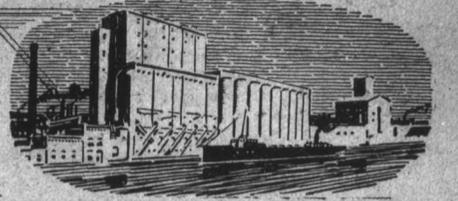


*The Michigan*  
**BUSINESS FARMER**



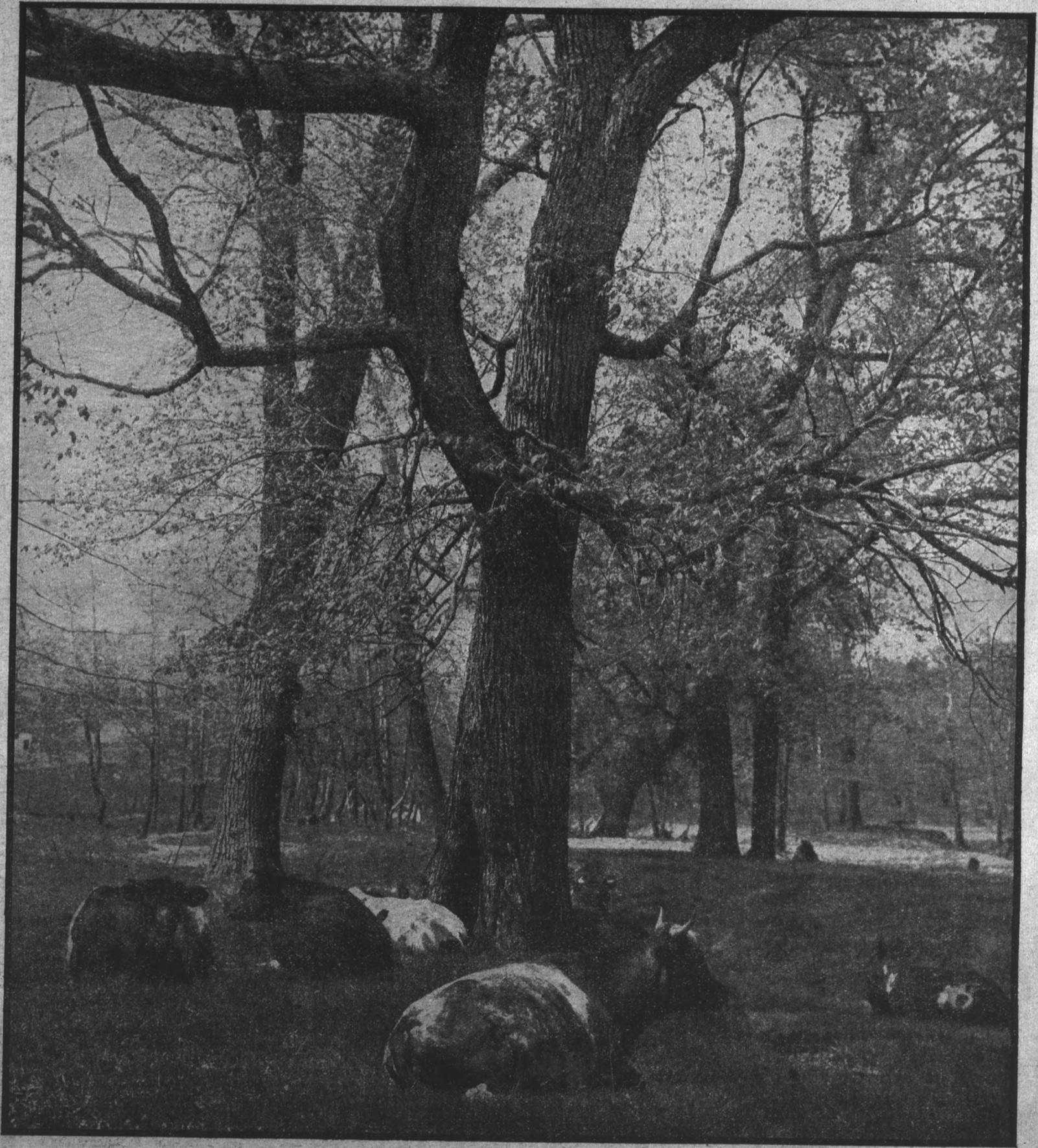
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Gentle Spring ! in sunshine clad, well dost thou thy power display !  
For Winter maketh the light heart sad, and thou, thou makest the sad heart gay.  
—“Spring” by Longfellow.

**In This Issue: Sugar Men Misrepresent to Deceive Farmers—Michigan Pea Growers Seek State Organization**

### THE HIRED MAN—DOES HE GET A SQUARE DEAL?

I HAVE BEEN rather interested in the hired man discussion and in the last issue of M. B. F., Mrs. Hired Man injects some variety, but, to judge from the way she writes they do not receive much except the \$50 per month. Let her figure a little on rent, fuel, milk and fruit at city prices. Probably, also, they have a garden and keep a flock of chickens that run loose and pick up a good deal of their living. I have an idea they can also keep a pig if they wish. If all these items are added to the \$50 per month, the arrangement is not so one-sided as it would appear at first glance.

