in seven days.

BROOKSTON FARMS

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Elmwood Stock Farm Offers

bull calves from good producing dams with A. R. O. records and sired by a grandson of Pontiac Korndyke and Pontiac Pet. Prices very reasonable.

AUGUST RUTTMAN, Fowlerville, Mich.

TWO BULL CALVES ONE BORN SEPT.

8. One born Nov. 2 whose dam at age of 7 years and 30 days after calving has a record of 20.58 butter, 469.9 milk in 7 days, at 3 milkings 3 days.

VERNON CLOUGH, Parma, Mich.

Four Choice Bull Calves

Dams have records from 20 lbs. to 26 lbs. by our 32 lb. son of the \$50,000 bull.

Write to KE SIDE DAIRY, Lake Odessa, Mich.

A Beautiful, Light Colored, Very Straight Bull Calf, Born October 24.

From a 17 lb. Jr. 2 yr. old daughter of a son of PONTIAC DE NILLANDER 35.43 lbs. butter and 7.50 lbs. milk in 7 days. Sired by FLINT HENGVERVELD LAD whose two nearest dams average 32.66 lbs. butter and 73.45 lbs. milk in 7 days.

Price \$100 F. O. B. Flint.

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YPSILANTI, MICHIGAN

Offers young sires out of choice advanced registry dams and King Korndyke Art is Vale. Ow dam 34.16 lbs. butter in 7 days; average 2 nearest dams 37.61, 6 nearest, 33.93, 20 nearest 27.83.

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WHAT DO YOU WANT? I represent 41 SHORTHORN breeders. Can put you in touch with best milk or beef strains. Bulls all ages. Some females. C. W. Crum President Central Michigan Shorthorn Association, McBrides, Michigan.

LIVE STOCK FIELD MEN

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One or the other of the above well-known experts will visit all live-stock sales of importance in Michigan, northern Ohio and Indiana, as the exclusive Field Men of Michigan Business Farming.
They are both honest and competent men of standing in their lines in Michigan and they will represent any reader of this weekly at any sale, making bids and purchases. Write them in care of this paper their service is free to you. They will also help you arrange your sale, etc. They work exclusively in the interests of Michigan's OWN live-stock weekly!

SHORTHORNS AND POLAND CHINAS FOR

sale. Registered cows, heifers, bull calves, bred sows and fall pigs, either sex. The farmers' kind at farmers' prices.

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Union Phone Fowler, Mich.

3 SHORTHORN BULLS, 11 MONTHS TO 2

Yrs. 50 Young Tom Turkeys 20 lbs. up, out of Antrim's King a 45 lb. Tom, at \$10 each.

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THE VAN BUREN CO. Shorthorn Breeders' Association have young stock for sale, mostly Clay breeding. Write your wants to the secretary, Frank Bailey, Hartford, Mich.

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announce their fall catalog ready for distribution. Scotch, Scotch Top and Milking Shorthorns listed. Address

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SPECIAL OFFER SHORTHORNS—

Cows, \$250.00 to \$300.00. Bulls, \$200.00 to \$250.00. Wm. J. Bell, Rose City, Mich.

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Over fifty head of Scotch and Scotch Topped Shorthorns. Am offering several good bulls, cows and heifers, Romans, Reds and Whites. Write or see them.

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FOR SALE—SHORTHORN BULL CALVES

ready for service. Also young Oxford Down Ewes. Prices to sell.

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SHORTHORNS FOR SALE AT REA-

sonable prices. The prize-winning Scotch Bull Master Model 576147 in many states at head of herd of 50 good type Shorthorns.

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FOR SALE Clay Bred Shorthorn bull calf

from a heavy producing dam.

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Milking Shorthorns. Registered females \$200 and up. Bull calves at \$100. Cows all hand milked.

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120 HEREFORD STEERS, ALSO know of 10 or 15 loads fancy quality Shorthorn and Angus steers 5 to 1000 lbs. Owners anxious to sell. Will help buy 50c commission. C. F. Ball, Fairfield, Iowa.

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E. J. TAYLOR, Owner

Frankfort, Mich. Individually good and breeding unsurpassed. No females for sale at present, but am offering two exceptionally good bull calves by COLLEGE BEAU 42153, only son of that grand old matron "DELILA" illustrated in January 24th issue of "Business Farming" and founder of M. A. C. Hereford herd. Come and see them.

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Having used Bob Fairfax 494027 (son of Richard Fairfax) for 3 years, I now offer him for sale. Also stock of either sex, any age. Come and look them over.

Earl C. McCarty, Bad Axe, Huron Co., Mich.

Hardy Northern Bred Herefords

BERNARD FAIRFAX 624819 HEAD OF HERD 20 this year's calves for sale, 10 bulls and 10 heifers.

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REGISTERED HEREFORD CATTLE

KING REPEATER HEADS OUR HERD We still have eight good bulls and some heifers for sale.

STONY CREEK STOCK FARM
Pewamo, Mich.

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The Most Profitable Kind

of farming, a car load of grade dairy heifers from LENAWEE COUNTY'S heaviest milk producers to include a pure bred ANGUS bull of the most extreme beef type for combination beef and dairy farming.

Car lot shipments assembled at GLENWOOD FARM for prompt shipment.

Methods explained in SMITH'S PROFITABLE STOCK FEEDING—400 pages illustrated.

