

"—for *all* the Farmers of Michigan!"

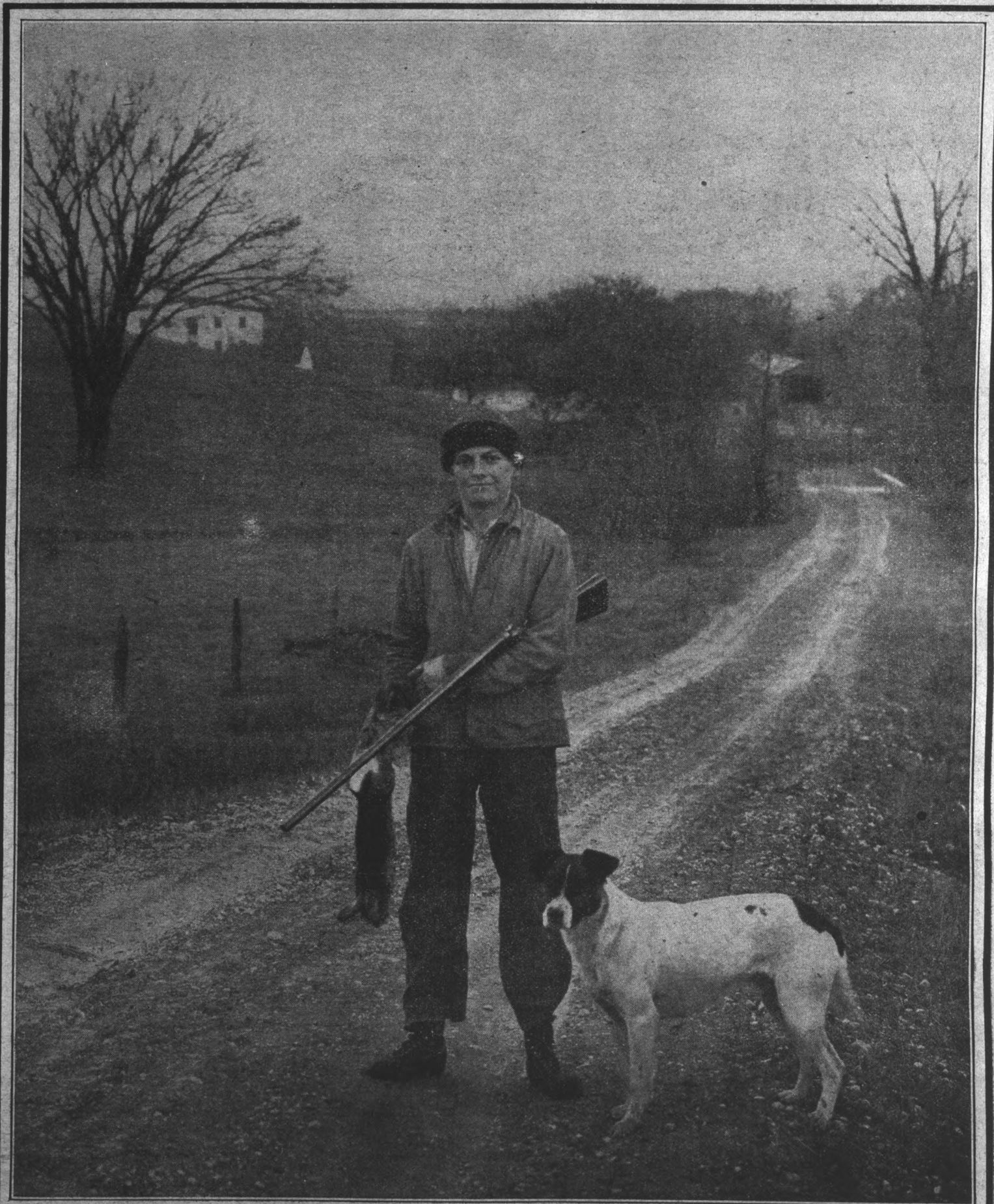
MICHIGAN BUSINESS FARMING

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"Ah! Happy Years! once more who would not be a boy"—Lord Byron.

See That You Read the Following Articles to Appear Soon in M. B. F.

ANOTHER MONTH and the sunshine and warm rains of spring will unlock the earth from its frozen chamber, and bring out the green of the meadows and woodlands. Then to the plow and the planter. All signs point to an unusually busy year for the farmer. Help is scarcer than ever, but there are millions of mouths to feed, and farmers of Michigan will do their part as usual in the feeding. There will be little time for reading. M. B. F. realizes this, and is making its plans accordingly. For the next thirty days our issues will be large, chock full of good reading matter. The most important subjects of the day by some of the most competent writers of the day will be discussed in detail in the next four issues, and during the spring, summer, and early fall months when our readers will be busy in the fields, the M. B. F. will come to them with its articles boiled down to the essence of the information, so that they may get an intelligent grasp of the ideas with the least possible amount of reading. Here are some of the things we will take up in the next few issues in which every farmer and farm-wife will be interested: (1) We will try to throw some new light on that hired man problem. (2) The Live Stock Situation will be discussed from A to Z by special writers. (3) In response to scores of requests from readers, the consolidated school question will be attacked from all angles. (4) A series of articles discussing both pro and con, the expenditures of the last legislature, the increasing cost of government, and suggestions for the next legislature to follow in reducing the high cost of government and equalizing the tax burden. (5) The story of Henry Ford's plan to harness every stream in Michigan for water power purposes to give winter employment to farmers. (6) What the High Cost of Living Campaign has Cost the Farmer. (7) "The Farmer's Outlook"—as seen by a farmer—and scores of other feature articles that will appeal to you and your family.

Time For All Good Men to Come to Aid of State

Extravagance in Administration of Government Will Lead to Serious Results Unless Curbed

By EDWARD FRENSDORF

IN PRESENTING this, which to my mind is of vast greater importance than anything now confronting the American people, I shall take occasion to use a quotation which I change slightly, i.e.: "The time for all men to come to the aid of their country, is NOW."

It is entirely unnecessary to give much attention or waste many words on the subject of Our Duty as American People; in view of the fact that the topic is universal. When we reached the greatest crisis in the history of this country and the very life of the nation stood in a balance, it was our young men—our boys, to whom we all looked for rescue.

It was American boys, who left their homes, stood the hardships of war, and bared their breasts to death that lead us as a people out of the valley of shadows.

Does it not seem strange that those who were not called in service at the front should now hesitate to give even a small bit of assistance without risk—to save a bad situation?

We are approaching, from a social and financial viewpoint, a crisis, almost as great as the declaration of war and the general spirit of those who escaped service indicates that we have almost forgotten we had a war.

Michigan is today in the hands of an organized gang of politicians who are just as dangerous to the welfare, comfort, and even existence of the people as any enemy this country has ever confronted.

The taxes are five times greater than they were six years ago and while we all realize that there was a necessary raise in the price of all service yet we should hesitate to admit that we are at the mercy of men who would take occasion of such an opportunity to plunder the people because of the existing conditions.

Millions and millions of the people's money has been wasted in this state without the slightest regard for

an accounting, and the program laid out by this "Clan of Belshazzar" exemplifies the literal translation of the faithful "Mene Mene Tekel Upharsin."

There is scarcely an item in the entire list of record of expenditures of the War Relief Fund that does not indicate a most wilful waste and insane extravagance. The administration of this fund which seems to have been expended principally for the purpose of giving greater scope to a selected list of "patriots" whose duty it was to make as many personal acquaintances as possible, offers a revelation even to the highly colored political system under which we are now living.

Millions of money which should have been carefully guarded to meet the emergencies arising today and to pay the Michigan soldiers who served in the trenches a fair compensation for their great sacrifice, was squandered by the Decorating Committee on a Political Edifice in Michigan that has no equal in the world.

It should take but an extremely short time for the Workman and the Farmer to compare their tax receipts and arrive at a fixed conclusion as to how they should cast their ballot in the approaching elections.

The reason why conditions which exist now are permitted to continue from year to year is purely, and in the last analysis, the fault of the people themselves. Principally because

they not only fail to appreciate facts that are laid before them, but in a greater number of instances are rather inclined to believe that they are colored, for political purposes.

Of course it is not much wonder that the voters are ignorant of the tremendous waste of money from year to year, if we are to take into consideration the fact that the Press of the state is usually too closely engaged in the discussion of more important topics that the political waste of millions for the purpose of maintaining a powerful political machine.

The farmer and the laborer pay every dollar of expense for the operation of the government. The process of passing the burden of taxes down the line until it reaches the consumer has become so finished that it is quite impossible to establish the identity of anyone as a tax dodger or a profiteer.

Nine-tenths of the laws intended to equalize the load are worse than useless and more than seven-eighths of our public servants are scarcely more than political flunkies. While one crowd of profiteers patriotically urges the poor to save wages, another proceeds to relieve them of surplus cash by the most expedient route available.

There are literally volumes of figures to prove that Michigan will collect more taxes to maintain a political machine this year than in any previous six.

The farmers know something about

the cost of twine and just a passing note on the subject permits me to call attention to the fact that instead of receiving a just assistance from men who are detained in prison, they are required to pay more for maintenance of prisoners at Jackson Prison today than the total amount of the past fifteen years.

It would be economy if a commission were appointed to select one of the leading Detroit hotels and arrange to board every prisoner now in Jackson prison at the best hotel, allowing him \$1 a day for spending money and \$7 a day for expenses.

It will cost the people of the state \$328,100 plus to run the Department of State ending Jan. 1, 1920, and they are elected to pay \$354,000 plus for the expenses of that department in January ending 1921. If the people can imagine that a telephone bill of better than \$12,000 has been appropriated to this one department, they would have a fair view of just a small fraction of the extravagance to which they are called upon to pay.

A sum slightly less than half-million dollars, has been appropriated for the establishment of a military department and one small item of \$75,000 is contained in the appropriation which is set aside for long distance telephone in the State Board of Health Department.

Of course these figures are easily proved by reference to auditor-general's department of Michigan and although they are astounding, are really a small fraction of the millions and millions that are being wasted. If you should ask the question "How are we to help it?" the suggestion is by no means out of place which directs you to write to the state department and ask for a report on Appropriation Acts as passed by the official gang now strongly entrenched in the state, and cast your ballot according to the dictates of your conscience after you read the figures

THIS IS the first of a series of articles by Mr. Edward Frensdorf, Hudson banker, political student and economist, and formerly a member of the Jackson prison board. Mr. Frensdorf's wide experience and his ability to put his ideas "across" will make this series worth reading by every farmer.

State Farm Bureau Perfects Wool and Grain Marketing Plans

By FRED W. HENSHAW

Associate Editor, MICHIGAN BUSINESS FARMING, Mich. Agricultural College

East Lansing, Feb. 21.—Aggressive measures to secure for the Michigan owners of sheep a fair share of the return from their own product began to take definite form at the meeting of officers and directors of the Michigan Wool Growers' Association, held in Lansing last week Wednesday. It was decided to proceed with the marketing details as soon as the plans can be worked out. Officials of the association are anxious to put the project on a firm footing so that results will be obtained from the coming spring wool clip.

In order to insure success it is realized the movement must have the united support of all the wool growers in the state and therefore leaders have determined to wage a membership campaign immediately. Field men will be sent out and the entire state will be covered. To comply with existing laws for corporations a fee of \$1 will be exacted.

The membership drive will take on an educational aspect also. Hitherto the small wool grower, it is held, has been at the mercy of what-

ever dealer has purchased the output of his own country or community. A flat scale of prices according to weight usually has been offered and the farmer has been obliged to accept no matter how excellent the quality of his wool. The product then has gone through the hands of several middlemen, each of whom has taken his portion of profit, until the price finally paid by clothing manufacturers at the big eastern markets has borne little resemblance to that received by the farmer.

By the proposed co-operative system, however, it is believed much of the cost of handling and re-handling can be eliminated. These facts will be placed before the smaller growers and they will be advised not to sell their wool this spring before consulting with their country agricultural agent.

Meanwhile the actual machinery for handling the Michigan product will be worked out. The principal

point left undecided is the location of a central warehouse, to which the wool may be sent and where grading of each grower's product will be handled individually by experts. If within the state this warehouse probably will be at Lansing, but there is a chance it may be located at some strategic point nearer the markets in New York, Philadelphia and Boston.

After the wool is graded salesmen representing the association will dispose of it at the best terms possible. At present the association is concerned chiefly with getting it a fair return for the farmer, but in case the situation warrants it attempts may be made later to lower the price to the consumer as well.

Wool growers are the first class of farmers in the state to go ahead with detailed marketing plans since the Michigan Farm Bureau went on record at M. A. C. recently for co-operative buying and selling so far

as possible. The wool growers will keep in touch with the marketing committee of the farm bureau and through it will link its activities with the rest of the great chain of co-operative selling to be established by various classes of producers.

The Michigan Wool Growers' association was born in connection with the annual meeting of the Michigan Sheep Breeders at M. A. C. in January. While the former is entirely separate, E. C. Read of Richland is at the head of both and therefore their activities will be closely allied. Other officers are: secretary, Donald Williams, of East Lansing; member of the animal husbandry department at M. A. C.; treasurer, H. H. Halliday, Lansing; directors, Charles Burtless, Manchester; Amos Welch, Ionia; Jacob DeGaus, Alicia; C. A. Taylor, Detroit; J. N. McBride, Lansing.

Simultaneously with developments in the marketing side of business farming within the Wolverine state on the part of growers' associations (Continued on page 9)

Hog Situation Looks Encouraging for 1920

Agricultural Authority Believes That Domestic and Foreign Demand in 1920 Will Far Exceed Supply

AS AN opening statement, and as a sort of text for this little discussion that we may have tonight, I want to read you the first page of the report of the Secretary of Agriculture, which is just off the press:

"America during the war, helped to save Europe and to preserve civilization by making available to the Allies, through increased production and conservation, large supplies of food stuffs. But for this contribution it is difficult to see how the Allies could have waged the war to a victorious conclusion.

"Lacking such support, and with their own producing capacity seriously crippled, the German people experienced partial famine conditions, their health and vitality were greatly impaired, and the collapse of their military power was due, in no small measure, to the shortage of food.

"The cessation of hostilities brought no immediate improvement in Europe. On the contrary, in some respects, more adverse conditions developed. Revolution became the order of the day. The directing hand of government was removed, discipline was released, the morale, particularly of the Central Powers, was broken. Idleness and unemployment prevailed, and in some sections anarchy reigned. It was obvious that Europe could not produce sufficient food for herself. Her crops had been short several years, and it was scarcely probable that those for 1919 would be greater than the crops of the last year of the war.

"Quite as unsatisfactory was the live stock situation. In nine of the western nations the number of cattle had declined more than seven millions, sheep seven and a half millions, swine twenty-four millions, five hundred thousand, and dairy cows several millions, with a greater proportionate deduction in the volume of products."

Now, that shows in a very clean-cut way some of the things that we have heard expressed from time to time.

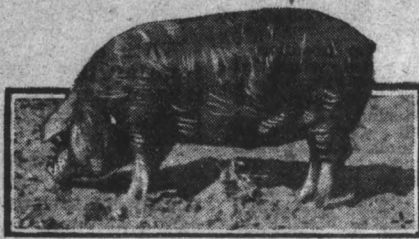
When those armies of Europe disbanded it was thought that the soldiers were going back to their countries, largely of the peasant class, to take up the cultivation of the soil and the production of food and that they would regain their standing and would cut down the necessary imports from this country. But, as the Secretary has said, they found that there were no directing hands, there was nothing to keep them in line, there was no great incentive for them to go back and go to work, and the natural thing for them to do was to just sit around and wait and see what was going to happen. They did in a little more extreme measure what our farmers are doing now. Last fall, when a lot of our farmers should have been planting they just sat back and said: "Now that there is going to be some trouble about the price of things next year, and things are not going just the way we think they ought to go, and we are afraid the markets of Europe will be different from what they have been, and we will not put in any wheat this fall, and next spring maybe we can see a little better." The result is that the wheat acreage of Indiana decreased thirty-three per cent, and the wheat acreage of Illinois went down the same way, and the wheat acreage of Texas has gone below fifty per cent of what it was a year ago. And so it was in the other states. Now, should we run into a bad spring, such as we have had for the last two years, throughout the west, it is easy to see how this country is going to have a pretty short wheat crop. This year we are running away down below 80 per cent, whereas last year we had ninety-eight per cent.

So, you bring home to yourselves the condition of mind that it is easy to get a class of people into, and you find out what was transpiring in those countries.

We were told that in the city of Budapest, in 1914, they had a population of eight hundred thousand. At the end of the war they had a popu-

lation of over two millions.

Following the armistice the city of Vienna increased in population more than a million people, and we were told, last February, by our agents who went to that country, that where they had been getting something like eight hundred thousand liters of milk a day, that had been reduced to two hundred and thirty-five thousand liters. It was predicted by our men, at that time, that only one thing could come to those people, and that was starvation, and if you pick up The News tonight you will see the headline, "The City of Vienna is Starving." There is only one thing that will follow if people continue to crowd into the cities, going from reproductive fields of the country, and



Beaver Meadow Cherry, first prize pig Michigan State Fair, 1918. Inwood Bros., Romeo.

that is starvation. And it has come.

I could go on and tell you the story of how those countries have gone back in the matter of production of foodstuffs, because of the unstable conditions.

That production has been reduced nearly seventy per cent of what they were in pre-war times. You know that a country that is idle, a country that is worrying about high wages, and then begins to worry about its daily bread, can realize just one result, and that is turmoil and conflict, revolution and dissatisfaction and anarchy, in the last stages.

Now those are things that have come about in Europe. The big point that we want to get out of that situation is that those people, as a

result of those conditions, are going to depend upon this country for a lot of foodstuffs, and it is just a problem of working out the finances and credits, and the plan of shipment and getting responsible people to handle it over there, for distribution, in order that this stuff may be placed in the hands of those who are in dire need of it.

That foodstuff has got to come, and it is going to come from American farms.

It is unnecessary, at this time, to say anything about how prices have gone up. The prices of foodstuffs over there have jumped by leaps and bounds, just because the supply has not equalled the demand, in any way. They have not had the control of the foodstuffs, and, as a result, prices are really on a famine basis.

Our exports to Germany were very great, and it would be well if you could carry these figures in your minds, of the materials that have been exported from this country to Germany.

We have heard a great deal about the amount of meat that has been exported to those countries. I am going to give you just one or two figures.

In 1914 we exported pork, 411,000,000 pounds, and in the year 1918 we exported 1,294,000,000 pounds; and in 1919, ending June 30th, the exports were 1,961,000,000 pounds. So you see the tremendous increase in the exports of meat, from 1914, which was an average year, of 411,000,000 pounds, to 1,961,000,000 pounds in 1919—500,000,000 pounds more of pork in 1919 than we sent abroad in 1914. That is an interesting figure because it tells a wonderful story. And that is this: that the European people have learned to eat American pork.

Mr. Leonard, president of the Union Stock Yards Company, of Chicago, went to Europe and spent several months studying the conditions. I had a chance to visit with him several times, and one of the things he told me was that the appetite for American meat, on the part of the European people, had been cultivated and developed to a point where he thought that it would never be given up. He said that even a Japanese had learned to eat American meat, and that the Chinese had done the same; and so have the French people, and we can hope that the exports of meat from this country to those countries will increase rather than decrease, in a material way, over the pre-war conditions. So that I feel that there is going to be a big demand for American meat products.

In our own country we have a big demand for pork.

Some of the figures are a little surprising. Some of the figures that have been sent out in the papers, and even by the Bureau of Markets at Washington, have been most misleading. I telegraphed the Bureau of Markets and asked them to give me something on the hog situation, for the last two or three years, and then for the same period during pre-war times. They sent back to me a great big bundle of documents, for me to dig out what I wanted, rather than to dig it out for me. Those documents told me of the number of hogs that were received in Chicago, and the number of hogs received in Indianapolis, and the number of hogs received at St. Joe, and at Kansas City, and they totalled them up by months, showing the great number of hogs that have been received every month throughout all these years that they have been keeping these tremendous numbers running into the millions of hogs received, I was very much impressed. However, happening to look at some other things, and a statement that was made in a letter by Mr. Leonard, and remembering some other things that I had known about, from a study of the yards, I know that those receipts don't mean anything to you, or me, because the receipts of ten thousand hogs in the yards at Indianapolis, today, and

(Continued on page 20)

A PREDOMINANT question in the minds of many live stock farmers is the future of the live stock markets. Michigan Business Farming has arranged with a number of well-known authorities for a series of articles upon this important question. The first of these series is upon the hog market and is published herewith. This particular article was prepared by Mr. G. I. Christie, superintendent of the Agricultural Department of Purdue University, Lafayette, Ind., and formerly assistant secretary of agriculture, and was delivered at the annual meeting of the Indiana Swine Breeders' meeting last January. It is one of the best articles we have seen upon the subject and we urge M. B. F. folks who are interested in hogs to read it carefully, as it gives some interesting sidelights upon the world food supply and demand.—Editor.

Farm Bureau Plans to Sell Grain

ESTABLISHMENT of a seed and grain purchasing and selling department of the Michigan State Farm Bureau to serve the thousands of farmers of Michigan has been decided upon by the executive committee meeting in Birmingham. The Michigan Crop Improvement association has been taken over as the nucleus of the new department and J. W. Nicolson, of the Michigan Agricultural College, employed as manager.

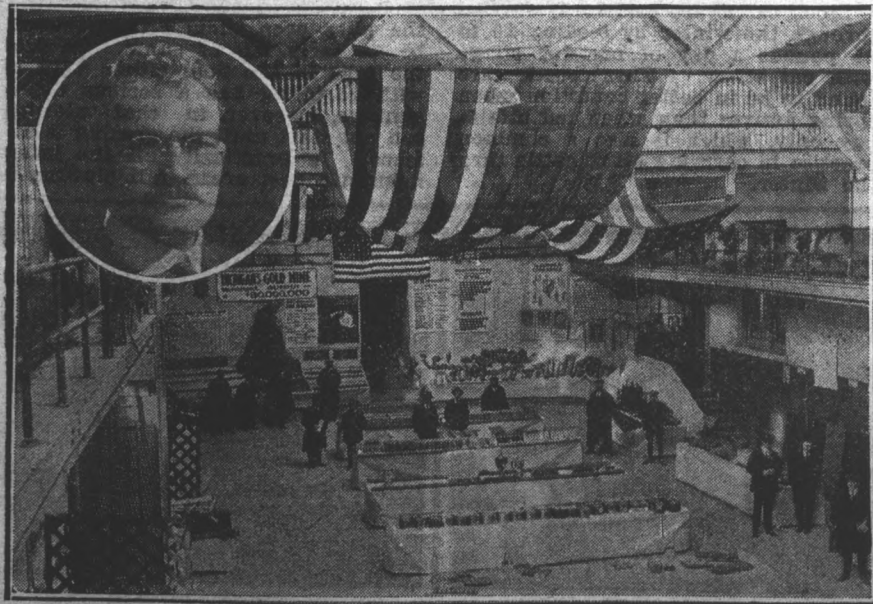
Michigan is growing several grains in great demand over the country, notably Rosen rye and Red Rock wheat. Supplying of other states with these seed grains in carload quantities will be one of the activities of the new farm bureau department. Purchasing of improved seeds and grains grown elsewhere, such as North Dakota alfalfa and Idaho clover, for Michigan farmers in wholesale quantities on a cost basis also will be done. The department is intended to be self-sustaining. It is expected that this department will do a

\$500,000 business in the coming year, according to the executive committee.

Preliminary financing of the Michigan Wool Growers' Association, as a subsidiary of the state farm bureau, also was decided upon at the request of officers of the wool growers. A large warehouse will be obtained and the wool of the farmers of the state will be handled for them on a cost basis. It is expected that this department will be in operation in time to handle the bulk of the spring clip.

Executive officers of the State Farm Bureau chosen by the executive committee were Fred VanNorsdall, Three Rivers treasurer; C. A. Bingham, Birmingham, secretary, and J. P. Powers, Detroit, assistant secretary.

Delegates of the Michigan State Farm Bureau to the American Farm Bureau Federation, which will convene in Chicago, March 3, are Rolland Morrill, Benton Harbor; James Nicol, South Haven, and R. G. Potts, Washington.



View of the 1920 show of the Michigan Crop Improvement Association that was held at the M. A. C. during Farmers' Week. J. W. Nicolson, crop specialist, of the M. A. C., secretary of the association, who had charge of the show, is shown in the upper left hand corner. Prof. Nicolson has been retained by the Michigan State Farm Bureau as manager of its grain department.

Feeding the By-Products of Sugar Beets

Tops and Pulp are Valuable Feed for Cattle and Sheep When Properly Prepared

By JAMES W. JONES

Agriculturist, Sugar-Plant Investigations, Bureau of Plant Industry, U. S. Department of Agriculture.

THE BEET sugar industry produces five by-products that enter into stock feeding in an important way. These are beet tops (leaves and crowns) pulp, molasses, seed beets, and beet tails.

Beet Tops

Beets are bought by the sugar company from the grower, primarily for their sugar content. In the crown of the beet certain salts accumulate that interfere with the recovery of sugar from the juices, and therefore the grower discards that portion of the beet to which the leaves are attached. These tops are left lying on the ground in the field when the beets are harvested.

Beet Pulp

After the beet is sliced in the factory the resulting product, commonly called cossettes, is processed through batteries and the saccharine matter is extracted. The remaining fibrous mass is called pulp.

Beet Molasses

In the process of recovering crystallized sugar from the saccharine juices the negative elements that are found in the beet juices prevent a complete recovery of crystallized sugar, and the residue from this process in the factory is called molasses.

Ration of Tops to Roots

The grower who maintains soil fertility that is reasonably rich in available nitrogen will often have as much as 8 tons of tops per acre lying on the field after the beets have been marketed. Other growers will have not more than half that quantity. Many field tests show that when the beet is ready to be harvested and before killing frosts occur, if the topped beets are weighed separately from the tops the weights are about equal. As soon as the tops are cut off, they begin to evaporate moisture, which changes the weight ratio. The beets when left exposed to the sun and wind also evaporate moisture, but the shrinkage in weight is not so rapid as with the tops. When the tops are put into small piles and allowed to remain on the field four or five days, they will weigh about half as much as the marketed beets. There is always some waste in gathering the tops. Sometimes the tops that are gathered from the field will weigh not more than 40 per cent and in other instances they will be in excess of 60 per cent of the weight of the marketed beets. On good soil, where the tops are gathered without undue loss, it is reasonably safe to conclude that about two-thirds of the crop is marketed to the factory.