The hours are long, it's true, but does Mrs. Hired Man give any thought to the farmer they work for? Are not his hours as long as those of the hired man? The latter has nothing invested in the business and whether the place is run at a profit or loss, he gets his wages just the same. Mrs. Hired Man says the farm is valued at \$35,000. It is likely the stock and tools would add another \$5,000, making the investment \$40,000, which amount invested at 6 per cent would yield an income of \$2,400 annually, without any labor but if their employer works, he should also have the value of his labor added to that. "The laborer is worthy of his hire." Does the farmer get 6 per cent on his investment? Does he get half that?

"A Hired Man," on the same page, says he has worked on a farm several years and is "just as far ahead today as I was when I began." Is not that his fault? Would he have saved anything if he had been living in a city and doing factory work? The temptations to spend money are much greater in the city than in the country.

## The Farmer and His Hired Man

On same page, Mr. Stafford tells how one of his hired men saved from \$240 to \$300 per year, working for from \$30 to \$50 per month.

A "Hired Man" asks "How Many farmers can afford to pay their hired men a bonus of \$500 at the end of the year?" But, does he realize what that question means? The farmer cannot do it, which is proof that in these days of high prices the farmer is not getting a square deal. The manufacturer sets the price on what he produces and he puts it high enough so that he not only has a good profit, but can pay high wages, and add a bonus. The farmer, who is the real producer and he puts it high enough as to what he is to receive for his products, whether it is a dozen eggs, a load of wheat, or a carload of live stock. The buyer tells the farmer what he will give and the latter can take it or haul his stuff home again. If the farmer does not pay from \$4 to \$6 for an 8-hour day, it's not his fault. It would bankrupt nine out of ten farmers inside a year if they tried it.

I do not believe that the farmer should join the labor unions and keep up the eternal demand for shorter hours and higher pay, but he should organize, so that he is sure of a fair return for his labor and capital invested—"A good living and ten per cent" is only fair.—*Apollo Long, Wexford County.*

### "THE HIRED MAN FROM GENESSEE COUNTY"

The hired man from Genessee Co. is still alive and in the country, get-

ting up at five a. m. to feed and milk the musical cows.

Oh, the life in the country is one long sweet dream of hard work from 5 a. m. until 9 p. m. at night.

So many are interested in just what becomes of that poor little hired man. Oh, yes, he is alive and you can bet he's busy. He is no quitter you see. He said "If I can get wages enough to live on, and save a little I will stay in the country."

Does he like his new job? Well he does not believe in saying his prayers out loud so you will have to guess at it.

Would like to say I don't like Mr. Halladay's remarks about the hired man having cars. I left my former place because the boss owned a sedan, his wife a roadster, and could not afford to pay the hired man enough to live on. Now is he so hard up he's enjoying himself in a new \$3,800 touring car.

The new boss has so many cars he cannot use them all at once, two touring cars, roadster and a truck. Having no driving horse on the place the "hired man" from Genessee Co. bought himself a fliwyer so he could run down the boss to get orders, and to see what he looked like once in a while. I see H. H. Halladay claims to be State Livestock Commissioner of Michigan. There must be some mistake for if Mr. Halladay lived in Michigan he must know that the hired men must all own some kind of a car so as they can catch up with their bosses once in a while and talk business.

Mr. Halladay says the country is being jitneyized to death. Who is to blame? Every farmer owns from one to four cars and one hired man out of twenty owns a car.

On this place there is no driving horse and the boss don't want to keep one, it is only four miles to the nearest town. I suppose according to Mr. Halladay the hired man and his wife should walk.

If Mr. Halladay were in this hired man's place would he and his wife walk four miles or buy a car? I would like him to answer this question. Mr. Albert Yager requested to know if the farmer who paid the \$500 bonus was in any other business. The farmer is not, he works three hundred acres of land with the help of two married men.

He is a stock feeder in the winter time. Instead of a \$3,800 car he is driving a big work team every day. In case of business he drives a Ford touring car.

G. P. Phillips and Albert Yager's letters are both worth reading, if their advice was followed there would be much less trouble for the farmers.

Come on you farmers and hired men, get in the ring and tell your stories, so the hired man and farmer can deal together honestly.

Mr. Editor, why should not the farmers furnish references as well as the hired man? Would like to hear your opinion. There's no place like the dear old farm, except in heaven. The hired man from Genessee Co., R. M., Lennon, Mich.