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DON'T FORGET YOUR WANTS CAN

be supplied at the old reliable Angus Home Stock Farm. For 30 years we have bred Angus cattle. We know the goods ones and breed the best. They are bred right, fed right and priced right. Tell us what you want.

ANGUS HOME STOCK FARM, R. 2, Davison, Mich.

BARTLETT'S PURE BRED ABERDEEN-ANGUS CATTLE AND O.I.C.

Swine are right and are priced right. Correspondence solicited and inspection invited.

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GUERNSEYS WE ARE OFFERING FOR sale some splendid bull calves out of A. R. dams with records up to 500 lbs. fat. Our herd sire, a grandson of Dolly Dimples May King of Langwater, and whose dam has an A. R. record of 548 lbs. fat at 2 1-2 years is also for sale or exchange. Write for particulars and prices to

MORGAN BROS., R. No 1, Allegan, Mich.

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For Sale—Jersey bull calves. Oxford and Majestic breeding. Dams are heavy producers.

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I WILL SELL MY WHOLE HERD OF REGISTERED JERSEY CATTLE

Also 25 pure bred white Orpington hens and 75 pure white Leghorns, all laying Price \$2 each.

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BROWN SWISS

FOR SALE

4 HEAD OF REGISTERED

Brown Swiss Cattle

All in good condition, write for particulars.

HENRY BOOHER

R 4 Evart, Mich.

VAL VERDE FARM BROWN SWISS

Registered calves for sale—both sex.

EDWIN GRISWOLD, R. 1, Bellaire, Mich.

FOR SALE

PURE BRED BROWN SWISS BULL Calved April 28th, 1919. His dam, Gertrude No. 6191, her sire, King Edward No. 2219. His dam College Bravura 2nd, World's Champion Brown Swiss Cow. Will give purchaser registration and transfer.

FRANK POET, Clare, Mich., R 6

Breeder of Brown Swiss Cattle

RED POLLED

REG. RED POLLS

Bulls serviceable age. No. 30665, Elmwood Rival, ton bull heads herd.

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AN OVERLOOKED OPPORTUNITY

is offered right here for some Michigan Ayrshire breeder to get his offering before 70,000 Michigan business farmers.

Some one is going to grab this opportunity and send along a little ad that will pay him handsomely.

ARE YOU THE ONE?

HORSES

FOR SALE

Having sold my farm, I will sell at Public Auction, a Black Imported Percheron Stallion, Thursday, February 26, 1920, that is sound, sure and a good one. Weighs 1,900 lbs. Will also include my entire herd of Registered Poland China Hogs, large type. Have 5 mature sows, 6 spring gilts due in April, 3 young boars, 6 months.

Have both phones. Will meet the electric car at County Farm crossing on call.

JOHN L. JACOB

St. Johns, Mich.

FOR SALE ONE IRON GRAY 5 YEAR OLD

Percheron stallion, Prince No. 148423. Sired by Brilliant IV No. 47531, a black horse and sold once for \$3,000. The dam of Prince a large gray mare No. 148423. Price \$300.

D. E. DEAN, Milford, Mich.

Percherons for Sale—21 Head

Series 130757 at head of herd. A horse carrying the blood of Imposant, his sire and Hartley's Samson, two 2,400 lb. horses. He is 42 months old, weighs 2,150 lbs. carries 14 inch bone (six weeks).

CHAS. OSGOOD & SONS, Mendon, Mich.

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BIG TYPE P. C. GILTS, BRED TO BIG Orange Model and C. H.'s Defender. None better in state. Priced to sell.

W. J. HAGELSHAW, Augusta, Mich.

WALNUT ALLEY BIG TYPE

boars all sold Have a few good gilts that I will sell open or bred to one of the best boars in Michigan. Write for prices.

A. D. GREGORY, Ionia, Mich.

BIG TYPE POLAND CHINA GILTS, Sired

by BIG BONE 4th. Bred to BIG LONG BOB for May farrow.

MOSE BROS.,

St. Charles Mich.

BIG TYPE P. C. CLOSING OUT OUR

boars at a bargain. Choice sows for March and April farrow.

L. W. BARNES & SON

Byron, Mich.

LTPC NOV. PIGS AT A BARGAIN PRICE.
Come and see or write
ELDRED A. CLARK, R. 3, St. Louis, Mich.

BIG TYPE P. C. BRED GILTS AND FALL
yearlings including prize winners. Out of
1,100 lb. sire and mammoth sows from Iowa's
greatest herds.
E. J. MATHEWSON, Burr Oak, Mich.

BIG TYPE POLAND CHINAS
WITH QUALITY
BRED SOWS FOR SALE
BOARS ALL GONE
J. E. MYGRANTS, St. Johns, Mich.

I Am Offering Large Type Poland China Sows,
bred to P's Orange at reasonable prices. Also
fall pigs. Write or call.
CLYDE FISHER, R. 3, St. Louis, Mich.

LTPC AM OFFERING SPRING
boars, summer and fall pigs.
R. T. HART, St. Louis, Mich.

B. T. P. C. BRED GILTS Sired by MOWW'S
Big Jones 3rd, out of Grand Daughters of Dish-
er's Giant and bred to Wiley's King Bob, a good
son of Harrison's Big Bob \$10,000 each. Gilts
priced reasonable.
JOHN D. WILEY, Schoolcraft, Mich.

BOARS ALSO SOWS AND PIGS. ANYTHING
you want. Poland Chinas of the biggest type.
We have bred them big for more than 25 years;
over 100 head on hand. Also registered Percherons,
Holsteins, and Oxford. Everything sold at
a reasonable price, and a square deal.
JOHN G. BUTLER, Portland, Mich.