The studies reported upon in these pages have been made mainly in the state of Idaho and Utah. A conservative estimate indicates that more than 400,000 tons of tops will be produced in these two states from the 1919 crop of beets. At the prevailing price of hay and other feeds, beet top silage will be worth \$8 or more a ton.

Observations of a Beet Grower

One extensive beet grower and feeder makes the following deductions:

One acre of beets produces 3 1/2 tons of cured beet-top silage, which, when fed at the rate of 35 pounds of silage per day per steer, will carry two 1,000-pound steers for a 100-day feeding period.

The acre of beets will also produce 4 tons of green beet pulp, which, when fed to 1,000-pound steers at the rate of 40 pounds per steer per day, will carry two steers for a 100-day period.

The acre of beets will also produce about half a ton of molasses, which, when fed to 1,000-pound steers at the rate of 5 pounds per steer per day, together with the cured silage and pulp mentioned above, will carry two steers for a 100-day feeding period. This ration, together with a moderate amount of alfalfa hay, will fatten and finish beef profitably. This contemplates a feeding capacity at the rate of two steers for a 100-day period for each acre of beets. The planted beet area for the States of Utah and Idaho approximated 150,000 acres for the 1919 season.

These figures are of especial economic interest when it is known that

With a serious hay shortage confronting the intermountain districts, it is of importance that all available feeds be utilized in the most economical way.

Grazing the Tops

A practice that has been most widely followed has been to turn cattle or sheep upon the fields in the fall, as soon as the beets have been removed. The stock are usually fed upon the fields for only a limited time each day, thus regulating the quantity that they are allowed to consume. Because the tops are of an appetizing character, stock will overfeed unless restricted. The salts

important. By allowing stock to graze the fields, there is danger of the soil freezing, so that it is not possible to plow in the fall.

Many beet growers conclude that beet tops are worth from \$10 to \$12 an acre when grazed as just described. Where the beet grower does not have stock to utilize the pasturage, it is a common practice to sell the tops in the fields to stockmen at from \$3 to \$6 per acre. When feed is scarce and high priced this pasturage is sometimes sold at higher prices. Outside stockmen have the expense of bringing their stock to the fields, caring for them, and taking them away. Therefore, they do not pay as much for the tops as it is possible for the beet grower to realize by feeding them to his own stock.

Curing and Stacking

Some growers find it profitable to cure the tops and stack them after the manner that hay is cured and stacked and then feed them throughout the winter. When it is difficult to evaporate and thus properly "cure out" the tops, straw is intermixed while they are being stacked. This plan contemplates gathering the tops rather promptly after topping and putting them into small piles. A little later they are hauled to the feed yards, where they are stacked. Many growers feel that it is more profitable to cure and stack the tops so that they can be fed throughout the winter than to pasture them in the field, as previously described.

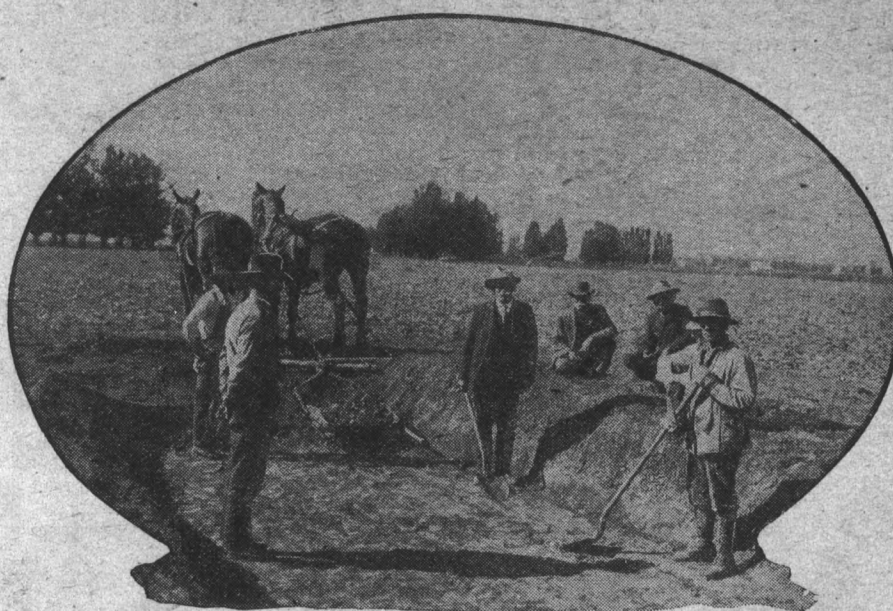
Siloing Beet Tops

The most profitable practice that has been found for the average beet grower is to silo the tops. This practice is not new or untried. Silage is a succulent feed which, when fed with alfalfa or other hay, has a supplemental value greater than is commonly shown in a study of tables that are compiled from laboratory analyses indicating the comparative food values of different feeds.

The succulent silage stimulates the appetite of the animals and causes them to eat a larger volume of feed than they would consume otherwise. It also furnishes a more nearly balanced ration when fed with hay or alfalfa or some other legume and supplemented with grain.

The accumulated salts found in the crown of the beet constitute the chief reason for cutting it off and leaving it on the field instead of shipping it to the factory. They seriously interfere with crystallization in the recovery of sugar. As heretofore stated, these salts also have a cathartic property and may scour the animal; but the cathartic properties of beet tops are largely corrected in the fermenting process in the silo. A study of sheep or cattle in the feed lot where beet-top silage is properly fed shows no unusual number of scouring. This indicates that with silage a more profitable use of the food constituents is being made by the animal. After a careful study of this feature the conclusion is reached that profitable beef or mutton gains may be made, even at the finishing stage, where good beet-top silage is a generous part of the ration, and this conclusion is borne out in practice.

(Concluded next week)



Excavating for a beet-top silo. Most of the excavating can be done with a team and scraper. The sides may be shoveled by hand. The dimensions can vary according to the quantity of tops to be siloed.

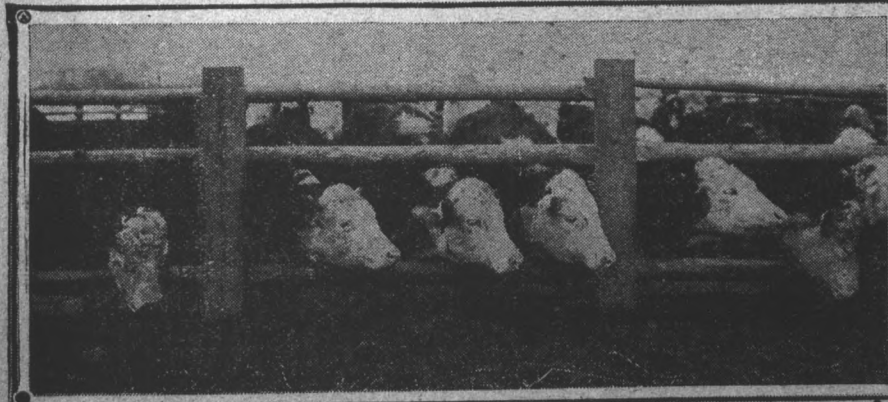
a serious hay shortage occurred in the 1919 crop in both states.

Saving the Hay

After compiling the data gathered from large numbers of feeders throughout the intermountain country it is found that beet tops when properly made into silage and then fed with alfalfa hay will reduce the hay requirements by approximately one-half. Therefore, beet-top silage will greatly aid in meeting the hay shortage. Beef and mutton gains may be had on a normal basis when the change is substituted. The beef feeder has found that feeding 30 pounds of beet-top silage to a 1,000 pound steer will reduce the hay requirements from 30 pounds a day to 15 pounds a day. Comparable results are had when this ration is applied to the dairy herd. The feeder of sheep has found that a daily ration of 3 pounds of beet-top silage per head will reduce the hay requirements by one-half.

Stock cattle are commonly carried through the winter by feeding 20 to 25 pounds a day of beet-top silage with oat straw. These stock are found to be in better condition when spring arrives than when fed alfalfa hay only, which is also a common practice in carrying stock cattle through the winter.

in the beet crowns are cathartic and tend to scour the animal; hence bad results may follow if the quantity of beet tops consumed daily is not restricted. Sometimes bloating will also cause loss. However, for finishing lambs for market and for carrying stock cattle through the grazing of beet tops off the field when fed in a regulated way yields excellent results. It is estimated that 1 acre of beet tops will graze one steer for 100 days. Very profitable mutton gains are also often attained by feeding in this manner. This practice involves the minimum amount of labor. When stock are pastured upon the fields, the animal fertilizer is distributed without further labor. Occasionally, lambs and cattle will become strangled by getting the beet crowns lodged in the throat. If rains occur, the stock may injure the soil by trampling. If early snows come, much of the feeding value of the tops is lost. Where the tops are piled soon after the beets are harvested, there is less wastage, and the stock will feed from the piles even though there should be an early fall of snow. To feed the tops in the field either with or without piling has a serious disadvantage, however, in that plowing can not start until the grazing is finished. In practically all the intermountain beet areas, fall plowing is



Steers being finished for market on a daily ration consisting of 30 to 35 pounds of silage and 15 to 20 pounds of hay. Lambs are also finished on proportional amounts. Beet-Top Silage is not recommended for horses, or hogs, except in limited amounts.



A beet-top silo above the ground level. In this instance, the tops were piled alongside a stack of hay. After packing them down thoroughly, they were covered with several inches of fine, chaffy straw, which effectively sealed the fermented mass. Analysis show a quality of silage that compared with the best.

Why Soils Give Out and Need Artificial Fertilizer

How Available Plant-Food in Soils Increases or Decreases the Yield of the Crop

By M. M. McCool, Professor of Soils, Michigan Agricultural College



Available phosphorus is the limiting factor in this field as evidenced by the growth of corn where it was omitted.

I HAVE DISCUSSED rather fully and from an educational standpoint the physical side of soils or in other words the physical properties of soils, usually spoken of as soil physics. Those who have followed the discussions no doubt realize that vast strides have been made during the last five years in this field. I desire to call attention to the great need for further information with respect to the physical properties of soils, and especially of a thorough going and systematic study of Michigan's soils. This will be considered in greater detail in another article.

I now propose to prepare for the readers a number of articles dealing with the fertility relationships or the chemical and biological aspects of soils. It is desirable that we have a broad view of the field before we take up each of the subjects in great detail.

It is well recognized that the maximum crop yields, as a general rule, are not obtained the first year or two after fields have been brought into cultivation, but subsequently, due to the difficulty of fitting the soil properly for the crop, and to other causes. A number of years after tillage operations have begun the yield gradually declines and continues to do so until a point is reached where slight decrease takes place, sufficient plant food being liberated to produce certain low yields. There are numerous conditions that may and do affect the productivity as well as the rate of decline of the same. These may be grouped under the law of the minimum.

ductivity as well as the rate of decline of the same. These may be grouped under the law of the minimum.

The productivity of any soil is regulated by the condition least favorable for the growth of crops. Let us suppose, for example, we are able to bring into solution sufficient plant food, with the exception of phosphorus, to produce a 40 bushel crop of wheat. Now if we are able to liberate only sufficient phosphorus to produce 12 bushels of wheat, it necessarily follows that unless phosphorus is applied as a fertilizer, 12 bushels will be the resulting yield. The plant food must also be present in properly balanced proportions or ratios. If the nitrogen content, for example, is very high and the phosphorus and potash content is comparatively low, it is indeed very doubtful if the yields of grain will be large. It is also doubtful if the small grains will stand up as they should. If, however, phosphorus and potash are applied as fertilizers and thus bring about a more nearly balanced condition with respect to nitrogen, the yields will be greatly increased. On the other hand, if phosphorus and potash and others are high and nitrogen is deficient the yields will be prodigious until this condition is rectified. Climatic factors may be the limiting ones in productivity also. The fertility of many soils is very high, yet crop failures are frequent due to lack of total rainfall or its proper distribution or an over supply during the growing season.

It is generally considered that the mineral matter utilized by the plant

is in solution, in fact, we may grow a plant to maturity in well water or soil extract provided the water is frequently renewed and provided proper temperature and light conditions are maintained. Yet common plants die in water logged soils due to unsanitary conditions that arise therein. The release or the making soluble or available various mineral substances in the soil is a gradual process which takes place through much of the growing season. Available plant food, unquestionably, is the key to the productivity of most soils and any condition, or set of conditions, that increase the amount usually results in greater productivity, in fact much of our energy expended in preparing the land and caring for a crop during the growing season is with this end in view although we may not realize it.

We should recall that by far the greater part of upland soils are composed of mineral matter, rock debris, 90 per cent or more of which may be of no direct value as plant food, but acts simply as a reservoir for holding plant food and for correcting undesirable conditions, as well as to serve as a medium for plant growth. Now the question arises are soils high in nitrogen, phosphorus, Potassium, lime and magnesium and others fertile and will the total amounts of these influence the time in the history of a field when the yields begin to decline? Unquestionably, there are unproductive soils that are high in the elements of plant food, but so far as our present knowledge leads us, we may say that there is a very close relation between the total plant food and con-

tinued soil productivity, and the virgin soils high in these are almost invariably productive, and unless limited by other conditions, continue to be so for many years.

Perhaps the most far reaching factor in soil productivity is the presence of a sufficient amount of rapidly decaying vegetable matter in the soil. In ancient times the advantages to be gained from the presence or addition of proper amounts of vegetable matter were so obvious that it led up to the humus theory of plant feeding. It was thought that the vegetable matter was utilized directly as plant food for the plants grown. Usually when a field is first brought into cultivation the vegetable matter present is in a so-called "active" condition and decays somewhat rapidly. Later on the rate of decomposition becomes somewhat slower or the vegetable matter content is less active. Thus, unless rather strenuous efforts are taken to hasten the rate of decay or add fresh material there is likely to be a deficiency of available mineral plant food.

As stated later on, all soils unless treated with lime tend to proceed towards an acid condition. Soil acidity, unquestionably, is an important factor in hastening the decrease in the productivity of a large number of fields. The problem of soil acidity, therefore, become of great importance in soil management.

Soil structure, or the condition of tilth, limits crop production on many of the fine textured soils. It is well known that clay soils that are not tile drained decrease greatly in

(Continued on page 18)



On the left wheat growing on virgin land in St. Joseph County and on the right on soil that has been tilled for 70 years.

Successful Business Farming Means Modern Machine Farming

By J. E. BULLARD

AT THE close of the Civil War began the great introduction of machinery into manufacturing plants that has since that day completely revolutionized manufacturing methods. At that time the country was short of manufactured products and it was necessary to introduce machinery in order to speed up production to the extent necessary to meet the demand.

We now find ourselves at the close of another war but this time it is the farmer instead of the manufacturer who stands in greatest need of machinery. The manufacturing capacity of the world has been greatly increased during this war. All countries have standardized methods and as far as capacity for turning out finished products is concerned we need not worry.

Where the shortage rests today is in raw material and especially in farm products. Russia, that great agricultural country upon which so much of the world formerly depended is now practically out of the business of farming. It is far too busy Bolsheviking to pay much attention to farming. This means that the American farmer must adopt machine methods to a far greater extent than he has ever adopted them before.

But adopting machine methods is easier said than done. The factories did not adopt machines at a rate sufficient to revolutionize methods at

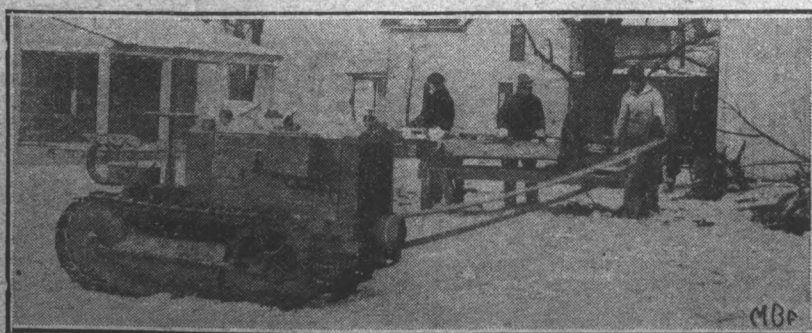
once. It was necessary to adopt them gradually and find out which processes could be done best by machinery and which machines were best adapted for these processes.

If, on a given farm, machinery has not proven all that it was expected to prove it has been due, either to adopting machinery too rapidly or to buying the wrong class of machinery. Quite often it has been due to buying the wrong machinery.

Today there is enough machinery on the market so that practically every farmer can find exactly what he needs. A few years ago there was not anywhere near as great a variety from which to select. Farm machin-

ery is also constantly being improved. There is a vast difference between the mowing machine of today and the mowing machine of forty years ago. It, however, has been only through use that this machine has been perfected. The more a machine is used the more it can be perfected, until some day it becomes as nearly perfect as it is possible for man to make it.

Probably there is no machine today that is attracting more attention both favorable and unfavorable than the tractor. New tractors are constantly being placed upon the market and tractor companies are constantly going out of business.



Winter work profitably done with the tractor

This is what always happens during the process of evolution. The only way that the tractor can be perfected, however, is through use. This does not mean that the farmer should buy any old machine and use it. There is no such thing as a universal tractor. Each machine is best suited for some particular kind of work, for some particular kind of soil, for some particular size of farm. Now more than ever before and more than will ever be the case in the future it is necessary to buy a tractor with care. The better the judgment displayed the more profitable the tractor will prove.

The most important thing, however, is to pay more and more attention to machines and to offer more and more suggestions to the manufacturers of machines. From now on farming will have to be done by machinery in so far as it is possible to do so. Labor is becoming both more expensive and scarcer. This is due in large part to the almost complete adoption of machinery in manufacturing which makes possible shorter hours, higher pay and greater production. Man is naturally lazy. He will do no more arduous work than he must. Farm work is arduous work and simply because other industries are doing similar work by machinery the farmer must also adopt machinery.

Sugar Situation as Analyzed by Growers' Head

Manufacturers Will be at Fault if Producers Cut Acreage Because of Inadequate Returns

By C. E. ACKERMAN

Manager, Michigan Sugar Beet Growers' Ass'n.

THE WORLD'S sugar situation today is very much different than before the war and during the war. Before the war Europe produced one-half of the sugar used in the world or ten millions of tons and all this was produced by very cheap labor of Europe from sugar beets and the amount exported was at a price so low that it was impossible to produce beet sugar in the United States without the protection of a tariff. The United States consumes one-fourth of the world's supply and produces a very small amount of that sugar from beets—only 4 per cent. of the world's sugar. Therefore, it will be readily seen by all fair-minded men that nothing that the United States beet growers could do would affect the price of sugar materially one way or the other.

We, having produced last year less than 700,000 acres of sugar beets although we have 275,000,000 million acres of sugar beet land in the United States, are not in a position to supply the people of the United States with sugar. Take Michigan alone where 110,000 acres of beets were planted this last season the amount of sugar produced therefrom will not supply the people of Michigan alone this year.

On account of the war having changed conditions so that Central Europe will not export sugar for perhaps years to come on account of their financial condition, making it necessary to plant their land to grain to produce bread to keep soul and body together for perhaps 10 years hence and on account of labor of Europe being able to command higher wages since the war, conditions will be such that an overproduction of a cheap article will not be for some time to come. The domestic sugar industry of the United States has a very promising outlook from the standpoint of being able to produce sugar at a profit and supply the world's shortage.

The consuming public will now turn to domestic sugar because the price is and will be cheaper than foreign sugar. Now the point! How can we promote the production of domestic sugar? Not by a protective tariff alone, because that is of no account as foreign sugar is higher than domestic sugar. (It however, will be a wise thing to have a tariff for revenue and to protect the industry in case of an oversupply of cheap foreign sugar.) Not by the present 1917-18 contract offered by the beet manufacturers, as that contract does not warrant the farmers to chance a beet crop as the average crop will not give returns that other average crops will at the present prices. Not by expecting to get contract labor at the old prices offered by the manufacturers two years ago as when labor can make twice the wages daily in the cities at less hard work and shorter hours than they would receive from the old contract they will limit production and abandon the fields entirely, there causing great loss to the farmer and shortage of sugar and cause the loss of the acreage entirely, much of which was done last year. Which, when taken together with the bad weather conditions caused a loss to the beet farmers of the United States of over \$14,000,000 according to the *Ladies' Home Journal* in its explanation to the housewives of "Why sugar is scarce and high."

The Michigan Sugar Beet Growers' Association contends that the right way to promote production and supply the shortage of sugar, to furnish sugar to the consumer in sufficient quantities at the lowest possible price is to first—Give the farmer a price for the beets or the raw material so that he can produce at a profit, basing his figures on an average crop high enough so that it will be possible to receive and pay the wages necessary to care for this expensive crop. We contend that taking the present prices of sugar, the excessive profits the beet sugar manufacturers are making, the cost of foreign raw sugar, the high prices of city and farm labor, the high prices of farm machinery, the uncertainty of the crops and the average per cent of sugar

FOLLOWING the action of the Michigan State Farm Bureau in appropriating \$2,000 for the aid of the sugar beet growers, the Michigan farm paper which published an editorial in opposition to the growers' campaign, had a change of heart, and applied to Mr. C. E. Ackerman for an article setting forth the producers' claims. The accompanying article is a copy of that given the above mentioned farm journal which will also appear in the current week's issue of that publication.

content of the beets which is 16.28 per cent last year, into consideration we are entitled to a price of \$12 per ton for beets based on 9 cent sugar and a 50-50 division of the advance of the sugar price ones and above 9 cents per pound.

We have 50 per cent more capital invested in the land and farm equipment for producing the beets than the manufacturers have invested in their plants and equipment for manufacturing the sugar which would really entitle us to more than a 50-

50 division of the excess. But we want to be fair. We are standing out for a 50-50 division which will be \$1.40 extra per ton added to the base price of \$12 for each cent sugar advances over 9 cents. Some of the best farmers in Michigan have submitted itemized cost sheets which prove conclusively that it will cost on the average \$160 to produce an acre of sugar beets this next year, 1920. It will be seen that if only an average crop is secured or 8 tons per acre the returns at the old \$10, if the price of

sugar be reduced to 9 cents per pound would be \$80 for what will cost the farmers \$160. The government would be justified in reducing sugar to 9 cents as the Lever Act enforced will not allow the manufacturers to make the excessive profits they made this last year on 12 cent sugar. It must therefore be seen by all fair-minded men that in order to promote the production of domestic sugar it will be necessary to more evenly divide the profits between the producer of the raw material and the manufacture of sugar and let the price of sugar go to such a price that will encourage the production of beet sugar in sufficient quantities to supply the consumer.

The manufacturers cannot expect to get the people, the government and the consuming public to back them up in trying to get the raw material or the sugar beets at the old price when cane sugar refineries are paying many times the old price for their raw sugar to foreigners.

We are taken to task because we are late in our fight. Our answer is that it is never too late to present the truth and also we are a full month earlier in the fight than we were two years ago when we asked for and won our price of \$10 for beets and also there is not one legal contract for the beets signed and delivered by the manufacturers and accepted by the grower that we know of. Also we answer that our general meeting was called early in December even before many farmers were thru drawing their beets this season, before which they had no time to think over and attend meetings and consider the proposition of the 1920 contract. The manufacturers, however, were alert to the occasion and got busy much earlier than is their usual custom and secured many of their so-called contracts and are now carrying them in their pockets which have not been signed and delivered by the manufacturer at the time these contracts were secured having made the farmers believe that if they expected to grow beets at any price this next year they would have to apply early and at that time for a contract as they would not be solicited again, thereby not giving the farmer proper opportunity to take into consideration that all farm expense would be at least 25 per cent higher than 2 years ago and many were told that the contract was to be the same as the last year's contract regardless of the fact that they intended to and must charge from \$6 to \$12 extra for their contract labor.

We are taken to task on account of the moral obligations which we owe the manufacturers. We claim to owe none, but supposing that we did at one time, this obligation on our part was entirely wiped off the slate when they, the manufacturers, refused our growers' committee a conference for which we asked early in January. We as farmers, do not believe in strikes or any radical measures unless absolutely necessary, but we do believe in organization to universally present our cause and endeavor to get a condition ironed out so that production will be promoted and the people be supplied with sugar. When we are accused of being agitators we hurl the statements back in the teeth of those making such statements saying that they, themselves, are the agitators as they absolutely refuse to meet and confer and adjust these differences that cause the shortage of production and therefore the shortage of sugar. They are the agitators that continue this agitation of both producers and consumers.

The Michigan State Farm Bureau has recently come forward and will work with and for us and voted \$2,000 for our cause. We believe that when all organizations that have the interests of agriculture at heart and fully understand that all we want is what is right and fair and what will promote production, they (which will also include all weekly and daily newspapers) will properly present our position to the public—Our fight is won.

Beet Growers Present Their Claims

A WASHINGTON dispatch gives the following account of the conference between representatives of beet growers' organizations and Attorney General Palmer at Washington last week:

Representatives of sugar beet growers, including John C. Ketcham, master of the Michigan State Grange and president of the National Beet Sugar Growers' association have been commissioned by Attorney General A. Mitchell Palmer to say to beet growers that an investigation would be undertaken immediately by the department of justice into the distribution of profits between them and the sugar factories and in the meantime that the growers would be urged to hold steady in the matter of signing further contracts.

The delegation which met the attorney-general included, in addition to President Ketcham, Fred Cummings, of Colorado, vice president; C. G. Patterson, of Utah, secretary; J. R. Howard, of Iowa, president of the American Farm Bureau federation; T. C. Atkeson, representative of the National Grange, and several members of the Growers' association.

Their conference was forced, they declared, because the sugar factories have refused to deal with them directly in the matter of profit distribution and they had no recourse except to appeal for justice to the federal authorities. They deny any intention to raise the price of sugar to consumers, declaring that their only desire in coming to Washington is to secure a just share of the proceeds of their product.