### Uncle Rube Spinach Says:

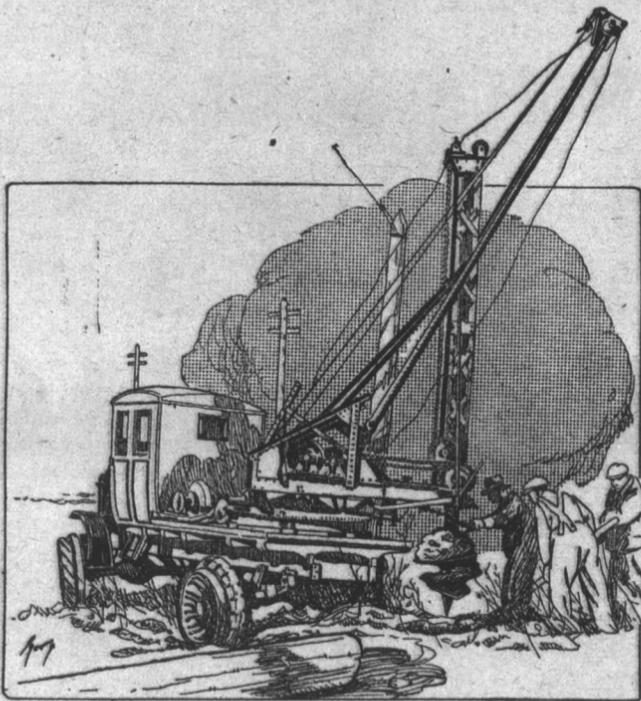
#### STRIKES AN' EVERYTHING

HERE we be! All tied up again! Somethin' more to make the cost of livin' higher an' nothing to do to earn the price of a hot dog even. This time its the switchmen—no cars comin' or goin', every thing dead'er'n a door nail or Gov. Lowden's political boom in Michigan, an' nobody can tell where this darn thing is a goin' to end. There's no question but what the switchmen are underpaid—their job is a dangerous one at best an' they're gittin' less wages than a common street laborer, considerable less, an' I don't blame 'em for wantin' more money, they ort to have it, but it don't seem to me as though it should be necessary to tie up business all over the country—to jeopardize the health and lives of thousands of people—to throw other thousands out of work, to cut off the already scant supply of the very necessities of life in order than a handful of men, comparatively speakin', could and should get justice done 'em, get a livin' wage somewhere near what other men, engaged in much less hazardous occupations are a gittin'. Kinda seem like's if the government, if we have a government left, might appoint some sort of a board or commission whose duty it would be to adjust labor disputes—not to adjust 'em to suit the employers only, but to adjust 'em in a way that would be fair to both parties.

The idea of tying up business every month or two an' of throwing hundreds of thousands of men an' women out of employment while the unions or the outlaws, as the present strikers are called, an' their employers are squabblin' over the question of wages or of hours or any other sim'lar question, is gettin' darn monotonous to the right thinkin' people of this country, not only monotonous but by gosh it's gettin' to be a serious menace to the welfare and peace of the whole country.

When a few men can tie up commerce, labor, transportation an' prevent the shipments of farmers stock, grain, potatoes or prevent any class of people from receiving the things they need in order to carry on their business, it's time we began to set up an' take notice of things an' to inquire into things an' to know why this is thus. Right here in Battle Creek the effect of the switchman walk-out is becoming serious, the food factories have shut down—they must have cars in order to ship their products as fast as manufactured, and the cars are not forthcomin' less than 45 men, switchmen have quit, but that constitutes the switchmen on both roads an' ties up everything here, so jest a small bunch of men,

(Continued on page 9)



## Binding Together a State

Here is shown a giant workman, a piece of machinery that digs a hole and sets a telephone pole in three minutes. It works on the principle of a post-hole auger and a giant crane, combined.

**WE MUST HAVE YOUR SUPPORT IF YOU ARE TO HAVE THE TELEPHONE**

This is part of the equipment with which the Michigan State Telephone Company is binding together a great state, to make it possible for the farmer to transact business in distant town or city and to take advantage of the best markets—for today's farmer is a businessman. This equipment saves labor, which is selling at a premium right now, as the farmer best knows.

The business farmer knows something, too, about costs. He knows that his fine roads cannot be built or maintained today at what they cost five years ago. His automobile, teams, groceries, clothing and farming machinery all cost more. To have them he must sell his product at increased prices.

The telephone company faces the same conditions. Teaming costs three times what it did in 1915. The poles bought from the farmer, the crossarms, the copper and iron from Michigan's mines, all cost more

and labor is higher than ever before. No labor-saving equipment will entirely enable the company to meet the situation.

Higher rates, with these labor-saving devices, however, will permit the work of binding together the state to go forward as it should and will help the development of both the country and the city.

MICHIGAN STATE



TELEPHONE COMPANY

# Dairymen Want Central Distributing Plant

*Action of Federal Fair Price Board May Force Producers of Detroit Area to Take Control of Marketing Their Milk*

THE DAIRYMEN of the Detroit area are seriously considering the establishment of a central distributing agency in the city of Detroit where milk from all members may be received, weighed, tested and sold to distributing companies or to grocery stores. At meetings held during the past week in several sections of the Detroit area the subject was discussed at length and the farmers are practically unanimous for such a proposition. Others go so far as to urge the purchase of a pasteurizing plant and distribute their own product from house to house.

N. P. Hull, president of the Michigan Milk Producers' Ass'n, speaking before a meeting of the Macomb County Dairy Council last Saturday, stated that he was pleased to see the interest taken in this kind of proposition and advised that the Chicago Milk Producers' Ass'n was discussing plans for a similar move. It was Mr. Hull's contention, however, that the Association should proceed cautiously in a matter of this kind, claiming that the experiences of other farmers had not fully demonstrated the practicability of such a move. He cited the case of the Grand Rapids farmers, who have been distributing their own milk for a year or more, but who have been obliged to pay as high as ten cents per cwt. to keep their venture going. "The loyalty of those fellows is a surprise to me", said Mr. Hull, "and I really believe they are going to win out".