BIG TYPE POLAND CHINA
tried sows and gilts bred to MICHIGAN BUSTER
BIG DEAMONES 5TH, BOB-O-LINK or WON-
DER BUSTER. Fall pigs.
O. L. WRIGHT, Jonesville, Mich.

HERE'S SOMETHING GOOD
THE LARGEST BIG TYPE P. C. IN MICH.
Get a bigger and better bred boar pig from my
herd, at a reasonable price. Come and see them.
Expenses paid if not as represented. These boars
in service: L's Big Orange, Lord Olanman,
Orange Prince and Long Prospect.
W. E. LIVINGSTON, Parma, Mich.

THE OLD FASHION
SPOTTED POLAND CHINA HOGS
CHOICE GILTS—BRED
March, April—\$50 to \$100
J. M. WILLIAMS,
No. Adams, Mich.

WONDERLAND HERD

LARGE TYPE P. C.
A few choice bred gilts for sale. Also fall gilts
and boars, some very good prospects of excellent
breeding. Gilts bred to ORPHAN'S SUPERIOR
he by BIG ORPHAN'S EQUAL by BIG BOND
ORPHAN by the BIG ORPHAN. Dam
BEAUTY'S CHOICE by ORANGE BUD, by BIG
ORANGE A.
Free livery to visitors.
Wm. J. CLARKE,
Eaton Rapids, Mich.

(his name) Big Bob Mastodon
MR P C BREEDER IF YOU WANT TO GET
in the King row buy a
Gilt bred to BIG BOB MASTODON.
He has more Grand Champion Blood in his
veins than any other boar in Michigan.
I have 15 choice Gilts bred to him for March
and April farrow. Fall pigs of either sex.
C. E. GARNANT,
Eaton Rapids, Mich.

LARGE TYPE POLAND CHINA HOGS, BOAR
plus spring farrow. Single Comb Rhode Island
Red Cockerels. Write for pedigrees and prices.
Inspection invited.
FRED C. VOSS, Avoca, Mich.

LTPC A FEW SPRING BOARS LEFT AT
FARMERS' PRICES.
H. O. SWARTZ, Schoolcraft, Mich.

BIG TYPE P. C. SOWS FOR MARCH AND
April Thirty farrow. Fall pigs.
none better, call or write
E. R. LEONARD, St. Louis, Mich.

FOR SALE
Large Type P. C. Hogs
Have a few spring boars and spring gilts, also
yearling sows. Bred to such boars as Clansman's
Image 2nd, King's Giant, and Smooth Wonder.
They are three real boars. Free livery to visitors.
W. B. RAMSDALL, Hanover, Mich.

DUROC
PEACH HILL FARM
Choice Duroc fall boars for sale.
Write, or better still, come and see them.
Visitors welcome.
INWOOD BROS., Romeo, Mich.

COME
to our Duroc-Jersey Sale
March 3, 1920
(See sale ad in this issue.)
THOS. UNDERHILL & SON,
Salem, Mich.

DUROC JERSEY
BRED SOWS SERVICE BOARS
Booking orders for weanling spring pigs
\$25 EITHER SEX
We deliver the hogs before you pay
IRA BLANK, Pottsville, Mich.

DUROC BOARS OF SIZE, QUALITY
and breeding, including several State
Fair winners. Newton Barnhart, St.
Johns, Mich.

DUROCS BOTH SEX FOR SALE, LAST OF
Mar. and first of April farrow, 1919.
Weighing around 175 to 200 lbs., priced from
\$50.00 to \$80.00 with pedigree.
H. G. KEESLER, Cassopolis, Mich., R 5

O. I. C. SOWS FOR SALE

ONE OF THE BEST HERDS IN MICHIGAN
Spring gilts and fall yearlings bred for March, April and May litters. I ship O. I. C. D., pay
express and register in buyer's name. If you want a BIG TYPE sow, guaranteed right in
every way, write me.
J. CARL JEWETT,
R. 5, Mason, Michigan

DUROC BOARS FROM PRIZE
WINNING STOCK
ready for service. Geo. B. Smith, Addi-
son, Mich.

DUROC BOARS, GILTS AND BROOD SOWS
of all ages. Sows bred or open. New-
ton & Blank, Hill Crest Farms, Perrinton, Mich.
Farm 4 miles straight south of Middleton.

MEADOWVIEW FARM, REG. DUROC JERSEY
hogs. Fall pigs for sale.
J. E. MORRIS, Farmington, Mich.

FOR SALE—REGISTERED DUROC JERSEY
swine. Both sex. All ages. Rhode Island Red
Barred Rock and White Leghorn cockerels. 40 a.
and 80 acre farms. Easy terms.
W. U. BARNES, Wheeler, Mich.

DUROC BRED GILTS Choice breeding, splen-
did individuals. Bred
for April farrow. Would like to have you see them.
CHERRY LAWN FARM, Shepherd, Mich.

DUROC JERSEY BRED SOWS AND GILTS
April and May farrow.
Sired or bred to my 1,000 lb. herd boar.
JOS. SCHUELLER, Weidman, Mich.

DUROC BRED SOWS AND GILTS Sired by
Orion Cherry King Col. 2nd, first aged boar at
Detroit in 1919, and bred to All Col. of Sangmo-
no. He is an intensely Col. bred boar and the
Col.'s were never more popular than now. Priced
from \$65 to \$100 each.
W. C. TAYLOR, Milan, Mich.