In support of their contention that this just share has not been received they laid before the attorney-general a long array of estimate and figures which they stated were compiled from official and accurate sources. In Michigan, these figures show, the farmer receives \$113.29 an acre of beets and his production cost is \$106, leaving him \$7.29 net profit an acre. The factory gets out of the acre of beets 1,989 pounds of sugar, for which it receives \$228.73, and also gets 910 pounds of pulp, worth \$8.19, or a total of \$259.67 from the acre of beets. Allowing for the factory cost of turning the beets into sugar \$174.90, the net to the factory is \$84.77 to the acre of beets, whereas the grower receives only \$7.29.



Thin Ice

CURRENT AGRICULTURAL NEWS OF THE WORLD

GRINNELL

HOW FOREIGN COMPETITION AFFECTS DAIRY INDUSTRY

To meet foreign competition, dairy farmers of the United States must be able to produce a better quality of product and produce and market it more economically and more efficiently, according to specialists in the Bureau of Markets, United States Department of Agriculture.

Arrivals of shipments of Danish butter are already affecting prices on the New York City market. Argentina is producing nearly three times the amount of butter and cheese consumed, and some of the surplus may be expected to come to this country, or compete with our products in foreign countries. Before the war Siberia was rapidly extending its dairy industry, and when conditions become settled in that country it may be expected to come back as a factor in the world's market. Recently there have been signs of interest in dairying in South Africa and the industry as developed in New Zealand and Australia must be reckoned with.

If the dairy products manufactured in the United States are of a better quality than those from other countries they need not fear competition. Canada's cheese industry illustrates this. A strict system of government supervision in the training of cheese makers, in the operating of the factories, and in the grading, marketing and exporting of the product, exists there. This has tended toward an improvement in the quality of Canadian cheese until it ranks with the finest on the English markets.

The dairy industry in Argentina has grown rapidly since the beginning of the war. Before the war butter exports from that country totaled 3,262 tons a year; in 1918 they were five times that. Cheese exports were far exceeded by the imports in 1913. Now the conditions are reversed—over 6,000 tons of cheese being exported in 1918.

Today most of these exports are going to European markets, but should conditions become favorable it may be expected that some of them will come to this country. The Bureau of Markets warns dairymen to be prepared to meet this competition.

Prices Paid to Farmers

The level of prices paid producers of the United States for the principal crops increased about 4.5 per cent during December; in the last 10 years price level increased in like period about 2.2 per cent. On Jan. 1, 1920, the index figure of prices was about 18.9 per cent higher than a year ago, 12.3 per cent higher than two years ago, and 84.7 per cent higher than the average of the last 10 years on Jan. 1.

The prices of meat animals—hogs, cattle, sheep and chickens—to producers of the United States decreased 2.9 per cent from Nov. 15 to Dec. 15; in the last nine years prices decreased in like period 0.7 per cent. On Dec. 15

the index figure of prices for these meat animals was about 13.9 per cent lower than a year ago, 9.4 per cent lower than two years ago, and 44.2 per cent higher than the average of the last nine years on Dec. 15.

Following are details of prices paid to farmers, compared quarterly on dates indicated, as reported by the Bureau of Crop Estimates:

	1918	1919	1918	1919
Hogs	Dec. \$15.82	Mar. \$16.13	Sept. \$15.81	Dec. \$12.68
Beef, cattle	8.28	10.34	9.02	8.63
Veal calves	12.31	12.65	13.39	12.67
Sheep	9.46	10.45	8.69	8.53
Lambs	12.44	14.03	12.25	11.85
Wool, unw.	56.2	51.3	51.3	51.6
Milk cows	85.78	88.15	93.42	95.54
Horses	121.00	124.00	119.00	113.00
Beans, dry, bu.	4.36	4.40	4.38	4.41
Onions	1.32	2.00	1.85	2.46
Hay, ton, timothy	22.94	22.68	23.65	23.71
Clover	21.26	21.25	21.74	22.60
Alfalfa	20.74	21.40	20.89	22.95
See, bu., clover	20.67	22.61	25.88	27.63
Timothy	4.21	4.54	4.55	4.98
Alfalfa	9.65	10.64	12.34	16.68
Ctnseed, ton	65.05	64.00	62.13	69.07
Brm. ctn., ton	172.00	174.00	154.00	163.00
Cowpeas, bu.	2.38	2.49	2.69	2.81
Kafir, bu.	1.55	1.51	1.54	1.44
Bran, ton	38.95	47.93	49.58	48.79
Ctnsd. meal	60.64	62.88	74.03	78.57
Paid by farmers—				
Clover seed	20.67	22.61	25.88	27.67
Tim. seed	4.21	4.54	4.55	4.98
Alfalfa seed	9.65	10.64	12.34	16.68

The Farmer-Labor Congress

Two year extension of government control of railroads and retention of all necessary shipping was urged by the Farmer-Labor Co-operative Congress here. Proposed enactment of peace time sedition laws was assailed and government insurance for the farmer against crop losses was asked.

"Concentration of one-third of the country's wealth in the hands of one-fortieth of one per cent of the people," was condemned and a tax on the capital value of property to pay off the war debt within a few years was urged. This tax should not include any estate of \$25,000 or less said amount to be 10 per cent on \$1,000,000 estates and should gradually rise to 75 per cent for estates of \$500,000,000.

An organization between farmer, labor and co-operative societies to lower the cost of living by instituting a just and more economic system of distribution and by eliminating the middleman, was advised.

Speakers recommended the organization of co-operative daily newspapers and denounced the press of the country as "prostituted and debased to the interests of capitalists."

Robert M. Buck, editor of the New Majority, a Chicago publication, denounced press associations as subservient to capitalistic influence.

Inadequate Refrigerator Service

Alarms the Fruit Growers

The fruit growers of the state are alarmed at the prospect of insufficient refrigeration service this year. If the operating railroads attempt to serve their respective shippers without the assistance of the private refrigerator car lines, which is the situation now confronting the fruit growers, due to the expiration of

contracts between the private lines and the railroads, there will be a serious shortage of refrigeration cars. A. R. Urion, chairman of the Refrigeration Committee of the Michigan State Horticultural Society will give his report at the mid-winter meeting, which will be held at Benton Harbor, March 4th and 5th. The society feels very fortunate in securing Walter J. Sears, President of the National Canners' Assn., of Chillicothe, Ohio, who will discuss the subject of "Distribution of Canned Goods and its Necessity to Grower." A very interesting full two-day program has been arranged by the secretary, Geo. M. Low, Bangor. A large attendance is assured, and all who plan to attend should make their hotel reservation at once. Programs may be secured by applying to the secretary.

Cheboygan Farmers Want

Powdered Milk Plant

A plant for the manufacture of powdered milk in this county is the desire of many representative stock and dairy farmers in Cheboygan Co. Agricultural Agent, I. B. McMurtry, while in attendance at the state farmers convention in East Lansing last week, investigated the industry so far as possible through delegates there who have an interest in such plants. He was very favorably impressed and returned home Sunday morning very enthusiastic over the matter.

Mr. McMurtry states that there are great possibilities in this line but that in order that a powdered milk plant should prove profitable here it would be necessary that county farmers increase the number of their milk cows materially. He expects to discuss the proposition at the gathering of farmers which are being held about the county in connection with the Co-operative Marketing Association.

The state farm bureau organization was perfected at Lansing last week under a new plan which does away with the temporary organization heretofore in existence. A membership drive throughout the state is to be conducted vigorously; special agents to visit Cheboygan county in May.

Farmer Will Pay Big Taxes in 1920

American farmers this year will pay income taxes totalling nearly \$1,000,000,000, it has been estimated on the basis of earnings calculated by the Department of Agriculture.

The estimate represents four per cent of \$24,982,000,000, the value of all crops, animals and animal products of 1919 as estimated by the agriculture department. In growing crops and stock of this value. American farmers experienced the best business year in their history, reports show. It is \$2,500,000,000 greater than the value of the 1918 crop.

THE WESTERN SUGAR

BEET CROPS OF 1920

The Great Western Sugar Company, so the daily papers state, is contemplating a bonus of one dollar per ton to be given to all who grew and delivered beets for the 1919 campaign. This is important if true and doubtless is offered as an inducement for the farmers of the beet sections to put in a crop for 1920. We are told also by the daily press that the sugar company is to offer \$12 per ton for the 1920 crop.

The Scientific Farmer has never been able to agree with the management of the Great Western Company regarding the price paid to the growers of beets for their products. We have regarded it as unfair and inadequate and we still think so. Any suggestions therefore from us in regard to their policy would not be received with acclaim or acted upon. We, however, are constrained to make a suggestion regarding this contemplated bonus that if acted upon might help to secure a larger acreage of beets for 1920.

It is a well known fact that many farmers who planted beets last year lost their entire crop—the beets did not come up, and when they did it was too late to secure a profitable stand to warrant the expense of cultivation. On the advice of the agents of the sugar company these fields were abandoned and the farmers lost not only their labor but the use of the land. Now, why should it not be just and equitable for the sugar company to give to these farmers a bonus of one dollar per ton on what would have been an average crop, say eight tons to the acre planted, provided they will plant an equal acreage this coming year? These are the men that need the bonus—those who lost all from no fault of their own. Is it not so?

How about the price fixed at \$12 per ton? It has been determined that with sugar at 7 cents wholesale the sugar companies should pay \$10 per ton for beets, and an additional \$1.50 per ton for every cent advance in the price of sugar.

The sugar output of 1919 is now selling at retail for 20 cents per pound and for not less than 12 cents wholesale—and advance of 5 cents per pound and that goes into the pocket of the sugar company. Now let us apply the schedule: An advance of 5 cents per pound should bring with it an advance of \$7.50 per ton for beets of \$17.50 per ton for the 1920 crop. Gentlemen of the Great Western Sugar Company, are you ready to deal fairly with the farmers in this matter or are you going to try to hog it again? You tried it two years ago and lost out. If you try the same game this year you will lose out again. A word to the wise ought to be sufficient.

Michigan Holstein Breeders Begin Aggressive Campaign for Members

Comprehensive Plans Made to Make Michigan One of Largest Holstein States in the Union

ON Saturday, Feb. 14th, in response to a call of H. N. Norton, Jr., Pres. of Mich. Holstein Friesian Breeders' Ass'n, leading representatives of Holstein publicity work met at the Board of Commerce rooms, Lansing, to lay plans for a two weeks' membership campaign for the Association.

Representatives were present from all parts of the state. President Norton presided and the address of the day was made by Mr. R. C. Pollock, extension representative of the Holstein-Friesian Association of America. Mr. Pollock spoke on the necessity of a strong organization of Holstein men in every state and the present splendid outlook for the Black and Whites. He referred very appreciatively to the recent first Michigan Holstein-Friesian sale at the M. A. C., at East Lansing, the high character of the cattle offered, the excellent fig-

ures received, and intelligent manner in which the sale had been handled in every respect. From the success of this last sale he augured increasing interest in the Michigan sale, which will hereafter be an annual event that will attract buyers from all parts of the United States.

Schedule of Meetings

The following meetings have already been held:

Monday, Feb. 23.—Afternoon, Lansing; evening, St. Johns.

Tuesday, Feb. 24.—Forenoon, Owosso; afternoon, Saginaw.

Wednesday, Feb. 25.—Forenoon, at Vassar; afternoon, Lapeer; evening, Flint.

Thursday, Feb. 26.—Afternoon, at Pontiac; evening, Plymouth.

Meetings this week and next:

Friday, Feb. 27.—Morning, Monroe; afternoon, Ypsilanti.

Saturday, Feb. 28.—Afternoon, at Howell.

Monday, March 1.—Afternoon, Adrian; evening, Jackson.

Tuesday, March 2.—Forenoon, Hastings; afternoon, Charlotte; evening, Battle Creek.

Wednesday, March 3.—Forenoon, Dowagiac; evening, Holland.

Thursday, March 4.—Forenoon, Allegan; afternoon, Grand Rapids.

Friday, March 5.—Forenoon, Scottville; evening, Cadillac.

Saturday, March 6.—Forenoon, Mt. Pleasant.

Mr. Pollock and Mr. Norton will speak at all meetings. The other speakers will appear at various meetings as their other engagements permit. Notices of the meetings and invitations to attend are being sent out to all Holstein owners of the state so far as their names and addresses can be obtained. The object is not to

reach only owners of purebreds, but owners of grade Holsteins. It is recognized that it is from the ranks of grade owners that recruits come to the ranks of breeders of pure-bred, registered cattle.

After the two weeks' campaign will have been concluded it is quite probable that a follow-up series of meetings in places not included in the schedule above. The schedule given has been worked out very carefully by President Norton and will be observed, weather and train service permitting.

The Lansing meeting was attended by Secretary L. S. Foote of the Saginaw Valley Holstein Association, who is sending out notices of the meeting to the Holstein men of Saginaw, Gratiot, Midland and Bay counties, most of whom will probably find it most convenient to attend the meeting at Saginaw.



MARKET FLASHES



WHEAT DOWN TO GUARANTEED MINIMUM

WHEAT PRICES PER BU., FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Red	2.47	2.30 1/2	2.36
No. 2	White	2.45	2.28	2.34 1/2
No. 2	Mixed		2.27	2.33

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

The past week has seen wheat prices go down at some points as low as the guaranteed minimum, for the first time in several months. A good many mills are loaded up on wheat which they are manufacturing as rapidly as possible into flour. The present demand for flour, both for home consumption and export, is very good, but the wheat crop that is ready for the milling is unequally distributed, and the entire market suffers as a consequence. The Grain Corporation is expected to take a hand shortly to remedy this condition and assist in the reselling of wheat at as near uniform prices as possible to bring a return of stability to the market.

CORN MARKET WEAKENS

CORN PRICES PER BU., FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Yellow	1.54	1.44 1/2	1.65
No. 3	Yellow	1.51	1.43	1.61
No. 4	Yellow	1.51	1.43	1.55

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
No. 2	Yellow	1.38	1.33	1.59
No. 3	Yellow	1.33	1.31	1.51
No. 4	Yellow	1.33	1.31	1.45

From the middle to the close of last week the corn market was in a very weak position and prices declined all over the country. The bears were active, and presented many very good reasons why lower corn prices were in prospect. The car situation was relieved somewhat during the latter part of the week. export business was nil, receipts increased, and a report was anticipated which would show large grain supplies in country reserve. For the first time in months, we believe that the bears have the facts to back up their predictions of a lower price period, but at the same time we feel that this period will be brief, and that the grain markets in general will continue their progressively upward trend, with occasional losses, of course. The bulls in the corn market are depending upon the farmers to keep their heads and use caution in selling their supplies. They feel that if the market is fed gradually there is no cause to worry about lower prices.

OATS DROP WITH CORN

OAT PRICES PER BU., FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
Standard		.92 1/2	.85 1/2	1.02
No. 3	White	.91 1/2	.85 1/2	
No. 4	White	.90 1/2	.84	

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
Standard		.62	.60 1/2	.69
No. 3	White	.60 1/2	.59	.68
No. 4	White	.60 1/2	.58	.66

Oats which have been consistently sympathetic with corn during the entire season, in spite of the fact that there is no comparison whatever between the relative size of the 1918 and 1919 crops. The corn crop is above normal; the oat crop far below. Otherwise, we would not find New York buyers paying better than \$1 per bushel five months before the new crop. As we have many times predicted from the very opening of the marketing season the oat prices must steadily advance, for the supply is low and the demand is very good. Declines in oats are only temporary.

RYE AND BARLEY

The demand for rye has fallen off, the export demand having slackened considerably. The market for rye at the opening of the week is quoted easy at \$1.58. Barley is at a standstill, little life, and prices at about the same level as the past two months, \$2.90 @ 3.

LAST MINUTE WIRES

DETROIT, Feb. 25th.—Grain markets show returning strength after week of declines. Beans and potatoes firm. Live stock weak and unsettled. Dressed calves and hogs firm and in good demand.

CHICAGO, Feb. 25th.—Grain markets recover strength. Higher prices probable. Live stock lower.

Weekly Trade and Market Review

THERE HAS BEEN little change in industrial and trade circles since our last issue. If anything, conditions in the money and stock markets are a little more unsettled and denote an unhealthy situation. Demand for loans is the largest on record. This would be taken as an encouraging sign if deposits at banks kept pace, but eastern banks report a large falling off in deposits. Notwithstanding that every condition now prevails which should cause every investor to use the utmost caution, reckless spending and speculation goes on unabated, people throwing their good money to the winds and at the same time complaining about the high cost of living. Rigid economy, wise spending and wise investing are looked upon as remedies for the economic diseases from which as a nation we are now suffering.

Export business in foodstuffs, at least, has virtually come to a standstill. A few oats are bought daily for export, but there has been nothing doing lately in corn, rye, barley, beans or meats, and prices on all these commodities are now on the decline, as domestic consumption will not take care of the normal receipts of these products at this season of the year at the former high prices. Traders are of the one opinion that the farmer holds the key to this situation. If he becomes alarmed at the weakness of the markets, and rushes his grain and live stock to a near-demoralized market, lower prices are inevitable. They are of the one opinion, also, that if the farmer does not sell freely during the next several weeks, that the markets will strengthen and prices will again advance.

ACTIVITY IN BEAN MARKET

BEAN PRICES PER CWT., FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
C. H. P.		6.75	7.50	7.90
Red Kidneys			14.00	14.75

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
C. H. P.		8.00	7.75	8.25
Prime		7.25	7.00	7.75
Red Kidneys		11.25	11.50	12.25

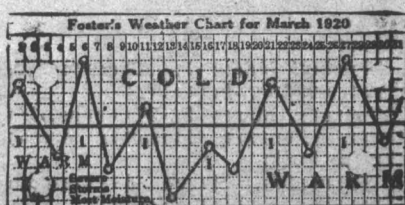
For two years the bean market has acted as though it had the palsy or St. Vitus dance. At least it has gone by "fits and jerks," and it hasn't yet been "cured" either. Just at the time a few weeks back when everyone expected a sharp advance in bean prices, there came a sharp decline and a weakened condition that lasted up to the close of last week when demand suddenly picked up and available supplies were quickly moved. What has caused this sudden activity it is hard to say, but it looks very much as if some of the big bean jobbers were at their old tricks of manipulating the Detroit market for the purpose of getting out a few

carloads of cheap beans from the country districts. If this be true, it is a sign that there aren't many eastern beans left in the hands of the jobbers and that the reserve stocks in the hands of farmers must soon be called on. With the lanes of trade still open between the Orient and this country, however, the price of domestic beans cannot advance materially. The introduction of a bean tariff at this time would do much to add life to the bean market.

"The Kotosashi bean," says the Price Current Grain Reporter, "which has been a disturbing factor in holding down the price of California Whites and the Michigan pea beans, has advanced recently to around \$6 per cwt., delivered to the Pacific Coast ports. However, it is said that some considerable quantities in store at San Francisco and Seattle are still to be purchased at around \$5.25 to \$5.35, so that sales of new crop Kotosashi are reported as small and practically no importations have as yet been made."

THE WEATHER FOR THE WEEK

As Forecasted by W. T. Foster for MICHIGAN BUSINESS FARMING



WASHINGTON, D. C., Feb. 28, '20.—Warm waves will reach Vancouver about Feb. 27, Mar. 3, 8, 13, and temperatures will rise on all the Pacific slope. They will cross crest of Rockies by close of Feb. 28, Mar. 4, 9, 14; plains sections 29, Mar. 5, 10, 15; meridian 90, great lakes, middle Gulf states and Ohio-Tennessee valleys Mar. 1, 6, 11, 16; eastern sections 2, 7, 12, 17, reaching vicinity of Newfoundland near Mar. 3, 8, 13, 18. Storm waves will follow about one day behind warm waves and cool waves about one day behind storm waves.

These disturbances will control the weather of the provinces and states from near Feb. 28 to near March 17. High temperatures are expected to cross continent during week centering on March 6 and low temperatures during week centering on March 13. Severe storms and most precipitation of March is expected to cross continent during week centering on 9.

During this short weather period, particularly from Feb. 20 to March 20 precipitation is expected to increase west of Rockies crest and in Texas, Oklahoma, Nebraska, Kansas, Missouri. Other sections about same as since first of January.

Dangerous storms are expected during week centering on March 9 and plans should be made for indoor work about that time. The storms expected during week centering on March 23 will also be severe but not so intense as those earlier in the month.

W. T. Foster

POTATOES IN BETTER DEMAND

SPUDS PER CWT., FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 1		4.50	4.33	
No. 2		4.40	4.50	
No. 3		4.75		
No. 4		4.50	4.00	

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
No. 1		1.75	1.70	1.75
No. 2		2.00	1.70	1.75
No. 3		2.00	1.70	1.75
No. 4		2.00	1.70	1.75

Developments of the past week show that the weakening of the potato market was only temporary, although only one market reports prices back to their former level. Pittsburg bought potatoes last week at \$7.25 per 150-lb. sack, which is a new high level for that market. The Detroit market has made little gains. Chicago reports slump in both demand and supply. Rochester, N. Y. says that the market is firm and active, with advancing price tendencies. The west reports a not over-strong condition, with a tendency to lower prices. We have received additional returns upon our questionnaire which was sent to a number of potato authorities asking for their opinion as to the future of the market. These gentlemen all predict a healthy market with good prices for the balance of the season. The reports are published on page 19 of this issue.

HAY IS HIGHER

HAY PRICES PER TON, FEB. 23, 1920				
No.	Grade	Detroit	Chicago	N. Y.
No. 1		33.50	34.50	35.00
No. 2		34.00	35.00	35.50
No. 3		34.50	35.50	36.00
No. 4		35.00	36.00	36.50

PRICES ONE YEAR AGO				
No.	Grade	Detroit	Chicago	N. Y.
No. 1		26.50	27.50	28.00
No. 2		27.00	28.00	28.50
No. 3		27.50	28.50	29.00
No. 4		28.00	29.00	29.50

Lack of supplies has added strength to an already strong hay market, and prices are up all over the country.

LIVESTOCK MOVEMENT

Reports of receipts and disposition of livestock at 67 public stock yards show a decrease in the number of cattle and calves received of 243,097, or 11.4 per cent, the receipts for the month of January being 1,881,227. Local slaughter, 1,105,315 being a reduction compared with a year ago of 215,187, or 16.3 per cent. The feeder shipments, 347,778, is 15,710 or 4.3 per cent less than a year ago. The hog movement from the same markets was 5,311,483, being 594,821 less than a year ago, or 10.1 per cent. Local slaughter, 3,593,323, a decrease of 700,833 or 16.3 per cent. Feeders shipped out 89,621, being an increase of 39,332, or 78.2 per cent over a year ago. Sheep receipts 1,596,102, an increase of 19,547, or 1.2 per cent. Local slaughter was 920,076, a decrease of 49,338 or 5.1. Stock feeder shipments, 308, an increase of 80,763, or 35.5 per cent.

DAILY LIVE STOCK MARKET SUMMARY

(Monday being a holiday, we are obliged to give the previous Saturday's live stock market, and any important price changes will be found in the Last Minute Wires on the previous page which are corrected every day M. B. F. is on the press. We are now arranging for a special live stock service to begin in an early issue.)

CHICAGO—Total receipts for Chicago, Kansas City, Omaha, East St. Louis, St. Joseph, Sioux City, St. Paul, Indianapolis, Pittsburg, Buffalo: Cattle, 14,600; hogs, 35,400; sheep, 8,800. One week ago, 5,300; 47,900; 12,400; one year ago, 5,406; 73,517; 5,767; total week to date, 168,100; 590,000; 204,700.

Same period week ago, 176,400; 490,000; 218,200; same period year ago, 220,056; 814,467; 172,829.

CATTLE

Including today's estimated receipts of 1,500, Chicago shows a shortage of about 8,800 cattle from last week, and ten markets a decrease of about 53,000, as compared with same period a year ago. The beef steer supply consisted largely of short fed cattle with the medium to good kinds selling largely from \$11 to \$14. Market opened Monday with a good demand for all desirable killing kinds on which prices advanced 25c in most instances on those selling from \$12 to \$14. However, this strength was speedily lost, and the week closed with steers selling above \$13.50 unevenly 25 to 75c lower than a week ago, while steers from \$13 down closed about steady with the close of last week. The percentage of choice and prime cattle was small with \$16.25 the week's top paid for two loads of 1,521 lb. prime bullocks. Several other lots of choice steers went at \$15 to \$15.50, but demand centered strongly on the \$12 to \$13.50 kinds which included a well-conditioned plain quality short fed grade. The week's calf supply was largely of common to good kinds and the spread in prices widened, occasionally by the city butchers bidding stronger for the strictly choice vealers, of which there were few. Market closed 25c lower for the week on good killing kinds. There has been a fair country demand for stockers and feeders this week and with a fair supply from which to make selections, prices have advanced 25 to 40c on all kinds. There will be a fairly liberal carry-over at the week's end.

HOGS

Strength crept into the closing hog market of the week, general deal being mostly 10 to 15c higher than yesterday's average, with some of the lighter weights as much as 15 to 20c up. Hogs 170 to 190 lb. averages went to shippers from \$14.75 to \$14.90, latter price being top and while 200 to 220 lb. butchers found an outlet largely from \$14.50 to \$14.70 and bulk of the medium and heavier hogs of good to choice quality from \$14 to \$14.40. Packers were bidding under \$14 for some strong weight butcher hogs carrying a few good packing sows, but practically no straight loads of the butchers went "under the hill." Pigs ruled firm. Receipts at ten markets for the week at 590,000 show a gain of 100,000 compared with last week. The week's trade is closing mostly 40 to 50c under last Saturday.

SHEEP

Practically the entire estimated supply of 4,000 sheep and lambs today was direct to packers. The market was nominally steady. Receipts this week total about 69,000 of which approximately 28,800 were direct to packers from other markets, largely from Denver, to which point Colorado fed lambs have been running quite freely. Receipts here last week were 67,864. Ten markets have had a combined supply of 204,700 this week compared with 218,200 the week previous. While quality has run fairly good, in the main, high dressers have been scarce and they have scored well warranted premiums over lambs of low or uncertain dressing qualifications the former, where of desired weights, closing 25 to 50c higher than a week ago, with the top within 10c of the season's high point. Heavy, medium and common lambs have sold irregularly throughout the week, averaging at the close around steady levels with a week ago. Sheep and yearlings have formed a small quota of the week's receipts and fat classes are unevenly 25 to 75c higher than a week ago, best ewes showing rather the most gain, while cull and common kinds show little change in value.