#### Macomb Farmers Want Central Agency.

Gideon Bryce of Romeo, president of the Macomb County Dairy Council, stated that the Romeo local had held the largest meeting in its history last week and that he had never seen a finer spirit of co-operation and a willingness to go ahead than was demonstrated at that meeting. He declared that the producers of his section were unanimously in favor of at least a central distributing agency in Detroit, and that they were all willing to contribute such amount per cwt. of their milk as was necessary to take this initial step in assuming control of the marketing of their product.

Others who advocated the central agency was R. G. Potts, vice-president of the Michigan State Farm Bureau; B. E. Beach, business agent for the Oakland County Farm Bureau, and Forrest Lord, editor of The Business Farmer, the latter stating that this contemplated move was merely in accord with what the Business Farmer had urged for the past three years. He stated his conviction that it was not too big a job as some feared for the dairymen of the Detroit area to distribute their own milk, and called attention to the prophecy made by the proponents of the State Elevator Exchange that in two or three years the Exchange would be doing \$100,000,000 worth of business annually. He admitted, however, the intricate and delicate nature of the milk distributing business, a point which was well covered by Mr. Beach, who declared that the farmers would have to have the best and most

#### Is It Time for Action?

IT IS said that "fools rush in where angels fear to tread".

In the estimation of some they are fools who argue that farmers should have as much control over the marketing of his milk and its price to the consumer as he does over its production, and are walking where the angels would not tread when they assume to take over the intricate business of distributing their product.

According to some people the farmers of Michigan have been doing a lot of "fool things" lately, such as organizing a potato exchange, a great selling agency for all farm products, a wool exchange, an elevator exchange, etc. Many there were who predicted failure. "The farmer can't do those things. It is his business to produce". The results answer for themselves.

Today the dairymen of the Detroit area find themselves facing a cut in milk price which threatens their business. Why? Because they have put up with, if not sanctioned, one of the most wasteful methods of distributing a product on the face of the earth,—the Detroit milk distributing system. For three years the Business Farmer and others have discussed the inadequacy of the present system and urged the producers to establish their own distributing plant. The answer has been, "the time is not ripe". Perhaps they were right. But are they right today? Are not the milk producers big enough and their leaders able enough to solve this problem now and for all time? If the time is not ripe NOW for them to take this business step, it never will be.—Editor.

experienced man procurable in charge of their distributing business.

"The farmers feel that they pay the cost of distributing milk anyway", said Mr. Beach, "and they will not object to paying what may be necessary in order to have their distributing business handled by competent and experienced people."

#### Federal Board Precipitates Action.

The decision of the Federal Fair Price Board to reduce the price of milk to the consumer from 16 to 14 cents per quart for the summer months has created one of the most alarming situations that has been encountered in the Detroit area since the Milk Commission came into existence.

This decision, it has been learned, was ren-

dered as a result of the Board's investigations of the profits of the distributing companies as shown by their income tax statement. These profits were considerably in excess of what is generally considered "fair" profits, in one case amounting to 33 1-3 per cent on the investment. This distributing company in question claimed that the major portions of these profits were from the sale of ice cream, and it is fair to assume that this may be the case. However, it is quite apparent that the distributors of Detroit are prospering and that they are in a position to bear a portion of any decrease in price.

#### Producers' Officials Get Busy

None of the officials of the Milk Producers' Ass'n with the exception of Mr. R. G. Potts, who is director, were present at either of the first two hearings of the Fair Price Board. It has been explained by Pres. Hull that the Association officers received no invitation to be present and he considered it below the dignity of the Association to seek admittance where it had not been invited. Following the action of the Board, however, in reducing the price of milk, the officers met in conference with Chairman Connolly and presented their claims. The admissions made at this conference, and the results of the conference will be of interest to every producer.

#### Board Wants to be Fair

The officers of the Association submitted to Chairman Connolly the figures showing what it costs the dairymen of the Detroit area to produce milk, and asked Mr. Connolly if it would not be proper for the board to determine what was a "fair" price and profit for the farmer as well as for the consumer and the distributor. It was argued that the Fair Price Board was not in fact a "fair price board" if it protected the interests of only one party at the expense of another party who was not in a position to defend his own interests. The force of this statement was, we understand, admitted by Mr. Connolly, who stated, however, that the price which the farmer should receive should be determined between them and the distributors. But the producers' representatives soon convinced Mr. Connolly of the difficulties standing in the way of such an agreement and urged that the Fair Price Board determine what should be "fair" prices and profits for both farmers and creamery companies.

#### Board Does Not Object to 20 Per Cent Profit

"The Board does not object to profits of 20 per cent on the investment", Judge Connolly is reported to have said, "but when dealers in foodstuffs make more than that it is time to call a halt."

The Association officers advised Mr. Connolly that they were not seeking as high profits as that and if the Board would allow the farmers ten per cent profit they would be satisfied. This sounded (Continued on page 9)

### Sidelights on the Producers' Hearing Before Fair Price Board Tuesday, April 13th

J. W. Cusick, acting as chairman of Board in absence of Judge Connolly, called the farmers a "bunch of clackers," when, in a thoughtless burst of enthusiasm they applauded the remarks of a witness.