A FEW BRED DUROC GILTS. BRED TO A
son of Principal 6th. These gilts are long-
bodied with good hams and shoulders and will
weigh 250 lbs. Bred to farrow in April. Pedigree
on request. Price credited, \$100 each.
H. E. BROWN, Breedsville, Mich.

FOR SALE BRED SOWS. DUE TO FAR-
row in March and April. Bred to
MASTERPIECE'S ORION KING.
C. E. DAVIS & SON, Ashley, Mich.

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

FOR SALE REGISTERED DUROC JERSEYS
of quality. Three good boars,
farrowed in Mar. and April, 1919, weighing 300
to 350 lbs. each. Modern type with big bone.
Write for pedigrees and prices. Satisfaction
guaranteed.
F. HEIMS & SON, Davison, Mich.

PHILLIP'S PRIZE WINNING DUROCS FOR
sale—A few good boars of breeding age, also
a few good gilts, prices right, let me convince you.
Henry D. Phillips, Milan, Mich.

BERKSHIRES
REGISTERED BERKSHIRES FOR SALE, AUG.
10 pigs for \$40 a piece, while they last. Sat-
isfaction guaranteed. Taking orders for spring pigs.
JOHN YOUNG, Breckenridge, Mich.

GREGORY FARM BERKSHIRES FOR
profit. Choice stock for sale. Write your
wants. W. S. Corsa, White Hall, Ill.

CHESTER WHITES
CHESTER WHITES—A FEW MAY BOARS,
fall pigs in pairs or trios from most prominent
bloodlines at reasonable prices. Registered free.
F. W. Alexander, Vassar, Mich.

YORKSHIRE
3 BRED YORKSHIRE GILTS, DUE APR. 1.
From M. A. C. bred stock. \$50 each.
A. R. BLACK & SON, R7, Lansing, Mich.

HAMPSHIRE
HAMPSHIRE
This add will save you from \$10 to \$20 on
the purchase price of every bred sow or gilt of the
most prominent blood line, bred to good boars
for Mar. and Apr. litters. A few fall pigs left
of either sex. These are all good and well grown.
Call or write
GUS THOMAS, New Lothrop, Mich.

BRED GILTS ALL SOLD
ONE SPRING BOAR LEFT
FALL PIGS FOR SALE
W. A. EASTWOOD, Chesaning, Mich.

HAMPSHIRE BRED SOWS AND BOARS
of both sex. Best of breeding. Call or write
RAYMOND SKINNER & SON, Henderson, Mich.

HAMPSHIRE BRED GILTS NOW READY
to ship. FALL PIGS
from new blood lines.
JOHN W. SNYDER, St. Johns, Mich R4

O. I. C.
O. I. C. SWINE—MY HERD CONTAINS THE
blood lines of the most noted herd. Can furnish
you stock at "Live and let live" prices.
A. J. GORDEN, Dor, Mich., R 3.

O. I. C.—FALL PIGS NOT AKIN. SERVICE
boars. Buff Rock Cockerels, \$3 each.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. GILTS WEIGHING 200 to 275 LBS.
in breeding flesh bred for March, April and
May farrow. Guaranteed safe in dam. I will re-
place any proving otherwise to your satisfaction
or refund purchase price in full. Have a few Oc-
tober boar pigs ready for spring service that are
right priced to sell. Hard cholera immunized by
double treatment. F. C. Burgess R3, Mason, Mich.

SPRING BOARS READY TO SHIP.
also bred gilts and a few fall pigs. Some
of the best O. I. C. pigs, sired by Jumbo
Master No. 54687. All stock shipped C.
O. D. Joseph Van Etten, Clifford, Mich.

Mud-way-aush-ka farm

offers O. I. C. bred gilts and two serviceable boar
pigs. Also bred to lay Barred Rock hens and
pullets, Embden Geese and White Runner Ducks.
DIKE C. MILLER, Dryden, Mich.

SAGINAW VALLEY HERD OF O. I. C.
swine won ex-
hibition prize at Saginaw Fair. Our herd boar,
C. C. Michigan Boy, was the largest hog of all
breeds shown. Pigs of this big type, prize win-
ning stock, registered free and shipped C. O. D.
JOHN GIBSON, Fosters, Mich., R. No. 2.

OIC'S Choice bred gilts for spring farrow, good
fall boars. Am booking orders for spring
pigs. Can furnish pairs and trios not akin.
A. J. BARKER & SON, Belmont, Mich., R1

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WANT A SHEEP? Let American Hampshire
Sheep Association send you a dandy booklet
with list of breeders. Write **COMFORT A.**
TYLER, Sec'y, 10 Woodland Ave., Detroit, Mich.

REG. SHROPSHIRE BRED EWES 1 TO 3
years old, large, healthy, well fleeced. Represent-
atives of this flock gave satisfaction in 15 states
last season. Rams all sold. C. Lemen, Dexter, Mich.

KIDS OF MICH. YOU ARE THE FUTURE
farmers of the state. I am one of the
best sheep breeders in the state. Lets get to-
gether, that you may start your own flock of
registered Shropshires now. A lot of kids have al-
ready done so, but I want more. I will buy your
ram lambs and co-operate with you in every way.
Write me for my proposition and prices. Box 5,
Kepe-Kon Farms, S. L. Wing, Prop., Coldwater, Michigan

HAMPSHIRE SHEEP

Everything sold out, both ewes and rams.
I am breeding 50 ewes to "Stroman 209", an
excellent big boned type ram lamb that
weighed 176 lbs. October 1. Booking orders
for 1920 rams.