DETROIT PRODUCE MARKETS

APPLES — Western, boxes, \$2.75@ \$3.50; Baldwin, \$3.25@ \$3.50; Greening, \$3.50@ \$3.75 per bu.
POPCORN — Shelled, 10c per lb.
HONEY — White comb, 32@35c per lb.
CABBAGE — Home grown, \$3 cwt.
CAULIFLOWER — \$1.75@ \$2 a case.
POTATOES — \$6.50@ \$6.75 per 150-lb. sack.

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 ☐	Herbert F. Hoover ☐	Frank Lowden ☐
Wm. Jennings Bryan ☐	Miles Poindexter ☐	Wm. G. McAdoo ☐
Champ Clark ☐	Wm. H. Taft ☐	A. Mitchell Palmer ☐
Henry Ford ☐	Woodrow Wilson ☐	John J. Pershing ☐
Gen. G. W. Goethals ☐	Leonard Wood ☐	
Warren G. Harding ☐	Hiram Johnson ☐	

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.

ONIONS—Indiana, \$5.75@ \$6 per 150-lb. sack.

CALVES (dressed)—Fancy 27@29c per lb.

DRESSED HOGS—Best, 20@22c; heavy, 17@18c per lb.

DRESSED POULTRY — Chickens, 37@38c; ducks, 40@42c; geese, 28@32c per lb.

LIVE POULTRY—Spring chickens, large, 37@38c; Leghorns, 36@36c;

hens, 38@40c; small hens, 36@37c; roosters, 23@24c; geese, 30@25c; ducks, 40@45c; turkeys, 44@45c lb.

FARM BUREAU PROTECTS MARKETING PLAN

(Continued from page 2)

comes a forward step by the Michigan Farm Bureau in employing J. W. Nicolson, until now extension specialist in farm crops at M. A. C.,

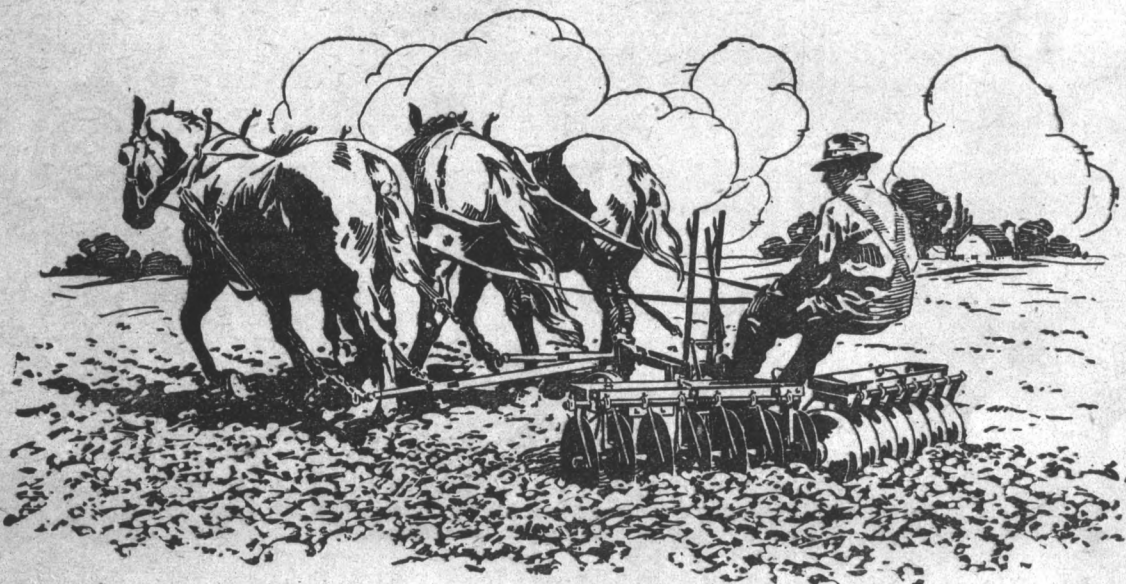
to assume charge of a new department for collective buying and selling of seed.

Mr. Nicolson has become widely known throughout the middle west through his work in introducing pure and certified seeds. As secretary of the Michigan Crop Improvement Association he has been able to further the use of types best adapted to climate and soils with this state.

Rosen rye and Red Rock wheat, two grains produced at M. A. C. by Professor F. A. Spragg, are in great demand over the country, and one of the activities of the new department will be to supply other states with these seed grains in carload quantities. Purchasing of improved seeds and grains grown elsewhere, such as North Dakota alfalfa and Idaho clover, will also be carried on for Michigan farmers on a cost basis. The department is intended to be self-sustaining and it is expected that a half-million dollar business will be handled this year.

Although Mr. Nicolson's resignation and the resulting blow to the farm crops department at M. A. C. is felt keenly there, agricultural leaders believe he will be able to render the farmers of the state an even greater service in his new capacity. The offices of the crop and grain section of the Michigan Farm Bureau will be located in Lansing, so that communication with the scientific investigations at the college will be very convenient.

Results show at Harvest Time



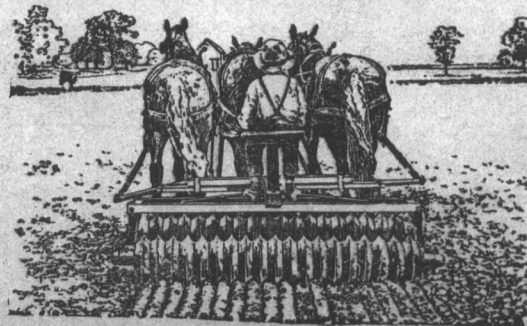
IF your seed bed is not properly prepared, take an inventory of the clods—the rough stuff in the field—and enter every single one of them in your ledger as a liability. They are just like so many pores letting out that precious subsoil moisture. You cannot spare that stored power if you want bumper crops.

International Tillage Tools put your seed bed in prime condition. In this deservedly popular line of implements are disk harrows, spring- and peg-tooth and combination harrows, culti-packers, etc. The disk harrow, for instance, slices and destroys the clods until the close-knit covering guards every bit of subsoil moisture, while permitting the absorption of additional supplies from above.

The 1920 International line of implements for laying crop foundation is the most complete we have ever offered. You know your soil. Whatever its needs, we have the type of disk harrow suited to it. If a sandy, loose loam the two-lever type answers every requirement; if hard, stony

or trashy ground, the three-lever type with its center-depth regulator insures a firm, compact seed bed. If you use a tractor, see our leverless tractor disk. Whatever your power equipment, we have a size that utilizes it to the best advantage. Ask your dealer to point out to you the exclusive features of each type.

Let us mail you descriptive folders of these tillage implements so that you will know just a bit more about the preparing of Spring seed beds. With every implement goes an alert, responsive and intelligent service. The International dealer will serve you direct.



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Nappanee Lumber & Mfg. Co.
Box 231 Nappanee, Ind.

"MORGAN and Morgan strictly limited," Francis chortled.

"Assets, the whole Caribbean Sea, the Spanish Main, most of Central America, one chest full of perfectly no good old clothes, and a lot of holes in the ground," Henry joined in the other's humor. "Liabilities, snake-bite, thieving Indians, malaria, yellow fever—"

"And pretty girls with a habit of kissing total strangers one moment, and of sticking up said total strangers with shiny silver revolvers the next moment," Francis cut in. "Let me tell you about it. Day before yesterday, I rowed ashore over on the mainland. The moment I landed, the prettiest girl in the world pounced out upon me and dragged me away into the jungle. Thought she was going to eat me or marry me. I didn't know which. And before I could find out, what's the pretty damsel do but pass uncomplimentary remarks on my mustache and chase me back to the boat with a revolver. Told me to beat it and never come back, or words to that effect."

"Whereabouts on the mainland was this?" Henry demanded, with a tenseness which Francis, chuckling his reminiscence of the misadventure did not notice.

"Down toward the other end of Chiriqui Lagoon," he replied. "It was the stamping ground of the Solano family, I learned; and they are a red peppery family, as I found out. But I haven't told you all. Listen. First she dragged me into the vegetation and insulted my mustache; next she chased me to the boat with a drawn revolver; and then she wanted to know why I didn't kiss her. Can you beat that?"

"And did you?" Henry demanded, his hand unconsciously clinching by his side.

"What could a poor stranger in a strange land do? It was some armful of pretty girl—"

The next fraction of a second Francis had sprung to his feet and blocked before his jaw a crushing blow of Henry's fist.

"I . . . I beg your pardon," Henry mumbled, and slumped down on the ancient sea chest. "I'm a fool. I know, but I'll be hanged if I can stand for—"

"There you go again," Francis interrupted resentfully. "As crazy as everybody else in this crazy country. One moment you bandage up my cracked head, and the next moment you want to knock the same head clean off of me. As bad as the girl taking turns at kissing me and shoving a gun into my midriff."

"That's right, fire away, I deserve it," Henry admitted ruefully, but involuntarily began to fire up as he continued with: "Confound you, that was Leoncia."

"What if it was Leoncia? Or Mercedes? Or Dolores? Can't a fellow kiss a pretty girl at a revolver's point without having his head knocked off by the next ruffian he meets in dirty canvas pants on a notorious sand heap of an island?"

"When the pretty girl is engaged to marry the ruffian in the dirty canvas pants—"

"You don't mean to tell me—"

the other broke in excitedly. "It isn't particularly amusing to said ruffian to be told that his sweetheart has been kissing a ruffian she never saw before from off a disreputable Jamaica nigger's schooner." Henry completed his sentence.

"And she took me for you," Francis mused, glimpsing the situation. "I don't blame you for losing your temper, though you must admit it's a nasty one. Wanted to cut off my ears yesterday, didn't you?"

"Yours is just as nasty, Francis, my boy. The way you insisted that I cut them off when I had you down—ha! ha!"

Both young men laughed in hearty amity.

"It's the old Morgan temper," Henry said. "He was by all the accounts a peppery old cuss."

"No more peppery than those Solanos you're marrying into. Why, most of the family came down on the beach and peppered me with rifles on my departing way. And

"Hearts of Three"

By JACK LONDON

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

Synopsis of Preceding Chapters

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 has 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. The girl mistakes Francis for a lover she has quarreled with. He is chased from the island by her father and brothers. Francis explores another island where a young man threatens his life and then saves it from savages who attack young Morgan. Francis and the young man discover they are related.

your Leoncia pulled her little popgun on a long-bearded old fellow who might have been her father and gave him to understand she'd shoot him full of holes if he didn't stop plugging away at me."

"It was her father, I'll wager, old Enrico himself," Henry exclaimed. "And the other chaps were her brothers."

"Lovely lizards!" ejaculated Francis. "Say, don't you think life is liable to become a trifle monotonous when you're married into such a peaceful, dove-like family as that." He broke off, struck by a new idea. "By the way, Henry, since they all thought it was you, and not I, why in thunder did they want to kill you? Some more of your crusty Morgan temper that peeved your prospective wife's relatives?"

Henry looked at him a moment, as if debating with himself and then answered.

"I don't mind telling you. It is a nasty mess, and I suppose my temper was to blame. I quarreled with her uncle. He was her father's youngest brother—"

"Was?" interrupted Francis with significant stress on the past tense.

"Was, I said," Henry nodded. "He isn't now. His name was Alfaro Solano, and he had some temper himself. They claim to be descended from the Spanish conquistadores, and they are prouder than hornets. He'd made money in logwood, and he had just got a big henequen plantation started farther down the coast. And then we quarreled. It was in the little town over there—San Antonio. It may have been a misunderstanding, though I still maintain he was wrong. He always was looking for trouble with me—didn't want me to marry Leoncia, you see."

"Well, it was a hot time. It started in a pulqueria where Alfaro had been drinking more mescal than was good for him. He insulted me all right. They had to hold us apart and take our guns away, and we separated swearing death and destruction. That was the trouble—our quarrel and our threats were heard by a score of witnesses."

"Within two hours the Comisario himself and two gendarmes found me bending over Alfaro's body in a back street in the town. He'd been knifed in the back, and I'd stumbled over him on the way to the beach. Explain? No such thing. There were the quarrel and the threats of vengeance, and there I was not two hours afterwards, caught dead to right with his warm corpse. I haven't been back in San Antonio since, and I didn't waste any time in getting away. Alfaro was very popular—you know, the dashing type that catches the rabble's fancy. Why, they couldn't have been persuaded to give me even the semblance of a trial. Wanted my blood there and then, and I departed very pronto."

"Next, up at Bocas del Toro, a messenger from Leoncia delivered back the engagement ring. And there you are. I developed a real big disgust, and, since I didn't dare go back with all the Solanos and the

rest of the population thirsting for my life, I came over here to play hermit for a while and dig for Morgan's treasure. Just the same I wonder who did stick that knife

into Alfaro. If ever I find him, then I clear myself with Leoncia and the rest of the Solanos and there isn't a doubt in the world that there'll be a wedding. And now that it's all over I don't mind admitting that Alfaro was a good scout, even if his temper did go off at half-cock."

"Clear as print," Francis murmured. "No wonder her father and brothers wanted to perforate me—why the more I look at you, the more I see we're as like as two peas, except for my mustache—"

"And for this . . ." Henry rolled up his sleeve, and on the left forearm showed a long, thin, white scar. "Got that when I was a boy. Fell off a windmill and through the glass roof of a boathouse."

"Now listen to me," Francis said, his face beginning to light with the project forming in his mind. "Somebody's got to straighten you out of this mess, and the chap's name is Francis, partner in the firm of Morgan and Morgan. You stick around here, or go over and begin prospecting on the Bull, while I go back and explain things to Leoncia and her people—"

"If only they don't shoot you first before you can explain you are not I," Henry muttered bitterly. "That's the trouble with those Solanos. They shoot first and talk afterward. They won't listen to reason unless it's post mortem."

"Guess I'll take a chance, old man," Francis assured the other, himself all fire with the plan of clearing up the distressing situation between Henry and the girl.

But the thought of her perplexed him. He experienced more than a twinge of regret that the lovely creature belonged of right to the man who looked so much like him, and he saw again the vision of her on the beach, when, with conflicting emotions, she had alternately loved him and yearned toward him and blazed her scorn and contempt on him. He sighed involuntarily.

"What's that for?" Henry demanded quizzically.

"Leoncia is on exceedingly pretty girl," Francis answered with transparent frankness. "Just the same, she's yours, and I'm going to make it my business to see that you get her. Where's that ring she returned? If I don't put it on her finger for you and be back here in a week with the good news, you can cut off my mustache along with my ears."

An hour later, Captain Trefethen having sent a boat to the beach from the Angelique in response to signal, the two young men were saying good-bye.

"Just two things more, Francis. First, and I forgot to tell you, Leoncia is not a Solano at all, though she thinks she is. Alfaro told me himself. She is an adopted child and old Enrico fairly worships her, although neither his blood nor his race runs in her veins. Alfaro never told me the ins and outs of it, though he did say she wasn't Spanish at all. I don't even know whether she's English or American. She talks good enough English, though she got that at convent. You see, she was adopted when she was a wee thing, and she's never known anything else than that Enrico is her father."

"And no wonder she scorned and hated me for you," Francis laughed, "believing, as she did, as she still does, that you knifed her full blood-uncle in the back."

Henry nodded, and went on

"The other thing is fairly important. And that's the law. Or the absence of it, rather. They make it whatever they want it, down in this out-of-the-way hole. It's a long way to Panama, and the gobernador of this state, or district, or whatever they call it, is a sleepy old Silenus. The Jefe Politico at San Antonio is the man to keep an eye on. He's the little czar of that neck of the woods, and he's some crooked hombre, take it from yours truly. Graft is too weak a word to apply to some of his deals, and he's as cruel

and blood-thirsty as a weasel. And his one crowning delight is an execution. He dotes on a hanging. Keep your weather eye on him, whatever you do. . . . And, well, so long. And half of whatever I find on the Bull is yours. . . . and see you get that ring back on Leoncia's finger."

Two days later, after the half-breed skipper had reconnoitered ashore and brought back the news that all the men of Leoncia's family were away, Francis had himself landed on the beach where he had first met her. No maidens with silver revolvers nor men with rifles were manifest. All was placid, and the only person on the beach was a ragged little Indian boy who at sight of a coin readily consented to carry a note up to the young senorita of the big hacienda. As Francis scrawled on a sheet of paper from his notebook, "I am the man whom you mistook for Henry Morgan, and I have a message for you from him," he little dreamed that untoward happenings were about to occur with as equal rapidity and frequency as on his first visit.

For that matter, could he have peeped over the outjut of rock against which he leaned his back while composing the note to Leoncia, he would have been startled by a vision of the young lady herself, emerging like a sea-goddess fresh from a swim in the sea. But he wrote calmly on, the Indian lad even more absorbed than himself in the operation, so that it was Leoncia, coming around the rock from behind, who first caught sight of him. Stifling an exclamation, she turned and fled blindly into the green screen of jungle.

His first warning of her proximity was immediately thereafter, when a startled scream of fear aroused him. Note and pencil fell to the sand as he sprang toward the direction of the cry and collided with a wet and scantily dressed young woman who was recoiling backward from whatever had caused her scream. The unexpectedness of the collision was provocative of a second startled scream from her ere she could turn and recognize that it was not a new attack but a rescuer.

She darted past him, her face colorless from the fright, stumbled over the Indian boy, nor paused until she was out on the open sand.

"What is it?" Francis demanded. "Are you hurt? What's happened?"

She pointed at her bare knee, where two tiny drops of blood oozed forth side by side from two scarcely perceptible lacerations.

"It was a viperine," she said. "A deadly viperine. I shall be a dead woman in five minutes, and I am glad glad for then my heart will be tormented no more by you."

She leveled an accusing finger at him, gasped the beginning of denunciation she could not utter, and sank down in a faint.

Francis knew about the snakes of Central America merely by hearsay, but the hearsay was terrible enough. Men talked of even mules and dogs dying in horrible agony five to ten minutes after being struck by tiny reptiles fifteen to twenty inches long. Small wonder she had fainted, was his thought, with so terribly rapid a poison doubtlessly beginning to work. His knowledge of the treatment of snake-bite was likewise hearsay, but flashed through his mind the recollection of the need of a tourniquet to shut off the circulation above the wound and prevent the poison from reaching the heart.

He pulled out his handkerchief and tied it loosely around her leg above the knee, thrust in a small piece of driftwood stick, and twisted the handkerchief to savage tightness. Next, and all by hearsay, working swiftly, he opened the small blade of his pocket-knife, burned it with several matches to make sure against germs, and cut carefully but remorsefully into the two lacerations made by the snake's fangs.

He was in a fright himself, working with feverish deftness and apprehending at any moment that the pangs of dissolution would begin to set in on the beautiful form before him. From all he had heard, the bodies of snake-victims began to swell quickly and prodigiously. Even as he finished excoriating the fang wounds, his mind was made up to

his next two acts. First he would suck out all poison he possibly could; and, next, light a cigarette and with its live end proceed to cauterize the flesh.

But while he was still making light, criss-cross cuts with the point of his knife blade, she began to move restlessly.

"Lie down," he commanded, as she sat up, and just when he was bending his lips to the task.

In response, he received a resounding slap alongside of his face from her little hand. At the same instant the Indian lad danced out of the jungle, swinging a small dead snake by the tail and crying exultingly:

"Labarri! Labarri!"

At which Francis assumed the worst.

"Lie down, and be quiet!" he repeated harshly. "You haven't a second to lose."

But she had eyes only for the dead snake. Her relief was patent; but Francis was no witness to it, for he was bending again to perform the classic treatment of snake-bite.

"You dare!" she threatened him. "It's only a baby labarri and its bite is harmless. I thought it was a viperine. They look alike when the labarri is small."

The constriction of the circulation by the tourniquet pained her, and she glanced down and discovered his handkerchief knotted around her leg.

"Oh, what have you done?"

A warm blush began to suffuse her face.

"But it was only a baby labarri," she reproached him.

"You told me it was a viperine," he retorted.

She hid her face in her hands, although the pink of flush burned furiously in her ears. Yet he could have sworn, unless it were hysteria, that she was laughing; and he knew for the first time how really hard was the task he had undertaken to put the ring of another man on her finger. So he deliberately hardened his heart against the beauty and fascination of her and said bitterly:

"And now, I suppose some of your gentry will shoot me full of holes because I don't know a labarri from a viperine. You might call some of the farm hands down to do it. Or maybe you'd like to take a shot at me yourself."

But she seemed not to have heard, for she had arisen with the quick litheness to be expected of so gloriously fashioned a creature, and was stamping her foot on the sand.

"It's asleep—my foot," she explained with laughter unhidden this time by her hands.

"You're acting perfectly disgracefully," he assured her wickedly, "when you consider that I am the murdered of your uncle."

Thus reminded, the laughter ceased and the color receded from her face. She made no reply, but bending, with fingers that trembled with anger she strove to unknot the handkerchief as if it were some loathsome thing.

"Better let me help," he suggested pleasantly.

"You beast!" she flamed at him. "Step aside. Your shadow fall on me."

"Now you are delicious, charming," he girded, belying the desire that stirred compellingly within him to clasp her in his arms. "You quite revive by last recollection of you here on the beach, one second reproaching me for not kissing you, the next second kissing me—yes, you did, too—and the third second threatening to destroy my digestion forever with that little tin toy pistol of yours. No; you haven't changed an iota from last time. You're the same spitfire of a Leoncia. You'd better let me untie that for you. Don't you see the knot is jammed? You little fingers can never manage it."

She stamped her foot in sheer inarticulateness of rage.

"Lucky for me you don't make a practice of taking your tin toy pistol in swimming with you," he teased on, "or else there'd be a funeral right here on the beach pretty pronto of a perfectly nice young man whose intentions are never less than the best."

The Indian boy returned at this moment running with her bathing wrap, which she snatched from him and put on hastily. Next, with the boy's help, she attacked the knot again. When the handkerchief came off she flung it from her as if in truth it were a viperine.

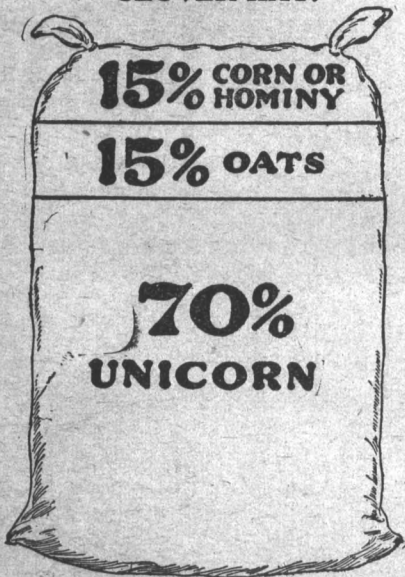
"It was contamination," she flashed, for his benefit.

But Francis still engaged in hard-

(Continued on page 15)

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MICHIGAN BUSINESS FARMING

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Keeping the Fires Burning

"I HAVE intended every day till now to send in my renewal so I do so now to keep the good paper coming. I find something every week besides keeping posted on the markets, that benefits me. I am farming two years last fall and am fifty-three years young. I have worked at carpenter work 35 years to get enough ahead to start farming as my wife and I were both raised on a farm and I have always dreamed and planned for a farm of our own and it has taken us all this time to raise our five children and save what we could toward realizing our ambition to farm. So here we are disgustingly healthy at fifty and fifty-three and doing as much or more work than any of the youngsters. We are here to stay and get into better stock and better farming thanks to your paper, and I hope you succeed as you deserve for the service rendered the farmer. Sincerely yours.—C. N., Tawas City, Mich.

* * *

IT IS such faith and hope as are expressed in this letter that form the imperishable foundations of the Republic. The young man cries, "Oh, to have age, wisdom and experience that I might make a conquest of the world." But the middle-aged and the old lament that youth is gone and with it the enthusiasm and ambition of youth. Opportunity is not wedded to youth as many think. Very often opportunity passes youth by and beckons to those who have long since passed the middle milestone of life. Men flounder helplessly about during their younger years vainly trying to capture opportunity or find the niche in which they will fit. Some never find it. Others, after periods of doubt, discouragement and repeated failure, suddenly fall into their place in life, and graying hairs and wrinkled faces are no obstacles to their success. Faith and hope are the magnets that attract opportunity. And so long as the fires are kept burning, opportunity will hover near. Do not be disheartened because the years have gone leaving you with your ambitions unrealized and your most cherished dreams unfulfilled. You will find that they have only been deferred and that somewhere along life's course, opportunity, happiness, and such of the material things of life as are essential to human contentment, await you. Fifty-three years, disgustingly healthy, five children to bless and comfort you, a farm,—and faith,—why, dear folks, you have already lived a life and another one is before you. May it bring to you the blessings that such spirits as yours richly deserve. And thanks for your kind words. They help to keep our own fires burning.

What's in a Word?

CONSPIRACY or not, the Newberry method of running elections does not meet with the approval of the people of Michigan, and whatever may be the verdict of the jury over at Grand Rapids, it will have but little effect upon the already settled convictions of the voters.

The jury may decide that these methods did not constitute a criminal conspiracy. But that will not entirely absolve the Newberry defendants from blame. Such a verdict could

only be an admission of the inadequacy of our laws rather than an approval of the Newberry tactics. Even the most rampantly patriotic must find their ardor cooled before the cold, cold thought of Commander Newberry strutting the decks of a dummy warship in a New York City park before the eyes of his admiring press agents and moving picture machine, setting an example as it were for the youth of the land to give up their soft pursuits and partake of the hardy life of the navy. Even the most skilled political master must bow to the superior handiwork of the Newberry committee, and confess that he is a piker when it comes to really delicate work. And now that the gilt and tinsel have worn off, even the most stubborn citizen must feel ashamed and offended as he remembers the high motives which inspired him to assist in the presentation of "Michigan's gift to the Nation."

There is no room in Michigan for the kind of political juggernaut which Mr. Newberry's committee manipulated in this state in 1918. Our good common sense tells us that danger lurks in its trail. The mere suggestion of using the influence of our Supreme Court and the governor to secure immunity for a common criminal in exchange for his political support fills us with apprehension, and not even the irony of the "frame-up" of which Jas. Helmes claims he is a victim blinds us to the gravity of the deed.