A. C. Anderson, formerly professor of dairy husbandry at the M. A. C., but now manager of Freeman Creamery Co. at Flint, made the astounding statement that "any city which allows milk distributors less than 50 per cent of consumer's dollar is endangering its milk supply."

"I am sore and don't care to have you answer my question," said Mr. Diehl, a member of the "Fair" Price Board.

Acting Chairman Cusick admitted that there were "a great many things we don't understand about production of milk."

Pres. Hull made an eloquent appeal in behalf of the producers, but got his share of insults from the Board.

The two cent reduction in milk means a saving at the most of only 14 cents per week to the average consumer. But to the farmer who produces one hundred pounds of milk per day it means a loss of \$7 per week.

Our opinion: That the high-handed methods and arbitrary ruling of the Fair Price Board constitute one of the most outrageous prostitutions of justice in the annals of the State of Michigan.

Our prediction: That if the milk producers of the Detroit area get justice they will have to take their case to the federal courts.

# Use of Commercial Fertilizer on Depleted Soils

Determining the Needs of the Soil and the Proper Elements to Use in Treating

By M. M. McCool

Professor of Soils, Michigan Agricultural College

THE JUDICIOUS use of fertilizers is profitable yet there are a number of factors to be considered, namely, why are they needed, the plant relations, the methods of determining fertilizer needs of the soil, the interpretation of the results obtained, the methods of applying the formulae for different crops and the effect of different fertilizers on the soil.

Under most systems of agriculture there is a constant stream of nitrogen, phosphorus and potassium from the land to the city. Where grain is grown, for example, and sold there is taken away about three-fourths of the phosphorus contained in the entire crop, and under live stock farming about one-fourth of the phosphorus is removed when the animals are sold. Moreover, there is always more or less of nitrogen and other elements from the soil by leaching. Thus farming as carried on by the majority of American farmers is a destructive or tearing down process, so far as mineral plant food elements are concerned, and the losses should be made good. Moreover, there are many soils that do not give up soluble plant-food rapidly enough, either early in the season or throughout the growing period, to produce the desired yields, due either to a deficiency in the total plant food, or to the states in which it exists, and, therefore, need fertilization for best results.

Commercial fertilizers are used to increase food production with a safe margin of profit. This may be accomplished either directly by the increased yield of grain and other crops to be consumed by the human race, or by increased production of foods for animals, which in turn are raised for human consumption. Thus in considering the principles of soil management the relationship of soil productivity to farm practice and to the welfare of the nation should not be lost sight of. Indeed, the patriotic individual looks upon a productive soil not only from the margin of profit he may derive from it but as a possibility for a high yield of food for the human race.

Soils may differ in their requirements and if the most intelligent use is made of fertilizers the needs of the soil must be ascertained. This can be accomplished only by means of field trials. Of course, the farmer cannot conduct an elaborate set of experiments since much time, labor and expense are required to bring them to a successful conclusion, yet he can and should determine the lime and fertilizer needs of his farm, relying upon the Agricultural Experiment station for inform-



Winter rye on clay loam soil in July. 250 lbs. of 14 per cent acid phosphate was used on the entire field excepting a strip the width of the drill.

ation concerning the more complex relationships such as the time, manner, amount and kinds of material to apply, the place in the rotation, as well as others. For example, he should know what element or elements in a fertilizer mixture pays for the material by the increased crop production. A simple set of experiments conducted three or four years should answer this question for him.

## Plan of Experiment to Determine the Fertilizer Needs of a Soil

Plot No. 1; Treatment per acre, no fertilizer; plot number 2; treatment per acre, 50 lbs. nitrate of soda, 200 lbs. acid phosphate; plot number 3; treatment, 200 lbs. acid phosphate and 80 lbs. potash; plot number 4; treatment; 50 lbs. nitrate of soda 200 lbs. acid phosphate and 80 lbs. potash.

If one desires to compare the crop producing power of acid phosphate with a mixed fertilizer three plots will suffice, one receiving acid phosphate at the rate of 200 lbs. per acre, one receiving as much mixed fertilizer as can be purchased for the same amount of money invested in acid phosphate and one no treatment. It is advisable to lime the entire field if it is needed.

The needs of a soil for lime and the value of reinforcing stable manure with phosphorus could be determined by treating one plot with manure, another with manure and acid phosphate, another with manure, phosphate and lime and still

another with manure and lime. Of course, the same quantity of a given substance should be added whenever used. Where the soils are very variable, as in much of Michigan, for example the plots should consist of about one-fourth or one-half acres and run lengthwise of the field. Moreover, the treatment of the area to be utilized for experimental treatment purposes should have been the same for a few years previous. It would be of little value to lay out the plots on a field, a portion of which had recently received manure, lime or other substances, or had produced a meadow or was poorly drained. Moreover, they should all be managed the same with the exception of the fertilizer and other treatments being studied. That is to say, they should be tilled, seeded, and harvested as near the same date as possible.

One should not be misled by the general appearance of the crop during one or more stages of its development in the interpretation of the results obtained from the different treatments. It may be cited, for example, that an early stimulation of the vegetative or top growth of grain crops may not necessarily mean a greater production of grain, the most important portion of the crop. It is usually desirable to weigh or measure accurately the yields obtained from different plots.