CLARK U. HAIRE, West Branch, Mich.

PET STOCK

FOR SALE Shetland Pony, born May 25, 1919.
Also bred mare, 2 years old.
MARK B. CURDY, R. 6, Howell, Mich.

BELGIAN HARES, CHOICE STOCK, 3 AND 6
months old, also S. C. Ancona Cockerels. Write
for prices, Sheridan Rabbitry, R 5, Sheridan, Mich.

FLEMISH GIANT RABBITS—HEAVY WEIGHT
registered breeders and pedigreed youngsters in
blacks, steels and grays at \$1.00 per pound.
R. R. FOX, 412 N. Huron St., Albion, Mich.

FOR SALE Flemish Giant Rabbits that are
giants, old and young, in blacks,
steel grays and natural grays. Quality guaranteed.
E. E. HIMEBAUGH
Coldwater, Mich.

YOUNG FOX HOUNDS, WALKER STRAIN.
Every one registered and guaranteed.
E. W. GILL, Clarion, Mich.

FIVE PEDIGREED RUFUS RED BELGIAN
bucks, 9 months old, from registered
stock, winning at Lansing show 2nd, 3rd, 4th,
and 5th prizes. Pedigrees furnished.
E. W. BANKS, Lansing, Mich., R3, Box 178

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NEW SPRING CATALOG

The Day Old Chick business is on. We ad-
vise you to write for Catalog now, and then to
order as early as you can.

The most complete descriptive Catalog we have
yet published; its instructions will help you.
Thirteen Heavy Breeds.
Three Especial Eggs Breeds.

You will be particularly interested in the ex-
tra heavy laying breeds: White Leghorns Inspected
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Extension Specialist of the Agricultural College.

Cockerels—A few fine R. C. and S. C. Reds;
Barred Rocks, White Wyandottes; R. C. Brown
Leghorns.

PULLETS—S. C. Brown Leghorn yearlings.

We solicit your interest in the Homestead
Farms plan of Pure Bred Poultry raising.

STATE FARMS ASSOCIATION
Desk B, Kalamazoo, Michigan

COCKERELS—PULLETS

PURE BRED UTILITY STOCK

COCKERELS

WHITE WYANDOTTES, S. L. WYANDOTTES
WHITE ORPINGTONS

BARRED ROCKS, BUFF PLYMOUTH ROCKS
ROSE AND SINGLE COMB R. I. REDS

S. C. BLACK MINORCAS
S. C. WHITE LEGHORNS

ROSE COMB BROWN LEGHORNS, ANCONAS

PULLETS

WHITE WYANDOTTES, BARRED ROCKS AND
S. C. WHITE LEGHORNS

We ship on approval, write us your wants.
VALLEY RIDGE POULTRY FARM
Frazer Miller, Prop. Bloomingdale, Mich.

ORPINGTONS AND LEGHORNS

Two great breeds for profit. Write today for
free catalogue of hatching eggs, baby chicks and
breeding stock.

CYCLE HATCHER COMPANY, 149 Philo Bldg.
Elmira, N. Y.

COCKERELS, DRAKES, ANCONAS, BUFF

Barred, Columbian, Silver Pencilled and White
Plymouth Rocks; Rouen drakes, price, \$3 each.
SHERIDAN POULTRY YDS., R6, Sheridan, Mich.

FOR SALE MAMMOTH BRONZE TURKEYS.

Toulouse geese, White Pekin
ducks, either sex, \$4 each at once. Old ducks
weigh 10 pounds.
CHASE STOCK FARM, Marietta, Mich.

PLYMOUTH ROCKS

Barred Rock Cockerels, 240 Egg Strain, \$3 to
\$4. Exhibition strain \$4 to \$5. Prize winners.
SAM STADEL, Chelsea, Mich.

CHOICE BARRED ROCK COCKERELS AND
Pullets bred from Detroit and Boston winners.
Good laying strain. Prices reasonable, satisfac-
tion guaranteed.
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BARRED ROCK COCKERELS. BRED FROM
great layers.
W. C. COFFMAN, Benton, Harbor, Mich., R 3

JOHN'S BIG BEAUTIFUL BARRED ROCKS
are hen hatched, good layers, grow quick, sold
on approval. Males \$4 to \$8 each. Photos.
Circulars.—John Northon, Clare, Mich.

Barred Rock Cockerels from Trapnested State
Contest winning strain, direct. Sired by pedi-
greed male, 250 egg record. Also a few choice
Partridge Rock Cockerels, prices \$3, \$4 and \$5.
N. AYERS & SON, Silverwood, Mich.

BARRED PLYMOUTH ROCKS, BRED TO LAY
birds of great vigor and good marking. Price
\$4 each. Barred Rocks only.
CHAS. H. WRIGHT, Box 103, Ypsilanti, Mich.

RHODE ISLAND RED

COCKERELS—SINGLE COMB RHODE IS-
land Reds from Tompkins' Sire and 200 egg
trapnested blood, \$5.00.
MISS AVERY, Oxford, Mich.

S C R I REDS FINE DARK BIRDS. PRICE
\$3.00 each or 2 for \$5.00.
ALFRED DEICHMANN, R3, Pigeon, Mich.