So far as the people of Michigan are concerned the issues in the Newberry trial are settled. The technical outcome is of little consequence. Conspiracy or not, Michigan has had enough of the Newberry brand of politics.

The Country Church

THE RESIGNATION of the pastor of a fashionable Grosse Pointe church to enter the real estate business because he could not live on his salary of \$4,000 a year reminds us that religion like everything else has advanced in price. The millionaires of Grosse Pointe will struggle along somehow without a shepherd to lead their flocks until they can fill the vacancy, but we are not so sure of the spiritual safety of the thousands of rural communities throughout the United States which have lost their pastors permanently to better-paying positions.

If it is true as charged that the rural church is on the decline we need to make a diagnosis of the situation and provide a remedy. The natural tendency of the age is toward worldliness. This applies not only to the people of the cities but to those of the country as well, only in a lesser degree. In times long since past the people of many rural communities were deeply religious. They held in high reverence the things of God and followed closely the paths of rectitude. They were constant church goers. Religion was a part of their life. It ranked second only to the grim necessity of making a living. The itinerant pastor was a man of high standing, a real shepherd, strong, kind, living close to God, and wielding a firm hand over the spiritual welfare of his flock. Whatever he may have lacked in education and refinement, he made up in zeal and earnestness as he applied himself to the strengthening of the religious bonds of the communities which he visited. The high moral character,—the honesty, simplicity, sincerity and God-fearing qualities of the people of the farming communities, are a tribute to the labors of the rural pastor.

The children of the present generation and their children will be in far greater need of spiritual guidance than their forefathers were. The temptations of the day are greater, the opportunities for spending idle hours in frivolities abound on every side, and while we have no wish to return to the Puritanical religion of long ago, we cannot afford to let our children grow to manhood and womanhood without providing for them places of worship and ministers of the gospel to guide their footsteps aright.

Passing the Buck

PASSING the buck has become quite a common practice these days. We are forcibly reminded of this fact by Congressman Fordney's reported shift of position on the bean

tariff. Last fall Mr. Fordney was quite positive he could put a special tariff bill through Congress. The Michigan committee was there to bolster up his courage, and fortify his resolve. But Mr. Fordney became so preoccupied in looking up alibis for the indicted Michigan senator, Mr. Newberry, and lambasting the Democratic president, that he had no further time nor thoughts for the bean tariff. Winter passes; Japanese beans flood the market; prices decline; the marketing months come and go. Five months after the bean growers' committee left their important commission in his hands, Mr. Fordney has taken no action. What shall he say to the discouraged farmers back home? Happy thought: "The president will veto my bill so what's the use of introducing it?"

He passes the buck—shifts the responsibility from his own shoulders to the shoulders of another who has had nothing whatever as yet to do with the proposed legislation. That may let Mr. Fordney out and save him from an embarrassing position, but it doesn't help the bean growers one whit. But that's the way it goes—from town constable to president. Few there are to accept the consequences of their own acts. Spines filled with jelly instead of lime; knees that are wobbly like a day-old calf; will power that has bent so often to the winds of expediency that it has lost the power to respond to the call of duty,—these are "qualities" which we too often find in our public servants.

The Live Stock Situation

THE LIVE STOCK market is between the devil and the deep blue sea. On the one hand is European poverty and shaky credit; on the other the public's foolish drive on the high cost of living,—or rather it is a drive on the cost of farm products. Our meat exports to Europe have practically ceased and people by the thousands who once upon a time snubbed their noses at fish are now eating great quantities of mackerel and herring and cod from the New England fishing coast, to the almost total exclusion of their usual diet of pork and beef.

The nervous antics of the live stock market for some weeks past reflect these conditions. The packers are over-cautious. They refuse to lay in their usual supply. They buy from hand to mouth. Their elaborate and expensive research departments, maintained at the expense of both the consumer and producer, show no interest in the solution of the difficulty. The live stock market is drifting, and with it the farmers.

A writer in the Chicago Herald and Examiner describes the condition as follows:

"Consumers are victims of an uneconomic system of distribution, which packers persistently ignore. This reacts on the producer. The public is paying for superfluous service an enormous amount that might be saved if packers adopted the same economical methods of conveying their products to the public as established by the oil companies, but the packers are resolutely opposed to extending their sphere of operation in this direction, although it would be distinctly to their advantage and also that of the great army of discouraged live stock producers whose only recourse is curtailment.

"Prediction is herewith made that unless a condition more satisfactory to producers is established at the live stock markets of the country, such curtailment will be emphatic. Live stock production is already several laps behind rapidly increasing consumption."

Not all live stock writers agree with this view, feeling that there is bound to come a revival in the European demand which will improve the situation materially. All, however, advise caution in marketing and urge that shipments of live stock be withheld or at least curtailed for the next few weeks.

Congress is still flirting with a compulsory military training bill. What must the people do to convince their representatives that they do not want this piece of Prussianism thrust upon them?

A safe prediction: That nobody in Michigan will spend \$176,000 to secure an office this year.

PRUSSIANISM

A LA AMERICA

"God forbid that our supreme achievements in this war should be the Prussianizing of ourselves."

Thus speaks Frank I. Cobb, chief editorial writer of the New York World, the leading Democratic newspaper in America. Cobb belongs to the old school of Jeffersonian Democrats and lately was a powerful influence for good in the councils of the Wilson administration. Unfortunately bourbons and reactionaries are running things in Washington now. As Frank P. Walsh has recently said, the government has embarked on a man-hunt in the interests of reaction. The daily newspapers have been altogether too lavish in recounting the numerous suppressions, deportations and other unprecedented and un-American acts against those that believe in a new and better social order. Daily you have been told about these man hunts and strong-arm methods. No one denies the right of the government to protect itself against those who advocate its violent overthrow. If there are any among those who have been arrested who advocates force and violence why aren't they indicted and tried according to law? Why must they be taken in raids, tried in secret and if they are aliens, hastily deported? Why this spectacular show? Why this rivalry between federal and state politicians for the honor of "swatting the reds." Why this loose mixing of socialists, radicals, reds and anarchists? What overt act has been committed or attempted against the government of the United States that requires all this hysterical and panicky conduct on the part of the federal officials, and vicious howling on the part of the daily press?

Every thinking man and woman knows the answer. They know that all this hullabaloo about "reds" is just so much balderdash. Everybody knows that there are at least three things back of this mad crusade. (1) Wage workers who are trying to get relief from the high cost of living and profiteering must be intimidated against demanding increases in wages, by raising the hue and cry of "red, I. W. W.," etc. (2) These spectacular raids and hifalutin pronouncements by the administration serve to keep the people's minds off the overwhelming fact that the government has failed to reduce the high cost of living and has not done a blessed thing to a single profiteer. (3) Certain prominent gentlemen hope to go to the White House next election on this thread-bare issue of the "reds" and in the meantime get a lot of free front page advertising for saving the country from this "terrible" menace.

Fortunately these waves and crusades sooner or later defeat themselves because there is always some zealous workers in this great cause of swatting the reds who overreaches himself and commits what is commonly called a "bone-head." A sample of this specie of bonehead is the speaker of the New York Assembly who recently with a wave of his hand outlawed the Socialist party and refused to seat the five duly elected socialist representatives to the legislature. Chas. E. Hughes, the Republican candidate for president in 1916, shows how fanaticism defeats itself. Hughes is long-headed enough to see the folly of it all. He sharply criticizes the speaker of the New York Assembly for his arbitrary methods and points out a few morals that we socialists have been pointing out for some time. Mr. Cobb sees the danger of repression in his great address. There has been too much anarchism used in subduing labor when they want a little more wages, and some of the money power is the identical ones that have used it.—S. H. Slagle, Wexford County.

The country generally believes that a great mistake has been made in the indiscriminate raids and deportations recently conducted by the Department of Justice, as well as the un-seating of the New York Socialists. This springing to the defense of our ancient and constitutional right of free speech is particularly noticeable in the storm of opposition against the peace-time "sedition" measures now in Congress. It is a matter of congratulation that Congress is now working on a compromise of these bills which is intended to eliminate the most objectionable features of the measures drafted by Attorney General Palmer.—Editor.



WHAT THE NEIGHBORS SAY



INDUSTRIAL CONGRESS

Collective bargaining is a big idea. With very little legislation it can be developed until every middle-man is either selling agent for a group of organized producers, or purchasing agent for a group of organized consumers. This will eliminate unnecessary middle-men and stop speculation, two important steps toward industrial justice.

But if we stop there, each industry will be an organized monopoly in its particular line, able to restrict production and maintain high prices on its own products. Some will try to be reasonable; others will hog all they can get, and none will know exactly whether his neighbor's prices are fair or not. Soon all will be forced into the old game of boosting prices and squealing for higher wages. Eventually some scientific method of regulating wages and prices by national authority must be found.

Now suppose we carry the collective bargaining idea a step further. Let each organized industry elect delegates to a national industrial congress. Let these delegates be so apportioned as to fully represent all classes of workers employed. Let each delegation go prepared with all available facts and figures concerning the industry it represents. Let the congress decide all matters concerning prices, wages, hours of labor, etc., after full discussion, by majority vote, subject to future discussion and revision as conditions change or more complete statistics become available.—Stacy Brown, Ionia County.

There is some force to your suggestion, because it is founded upon the principle of arbitration. In the majority of cases when men get together around a table, determined to find a solution for their problems, that solution is found and proves satisfactory to the majority concerned.—Editor.

ORGANIZATIONS SHOULD WORK TOGETHER

Enclosed is my check for \$2 for three years subscription to Michigan Business Farming. I believe this is the greatest paper for the farmer of any paper I know of.

I wish to express my appreciation of your articles in your latest issues referring to the State Farm Bureau. It is my belief that a great deal more good may be done through the Gleaners, the Farm Bureaus and other farm organizations getting together. In my opinion the Gleaners made a remarkable showing considering the amount of money they have had.

Although I am a Democrat and have been always, I am a Gleaner and would vote for anyone the Gleaners would endorse as a farmers' candidate. Therefore, I am more than pleased to do what I can for a man of the character and ability of Milo D. Campbell. It is now time that we farmers lay aside our political party feelings and get behind farmers' candidates.

From talking with a large number of Gleaners at Kalamazoo, it seems to me that at the meeting there an erroneous impression of Mr. Campbell's ideas, were received by a majority of the Gleaners there. I heard a great many say that they liked Campbell but for his idea of every one working only eight hours. Even the delegate from my own Arbor intended to report that at our last meeting. Of course that is not what Mr. Campbell said. It would help to correct this erroneous impression if you would set forth in M. B. F. that Mr. Campbell believes in a basic eight hour day although this would not do on a farm for obvious reasons, and that he believes also that the farmer should get for his crops enough so that he would receive per hour for his own labor and be able to pay his help per hour, the same as that received per hour by other labor.—Fred M. Wing, VanBuren Co.

This letter from a member of one farm organization with another is an encouraging sign of the times. His willingness to support a Republican candidate for governor although he, himself, is a Democrat, sets an example of good citizenship that is worth following. Mr. Campbell recognizes the impossibility of farmers having a basic eight-hour day, but he feels that this is a fair working day for the man who works indoors, and just as Mr. Wing points out, believes that the farmer and his hired man should be compensated enough to pay for the extra hours they are obliged to put in because of the nature of the farming business. I have asked Mr. Campbell to state his position clearly upon this point in order that there may be no misunderstanding among the readers of M. B. F.—Editor.

FLU AND PROHIBITION

As I was traveling through the country I found out that there were many cases of influenza again, why? I was informed by the medical men that the best medicine for influenza was whiskey, brandy and wine, and we, the people of Michigan, voted it out. This makes me think and ponder over the letter that Mrs. Baerwolf wrote about a

year ago not to prohibit the use of God's gifts, to use them moderately, and for the purpose that they were created. I cannot look at this otherwise than a punishment.

I asked clergymen about Mrs. B's letter and was told that Mrs. B's letter was misunderstood by many. She had the right statement, but the most of the people don't want to state it right. I found it just the way Mrs. B said in her letter. The people of today pay too much attention to political affairs and not enough attention to the gospel of Jesus Christ. This is a very true statement. The most of the clergymen preach on political matters, where they ought to preach the Gospel (the Divine Law) Rom. 1, ps. 104 notice verse 15, St. John's 2, 1-12. A minister told me if the people would enforce a law on criminal matters, such as many married women are committing nowadays, would be more pleasing in the sight of God. The most of married people don't want any children, or only one or two, and why? Not because they cannot have any more. But the rest are unnatural born (criminal abortion) any infraction of the Divine Law. "Thou shalt not kill," is inevitably followed by punishment. The obligations to nature cannot be evaded without inevitable effects. Furthermore, all such transgressors carry with them the consciousness of guilt and the feeling of secret woe.

"O God! that horrid, horrid dream Besets me now awake!
Again, again, with dizzy brain,
The human life I take,
And my red right hand grows raging hot,
Like Crammer's at the stake."—Hood.

Now let us all help that the Gospel of Jesus might be preached to those people so they may repent before it is too late, and again, why do the people of American want to vote out the German language and schools language is also a gift of God. 1. Cor. 14, rather vote out the theatre and gambling places where many people buy their damnation and pay a great sum for it. The Bible is against theatres, dance halls, etc., why not preach against that then and not against the gifts of God?—P. S., Tuscola County.

Yes, we've heard a good deal about whiskey being an "indispensable" remedy for influenza, but the best authorities seem to agree that this is wet propaganda for which both physicians and laymen have fallen. A writer in the Detroit News recently reminds us that recently District Attorney Clyne of Chicago suggested to the health commission, Dr. John Dill Robertson that the government turn over its surplus liquor stock for use in influenza cases. Dr. Robertson, who was in Washington, wired from that city: "Tell Clyne to go ahead and prosecute the food profiteers and not feed the people whiskey for pneumonia or influenza. Whiskey is not a remedy for pneumonia. It can neither prevent nor cure." This writer also says, "get down the works of the late Dr. Osler and see what he says. I take the same position that he does. So does Dr. Rupert Blue, with whom I talked today. So does the medical director of Great Britain. Everyone who has studied the subject has arrived at the same conclusion, that whiskey is not a remedy for pneumonia, and should not be used. To turn loose a quantity of whiskey at this time as an alleged cure for pneumonia and influenza is both harmful and untruthful. The whole thing is merely a question of telling the truth about whiskey, and the truth is that the American Medical Association three years ago went on record as opposed to its use in pneumonia or influenza cases. Dr. Wm. Osler, perhaps the world's leading medical authority, condemned it. Any hospital or physician who wants whiskey can get it easily enough without Clyne's aid and if the rapidly diminishing few still want it I have no objection to their getting it and giving it to their patients, but I do object to its use being regarded as a medical necessity by officials who should know better."

Education has been tried for centuries to keep people from indulging in alcoholic drinks, but to little avail. The appetite once formed, the associations once made, and a man or woman becomes an inveterate drinker, and drink in spite of their positive knowledge that it is doing them harm. As you point out, however, the drink habit is not the only vice that should be corrected. You complain of the theatre and the dance hall. Are not these as much the "gifts of God" as alcohol? Did He not provide the things that make them possible? Please give us a quotation from the Bible which forbids people to attend theatres. When theatres and dance halls became the menace to health, moral and politics that booze has become, then we may talk of despoiling them. Until then, however, we shall regulate them just as we regulated for years the liquor traffic.—Editor.

The Week's Editorial

AMERICAN

Words have their ups and downs in life very much as everything else has. At times a given word may be highly respectable; and at other times and under other conditions it may become the object of suspicion. Some such change in caste was experienced, for instance, by the word "pacifist." Before the war it was possible for anyone to declare himself a pacifist without incurring the wrath of his neighbors; even the department of justice paid no attention to him. During the time we were actively engaged in the war, however, the word, "pacifist," became synonymous with traitor. As our war fervor recedes we shall find perhaps five years from now that a pacifist again will be considered a person of somewhat peculiar though none-the-less amiable intentions.

In a similar way the word "American" is being put to a new use. Fundamentally it is used to distinguish a citizen of this country from a citizen of another country, as against Italian, or Portuguese. In a deeper significance it carries the meaning that the person so designated is a citizen imbued with the highest ideals which as a nation we have cherished. This is the sense in which it was applied to Theodore Roosevelt.

It is this latter meaning which leads individuals to use the word "American" for dishonest purposes. The labor agitator in an attempt to gain the good will of the public toward an act which he fears will meet with general disapproval, announces himself and his clique as "Americans." The candidate for political office, with no other motive than a merely selfish one to gain the office, and with no qualification other than an ability to vilify his opponent, attempts to conceal his shortcomings behind the cloak of a professed Americanism.

In this matter Judge Sessions performed a real public service when he ruled out the statement of a witness who said that he was for Newberry because he (the witness) was an American. On motion of one of the prosecutors, that the answer be stricken out. Judge Sessions ruled: "It may go out, it need not be repeated, nor any statement like it." All citizens to whom this word has still some of its high meaning derived from the institutions and traditions, which as a nation we cherish, will approve of the position taken by Judge Sessions. Let us keep sacred even in our jingoism and distorted politics this word—American.—Detroit News.



The Farm Home

A Department for the Women



WE USED to hear of the man of all work and the woman who could be hired to help us out during housecleaning time, etc., but we have come to the age of SPECIALIZING. And while this first invaded the business life of the cities and small towns, it is surely creeping into the country. Today we see the farm where they specialize in thoroughbred stock—another runs a dairy farm; some one else has a sheep ranch, etc. And we are waking up to a realization of the fact that if we are to compete with the present day activities—if we are to grab off our share of the profits, we must be content to let others do some of the work for us—let modern machinery do the back-breaking work for us and devote our energies to specializing in some particular thing.

From time to time I get inquiries from women of the farms who would like to turn their spare time into money. These women seem to think it would be so easy, were they only in the city, to earn a lot of money. But let me tell you that in order to earn money in the city or country, you must be able to do some one thing very well, and in order to do this, you will have to make a study of it. There is no reason why you cannot have some particular line of work which you can specialize in right at home, which will bring you the desired revenue.

The first question to be settled is the project in which you will engage and then you will have to do some studying and hard work, and make a SPECIALTY of that project.

Here is one suggestion which came to me the other day. I wanted some pop corn for Sunday night, and Saturday I had to go to the third store before I found any, and then the store keeper sort of apologized for not having any done up in packages but stated that he could sell me some on the ear. I was glad to get it on the ear. But it set me to thinking—very few dealers carry pop corn on the ear. They have found from experience that the trade demand that the corn be shelled and put up in boxes, and so that is the way they buy it for the market.

Are you fond of gardening? Then why not next season have a small plot planted to pop corn and try out the scheme. It will be necessary for you to see that it is properly dried, and then when you are almost ready to market it, secure some pound boxes. Have your local printer make some labels for your boxes. For instance, you can use the name of your farm as your trade mark, and have your labels read:

POP CORN THAT POPS
Grown and Boxed by
By Mrs. Sarah Smith,
at
Prospect Point Farms
Berryville, Mich.

True it will take work to shell the corn, box it and paste on the labels, but after you have accomplished this, you will find that a simple liner in your county paper will enable you to sell at a profit your first year's output and you will have the whole profit—no middlemen, and the corn will sell at a higher price on the ear. In fact I used to buy this boxed corn for 10c per box or three boxes for a quarter, while this year I had to pay 15c straight.

And in spite of that there was a surplus of pop corn this year. And did you ever notice that when there is a surplus of an article, that is just

the season when it is wise to plant or grow that article, for surely there will be a shortage the next season.

Next week I will endeavor to give you another hint as to how to make money right at the home on the farm in connection with your regular work.

Day's Shopping Tour

My friend, Mrs. S., from up state, came in last week to pass Saturday in shopping, as she knew I would be free in the afternoon to help her, and Sunday visiting. The morning she would spend alone selecting something for the young daughter who was outgrowing everything she had and was just at that age when she wanted something "real stylish."

I directed her to two of our large stores where, in their economy basements they have exceptional values for young girls who wear sizes 16 to 18. For the slim girl who wears these sizes, pretty clothes can be purchased much more reasonably than for the woman who, even though she might wear these same dresses so far as size is concerned, has reached the age when they look too girlish, so she must needs pay a higher price for her ready-made clothes.

Over the tea cups at lunch my friend advised me that she had selected a very desirable little dress for this daughter, of navy blue tricotine and plaid silk. The sales lady had advised her that this plain and plaid combination is the most desirable for spring, and we later saw it shown in the most exclusive, expen-

Edited by MABEL CLARE LADD

The Things That Haven't Been Done Yet

The things that haven't been done before,
Those are the things to try;
Columbus dreamed of an unknown shore
At the rim of the far-ung sky,
And his heart was bold and his faith was strong

As he ventured in dangers new,
And he paid no heed to the jeering throng
O the fears of the doubting crew.

The many will follow the beaten track
With guideposts on the way;
They live and have lived for ages back
With a chart for every day.
Some one has told them it's safe to go
On the road he has traveled o'er,
And all that they ever strive to know
Are the things that were known before.

A few strike out with map or chart,
Where never a man has been.
From the beaten paths they draw apart
To see what no man has seen.
There are deeds they hunger alone to do;
Though battered and bruised and sore,
They blaze the path for many who
Do nothing not done before.

The things that haven't been done before
Are the tasks worth while today;
Are you one of the ock that follow or
Are you one that shall lead the way?
Are you one of the timid souls that quail
At the jeers of a doubting crew,
Or dare you, whether you win or fail,
Strike out for a goal that's new?
—Edgar A. Guest.

sive shops where we later stopped to inquire the prices and to get ideas.

A suit for the young miss was selected in the very popular Eton style which is the vogue for spring.

When we came to look for something for my friend it was different. "Such freakish fashions!" she exclaimed as the saleslady held up for her inspection a dress so constructed that the back and the front appeared absolutely without fullness, while the material rippled over the hips into paniers. "The very latest style" said clerk.

Finally she decided that for herself it was cheaper to secure one of those easy patterns and buy the material and make such a dress as she desired. Her selection was navy silk and georgette, and she will make it with an overskirt, the fullness over the hips to form the new style skirt, but it will be so constructed that when the style changes she can alter it easily.

We inquired as to length and were told that the length of the skirt is determined by the desire of the wearer to be conservative or extreme. In New York she informed us that they are actually wearing them thirteen inches from the ground, or just below the knees. So we decided that in order to follow the trend of the styles, our skirts should be short but that we would strike a happy medium as there is a limit to the degree of shortness well-dressed, conservative woman will allow her dresses to be cut.

They were showing wash dresses of gingham, which were plenty good enough for afternoon wear in the home at \$5, and when we inquired the price of gingham and found it had soared to \$1 and in some cases a dollar and one half per yard, my friend decided that she could not afford to make them as cheaply so she selected two getting them a size too large to allow for shrinkage.

And Sunday, as we looked over her purchases, the main topic of course was the H. C. of L.

OUR REAREDS' OWN COLUMN

My dear Miss Ladd: Can you buy for me, through your shopping service Bureau, a crochet hook which will be large enough and strong enough to crochet rags into rugs.

Also will you please give me the name of a firm or company who weave combings into switches and the cost of a single stem, light weight switch?—Mrs. M. E. A.

Dear Mrs. A: I am glad to say that I was able to get the hook such as you wished and am sending it to you under separate cover. Rag rugs are so stylish now that I should think more people would be weaving them, although I suppose a number are braiding rather than crocheting them.

As to the switches—yes, I will send you the name of the firm which does very satisfactory work, and will make a single stem switch, light weight for \$1.50. When you consider the cost of a switch when you have to buy the hair and all, it is indeed a saving to save your combings and have them made up.

Miss Ladd: Will you please give me directions for making a crocheted tammie cap for ladies in a single crochet stitch.

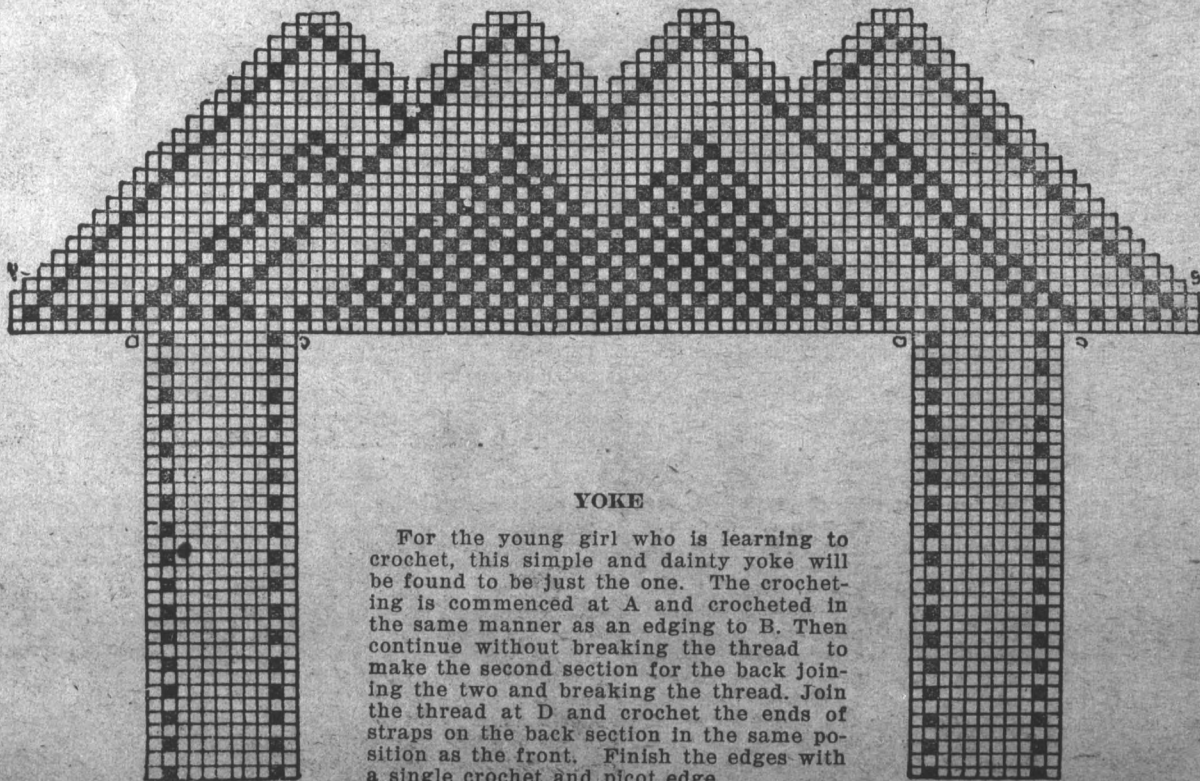
Also will some reader of M. B. F. please tell me their method of keeping smoked ham during the hot weather.—Alvina.