When the use of fertilizers is contemplated the nature of the soil which is to receive it should be con-

sidered. If the soil is very deficient in vegetable matter, it is well recognized that the net returns on the investment in fertilizers will be less than if it is well supplied with it, due to its favorable action with respect to the activities of beneficial micro-organisms, the water retaining capacity, and the decrease in the amount of leaching downward of certain of the plant food elements, soil tilth, and consequently better root development of the crops grown, as well as its assistance in releasing potential plant-food. In soil building by means of green manure and catch crops the use of fertilizers may result in the production of greater amounts of humus forming material, and, therefore, be desirable an economical when judiciously used.

Since many plants are sensitive in regard to the acid or sour condition of the soil, the maximum returns from fertilizers are not to be derived until such conditions are corrected by the addition of some form of lime.

In a measure the responsiveness of a soil to a given application of fertilizer depends upon the texture of the soil to which it is applied. Sandy soils are generally recognized as being very responsive to applications of soluble fertilizers and manures the first year of application, but less later on. The fine textured or so-called "heavy soils," are influenced to a somewhat less degree the first season, but, on the other hand, a given application endures longer on them than when applied to sandy soils. In addition, the variations of the soils in a given field should be considered, and "poor spots" should receive special treatments in order to bring about more uniformity of the production of the field.

Unquestionably there are soils in such poor condition of tilth that proper water movements and root development of plants cannot take place upon which an application of commercial fertilizer is a losing proposition until such conditions are rectified in some manner.

Since the maximum returns are to be derived from fertilizers, when as many conditions as possible are favorable for plant growth, the plant relations, that is, the seed, adaption, feeding power, disease resistance, and sensitiveness to variations in climate are to be reckoned with also.

It is well recognized that maximum crop production depends to a great extent upon the per cent of germination as well as upon the strength of the germination of the seed. If the per cent of germination is high, a more uniform stand results. A vigorous stand is to be expected.

(Continued on page 19)

## Work, Good Cultivation and Plenty of Plantfood Will Increase Yield

By A. E. LINDQUIST

LAST YEAR Bill Jones put in a year of good solid work and plowed his land early, disked it, planted good seed carefully, and then cultivated it thoroughly. The season was favorable for a fine crop, yet his corn, wheat and potatoes did not harvest satisfactorily. The yield was not nearly as good as Ed Smith's down the road. What was the difference? Ed Smith did not work harder; he could not, because Bill Jones had done all that was possible. When Bill questioned Ed to learn the reason for the latter's big yield, he found that Ed had made sure that his seed had plenty of plantfood to start it and to bring it through the season to the biggest yield possible.

As you have probably already guessed Bill Jones and Ed Smith are not the real names of two farmers, but represent two classes of farmers. One which is maintaining the fertility of the soil and securing profitable yields by using fertilizer and the other depleting the plantfood in the soil, not using any commercial plantfood and not securing as profitable yields. Which of these two classes are you in? Every crop removes plantfood from the soil. This must be returned to it if the land is to continue to produce large crops. Manure should be applied,

legume included in the rotation, and cover crops should be plowed under, but in addition, even on soil which is considered rich, commercial plantfood properly applied will pay a neat profit above its cost and will help maintain fertility.

Ammonia, phosphoric acid and potash are the three plantfoods which are likely to be present in insufficient quantities, and which are necessary in producing large crops. The supply of ammonia may be pretty well maintained by applying manure, by including legumes in the rotation and in plowing under green manure crops, but it is usually profitable to include 2 per cent ammonia in a commercial fertilizer in order to provide the young plant roots with this important plantfood in the form available early in the spring, before the ammonia and manure has been made available by the soil bacteria, for the bacteria do not begin their work until the soil warms up and in the meanwhile the seedling may have stopped growing because it needs ammonia.

Most soils are deficient in phosphoric acid in the form available to the plant roots; and manure itself is lacking in this element. It is this

plantfood which is the limiting factor in producing the maximum growth of the plant and thus the largest yield per acre. Phosphoric acid produces vigorous root growth early in the season and later hastens maturity. Fertilizers for all crops should contain about 10 or 12 per cent of phosphoric acid.

Potash is especially lacking in the heavy peat and muck soils; and light sandy soils too are usually deficient in this plantfood. Potash favors starch formation, aids in making heavy grains and stiffens the stems of grasses preventing lodging.

No matter how much cultivation is given, if the seed is not of good quality, high yields of good produce are not possible; likewise if the soil has not sufficient plantfood in available form, no matter how good the seed is, it cannot produce profitable yields. Land, labor and machinery are high. Everything should be done at the start of the season to assure that all the high priced operation on expensive land will bring the biggest returns and thus the most dollars in the bank at the close of the season.

Your county agent may well be called in to help you to decide which plantfood it will be most profitable

to supply. Following are some recommendations which may help you decide what fertilizer will be most profitable for you to use:

(Figures refer to percentages of ammonia, available phosphoric acid and water-soluble potash in the order given.)

With 2 per cent ammonia, a muck soil fertilizer, 2-8-8, 2-10-6; for grain and staple crops, 2-10-4, 2-12-2.