COCKERELS ROSE AND SINGLE COMB
R. I. Reds. Bred for color and
eggs. \$3.50 and \$5 each. Satisfaction guaranteed.

CHICKS ROSE AND SINGLE COMB R. I.
Reds. Barred Plymouth Rocks. Pre-
paid by parcel post and safe delivery guaranteed.
Write for free illustrated catalog.
INTERLAKES FARM, Box 4, Lawrence, Mich.

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S. C. WHITE LEGHORN HATCHING EGGS.
Have 10 more Cockerels for sale. Tom Barron
274 egg strain. E. Altenbern, R3, Allegan, Mich.

S C BUFF LEGHORNS, DAY OLD CHICKS,
25, \$4.50; 100, \$17. Eggs, 15, \$1.50;
100, \$7.50. Hens, \$1.75 each.
J. W. WEBSTER, Bath, Mich.

CHICKS—EGGS Big White Leghorns, 230-
285 TRAPNESTED Strain
of winter layers. Real profitmakers. Satisfaction
guaranteed. Sauder's Leghorn Parks, Grubill, Ind.

WYANDOTTE

30 Years a Breeder of Silver Laced and White
Wyandottes. Fine lot of young stock at \$3, \$4
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W Wyandottes, Fine Stock, 30 Eggs. Postpaid,
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Cockerels, \$3. Nick Fleck, R6, Plymouth, Ind.

A FINE LOT OF FISHELL STRAIN WHITE
Wyandotte Cockerels, \$3 to \$5 each.
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BABY CHICKS

Chicks, Leghorns, Minorcas, Spanish, Houdans,
Campines, Reds, Rocks, Orpingtons, Brahmas,
Wyandottes. Tyrone Poultry Farm, Fenton, Mich.

MARTIN'S STRAIN, WHITE WYANDOTTES.
Baby chicks. Hatching eggs. Write for prices.
Order early. Also progressive and superb
everbearing strawberry plants, \$2 per hundred.
O. W. HEIMBACH, Big Rapids, Mich.

BABY CHICKS: Pure bred White Leghorns.
Brown Leghorns, \$17 per 100, Anconas, \$18
live arrival guaranteed. Order now. Eggs of all
breeds. Free catalog. **TRIANGLE, Clinton, Mo.**

O. K. CHICKEN HATCHERY

THOROUGHbred DAY OLD CHICKS
Single comb, White, Buff and Brown Leghorns.
White Buff and Barred Rocks.
S. C. R. I. Reds. Anconas, White Wyandottes.
25 chicks, \$6.25; 50 chicks, \$11; 100 chicks,
\$20.00.

A. C. MORNINGSTAR, Prop.
Box 263, Phone 115. Fenton, Mich.

CHICKS—CHICKS

SHIPPED SAFELY EVERYWHERE BY MAIL
S. C. White Leghorns and S. C. Mottled An-
conas; the great egg machines. Strong, sturdy
chicks, guaranteed to satisfy. Order now for
March and April delivery. Eleventh season. Cat-
alog free.
HOLLAND HATCHERY, R7, Holland, Mich.

BABY CHICKS 50,000 for 1920, Barred
Rocks. Exhibition quality.
Booking orders now at 20c each.
Beechmont Poultry Farm, Grandall, Ind., Box 16

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WHITE WYANDOTTES; EGGS FOR HATCH-
ing from selected layers, \$2 per 15, prepaid.
Pens. \$16 to \$25.
FRANK DeLONG, R3, Three Rivers, Mich.

R. C. BR. Leghorn eggs, \$1.50 per setting. Pekin
duck, \$1.50 for 8. Chinese geese 40c each.
MRS. CLAUDIA BETTS, Hillsdale, Mich.

FOR SALE HATCHING EGGS FROM A
heavy laying strain of S. C. R. I.
Reds. Pen No. 1 headed by an Owen Farms year-
ling cock and mated to a superb bunch of pullets.
Pens Nos. 2 and 3 headed by two wonderful cock-
erels and mated to equally good pullets, also a
utility flock that is high class. Get our prices
on your wants for the coming season. Satisfac-
tion guaranteed.
F. HEIMS & SON, Davison, Mich.

TURKEYS

WHITE HOLLAND TURKEYS, 18 LB. TOM,
\$10. Two late hatched toms and hens, each \$6.
MRS. W. P. TEETER, Scottville, Mich., R2

TOO LATE TO CLASSIFY

21 REGISTERED HOLSTEINS

AT AUCTION
Having sold my farm I will sell all of my Hol-
steins at my farm 1-2 mile N. of Kendall, Mich.,
and 15 miles N. W. of Kalamazoo, on March 3rd,
commencing at noon. 13 females and 8 young
bulls, 2 ready for service. The foundation cow
has a record of 22 lbs. and most all trace to this
cow, 7 grand daughters of the \$50,000 bull some
of them bred to a double grandson of the great
May Echo Sylvia 41 lb. of butter and 1,005 lbs.
milk in 7 days. Also at the same time and place
L. H. Waber will sell 5 nice cows, 4 soon to
freshen to a son of the \$50,000 bull. For Cat-
alog write C. H. Giddings, Mgr., Goberville, Mich.
D. K. and L. H. WABER, Owners
Kendall, Mich.

It Pays Big

to advertise livestock
or poultry in
M. B. F.'s
Breeder's Directory.

Big Buying Opportunities for 1920!