My dear Alvina: I must confess that I am not quite sure just what kind of a copy you wish to make. Perhaps this is because I am not familiar with the different stitches. However, I can secure a very good book of crochet stitches for you of caps, yokes and miscellaneous edges, etc., for only 10c and postage or 15c all told and will be glad to supply you with this through our Service Shopping Bureau unless perhaps some of our readers can give you the information you desire. If some one can send the directions, I shall be glad to print them.

And I am sure that among our readers there is some one who will be glad to supply you with their method of keeping ham during the hot weather.

Pattern Dept., M. B. F.: An article in the January 24th issue on waterproof aprons interested me. Wish you would tell me how much this material is per yard.—Mrs. C. G. H.

Dear Mrs. H.: I regret to say that, although I have made inquiry at the local stores, and they keep the black and also the white rubberized cloth, they do not carry the rubberized gingham in those blue and white and pink and white check patterns which are used for the aprons, as they tell me that



YOKE

For the young girl who is learning to crochet, this simple and dainty yoke will be found to be just the one. The crocheting is commenced at A and crocheted in the same manner as an edging to B. Then continue without breaking the thread to make the second section for the back joining the two and breaking the thread. Join the thread at D and crochet the ends of straps on the back section in the same position as the front. Finish the edges with a single crochet and picot edge.

LATEST STYLES and New York Patterns



3038-3040. A Stylish Costume. Waist 3038 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 3040 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. The entire dress will require 8 yards of 42 inch material for a medium size. The skirt measures about 1 2-3 yard at the foot. TWO separate patterns.

3049. Ladies Cover All Apron. Cut in 4 sizes: small, 32-34; medium, 36-38; large, 40-42; and extra large, 44-46 inches bust measure. Size Medium requires 4 5-8 yards of 36 inch material.

3043. Girl's School Dress. Cut in 4 sizes: 8, 10, 12 and 14 years. Size 10 requires 3 3-8 yards of 44 inch material.

3033. "Tunic" Dress. Cut in 3 sizes: 16, 18 and 20 years. Size 18 requires 5 3-8 yards of 44 inch material. Width of skirt at lower edge is 1 3-4 yards.

3035. Girl's School Dress. Cut in 3 sizes: 12, 14 and 16 years. Size 14 will require 5 1-8 yards of 27 inch material.

3032. Ladies' House Dress. Cut in 7 sizes: 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 5 3-8 yards of 36 inch material. Width of dress at lower edge is about 2 yards.

Herewith find cents for which send me the following patterns at 10c each:

M

Pattern No. Size

Pattern No. Size

Pattern No. Size

Pattern No. Size

Dyed Her Faded Skirt, Also a Coat

"Diamond Dyes" Make Shabby Apparel
Just Like New—So Easy!

Don't worry about perfect results. Use "Diamond Dyes," guaranteed to give a new, rich, fadeless color to any fabric, whether wool, silk, linen, cotton or mixed goods,—dresses, blouses, stockings, skirts, children's coats, draperies,—everything!

A Direction Book is in package. To match any material, have dealer show you "Diamond Dye" Color Card.

there is no call for it, as everyone buys them ready made. The factories get the material wholesale and make them in such quantities that they can be bought ready made as cheaply as you could get the material and make them. I can buy one for you if you desire of either blue and white or pink and white check for \$1. I own one and would not be without it.

Editor Woman's Department, M. B. F. Dear Miss Ladd: I notice in the January 17th issue an article complaining about falling hair and I would like to tell the women of M. B. F. what I have done for the same trouble. After having tried numerous remedies—both home and pharmacal I found this one given in a paper. Place four tablespoonsful of dry sulphur in a quart can. Fill the can with warm, soft water. Let stand for three days, then skim off what remains on top and use the clear water. Rub this well into the scalp, repeating several times a day for a few days. Then wash the hair. Repeat the process until the hair has stopped falling. There is nothing about this to harm either the hair or the scalp so you need not be afraid of giving it a good fair trial. I found that it left my hair soft and glossy and destroyed the dandruff. —Mrs. U.

HELPFUL HINTS

Sandwiches can be kept as fresh as when made by wrapping them in a napkin wrung out of hot water and then placed in a cool place.

Tough meat may be made tender by laying it a few minutes in vinegar water, or wrap the meat in a cloth wrung out of cider vinegar with a little salt added.

A simple cake icing is made by using orange juice or any other fruit juice and stirring in sufficient confectioners' sugar to make it the right consistency.

A teaspoonful of flour added to the grease in which eggs are to be fried will prevent them from breaking or sticking.

Scorch stains may be removed if they are immediately rubbed with dry starch and then sponged off. Repeat if necessary.

How to Keep the Cook
"Wanted, young ex-Soldier for house-parlormaid's work; cook kept."

HEARTS OF THREE

(Continued from page 11)

ening his heart against her, shook his head slowly and said:

"It doesn't save you Leoncia. I've left my mark on you that never will come off."

He pointed to the excoriations he had made on her knee and laughed.

"The mark of the beast," she came back, turning to go. "I warn you to take yourself off, Mr. Henry Morgan."

But he stepped in her way.

"And now we'll talk business, Miss Solano," he said in changed tones.

"And you will listen. Let your eyes flash all they please, but don't interrupt me." He stooped and picked up the note he had been engaged in writing. "I was just sending that to you by the boy when you screamed. Take it. Read it. It won't bite you. It isn't a viperine."

Though she refused to receive it, her eyes involuntarily scanned the opening line:

I am the man whom you mistook for Henry Morgan . . .

She looked at him with startled eyes that could not comprehend much but which were guessing many vague things.

"On my honor," he said gravely.

"You . . . are . . . not . . .

Henry?" she gasped.

"No, I am not. Won't you please take it and read."

This time she complied, while he gazed with all his eyes upon the golden pallor of the sun on her tropic-touched blonde face which colored the blood beneath, or which was touched by the blood beneath, to the amazingly beautiful golden pallor.

Almost in a dream he discovered himself looking into her startled, questioning eyes of velvet brown.

"And who should have signed this?" she repeated.

He came to himself and bowed.

"But the name?—your name?"

(Continued next week)

Tight Floors mean Warmer homes



It is impossible to heat comfortably a house that has old, loose floors admitting cold air. Furthermore, such floors are insanitary—catching and holding dust and trash—and their appearance makes them an offense to the eye.

Tight, smooth floors mean winter comfort, better health, a saving in fuel, easier housekeeping, better looking home interiors. You can lay new, surpassingly durable floors directly on top of your old floors at comparatively small cost if you use flooring of

SOUTHERN PINE "The Wood of Service"

Southern Pine Flooring (edge-grain or flat sawed) withstands years of severest wear; it comes in longer lengths than other flooring, hence can be laid more easily and economically; it equals in appearance any other flooring material, may be stained any shade desired, and takes and holds a lustrous finish of wax or varnish. Finally, Southern Pine Flooring may be had in standard sizes from lumber dealers everywhere east of the Rocky Mountains. Ask Your Home Lumber Dealer.

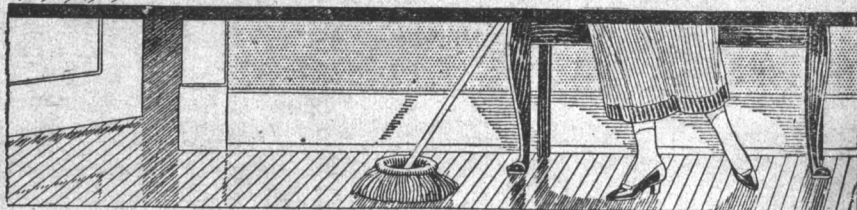
The beautiful and valuable booklet, "Beauty Plus Service in Floors," which tells all about Southern Pine Flooring and how to finish it, will be sent you Free, promptly on request, if you mention this publication.



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WHITE BLOSSOM SWEET CLOVER

BETTER THAN RED CLOVER FOR SOILING AND A VALUABLE HAY CROP

Does not winter-kill. Succeeds on all kinds of soil. Better than red clover as a soil builder. Prepares the land for alfalfa and other clovers. Equal to alfalfa in feed value. We do not handle Southern seed, but offer choicest selections of Michigan grown; 99.75% pure; high germination, scarified, best in the world. Selling at about half the price of red clover seed, every farmer should investigate it. A Special Bulletin explaining cultivation and uses of this most valuable legume, sample of seed and our 1920 Seed Book free, on request. We are headquarters for Michigan Clover, Alsike, Vetch, Peas, Northwestern Alfalfa, etc.

THE C. E. DEPUY CO., Pontiac, Michigan

When you write any advertiser in our weekly will you mention the fact that you are a reader of Michigan Business Farming? They are friends of our paper, too!

Sow Seeds of Success In Your Garden

Write Today for Isbell's 1920 Catalog

Some vegetable gardens pay their owners \$100.00 in returns for every \$5.00 spent. They are a constant source of big profit. They give pleasure to everybody in the home—old and young alike. They yield the finest vegetables and yield lots of them, because they are planted with—

Isbell's Seeds
As They Grow Their Fame Grows

TRADE MARK

Isbell Gardens Pay! For the same reason that pure bred cattle produce thoroughbred offspring. Every ounce of Isbell Seed is tested. Isbell's seeds are produced in the North where earliness, hardiness and sterling qualities are bred into them. Isbell's 1920 book on seeds and gardening tells what and how to plant and what to expect from the crop. It's one of the most authoritative catalogs in America. Ask for your copy. Mail coupon.

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FREE CATALOG COUPON

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Gentlemen:—Without obligation, send me your 1920 Catalog of Isbell Seeds.

Name

Address



DEAR Children:—This has been the most exciting week at the office, reading letters from all my little friends. I have found out what a lot of our little readers are observing and know the birds by their plumage, their size and even their call, and it was so hard to choose the best letter about the birds that I have been obliged to award four prizes. They consist of a Trip Around the World on Postal Cards and I have sent a set each to Reva Shook, of Burt, Rfd. 2; to R. S. Japink, of Hamilton, Rfd. 2; to Erdene Smith, of Mt. Pleasant, Rfd. 6, and to Hazel Courser, of Mt. Pleasant.

The story of the winter birds as told by these members of the Children's Hour will be found among the letters this week.

There were several correct answers to the Fox and Goose prize, and I awarded the prize for the first correct answer received. It went to Neil McKinley, of Capac, Rfd. 4. As the answer has already been published, I will not take the space to publish it again.

I am also receiving a number of drawings and our artist has promised to judge them before next week so that some of them may be published and the prize awarded to the winners.

We have the closing chapter of our continued story, "The Wonderful Adventures of a Raindrop" this week and our usual puzzle. I wish some of you would tell me, when you write, whether you enjoy the continued story more or one which is complete each week. Affectionately yours.—Laddie.

OUR BOYS AND GIRLS

Dear Laddie:—This is the first time I have written to you. I am a boy 9 years old and in the 3rd grade at school. My teacher is Miss Wisner. My father takes the M. B. F. and likes it very much. I have four sisters, Erna, Lulu, Florence and Reva. I have three brothers, Gerald, Raymond and Carl. We live on an 100-acre farm. We have 46 sheep, five hogs, five pigs, six horses, two cows, seven young cattle and about 50 chickens. For pets I have a dog named Jip, and four cats: Tommie, Tiger, Spot; the other has no name. I will close for this time, hoping to see my letter in print.—Vernon Shook, Burt, Mich.

Something About Birds

When I was a little girl, not so very big I took a long walk through the woods with my big uncle. I saw many kinds of birds. On my way through the deep snow banks I was frightened by some queer noise. It seemed to say while at its work:

"Pick, pack, pick on this little stick.
By the sunset I shall be sick.
But tomorrow this little stick
Shall stand some more pick, pack pick."

It must be a wood-pecker and sure enough it was. I had no more said it when above me I heard a queer noise. It was a bird, black and had a long bill and long wings. It seemed to say as it flew, "Caw, caw, caw, by the winds tomorrow I shall see the shadow of Red Hen." Then as we were walking along I heard something sing a pretty tune:

"Bob-White, Bob-White this very night
All the birdies in this wood:
The sparrow, the chickadee, the dove,
Should be as happy as they could."
—Reva Shook, Burt, Mich.

Dear Laddie:—This is the first time I have written to you. My father takes the M. B. F. and likes it very much. I go to school; am 11 years old and in the 4th grade. My teacher is Miss Alpha Lettis. I like the Doo Dads. Well, I hope my letter will escape the waste paper basket and I wish that some of the girls would write to me. Below is a little poem.—Alice Mazy Vrette, Custer, Mich.

All the people in the city
Like to go to the country to rest.
All the people in the country
Like the city best.

Dear Laddie:—I wrote you a letter before but did not see it in print. I wrote a Christmas story also but I think I forgot to sign my name. We live on an 80-acre farm. I am 9 years of age. I go to school and am in the 5th grade. Our teacher's name is Helen Barrett. I like her real well. I enjoy reading the Children's Page. I wish some of the members of the Children's Hour would write to me. I would enjoy that. We would be friends. I do not want to write a very long letter because I want to write a story. I would like to see my letter in print. I wish I could win a prize. My letter is getting long, so will say goodbye.—Erdene U. Smith, Mt. Pleasant.

Birds

The birds that I have noticed flying around, toward the close of winter, are the bluejays, barn sparrows, chickadees, wood-peckers and sometimes a crow. Certain kinds of owls and hawks too but

The Wonderful Adventures of a Raindrop.

By Ethel Allen Murphy

Part VI.

"A DELIGHTFUL coolness woke me and I found myself at rest in a great ship that floated lazily about on an ocean of air. A real Air Ship it was, Garden Lady. The sun shone on it and turned it to gold or rose or purple. The moon shone on it and turned it to pearl and silver. There were millions of my companion spirits in it, and millions of sun spirits that played with them. So we sailed on over the air ocean, happier than we had ever been before. But—suddenly—a change came. A sharp coldness blew upon us. We shivered. We clung together for warmth. We could no longer find our sunbeam friends. All the lovely colors went out of our ship. We were blown about with great force. Something ran in sharp streaks right through and through us. Then—I felt myself falling—falling—falling—clinging to two or three of my sisters.

"I thought everything was over; but now I find myself in a beautiful place again, though far away from the ocean and the ocean-sky.

"Here I am on the edge of this surbeamed flower in the Garden of the Golden Girl. But voices still call me. My work is not done. I shall go down still further into the—into the—dark, dark earth, but something tells me I shall return again in a new form.

"Little thirsty rootlets, I hear you calling me down there.

"I shall be drawn into this beautiful plant, and then come once more to the light in a golden blossom, and here again I shall meet the Sunbeam

Spirit that loves me still, and together we will work to create a new form full of blessing for the children of the earth! I seem to see in a new sort of dream, millions of lovely creatures—yes, boys and girls, Garden Lady, that's it—boys and girls of the United States School Garden Army working to free me for—"

"But just then," said the Garden Lady, "a gleaming raindrop slipped from the squash blossom, and fell, with a little splash, to the ground, which seemed to drink it in greedily.

"I came to my senses, with a little start," added the Garden Lady, "and a little gust of wind ran through the garden, shaking a shower of raindrops from the plants. The garden was full of freshness from the rain, and all sorts of earthy, green, flowery odors were rising like a silent prayer of Thanksgiving. I remembered what I read in a book called 'Garden Steps' which said that if we could watch a root as it works its way thru the soil, we should see it turn toward the nearest supply of water. In digging out old wells, roots of trees have been found that have come more than a hundred feet to feed in the moist earth near the well. The tiny roots of the garden plants do the same thing on a smaller scale. They go toward the nearest water, wherever that may be. And so I thought that already the raindrop which had fallen into the ground near the lovely squash blossom was on its way to new adventures, and was perhaps already close to some thirsty little root."

they are seldom seen during the cold weather. The small birds called chickadees are often seen at the door steps, picking up crumbs taken off the table. The wood peckers are heard drumming on the trunks of trees in search of certain kinds of grubs and worms that dwell there. I think it is very cruel for anyone to kill the little birds that stay here all winter. The winter does not seem to be as long when they are around

singing their merry songs. Every boy or girl in the city or country ought to help keep the little birds around their home, by feeding them bread and crumbs. They will become very tame and will always be like little companions to us.

Dear Laddie:—As I was reading in the M. B. F. the other day I saw where you were going to give a prize to the one who wrote the best letter about the birds

that stay in winter and how you can tell them. I live on a farm and roam the woods quite a little so know the birds pretty well. I will try and do the best I know how.

The bluejay lives here in the winter. He is blue in color and his call is "jay." The owl is here all winter too; he has brown feathers and his call is "who." The sparrow is with us all winter; has brown feathers too but is smaller than the owl. His call is just a chirp. He stays mostly in barns. The snow birds stay because they like the snow. They have brown backs and white breasts. They chirp but you will find them out in the snow. That is all I can think of so I will close.—Hazel Courser, Mt. Pleasant.

Dear Laddie:—The birds that stay north are mostly bluejays, snow birds, sparrows, scarlet tanager, sap suckers and owls. The bluejay lives by eating seeds and different grains it can find in the corn crib and other places. You can tell the bird because it is blue. The scarlet tanager gets its food from the weed seeds and is red. The snow bird eats weed seeds and is white under its breast. The sap sucker eats bugs and different worms under the bark of trees. The sparrows eat weed seeds and corn out of the corn crib and are a brownish color. The owl eats mice and different little animals of the woods and is a brown color. R. S. Japink, Hamilton, Mich.

Dear Laddie:—This is the second time I am writing to you. I live on an 100-acre farm. We have six cows, four horses, four hogs, five sheep, 10 calves and about 80 chickens. We all like the M. B. F. very much and I love to read the letters of the boys and girls. My letter is getting long I will close, hoping to see my letter in print. Below you will find my story about birds.—Mary Gross, Eagle, Mich.

Birds

The sparrow stays in the northern parts during the winter. A sparrow has a coat of gray feathers and feeds on small shrubs and crumbs that it finds on window sills. During the night it finds shelter in straw stacks. Another well-known bird in the northern parts is the crow. Its coat is as black as coal. The crow feeds on corn that is left in the fields if the snow does not cover it up; if it does not feed on corn it feeds on small shrubs sticking out of the snow and buds of the trees.

Dear Laddie:—I read the M. B. F. every week. I am going to write a story about birds that stay here in winter.

Our Winter Birds

One winter bird is the sparrow. It is about as big as a canary. It is dark gray with little black specks on it. Another bird is the ring-neck pheasant. It is about as big as a brown leghorn chicken. It is dark brown with a white ring around its neck and a green strip over its head about as wide as your finger. One came to our house every morning last winter and ate with the chickens. It was a pretty bird and it slept in the woods. It left when spring came. I guess I will close as I have nearly one hundred words.—Earl Teall, Mesick.

Dear Laddie:—I will tell you about some of the birds around here. The quail stays here all winter. He eats weed seeds and insects. He calls, "Bob-bob-White." He has a brown back, a white and brown breast and a white throat. The barn owl eats rats and mice. He has big eyes and a sharp bill and sharp claws and big wings. He is brown with white legs and breast. Will close, hoping to see my letter in print.—Ethel Merritt, Harrison, Mich.

In Olden Times

Other times; other manners. The following passage from the diary of Master John Hall, mercer in Golden Cheapside, during the reign of King Charles I., is illuminating. It is dated December 11, 1631, and runs:

"Yesterday came to ancor against Lambeth Marshes a shippe from Wales bringing Sea Coales, of which there is great dearthe throughout the City. The Captain getting Wind of our necessity put over to the Bank Syde and demanded a mighty Price for his Gear, which was moare than the people would give. He was summoned before the Bailliffes and admonished but being a Stubborne Fellowe steadfastly refused to hear Reason. Thereupon Mastr Robert Cavendish our Burgess, ordered Assize to convene, which was done, and the Fellowe was judgd a Malyfactor and was hanged publicly on Tower Hill this morning, it being rainy and a great crowd present to see him."

Just So

Anomalous as it may seem, it is the "wets" who are dry.

His Line

"What do you work at, my poor man?"

"At intervals, lady."

Our Puzzle Corner

GIRLS' NAMES

BY WALTER WELLMAN

I	N
et	1 2
John Drew	17
May Drew	6
Henry Drew	21
IL	36
K	34

County Crop Reports

MONROE, (W.)—We are having mild weather at present and we certainly appreciate it after the blizzard of the 15th and 16th. The weather is hard on the wheat crop on account of it having no covering. The Farm Bureau movement is meeting with good success in this part of the county.—W. H. L.

JACKSON—The following prices were paid at Jackson:—Wheat, \$2.25; oats, \$1.40; rye, \$2.25; hay, \$2.25; straw, \$1.10; wheat-straw, \$1.10; oat-straw, \$1.10; potatoes, \$3; hens, 32; butter, 62; butterfat, 65; eggs, 55; beef steers, 12 1/2; beef cows, 8; veal calves, 18; sheep, 18; lambs, 18; hogs, 14.—B. T.

OGEMAW, (S. E.)—Prices offered at the Prescott Elevator Co., Feb. 17 were: rye, \$1.25; barley, \$2.50 cwt.; beans, \$2.75; spring, \$2.75; fall, \$2.25; oats, \$6; baled hay, \$22@24; straw, \$6. About 75 per cent of our oats, 25 per cent of the beans and 10 per cent of the rye crops are in the farmers' hands. Most of the farmers in this section are cutting wood and shoveling snow from the roads, which are badly blocked.—W. A.

ARENAC, (E.)—The weather is severely cold and blustery and supports the Foster weather bureau to a T. Last week prices on all grain tumbled and beans dropped 50c per cwt. Not much doing here, just chores and wood-cutting. About 80 per cent of the beans sold; rest holding. This is a winter that will long be remembered. Farmers planning for spring.—M. B. R. The following prices were paid at Twining:—Corn, \$1.30; oats, 85; hay, No. 1 timothy, 20 to 25; No. 1 light mixed, \$20@22.50; beans, \$6; potatoes, \$1.50; hens, 20@25; springers, 20@25; ducks, 32; butter, 50; butterfat, 56; eggs, 45.

SAGINAW, (S. W.)—We are having some high winds that are piling up the snow. Not much doing among the farmers except chores and getting up wood. There is some stock being fed. The farmers ship a car every two weeks from St. Charles through the Co-operative Shipping Ass'n. Not much grain going to market as the prices have gone down a notch.—G. L. The following prices were paid at St. Charles:—Wheat, \$2.25; corn, 65; oats, 82; hay, No. 1 timothy, \$24; No. 1 light mixed, \$22; bean, \$6; potatoes, \$2.25; hens, 24; butter, 55; butterfat, 60; eggs, 55; beef steers, 8@12; beef cows, 6@10; veal calves, 10@21.

ALLEGAN—We have had very nice weather the past week. The snow melted sufficiently to permit some mail carriers and milkmen to use their cars and trucks, but it is colder again and snowing, about eight inches of snow having fallen the last 24 hours. Farmers are doing chores. A few logs are being hauled. Not many auction sales. Not much produce moving. There is much sickness round about in the country here, mostly flu, with a few cases of pneumonia.—W. F. The following prices were paid at Allegan:—Wheat, \$2.50; corn, \$1.45; oats, 90; rye, \$1.40; beans, \$6; hay, \$28; rye, wheat and oat-straw, \$16; potatoes, \$3.50; onions, \$2.50; hens, 20@24; butter, 50; eggs, 40; beef steers, 7@9; beef cows, 6@8; veal calves, 12@16; sheep, 9; lambs, 10@10.50; hogs, 12@13.

ST. CLAIR—Farmers not doing much just now. About one-half are sick. We are having some very rough weather lots of snow. Some farmers are selling hay while others are holding for higher prices. Farm help will be scarcer than ever next summer on account of the demand for all the available help in construction work in the new city of Marysville. No sugar beets to be raised here for the old price 50-50 is what we want.—J. J. The following prices were paid at Smiths Creek:—Corn, \$1.45; oats, 85; rye, \$1.60; hay, No. 1 timothy \$29 @30; No. 1 Light Mixed, \$29; wheat-oat, \$14; beans, \$6.50; potatoes, \$3; hens, 25@30; springers, 30@35; butter, 55@65; eggs, 55@65; hogs, 14; beef steers, 7@10; beef cows, 6@9; veal calves, 20; apples, \$4.

LIVINGSTON, (N. W.)—Farmers not doing much besides their chores at present. Fine winter weather since the blizzard passed by. Roads are badly drifted with snow. Nothing being sold but milk. The First National Bank of Howell opened for business on Feb. 14th. It is capitalized at \$100,000. Stock is owned mostly by farmers from nearly every township in Livingston county. They are going to use everyone alike. Let money at six per cent to everyone whether he is a farmer hiring \$50 or the business man hiring \$500.—G. A. W. The following prices were paid at Howell:—Wheat, \$2.35; corn, \$1.40; oats, 80; rye, \$1.50; hay, No. 1 timothy, \$22. No. 1 light mixed, \$20; straw-rye, \$8; wheat-oat, \$7; beans, \$6; potatoes, \$2.50; hens, 20; springers, 18; turkeys, 30; butter, 60; butterfat, 60 to 65; eggs, 50; hogs, live, 14; dressed, 18; beef steers, 11; beef cows, 9; veal calves, 18; wool, 50 to 60.