With 5 per cent ammonia, 5-7-2, spring top dressing grain.

With 3 per cent ammonia, vegetable and truck crops grown under field conditions, 3-10-6, 3-10-4, 3-10-2.

With 7 per cent ammonia, 7-8-5, earliest truck crop potato fertilizer.

With 4 per cent ammonia, vegetable and market garden fertilizers, 4-10-6, 4-10-4, 4-10-2; northern potato fertilizers, 4-8-6, 4-8-4.

### Ammoniated Phosphate Analysis

For soils where potash is not needed, or on crops which do not respond to the use of potash, 2-12-0, 3-12-0, 6-8-0, 7-8-0.

### No Ammonia Analysis

To supplement and re-inforce manure and for use under conditions where nitrogen is not needed; also for legumes, 0-10-8, 0-12-4, 0-12-2, 0-16-0.

# Michigan Pea Growers Seek State Organization

Wide Discrepancy between Prices Offered to Growers Causes Dissatisfaction and Shows Need of State Association

THE PEA growers of Michigan have caught the spirit of co-operation and are seeking a state-wide organization with locals in the various counties where peas are grown commercially. Michigan is a great pea state, taking rank among the three or four leaders in the union, but the growers are entirely at the mercy of the companies who make the contracts, being obliged to take what is offered or else grow no peas.

Mr. Guy W. R. Curtiss, president of the Kent City Pea Growers' Ass'n, believes the growers should organize and is ready to take a leading step to bring about such an organization if there is any promise of assistance from the other growers of the state. The suggestion has been made that the pea growers association could affiliate with the beet growers association as both grow crops on contract, and therefore have many mutual problems.

Up until the last year or two pea growers received from two to three cents per pound, depending upon the locality and the canning company with whom they did business. More recently this price has been held at three cents per pound with some companies offering three and a quarter to four cents.

Roach & Company of Grand Rapids, are one of the largest contract purchasers of peas in Michigan and show a disposition to play fair with the farmers. At a meeting held at Crosswell several weeks ago, they tendered the farmers a big dinner and explained their contract for the ensuing year. They did not offer, however, what the farmers thought they were entitled to receive, claiming that three and a quarter cents per pound was all they could afford to pay.

The following information concerning the pea situation was given to us by Mr. Curtiss of Kent City:

**The Pea Growers' Opportunity**

**P**EA GROWERS who desire to form a state-wide organization should communicate their wishes to the Business Farmer, Mt. Clemens, or Mr. Guy W. R. Curtiss, of Kent City. No matter whether you have signed contracts or not for 1920, the time is ripe for an organization, and if such is to be effected, it should not be deferred until another year. Why not organize an association now which can spend the time between now and the next season investigating contract prices in other states, cost of operation, etc., so that you may be ready next spring to confer with the canning companies and have the facts to back up your claims.—Editor.

W. R. Roach & Company, general offices, Grand Rapids, Michigan, are paying the following prices, that is, they are contracting acreage at these prices: (The company has plants at Kent City, Edmore, Scottville, and Crosswell where peas are grown.) They will pay 3 1-4 cents per pound for prime green peas delivered at the plant; they are going to charge the growers \$3 per bushel for the seed. In some instances they have promised to haul the peas to the plant for the farmer. At Kent City they have about fifty per cent of their usual pea acreage contracted. Crosswell has 1,000 acres contracted for and could handle more. But the farmers there are liable to cancel their contracts it seems. Scottville is in about the same position as Kent City. The farmers at all these plants are demanding four cents per pound.

"The Manistee Canning Company, Manistee, Michigan, are going to pay 3 1-4 cents. This plant is now under the process of erection.

"The Sears and Nichols Canning Company, Chillicothe, Ohio, with a plant at Pentwater, Michigan, paid three cents per pound last year and may pay a little more the coming

season. They charged the grower \$2.50 per bushel for the seed last year.

"The Fame Canning Company, Indianapolis, Indiana, with three plants in Wisconsin (one at Cumberland) are paying three cents per pound for prime peas and charging the grower \$3 per bushel for the seed.

"The Fremont Canning Company, Fremont, Michigan, pay on a sliding scale which makes them average about 3 1-4 cents per pound on all grades. They charged the grower either \$4.50 or \$5 per bushel for the seed.

"Nathan Simpson, Keeler, Mich., near Hartford pays \$75 per ton and furnishes the seed, which would be the equivalent of about \$90 per ton at least. However he grows most of the peas on his own farms.

"It is understood that S. M. Carp, Hartford, Michigan, has been paying 4 1-2 cents per pound. Mr. Carp would not say that he was or that he was not. He just evaded the question by stating that he was informed by one of the largest Wisconsin packers that they would pay three cents per pound there.

"The writer thus far has been unable to find any company in Wisconsin which is paying more than three cents per pound for peas. Some are paying less. Some are paying 2 1-4 to 4c on a graded scale. Apparently the average yields in Wisconsin are larger than in Michigan. The cool climate seems to be particularly adapted to the growing of peas."