**Government
Army Camps!**

**Manufacturers
Sales!**

**Government
purchases!**

NOW READY!—All Material from Our Latest Big Purchases!

Wonderful Roofing Offers

Now is the time to buy roofing. But you must act quickly to get your share of these uncommon savings.

Ajax high grade rubber surfaced roofing in rolls of 108 square feet; complete with nails and cement.

KP-302.
3 Ply, per roll.....\$1.85
2 Ply, per roll..... 1.60
1 Ply, per roll..... 1.22

Rawhide Stone faced gold medal roofing guaranteed fifteen years. Rolls of 108 square feet with nails and cement. **KP-303.** Per roll.....\$2.75

Famous Rawhide rubber roofing, 3 ply guaranteed for 12 years. Rolls of 108 sq. ft. with nails and cement. **KP-304.** 3 ply, per roll.....\$2.10
2 ply, per roll.....\$1.90 1 ply, per roll.....\$1.55

Corrugated Metal Sheets

Per 100 Square Feet
\$2.50

28 gauge painted 2 1/2 in. corrugated over-hauled sheets 5 1/2 ft. long. **KP-306.** Per 100 square feet.....\$2.50

26 gauge painted 2 1/2 in. corrugated over-hauled sheets. **KP-307.** Per 100 square feet, \$3.50

24 gauge extra heavy painted 2 1/2 in. corru-gated overhauled sheets. **KP-308.** Per 100 square feet.....\$4.00

One-Piece Sinks \$15.95



KP-6520. White porcelain enameled one-piece roll rim sink and back; two nickel-plated faucets, strainer and lead "P" trap complete.
18 in. x 30 in.....\$15.95
20 in. x 36 in..... 16.95

20,000,000 Feet of High-Grade Lumber!!
Never again will you have such a splendid chance to buy high grade and thoroughly seasoned lumber. Like all of the material used in the Government Camps, this lumber was purchased under rigid government inspection and is of splendid quality. Sit right down and figure your requirements now! If you can use buildings of any kind, send us your requirements and let us give you the benefit of the savings we have made in these great purchases. Any of the buildings at the camps can be taken down and shipped to you with a big saving. Our complete list includes buildings of every size.

2,000 Complete Buildings!

225 Mess Halls, all sizes
65 Store Houses, size 20 ft. x 98 ft.
95 Heater Houses, size 9 ft. x 35 ft.



All Sizes for Every Use!

200 Power Houses, size 9 ft. x 35 ft.
230 Stables, size 24 ft. x 100 ft.
45 Blacksmith's Houses in numerous sizes

Government Barbed Wire

Per Reel



\$1.70

Bought by us at less than the actual cost of manufacture. Finest barbed wire, made under rigid Government supervision. Made of 12 gauge open-hearth steel wire with four point barbs, 5/8 in. long spaced 3 in. apart. Covered with special weather resisting paint. Put up in reels containing 750 feet; weight per reel 58 lbs.

GALVANIZED BARBED WIRE

KP-100 625 reels or more, per reel \$1.50
KP-101 100 reels or more, per reel 1.55
KP-102 50 reels or more, per reel 1.60
KP-103 25 reels or more, per reel 1.65
KP-104 Less than 25 reels, per reel 1.70

Quadruple galvanized coated barbed wire bought from the government made of 12-gauge open-hearth steel wire with four point barbs, 5/8 in. long, spaced 3 in. apart. Unlike ordinary standard galvanized barbed wire this stock is galvanized after weaving and is coated on all surfaces with galvanizing four times as heavy as regular stock, which means that much additional life to the wire. 60 lb. reels containing 750 ft. Prices f. o. b. cars Pittsburgh, Pa.

625 reels or more, per reel...\$3.15
100 reels or more, per reel... 3.20
50 reels or more, per reel... 3.25
25 reels or more, per reel... 3.30
less than 25 reels, per reel... 3.35

Indoor Toilet

\$9.95



No Plumbing Needed

KP-1816. Improved Chemical Indoor Toilet, fitted with regular shaped closet seat and cover, finished in birch, mahogany, Cast metal frame and base; steel casing enameled in azure blue. Complete with exhaust pipe and chemicals ready for use \$9.95

Harris' Cream Getter Separators



The Machine with a 100% Record

The Harris "Cream Getter" Cream Separator has made a remarkable record—not a single return, not a complaint. The big increase in sales enables us to offer all sizes at big price reductions. Your old separator taken in exchange as part payment on your new "Cream Getter." Buy on your own terms.

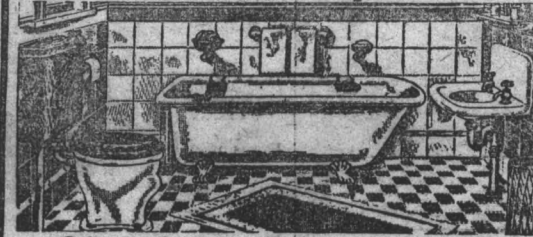
Send first payment of what you can spare with your order and tell us how you can pay the balance.

The same high quality "Cream Getter" with all exclusive patented improvements, including the equal milk distributing sleeve now offered at the reduced prices shown below. Mail coupon for full facts and full explanation.