GENESEE—Farmers are working up wood; doing teaming and also working on the roads, to get them in better condition for traveling. The main roads are being cleared up for automobile travel again, but not so with the ordinary country roads for it takes quite a bit of work to even get the ordinary roads in good condition for using sleighs. The weather has been very cold and we have had quite a lot of snow this week. Crops are well protected. Farmers are selling some potatoes, hay and livestock. They are buying feeds, flour and coal, besides ordering fertilizer, clover seed and binder twine. Auction sales are getting more plentiful every week and prices received

are holding up quite well.—C. W. S. The following prices were paid at Flint:—Wheat: Spring, \$2.40; red, \$2.40; white, \$2.38; corn, \$1.40; oats, 92; rye, \$1.45; hay: No. 1 timothy, \$27@30; No. 1 light mixed, \$25@27; beans: Pea, \$6; red kidney, \$11n potatoes, \$2.50@2.50; onions, \$6.50; cabbage, \$8; cucumbers, \$2.50 doz.; hens, 24; ducks, 32; geese, 28; turkeys, 40; butter: creamery, 60@63; dairy, 55@58; eggs, 50@52; sheep, 10@11; lambs, \$14@14.50; hogs, \$14.50 @14.75; beef steers, \$9@10.50; beef cows, \$7.50@8; veal calves, \$17@18; apples, \$2@3.

MANISTEE—Farmers busy breaking roads again as we have had the worst storm of the season. More snow fell last Sunday and Monday than has fallen the past two months. Traffic of all kind is at a stand-still. The roads are not all open yet. There is nothing being sold at present and not much to sell in these parts but potatoes and there is no price quoted this week. Flu is raging in some parts of the county at present but few deaths reported so far.—C. H. S. The following prices were paid at Bear Lake:—Wheat, \$2.10; oats, \$1.10 rye, \$1.30; beans, C. H. P., \$5.75; red kidney, \$10; hay, \$35; hens, 20@25; butter, 52; butterfat, 58; eggs, 50; beef cows, alive, 5; veal calves, alive, 10@13; hogs, alive, 15.

SANILAC, (N.)—February brought us some of the coldest weather of the winter. About 16 inches of snow on level. Everything quiet. All meetings and schools closed on account of the flu which seems to be on the wane and the schools will probably re-open soon. Farmers are talking Campbell for governor. Some hay and grain being delivered at loading points. Stock of all kind seems to be wintering good.—G. T. A.

GRAND TRAVERSE—Fine weather at present. Farmers are cutting wood and doing chores. Lots of sickness yet. Two days this week the rural carrier did not come on account of bad roads.—C. L. B. The following prices were paid at Williamsburg:—Wheat, \$2.25; corn, \$1.40 oats, \$1; rye, \$1.50; hay, \$36; potatoes, \$3.50 per 100 lbs.; butter, 50; butterfat, 70; eggs, 45.

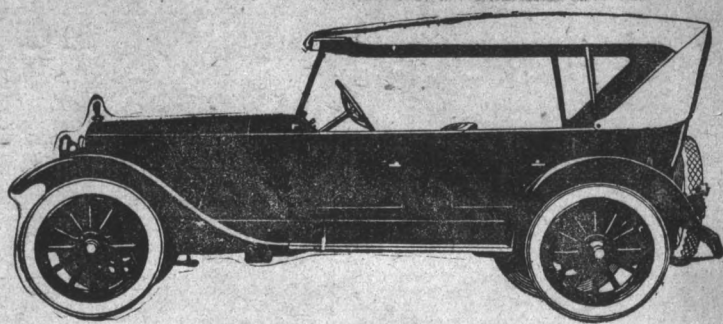
VANBUREN—Sales are occupying the attention of the farmers at present and good prices are reported. The 18th. hay sold for \$37 and oats for \$1.02. Lots of sickness, mostly flu in rural districts. The weather has moderated again and sleighing is very good. Help is scarce. Plenty of grape vines yet to be trimmed. The Welch Grape Juice Co. is planning on doubling its floor capacity this season and besides handling grapes it will take strawberries, red-raspberries, black currants, blackberries and cherries. Live hens sold for 32 cents in Kalamazoo.—V. G.

PRESQUE ISLE—Farmers are packing ice. Those who have been working in the woods are trying to get their work squared away as they don't expect this kind of weather to last long. Our previous soft spell caught a bad cold last Saturday, and for three days centering around the fifteenth of February the blizzards sure did howl. We were lucky to get the chores done, but just now the weather is fine. Quite a number of the farmers are buying all kinds of feed, hay and oats in particular. A few cases of the flu are reported but it is not what one would call bad. We notice by M. B. F., that our friend, J. G. Krauth, is still plugging away in the interest of the farmer as usual. That State aid land clearing act would be a God-send for the farmer just beginning on a new piece of land. Come again, Brother John. I feel rather embarrassed to quote Millersburg prices on potatoes at \$1.40 a bushel with the market price ranging around \$4.50 @ \$4.70 a hundred, but it is the truth all right. We would like to hazard a guess that if the Millersburg co-operative marketing association had its cellar completed price quotations would be considerably different. We could not help but notice that local buyers were running on a smaller margin of profit than they ever dreamed was possible last fall.—J. S. The following prices were paid at Millersburg:—Wheat, \$3.50@4; corn, \$2.50; oats, \$2.70; rye, \$2.40; hay, \$20@26; beans, \$4; potatoes, \$1.40; butter, 50; eggs, 60.

MASON—Everybody busy with chores and the odd jobs to be found on every farm. Still bright days and cold nights. During the mild weather a week or so ago potatoes moved freely to market. Quite a number of tractors are being purchased throughout the county. The epidemic of colds and influenza, which has been quite bad, is now subsiding somewhat.—B. M. The following prices were paid at Scottville:—Rye, \$1.40; hay, \$25; wheat-oat, \$10; beans: Pea, \$6 cwt.; red kidney, \$12; potatoes, \$3.33 1/3; hens, dressed, 28; live, 25; butter, 55; butterfat, 63; eggs, 50; hogs, dressed, 18; beef cows, dressed, 12@14; veal calves, 18@20.

CLINTON, (W.)—Elevator at Fowler is standing idle as there is no coal. Farm wages very high, \$60 to \$80 per month with board. If prices on farm produce should go much lower farmers will produce less as they cannot afford to pay such prices for help. Will not give prices on live stock as nearly everything is being shipped in a co-operative way and the farmers are well satisfied as they are getting all that is coming to them.—F. B. The following prices were paid at Fowler:—Wheat, \$2.30; corn, \$1.40; oats, 82; hay: No. 1 timothy, \$25; No. 1 light mixed, \$23.50; beans, \$6.25; hens, 18; springers, 24; ducks, 22; butterfat, 63; eggs, 45.

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Uncle Rube Spinach Says:

SPRING

I DON' scarely ever write anything about spring—not this time of year I don't, it's too uncertain an' far away, mostly, but somehow I've been thinkin' lately that mebbe it wa-ant so very far off this year—that it was comin' a little earlier than common jest to kinda cheer folks up a bit—you know that on account of high cost of livin' congress, the League of Nations, income taxes, shortage of coal, lack of sugar, "flu," the divorce evil, tight skirts, bow-legs, bald heads an' a thousan' an' one other things—not mentionin' the thought of the comin' presidential election an' the destruction of the hull dum universe if certain candidates ain't elected—why folks has got to thinkin' there wouldn't be any spring this year—that we'd got to go righ along livin' cold, clammy lives, as it were, an' mebbe, wouldn't never live to see any birds nor flowers nor grass—oh, you know how darned blue folks can get when they set out to get that color; somehow we get into the notion that things must always be dull when we have a little cold weather put onto us, but now jest let's cheer right up now an' git a smile on our face to meet gentle little spring time when she does come—an' she's a comin' right on a fast train an' will be with us before we hardly know it.

Of course, in the city spring don't mean quite so much to us as it does out in the country—here the women look at it as the time to buy new hats, new suits, as a time of house cleanin' an' paper hangin'—well mebbe farm women do too, but here it's diffurunt—women in town send for the cleaner man an' he comes, cleans up here an' there an' sends a bill to the ol' man that keeps him warm all the rest of the year, purty darn near.

Then in the city we have the street cleaners, the chimney sweeps, the hand organ grinders, the sewer flushers and the political scavengers—the fellers you know that hunts through the pool rooms an' poker joints, the highways and by-ways, mostly by-ways—an' rounds up the gang to put across the election of some duffer who mebbe ain't fit to carry swill to respectable hogs—ya see the city couldn't hardly exist 'thout the political scavenger, an' it don't haf to be found, well as I said, spring means more to folks out on the farm there is means work of course, hur-

rying time an' flowerin' time; birds singin' an' apple trees in blossom; fishing time an' lovin' time—its a wonderful place, the country is, when growin' time comes back—the trees, the grass, the floyers, beautiful and lovely an' grand—I sometimes wonder who was ever silly enough to invent cities with the smoke, noise, hurry and worry—with the sham an' deceit, the crime an' the misery—course to them that's always been livin' in town, these things mebbe don't show, but to a feller that's spent nearly all his life out where God intended we should spend our lives, the city, no matter how large an' fine it may be, looks like a narrow an' a contracted place. A place where everybodys wants to do the other feller; where you don't know your next door neighbor an' hardly know your own self—when I was livin' on the farm, my boy, then about nine or ten years old, spent a week with his cousins in the city, the cousins did everything possible to make his stay pleasant—took him around and showed him all the sights, shows an' everything. Well he came home at the end of the week perfectly disgusted. "Didn't know what anybody wanted to live in the city for; there was'n't a thing to see," he said. And do you know, that little speech did me a world of good. My boy was seein' things out on the farm, in the woods an' fields, that no city could ever show him—he was livin' the life, an' I was proud as any ol' dad could be.

Oh the country, in spite of the work an' the hurry, is a wonderful place in the spring—a beautiful an' a healthful place. And I want to say to the young folks on the farm, what I have said many times before, stay where you are, don't let any amount of persuasion lead you into the city—there is a hundred times more pleasure, you can have more an' truer friends, can be happier, will live longer an' better, will make a better man or woman, than you possibly could in any city—take the advice of you ol' uncle an' stay right where you are 'cause you're in the very best place in the world—the place that the Creator made to live in.

Oh, yes, I wuz going to write 'bout spring an' now my space is all taken up an' I ain't had time to say a word about it—but let's cheer up anyway for she's sure a comin' right along an' will soon be here! Cordially—**UNCLE RUBE.**

Why Soils Need Artificial Fertilizer

(Continued from page 5)

productivity much more labor is required to maintain them in a suitable state of tilth. On the other hand, compaction is indeed an important factor in regulating the sandy and muck lands.

Soil erosion by both wind and water accounts for an early decrease in the productivity of many fields. In regions of undulating or broken topography the so-called "washing of soils" is a serious menace; in fact, more plant food is frequently removed by a torrential rain than is taken from the soil by several crops. Moreover, much of the material removed is from the surface, the most valuable portion, inasmuch as it contains the vegetable matter content of the soil.

Improper drainage accounts for low yields of many soils and such conditions obtain in all classes of soils and in all humid regions. Until this limiting factor is eliminated all other methods of soil improvement become of secondary importance.

The texture of the soil, that is, with respect to the per cent of sand, silt and clay present, has a tremendous influence upon the time as which the yields fall off on a given field. Under the same systems of management, or when farmed vigorously, the first soils in a community to become exhausted are those that are coarse in texture, or the sandy soils. However, if the limitations of sandy soils are recognized and they are treated accordingly, they should remain productive indefinitely. The

management of different kinds of soil is fully discussed later on.

Would you kindly give me some information on fall plowing in Southern Michigan as to the waste of the fertility of the soil and as to the soil washing? Please answer in M. B. F.—From a Subscriber, Decatur.

Soil erosion or washing is serious on sloping lands. There are two kinds, sheet erosion, that is where the water runs over the surface and does not form gullies or wash outs but tends to remove the entire surface soil and the formation of gullies or ditches in the field. This is caused by the water accumulation in depressions and running down the slope en masse. The former is less noticeable but is usually responsible for the removal of more fertility than the latter.

In preventing erosion there are certain principles to be followed. Of chief importance is to decrease the run-off by causing a greater penetration of rainfall into the earth. This may be accomplished by improving soil structure, or making the soil more porous by good plowing leaving the surface as rough as possible, with the ridges or roughened portions running in the opposite direction to that of the slope and by having the land occupied by catch crops which attains an appreciable growth before cold weather. In drilling catch crops the rows should run in opposite direction from that of the slope. Soils that are bare of vegetation erode less if fall plowed. Vegetation erode less if fall plowed.—**M. M. McCool.**

Monthly Review of Produce Prices

(As reported by the U. S. Bureau of Markets)

THE general trend was downward in Jan. and Feb. Of the four heaviest lines, potatoes, cabbage, onions and apples, all but apples reached lower prices. New southern vegetables also declined under increasing receipts. Shipments of fruit and vegetables have been restricted by weather conditions and car shortage, yet the carlot movement was 29,172 cars to February 14, or considerably heavier than for the preceding four weeks and about 1,000 cars more than for the corresponding time last year. Increasing movement of new stock has offset fully the decreases in northern fruits and vegetables from storage.

Potatoes Unsettled

The upward movement of prices beginning in early October continued through December and January. The market reached its peak the latter part of January, when No. 1 sacked white potatoes ranged \$4.50 to \$4.75 per 100 pounds at shipping points and \$4.50 to \$5.50 in consuming markets. A downward trend started in early February, but toward the middle of February the market showed a slightly stronger tone, and No. 1 northern round white stock ranged \$4 to \$4.30 f. o. b., sacked at Michigan, Wisconsin and Minnesota shipping points, compared with \$4 to \$4.25 a month ago and \$3 two months ago. Consuming markets February 16 quote this stock about 15c lower than the month before at \$4.35 to \$4.85 and compared with \$3.35 to \$3.50 the middle of December. No. 1 round white in Western New York producing sections the middle of February show little change from the price a month earlier, ranging \$3.95 to \$4.25 per 100 pounds sacked f. o. b. Prices the middle of December ranged \$2.75 to \$3.12. Maine Green Mountains the middle of February ranged \$3.50 to \$3.75 bulk per 100 pounds f. o. b. shipping points. Idaho Rurals reached their top point of \$3.85 to \$4 the last of January and

declined to \$3.25 to \$3.50 the middle of February, while the Russets were \$4 and \$4.10 and \$3.40 to \$3.65. Shipments four weeks ending February 14, were 9,590, compared with 10,351 a year ago and 8,377 the month before. In 21 northern late shipping states, 36.4 per cent of the estimated crop was reported still on hand January 1, compared with 43.5 per cent a year earlier, with 49.6 per cent the season preceding and 33.1 in the short crop season of 1916-17.

Cabbage Declines

After the steady upward price movement of the past four months the crest was reached the latter part of January when old cabbage was selling for \$110 to \$140 per ton in bulk in large consuming markets. With the increasing movement of new stock and fairly heavy importation from Europe, a sharp decline followed and old cabbage was quoted the middle of February at \$75 to \$100 in most cities.

Apple Markets Firm

Values have been well maintained during the past month with a tendency to advance. New York Baldwins A 2 1-2 strengthened at shipping points to a general range of \$7.50 to \$7.75 some fancy stock of good color, selling at \$8. In consuming markets this price advanced the middle of February reaching \$8.25 to \$9.50. Northwestern boxed apples are still weak and slow at shipping points and much stock is reported rolled unsold. Extra fancy Jonathans and Spitzenburgs are slightly higher in distributing markets at \$2.75 to \$3.50. Extra fancy Winesaps are selling at \$3 to \$3.60. Much boxed fruit of lower grades has been shipped and quotations at shipping points are mostly for this stock. Shipments barreled apples 1,367 cars for the four weeks, and of boxed 2,308, compared with 2,890 barreled and 1,158 boxed for like period a year ago.

Experts Give Views on Future Potato Market

Experts Good Prices for Balance of Season

"As it is quite probable that the top in potato price was reached during the recent period of shortage of cars and extreme cold weather. Such would be the natural result. However, with the shortage of the crop in my opinion it is quite unlikely that the price will be low again this season, that is to say, I think the potato market will be good covering the marketing of the 1919 crop.—Nathan Simpson, Manager Gleaner Clearing House Ass'n.

Potatoes and Weather Conditions

"When it comes to expressing an opinion as to the future on potatoes, or any other commodity, that opinion can be nothing better than a guess at best and, because of the many outside and unlooked for conditions which may have a bearing on the market as it develops, sometimes the best posted guess wrong," writes the editor of *Chicago Packer* to M. B. F.

"Indications, however, seem to point to the fact that the potato market has at least reached its high average level. A severe car shortage, an embargo or other uncontrollable influence might shoot the market higher for a space, but the advance would probably be short lived and be followed by quite a pronounced drop as soon as the bullish factor was removed.

"Weather conditions will play an important part in the April and May market. An early spring means a weaker market—a late spring adds strength.—M. A. Taylor, *Chicago Packer*.

Believes Low Price Level Reached

"The future of the potato market this season perhaps is as undecided as at any year with which the writer has had experience," writes G. E. Prater, Jr., sales manager of the Michigan Potato Exchange. "However, we have taken pains to keep pretty closely in touch with Colorado owing to a certain demand that has been developing with us in Texas and

we find a considerable quantity of potatoes are going to be needed in Texas territory from other points than that which they have heretofore drawn their supplies, this demand being apparent at the present time and will probably continue for sixty days. We also find a certain demand developing as far as the Pacific Coast where an immediate shortage of potatoes is developing but will undoubtedly be of short duration.

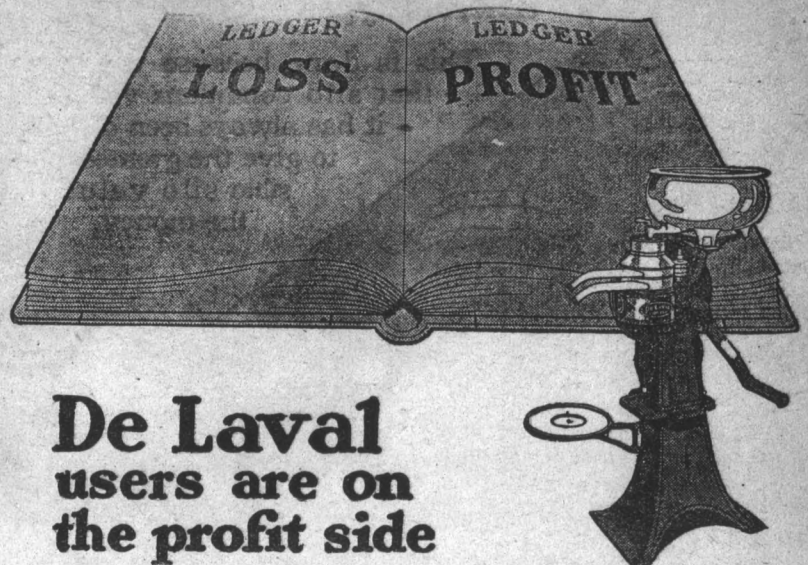
"What information we are able to gain from Minnesota and Wisconsin bears out the facts that both of these states have drawn on their supplies considerably heavier at the time of year than in previous years. We are also advised by both the operators and county agents in that territory that the plantings this coming season will be quite liberal and the amount of seed retained in these two states will be somewhat in addition to the normal amount.

"Conditions in Michigan are practically the same as those in Wisconsin and Minnesota. If we are correctly advised from our investigation of the Michigan condition there is only about 60 per cent of the potatoes left in the state of Michigan for movement at the present time as compared with last year, and with the absolute fact that Ohio, Indiana, Illinois, a considerable portion of Iowa, practically all of Missouri, as well as several other sections which have heretofore produced a considerable quantity of home supplies, will be wholly and entirely dependent on the states of Minnesota, Wisconsin and Michigan.

"We believe that the growers in the state of Michigan for no reason should be alarmed whatever as to the future prospects of marketing their crop. The writer is absolutely confident that potatoes are just as low today as they will be any time during this marketing season and it is my prediction that while we will not see any extremely high prices, we will see a gradually gaining healthy market throughout the balance of this season.—G. E. Prater, *Michigan Potato Growers' Exchange*.

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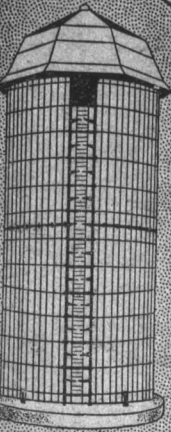
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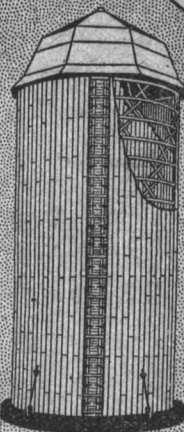
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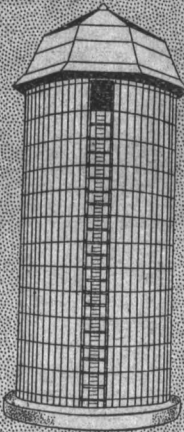
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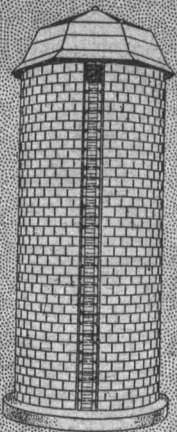
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Hog Situation Looks Encouraging for 1920

(Continued from page 3)

then the receipt of so many hogs in Buffalo, tomorrow, may mean some of those same hogs. When they send in nine million hogs into Chicago, there may be only six or seven millions of those hogs slaughtered, and the others may be sent right back to the farm again, to be fed for a couple of months, when they will be sent back into the yards and counted again. The receipts of hogs in the yards at Chicago, Indianapolis and all these other cities, represent hogs that have been counted over and over again, and they had added them over and over again until they have a great big total. The hog men of this country must clear the air, and get it into the minds of our people what these statistics mean; get that information down to rock bottom, so that the people will understand it. You can get it on that basis if you get on the inside.

The figures I have here are on the basis of hogs slaughtered, rather than the ones received.

In 1916 there were 8,083,000 hogs slaughtered at Chicago. In 1918 there were 8,031,000 hogs slaughtered. In 1919, up until the 31st day of December, there were seven million, nine hundred and thirty-nine thousand hogs slaughtered.

We have been talking about the unusual run of hogs in Chicago. We have heard about the great influx of hogs into those yards, yet the figures given and printed, over the signature of the president of the Union Stock Yards in Chicago, show that there were fewer hogs slaughtered in Chicago, in 1919, than there were in 1918.

In Indianapolis, in 1916, there were 1,511,000 hogs slaughtered; in 1918, 1,393,000; and in 1919, there were 1,434,000 hogs slaughtered.

Take the hogs slaughtered in the United States, for the year ending June 30th of these years—and that is the basis which these were figured—and in 1914 there were 95,000,000 in 1916, 73,000,000; in 1918, 70,000,000; and I haven't got it for the year 1919, as it could not be obtained at this time. Those figures I got through some records of the Food Administration.

The point I want to make is this: The demand for these pork products as far as I can see it, in 1920, from a hundred million people in Europe and a hundred million people in the United States, will be just as great as it was in 1919. And the same will be true in 1921. It will be as great as it was back in 1914 and 1916.

Now, if that is true, then I think that would answer one big question that has been present in the mind of the hog breeder, and the hog feeder—and that is, what shall I do in 1920?

The Secret of Low Hog Prices

When we were going into the war the people got together and said, "here, we must have a fair price for hogs." Did you have any meetings in your communities, calling for a fair price on hogs? Did you find many farmers meeting in Indianapolis, and insisting that they should have a fair price for their hogs? No, but you found a lot of people on the outside, consumers, getting together and saying, "Let us have a fair price on hogs." The farmers said, "All right, we will take it," and finally they agreed on a price of \$15.50.

As soon as the armistice was signed, those people who had been working for a fair price on hogs, said: "Now, let us get together and get rid of that fair price." And they came down to Washington while I was there, and they argued with Mr. Hoover, and everybody else, and they said, "The reason you didn't want to take off that fair price is because the Department of Agriculture and the Food Administration are afraid of the farmers. If you remove that, pork will go down to four dollars and six dollars a hundred." And that is what they expected—those men who fought for a fair price on hogs.

Now, it was removed and you know what happened. Hogs began to go up until they reached \$23.50 in July. Then they saw that that wasn't what they wanted, and they got together and started a great campaign to put the price of hogs down. They started

to talk, and they took up that word that the president used in one of his first speeches — "psychology"—and you remember that that was a mighty big word when we heard it at first, and we worried about it. But these fellows, nevertheless, believed in it, and they remembered the time when some man started down the street and met a neighbor, and said to him, "John, you don't look very well this morning." John said, "I am all right, I am feeling good." "Well," he said, "you are not looking good." So John went on down the street and met another neighbor and this neighbor said to him, "John, you are not looking very well. What is the matter with you?" "Well," John replied, "Smith told me that, but I am feeling all right." And so he goes on and meets other neighbors who say the same thing to him, and John begins to take a chill, and about the time he meets the fifth man he feels pretty bad, and he goes home and goes to bed sick.

Now, that thing is as true today as it was yesterday, and it will be as true tomorrow as it is today. This thing started out by people talking about the high price of living having to come down, and Mr. Hoover, when he started back from Europe the last time, said, before he went on the ship that food was going to come down, and they tell us that they have cargo after cargo of foodstuffs all stored up over there, enough to feed those people, and they don't need our products. Now, I haven't seen any handwriting on that, and I don't know whether Mr. Hoover said that or not. But you know that that very thing was reported and quoted, and the result was that it went the rounds, and just as soon as Mr. Hoover said that Mr. Armour made a speech and said that the price of hogs would be ten dollars by the 1st of January.

Now, when everybody says that sort of thing it is bound to have an effect. There are some other fellows going just the other way. They say that shoes are going up, and they create a market, and everybody rushes down and buys shoes. Today we had a shoe man stand up in the Rotary Club meeting at Lafayette, and he talked about the price of shoes and said that next spring we will have to pay twenty-five per cent more for shoes than we are paying now. And you saw the other day where the clothing men said that you will have to pay twenty per cent more for your clothes next spring. Then they said we would pay twenty cents a pound for sugar, and we have come to that. So, when you get these figures together, you find that it is all the result of a campaign the outcome of psychology—notions that were put into the minds of our people everywhere—that did more toward bringing down the price of hogs from \$23.50 to \$11.50, than anything else.

Now, those people who have interfered with that have simply interfered with the great law of supply and demand, and they have driven these hogs off of the farms, and this demand for foodstuffs, in 1920, is coming, and we are going to find our hog crop short. What is that going to mean? It is going to mean that somebody is going hungry for bread, next spring, because of our short wheat crop, and somebody is going hungry for pork, because of our shortage in hogs.

Enclosed you will find \$1 for the renewal of my subscription for M. B. F.; also the name of a friend whom I think will appreciate your paper and the cause you are striving for, for the benefit of the farmers of Michigan. I, for one, am thankful that we have a farm paper that is independent and that does not sell out and try to pull the wool over the common people's eyes. Thanking you for the stand you are taking in the farmer's behalf, I remain—**M. J. Wernette, Mecosta County, Mich.**

Your paper is O. K. for the farmer. It only fights for what is just and right; that is all the farmer is asking for. I will stand by any good men for office the BUSINESS FARMING may select regardless of party. Was not paddled with any one party paddle.—**J. H. Kurtz, Glennie.**

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. Subscribers desiring a personal answer by mail to a question of a legal nature.)

ALL RIGHT, THE JOKE IS ON US

Have you any more cows as good as the one you pictured on the front page of your paper. We would like to buy one or two of them. We are in the Jersey breed and think they are the best there is, but we cannot get one pound of butterfat from 2 1-2 pounds of milk as your record shows (1,100 pounds fat from 2,500 pounds of milk.) Good-bye, Jersey.—Subscriber.

Some day when newspaper editors can dictate their stories into the may of a mechanical contrivance and have them delivered complete in the form of newspapers at the other end, there will be no more typographical blunders to amuse the public, providing the editor is always sober, the machine well greased and no cogs are slipping. Until that time, however, there will be errors in the printed page. They creep in everywhere—even the biggest newspapers and magazines have them—the Bible, the dictionary, the text-book. It's a wonder that some Holstein breeder hasn't "called" us for our error in leaving off the third cipher from 25,000, making it appear that a cow of his breed produced less than 7 pounds of milk a day. At the same time we are surprised that you and the other Jersey breeders should have overlooked the opportunity to cruelly remind us, the Holstein folk, that we had one too many ciphers in 1,100.—Editor.

EXCHANGING BRAN

Will you please tell me through your paper when the government gave orders to the miller not to give any bran for wheat. I took 150 pounds of wheat to the mill and told the miller I wanted some bran, and he said that the government would not let him give me any bran.—J. K. G., Barry County.

When the Food Administration came into existence one of its first rules was to prohibit the millers from returning the bran to farmers in exchange for wheat. The millers were required to conduct all their transactions on a cash or money business in order to better enable the government to ascertain their legal profits.—Editor.

TREATING CORN AGAINST CROWS

I have been much interested in the articles by Judson Grenell on how Carl Schmidt makes money on poorest sandy land in Michigan. In the first article, Jan. 17, he gives Mr. Schmidt's remedy for treating corn so crows will not pull it. I wish I could get the directions as to how much aloe and dye to use to treat the seed. I should not want to treat the seed and use any preparation strong enough to injure the life or vitality of the seed. Could you obtain the proper strength of this remedy for me? And do you think it would have any effect on preventing mice from eating melon seed after they were planted? You are certainly publishing the most practical farm paper of them all.—E. O. P., Tekonsha, Mich.

Your letter was referred to Mr. Schmidt, who advises as follows: "To 70 bushels of rye I used two quarts of tincture of aloe and some waste dye from my factory in Detroit. I am under the impression, however, that aloe alone will do it. The same would apply to corn." We are endeavoring to secure additional information on Mr. Schmidt's "remedy," and will present it to our readers as soon as available.—Editor.

TELEPHONE CONNECTION

I have been taking your paper for the past year and find it a splendid paper and very useful. The questions and answers do us all good. Here is one I have to ask. Where a persons moves into a house where there is a telephone and it is all connected, no expense whatever, does the state law compel you to pay the company \$1.50 connection charges? This is the experience I am having and I, of course, objected and the office says that the government says we must, so I would like to know through your columns. Of course, a corporation will tell you most anything for a dollar. Thank you for all past favors.—J. A., Eaton Rapids, Mich.

We fail to find anything in the order of the Michigan Public Utilities Commission covering rates and charges of the Michigan State Telephone Company which authorizes the payment of \$1.50 for a connection charge in the group of towns in which Eaton Rapids is listed, and we are very certain that were no actual work performed in making the

connection that the telephone company could not legally make the charge even though the Utilities Commission had authorized such a charge where actual work was performed. My suggestion would be for you to write Hon. Wm. M. Potter, chairman of the Michigan Public Utilities Commission, Lansing, Mich., advising him of the complete facts, name of the telephone company, etc., and if the commission does not act to secure a refund of the charge providing it is found illegal, please refer the matter to our attention again.—Editor.

FEDERAL DISCOUNT COMPANY

Do you know anything about the Federal Discount Company, of Detroit. The Shifflet Cumber Co., also of Detroit have an agent in this locality selling stock for them. Some have signed for stock and others would if they knew it was all O. K. Please let me know what you think of this stock as an investment. I take the Business Farming and like it very much.—L. H. C., Chesaning, Mich.

We have looked up the Federal Discount Company, and the only worthwhile information we can give you is that the officers are all responsible business men of the state of Michigan. The president is Frank F. Tillotson, Detroit, formerly assistant cashier of the Dime Savings Bank, Detroit; Vice-President George Osius, Detroit; Secretary John D. M. MacKay, Detroit; Vice-President Palge, Detroit Motor Car Company; Directors Eugene Siegel, treasurer American Corset Company; Fred E. Holmes, Detroit manufacturer; Clay H. Hollister, president Old National Bank, Grand Rapids; Grant J. Brown, Flint, cashier Industrial Savings Bank. So far as the responsibility and integrity of the personnel of the company is concerned they are all that could be desired, and the object of the company (the discounting of commercial paper, etc.) seems to fill a very urgent need at the present time. We cannot, of course, advise any of our readers to buy this stock, but of all the many stocks on the market, it should stand among the leaders.—Editor.

FEEDING CORN STOVER

I would like to ask through the columns of your paper if any of your subscribers have had any experience in feeding corn stover ensilage. If they have please have them tell their experience in your paper as there are several farmers in this vicinity who would like to hear about it.—O. L., Mesick, Mich.

Well, folks, will you help us give this subscriber the information he wants?

OLD DOMINION OIL CO., TEXAS

Would like your advice about the Old Dominion Oil Company, Inc., of Houston, Texas, 6th floor, Mason Bldg. Are they reliable? They offer shares of stock at \$1 per share. Please answer in the Michigan Business Farming.—E. J., Merrill, Mich.

We never heard of the Old Dominion Oil Company before. It may become a second Standard Oil, or then again it may spend the thousands of dollars gleaned from its stockholders in fruitless drilling in its oil fields and then abandon its pipes and its drills to the elements as hundreds of other oil concerns have done. When you buy oil stocks, you simply bet that in the radius of territory which your company owns, there is oil. Sometimes there is oil. A strike is made; a "gusher" blows a few thousand barrels of oil into the air but by the time it is "harnessed," the flow mysteriously disappears. On comparatively rare occasions considering the great number of wells that are drilled, the company strikes oil in paying quantities, and its principal stockholders enjoy ease and comfort from then on. But the amount of money that has been wasted in exploring the barren depths of oil fields will run into the tens of millions of dollars. An oil company may be backed by the most responsible men in the world, and yet fail to produce dividends for its stockholders or to refund the money they have paid in to develop the property.—Editor.

PROTEINS IN FEED

Would you please tell me the amount of protein in the following feeds in 1,000 pound lots, ground oats, ground corn, winter wheat, bran and wheat middlings.—J. J. H.

The protein in 1,000 pounds each of the feeds you speak of would be as follows: Ground oats, 94 pounds; ground corn, 61 pounds; winter wheat bran, 122 pounds; wheat middlings, 134 pounds.

A LOST RELATIVE

I have a relative I have not heard from in some time. Last heard of he was in the navy at New Port News. Who shall I write to find out his whereabouts?—His Aunt.

Write the Navy Department, Washington, D. C., giving all the facts you can as to his last whereabouts.

POULTRY BREEDERS DIRECTORY

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8. One born Nov. 2 whose dam at age of 7 years and 80 days after calving has a record of 20.53 butter, 469.9 milk in 7 days, at 8 milkings a day.

VERNON CLOUGH, Parma, Mich.

Four Choice Bull Calves

Dams have records from 20 lbs. to 26 lbs. Sired by our 32 lb. son of the \$50,000 bull. Write
LAKE SIDE DAIRY, Lake Odessa, Mich.

REG HOLSTEINS HIGH CLASS BULLS

Ready for service. Prices to suit every breeder, from \$100 up.
Herd under Federal supervision. Headed by one of the best 36 lb. sons of "King of the Pontiacs."
Will accept a few good cows for service.
HILLOREST FARM, Okemosville, Mich.
JOHN P. NEHL
Detroit, Mich. 181 Griswold St

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.

"Breeding-- Individuality-- Production"

That's our motto. We make it possible through our two herd bulls—one a 33 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.

LIVE STOCK FIELD MEN

E. N. Ball Cattle and Sheep
Felix Witt Horses and Swine
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!

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 HENGERVELD and from FLINT ULTRA HUDINE a 23.22 pound daughter of FLINT PRINCE. Bull carries 75 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, Chesaning, Mich.

BULLS NICELY MARKED, GOOD BONED

bull calves out of A. R. O. and untested dams, at reasonable prices.
TRACY F. CRANDALL, Howell, 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 NIJLANDER 35.43 lbs. butter and 750 lbs. milk in 7 days.
Sired by FLINT HENGERVELD LAD whose two nearest dams average 32.66 lbs. butter and 735.45 lbs. milk in 7 days.
Price \$100 F. O. B. Flint.
L. C. KETZLER, Flint, Mich.

HATCH HERD

(State and Federal Tested)

YPSILANTI, MICHIGAN

Offers young sires out of choice advanced registry dams and King Korndyke Art's Vale. Own dam 34.16 lbs. butter in 7 days;; average 2 nearest dams 37.61, 6 nearest, 33.93, 20 nearest 27.83.

SHORTHORN

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.

SHORTHORNS AND POLAND CHINAS FOR sale. Registered cows, heifers, bull calves, bred sows and fall pigs, either sex. The farmers' kind at farmers' prices.
F. M. PIGGOTT & SON
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.
JAY W. THUMM, Elmira, Mich.

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.

THE BARRY COUNTY SHORTHORN BREEDERS Association announce their fall catalog ready for distribution. Scotch, Scotch Pop and Milking Shorthorns listed. Address
W. L. Thorpe, Sec., Milo, Mich.

SPECIAL OFFER SHORTHORNS—Cows, \$250.00 to \$300.00. Bulls, \$200.00 to \$250.00. Wm. J. Bell, Rose City, Mich.

HURONA STOCK FARM

Over fifty head of Scotch and Scotch Topped Shorthorns. Am offering several good bulls, cows and heifers, Roans, Reds and Whites. Write or see them.
S. H. PANGBORN, Bad Axe, Mich.

FOR SALE—SHORTHORN BULL CALVES ready for service. Also young Oxford Down Ewes. Prices to sell.
JOE MURRAY & SON, R2, Brown City, Mich.

SHORTHORNS FOR SALE AT REASONABLE PRICES. The prize-winning Scotch Bull, Master Model 576147 in many states at head of herd of 50 good type Shorthorns.
E. M. PARKHURST, Reed City, Michigan.

FOR SALE Clay Bred Shorthorn bull calf from a heavy producing dam.
W. S. HUBER, Gladwin, Mich.

POLLED SHORTHORNS YOUNG STOCK either sex, also young cows. White Wyandottes.
FRANK BARTLETT, Dryden, Mich.

Milking Shorthorns. Registered females \$200 and up. Bull calves at \$100. Cows all hand milked.
ROY S. FINCH, Fife Lake, Mich.

HEREFORDS

MEADOW BROOK HEREFORDS

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.

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.

LAKEWOOD HEREFORDS

E. J. TAYLOR, Owner
Fremont, 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 "DELLA" illustrated in January 24th issue of "Business Farming" and founder of M. A. C. Hereford herd.
Come and see them.

Hardy Northern Bred Herefords

BERNARD FAIRFAX 624919 HEAD OF HERD 20 this year's calves for sale, 10 bulls and 10 heifers.
JOHN MacGREGOR, Harrisville, Mich.

REGISTERED HEREFORD CATTLE

KING REPEATER HEADS OUR HERD We still have eight good bulls and some heifers for sale.
Come and see them.
STONY CREEK STOCK FARM
Pewamo, Mich.

ANGUS

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.
GEO. B. SMITH, Addison, Mich.

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, R2, Davison, Mich

BARTLETT'S PURE BRED ABERDEEN-ANGUS CATTLE AND O.I.O. Swine are right and are priced right. Correspondence solicited and inspection invited.
CARL BARTLETT, Lawton, Mich.

GUERNSEYS

GUERNSEYS WE ARE OFFERING FOR sale some splendid bull calves out of A. R. dams with records up to 600 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.

FOR SALE: GUERNSEY BULL, GRANDSON of Gov. of the Chene from A. R. O. dam, 10 mos. old. Also other bulls from 2 to 7 mos. old. Write for particulars.
C. A. HENNESEY, Watervliet, Mich.

JERSEYS

For Sale—Jersey bull calves, Oxford and Majestic breeding. Dams are heavy producers.
J. L. CARTER, R4, Lake Odessa, Mich.

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.
CLARENCE BRISTOL, R 3, Fenton, Mich.

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, R1, Bellaire, Mich.

FOR SALE

PURE BRED BROWN SWISS BULL Calved April 28th, 1919. His dam, Gertrude No. 6191, her sire, King Edgard 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

AYRSHIRES

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 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

Sevier 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.

BELGIANS

We are forced to sell our entire herd within thirty days. 3 imported mares, 5 young mares and 2 young stallions 3 and 4 years old. This is an extra good lot and must be sold regardless of price. L. H. LEONARD, Caledonia, Mich.

SWINE

POLAND CHINA

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, SIRE LONG BOB by BIG BONE 4th. Bred to BIG 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 F's Orange at reasonable prices. Also fall pigs. Write or call. CLYDE FISHER, R3, St. Louis, Mich.

LTPC AM OFFERING SPRING boars, summer and fall pigs. F. T. HART, St. Louis, Mich.

B. T. P. C. BRED GILTS SIRE BY MOUW'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 \$10,100 boar. 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 Oxfords. Everything sold at a reasonable price, and a square deal. JOHN C. BUTLER, Portland, Mich.

BIG TYPE POLAND CHINA tried sows and gilts bred to MICHIGAN BUSTER BIG DESMOINES 5TH, BOB-O-LINK or WONDER 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 Clansman, Orange Price and L's 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 BONE 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 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 pig spring farrow. Single Comb Rhode Island Red Cockerels. Write for pedigrees and prices. Inspection invited. FRED C. VOSS, Avoca, Mich.

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 C. O. 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

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. RAMSDALE, Hanover, Mich.

DUROC

PEACH HILL FARM Duroc sows and gilts sired by Proud Principal, Romeo Cherry King Brookwater Gold Stamp 7th and Rajah out of dams by Limited Rajah and the Principal IV. Bred to Peach Hill Orion King and Rajah Cherry Col. 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, Potterville, 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 \$60.00 with pedigree. H. G. KEESLER, Cassopolis, Mich., R 5

DUROC BOARS FROM PRIZE WINNING STOCK ready for service. Geo. B. Smith, Addison, Mich.

DUROC BOARS, GILTS AND BROOD SOWS of all ages. Sows bred or open. Newton & Blank, Hill Crest Farm, Farmington, 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, splendid 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, Weldman, Mich.

DUROC BRED SOWS AND GILTS SIRE BY Orion Cherry King Col. 2nd, first aged boar at Detroit in 1919, and bred to All Col. of Sango-mo. 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 crated, \$100 each. H. E. BROWN, Breedsville, Mich.

\$12.50 FOR A DUROC SPRING PIG, 8 weeks old either sex, M. A. C. Brookwater breeding. Reg. papers free. Express charges paid. Booking orders now. D. W. SUTHERLAND, Grand Lodge, Mich.

MAPLE LAWN FARM REG. DUROC JERSEY Swine. Order your spring pigs now. Pairs and trios not akin. VERN N. TOWNS, R6, Eaton Rapids, 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. Satisfaction guaranteed. Taking orders for spring pigs. JOHN YOUNG, Brockton, 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. \$60 each. A. R. BLACK & SON, R7, Lansing, Mich.

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, Chessaning, Mich.

HAMPSHIRE BRED SOWS AND BOARS for sale, also fall pigs 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.

SAGINAW VALLEY HERD OF O. I. C. swine won exhibition 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 winning stock, registered free and shipped C. O. D. JOHN GIBSON, Fosters, Mich., R. No. 2.

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 replace any proving otherwise to your satisfaction or refund purchase price in full. Have a few October boar pigs ready for spring service that are right priced to sell. Herd cholera immunized by double treatment. F. C. BURGESS R3, Mason, Mich.

O. I. C.'s Choice Bred Gilts, 2 extra fine Service boars. Choice Sept. pigs, either sex or pairs. CLOVERLEAF FARM R1, Monroe, Mich.

O. I. C.'s A few boars of serviceable age. Now booking orders for spring pigs to be shipped at weaning time. Write your wants to. CLARE V. DORMAN, Snover, 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.

Duroc Jersey Swine Sale

33 HEAD OF BRED SOWS, OPEN GILTS AND BOARS

Sired by Brookwater Tippy Orion 55421 by Tippy Col. Long Wonder 211527, by High Model. Cherry Premier 2nd 102819 by Pal's Cherry Orion.

Bred to Panama Special 11th 136637 by Panama Special. Cherry Premier 2nd, 102819 by Pal's Cherry Orion. Gibson Taxpayer 156677 by Brookwater Taxpayer. Home Farm Tippy Orion 3rd 152141 by Brookwater Tippy Orion.

MARCH 3RD, AT HOME FARM, SALEM, MICH.

ALBERT EBERSOLE, THOS. UNDERHILL & SON, Plymouth, Mich. Salem, Mich.

Col. L. W. Lovewell, Col. J. E. Ruppert, Auctioneers.

"Swamped with Inquiries"

Morenci, Mich.
February 16, 1920.

M. B. F.,
Mt. Clemens, Mich.

Gentlemen:

We can say that we have more than got results from our ad., as we have been swamped with inquiries.

F. L. HOUCK, Prop.,
Cornalfa Duroc Farm.

AUCTION SALE OF REGISTERED JERSEYS

We having decided to quite farming, will sell at Public Auction, 6 miles N. E. of Ypsilanti, on March 8, 1920, 6 head of Registered Jerseys, including a 2 year old Flying Fox Herd Bull. Average of 3 nearest dams, R. of M. 733.13 lb. butter, all of first two generations of ancestors in R. of M. The cows include a 2 yr. old granddaughter of Royal Majesty, due fresh before sale, also cows from tested dams of Raleigh and St. Lambert breeding.

Three extra high grade cows, 3 horses, and farm machinery. Will meet visitors from a distance at Ypsilanti upon request.

HENRY J. AND CARLTON R. LEWIS
R 3, Ypsilanti, Mich.

FOR SALE O. I. C. BRED GILTS FOR APRIL farrow, \$50. Bred to Bartlett's Choice No. 35049. Will register in buyers name. WILL IHRISCINSKE, Imlay City, Mich.

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, Dorr, Mich., R 3.

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

SHEEP

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. Representatives 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 together, that you may start your own flock of registered Shropshires now. A lot of kids have already 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 B, Kepe-Kon Farms, S. L. Wing, Prop., Coldwater, Mich. gan

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.

FOR SALE Flemish Giant Rabbits that are giants, old and young, in blacks, steel grays and natural grays. Quality guaranteed. E. E. HIMESBAUGH, Coldwater, Mich.

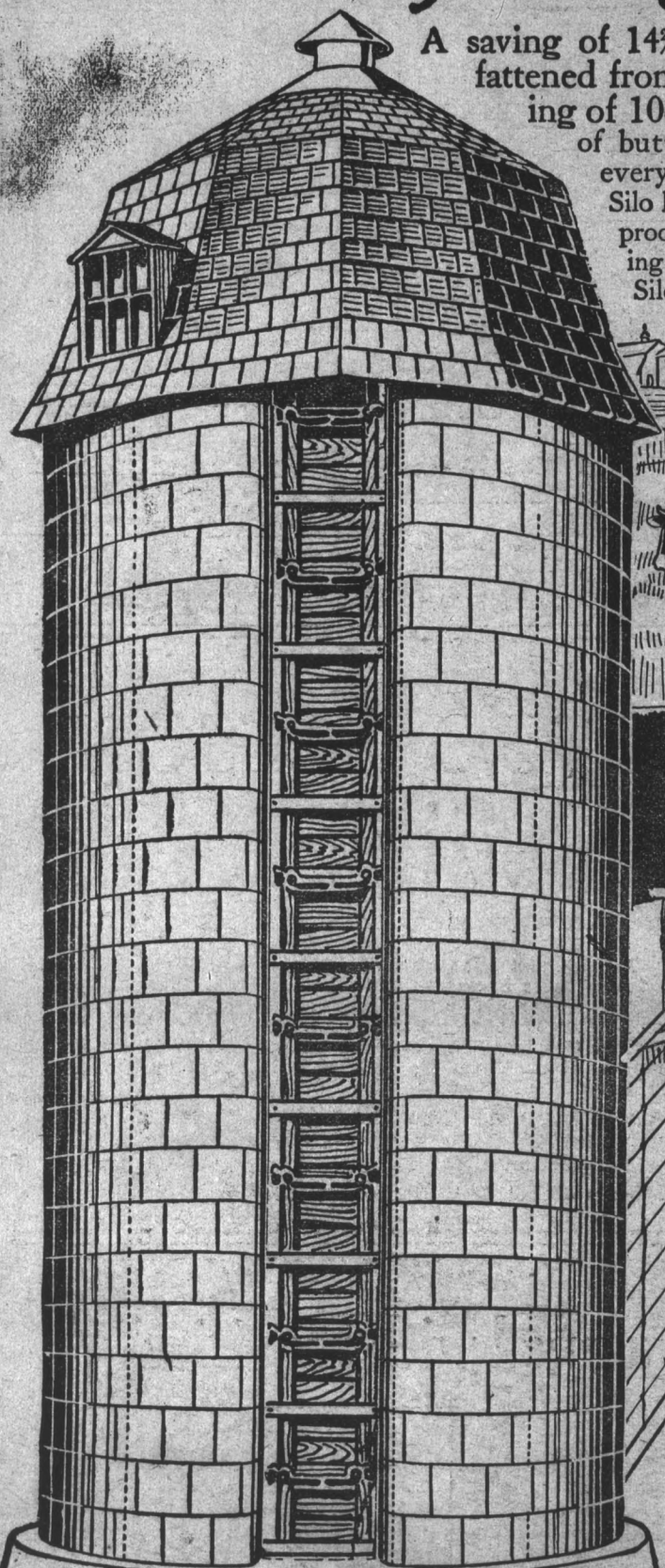
YOUNG FOX HOUNDS, WALKER STRAIN. Every one registered and guaranteed. E. W. GILL, Clarion, Mich.

FIVE PEDIGREE 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

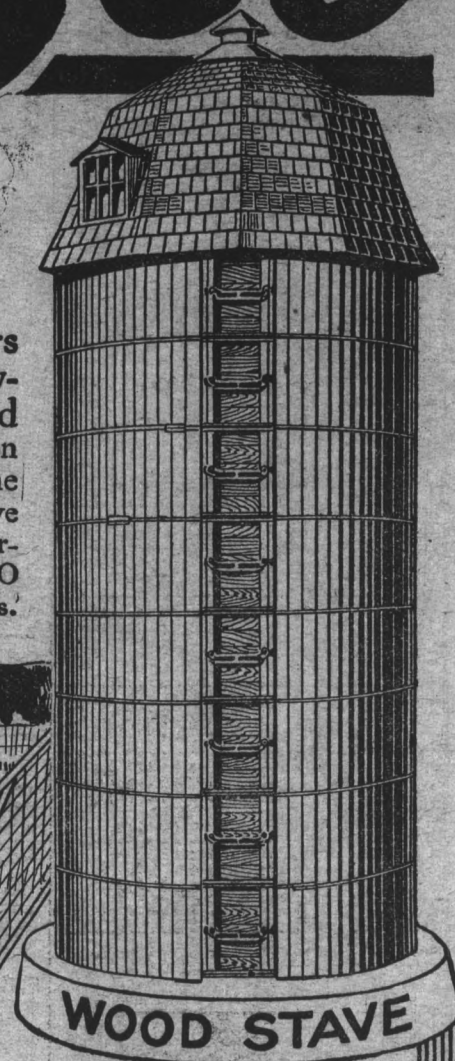
Kalamazoo

Tile and Wood Silos The Gateway To Big Farm Profits

A saving of 14% acres on every carload of steers fattened from the KALAMAZOO Silo. A saving of 10c on the production of every pound of butter, 40c on 100 lbs. of milk, and \$1.50 on every 100 lbs. of beef produced by use of the Silo last year, are only a few of the many positive proofs produced by government authorities during the food shortage, showing the KALAMAZOO Silo to be the real Gateway to Big Farm Profits.



GLAZED TILE



WOOD STAVE

The Silos of Proved Value

The first patent ever issued on a Silo was awarded the KALAMAZOO 29 years ago. Ceaseless vigilance by our expert Silo engineers has secured every Silo improvement worthy of KALAMAZOO adoption. If it is worth having, the KALAMAZOO has it. You buy positive service, not a mere experiment, when you buy a KALAMAZOO, whether it be of Glazed Tile or Wood Stave. KALAMAZOO science and brains and skill have concentrated on this one feature—the SAVING quality of the KALAMAZOO Silo. It is 100% RIGHT.

The Superior Glazed Tile Kalamazoo

Every block with three "dead air" spaces. A nearly perfect non-conductor of heat and cold. Every mortar joint made air-tight by our special interlocking and "keying" construction, making the mortar and the block dove-tail together. The strongest joint known. The only REAL Silo Block joint.

Glazed Tile blocks are absolutely moisture-proof. Keep out the moisture, wind, heat and cold. Keep in the natural juices of the silage. Walls reinforced with flat, galvanized hoops that lie flat in cemented groove at top of every third tier of blocks. A silo that will not decay, warp, twist, collapse or blow down. Fire-proof, frost-proof, needs no paint or repairs. Will last for generations.

Wood Stave Silos

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