Order Number	Size	Capacity	Reduced Price
KP-100	x1	175 Pounds	\$34.50
KP-200	x2	250 Pounds	38.40
KP-300	x3	375 Pounds	52.00
KP-400	x4	500 Pounds	58.00
KP-500	x5	625 Pounds	64.00
KP-600	x6	750 Pounds	70.00

X indicates table sizes. Ready for shipment from Minnesota, Pennsylvania, Chicago Warehouses. 3% Disc. if all cash is sent with order.

Bathroom Outfit Complete \$71.50



Substantial value is offered in this guaranteed "A" grade bathroom combination. ORDER NOW and get the benefit of this unusual saving.

KP-306. Consists of white porcelain enameled bath tub 5 ft. long and 30 in. wide, fitted with nickel-plated connected waste and overflow, nickel-plated double bath cocks. The white porcelain enameled lavatory is furnished with nickel-plated trap and nickel-plated compression faucets indexed for hot and cold water. The closet includes a white vitreous earthenware wash down Syphon action bowl and a highly finished golden oak tank lined with heavy copper. Closet seat finished to match the tank. Our special low sale price, complete.....\$71.50

WATTS CORN SHELLERS

\$79.50

Your best chance to buy the world's best corn sheller at big reduced prices under most liberal terms with a 30 day free trial and guaranteed satisfaction.

Watts No. 1 Corn Sheller for the man who shells corn by for his own use. Capacity 50 to 75 bushels per hour with a 3 H.P. engine, now \$34.50. Order No. KP-900.

Watts No. 4 Corn Sheller with cleaning system, cob stacker and grain elevator. \$79.50. Order No. KP-901.

Watts No. 7 Corn Sheller with standard cleaning system, cob stacker, type "R" feeder on steel trucks. Capacity 200 bushels per hour, now \$268.00. Order No. KP-903.

Watts No. 8 Double Cylinder Corn Sheller for custom work. With standard equipment, wagon box, grain elevator, cob stacker, arrival cob stacker and feeder, horse hitch on steel trucks. Capacity 600 bushels per hour, now \$390.00. Order No. KP-905.

Order Now!



Send Your Order Today!

Guaranteed Paint



\$2.54 PER GALLON

Best formula. White, black and twenty-six non-fading colors to choose from. Put up in one gallon cans, 5 gallon kets, 25 gallon half barrels and 60 gallon barrels. **KP-206.** gal. \$2.54
Guaranteed bare paint. Red, Yellow or maroon, gal. \$1.50
Green slate or red, gal. \$1.50

Mixed Bolts



50 lb. Keg \$3.25

KP-4081. All kinds and sizes mixed, carriage, stove, plow bolts, up to 1/2 in. diameter and 8 in. long. 50-lb. keg.....\$3.25
100-lb. keg..... 6.25

Ford Radiators



\$20.00 for Old or New Models

KP-1807. Latest honeycomb pattern. Large water capacity and cooling surface. Black Japan finish. Old or new models, ea. \$20.00.

"Presto-Up" Bolt-Together Buildings



\$124

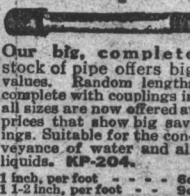
The wonder buildings of the age. Wonderful because they are so simple. Erected in a few hours. The only tool you need are a hammer and wrench. These famous Presto-Up buildings are designed for garages, summer cottages and industrial labor houses. Used extensively by the U.S. Government, large mining companies and leading industrial plants. Numerous styles and sizes illustrated and described in free complete "Presto-Up Book." Mail coupon for copy now.

Hog Troughs



Made of heavy galvanized iron with non-tip flared legs. KP-512 5 ft. \$1.95; 8 ft. long, \$2.95; 10 ft. long, \$3.95. Lots of three, 10c less each; six, 20c less each; twelve, 30c less each.

Iron Pipe



Our big, complete stock of pipe offers big values. Random lengths complete with couplings in all sizes are now offered at prices that show big savings. Suitable for the conveyance of water and all liquids. KP-204.

1 inch, per foot... 1c
1 1/2 inch, per foot... 1c

Mixed Nails



\$3.75 per 100 lb. keg

New Wire Nails, all sizes from 8 to 40 D. Put up in 100 lb. kegs. A handy assortment for general use—plenty of each kind. KP-68. 100 lb. keg, \$3.75.

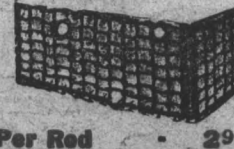
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HARRIS BROTHERS COMPANY Dept. KP 400
Mark an X in the squares below to show what you want us to send you. All are FREE and sent postpaid.

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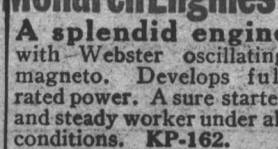
Barbed Hog Fence



Per Reel 29c

Special barbed bottom galvanized fence made of No. 11 top wire and No. 14 intermediate line and stay wires. Spacing 6 in. apart. **KP-209.** 25 ft. per reel... 29c

Monarch Engines



A splendid engine with Webster oscillating magneto. Develops full rated power. A sure starter and steady worker under all conditions. KP-162.

Kerosene
3 H.P. \$24.00
5 H.P. 32.00
7 H.P. 40.00
10 H.P. 48.00

Robinson Hay Baler



\$225

The best hay baler made at a remarkable saving. Largest capacity built to run from a large tractor or small gas engine. Get the benefit of these low prices. **KP-315.**
18 in. x 18 in. Junior.....\$225.00
17 in. x 22 in. Standard..... 275.00
Feeders for balers..... 75.00

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35th and Iron Streets, CHICAGO, ILL.