"I don't think that it will be possible for us to do much this year in a local way, however, we must keep the interest up and arouse the growers all over the state to realize the need of a state organization of the growers of contract crops. We want to get a state organization as soon as possible, and then try to arouse the Wisconsin growers to organize. New York growers have already organized. Wisconsin packs about half the peas in the United States so naturally they will influence the market more or less.

"New York canners have been paying from 2 to about 4c per pound. New York growers have not been making any money to speak of in growing peas for the canners. Wisconsin growers are evidently making money. It appears that Michigan growers are not making anything under the existing prices."

The MICHIGAN BUSINESS FARMER approves of the efforts of the pea growers to organize, and we hope the movement will be successful. Farmers can no longer protect their interests through individual dealing. The potato growers, the grain growers, the live stock raisers and the beet growers have all recognized this, and each of these various branches of agriculture here in Michigan are now represented by an organization which speaks for them. The pea growers should without further delay cement themselves into an organization for the purpose of studying and solving their production and marketing problems.

## Rebecca Wins the Prize

By E. DAVIS RICHARDS

CONSTERNATION reigned supreme at Pine Tree, when Rebecca won the prize. But then Pine Tree and all its inhabitants of the country round about were judging Becky Sharp by the rest of the lazy Sharps who had lived in the same tumbledown fashion for generations. To be sure Henry Sharp Rebecca's father, had married very much above his station, and perhaps Rebecca inherited some of the excellent qualities of her gentle mother, who like a hot house flower thrives in a foreign place only a short time, then withers slowly as if unable to stand the rigors of the unusual surroundings. Indeed Mrs. Sharp lived only five years after her marriage to lazy Henry Sharp, and left two tiny mites of children, Rebecca aged three and John, a boy of two. That was ten years ago, and Pine Tree had just awakened to the fact that at last a Sharp had really done something worth while.

When the county agent of Henderson county had announced the conditions governing the contest in the boys' and girls' clubs Rebecca's heart had almost stopped beating. Twelve dollars necessary to buy a registered pig, how could she ever make so much money? But make it she must, for the coveted trip to the State University had been the subject of her thoughts for weeks. She decided to take her father into her plan and see if he could not suggest some way in which she might get the magnificent sum of twelve dollars to buy the precious little Berkshire which she felt sure would indirectly be the cause of a great improvement in the whole Sharp family. She therefore startled her father one evening by saying,

"Dad, tell me how I can make twelve dollars!"

"You can't make twelve dollars in any way, Becky. Don't you know that that is a lot of money."

"Yes, that seems an awful lot of

money, Dad, just think what it would mean to get to go to the State University for a whole week. Why, I think I would be willing to live here for the rest of my life if I could just get to go there for ever such a little while. Didn't mother go to school there for a year once?"

"Yes, I guess you are just like her, too; she was always wanting better things than she had. Better forget it, kid, you can't ever make twelve dollars, and if you did you wouldn't know how to raise a pig anyway." And with that encouragement her father left the room. A few minutes later Rebecca confided to the eager young face peering out at her from the old cracked mirror—

"Rebecca Sharp, you ought to be mighty glad to be like your mother, always wanting better things than you have, and Rebecca, you are going to the same school that she went to, if you have to break your neck to do it." She then crawled under the worn covers of her bed to dream for the fiftieth time of just missing the train which was to carry the prize winners to the big school in a distant city.

For the next few months the neighborhood of Pine Tree was constantly besieged by a small girl with such a pleading, "Please won't you buy some wild grapes?" or "Please Mrs. Smith, mayn't I take care of the baby?" or "Please Mrs. Johns, won't you let me come every morning and dust and scrub your porch; you know I want to make some money, because I belong to the Girl's Club."

There were not many who could turn the little appealing eyes away, for as Mrs. Johns, the wife of the grocer, said, "I never had any use for any of the lazy Sharp bunch, but I believe Becky is different, and anyway, I wouldn't sleep any at nights if I didn't help that poor motherless mite." While after the unsuspecting Mrs. Johns left the Ladies Aid, or other social gather-



At last the great day came

ing at which she had been expressing her opinion about the "lazy Sharps", her nearest neighbor was heard to remark, "Well, I guess the poor motherless mite is doing her part, too. Do you know I was just telling Sam today that I had never known the Johns' porch to get as many scrubblings as it has since Becky Sharp has been going there, and as to the inside of the house it is spotless, while Mrs. Johns was doing the cleaning herself, I could write my name all over the center table." That opinion was evidently acquired in by those present, as shown by the decided nodding of their heads.

There were dark days of discouragement before enough money was made to get the coveted pig; then, too, after the little black fellow was finally delivered to her, Rebecca was afraid he would eat too much or else too little, for her father's statement, "You wouldn't know how to raise a pig anyway" kept coming back to torment her. Her anxiety for the welfare of her precious pig prevented her from noticing a change, which seemed to be coming over her father. Others, however, spoke of it and solicitous expressions were made, such as, "I'm

afraid Henry Sharp will hurt himself working," or, "Gee, Sam, is the millenium coming? I hear Lazy Sharp is working in the Red Hill coal mine." But fortunately the unkind things said behind our backs, very seldom are repeated to our faces and so the Sharp household went on entirely ignorant of the surprise they were causing in the neighborhood of Pine Tree.

At last the great day came, as all long expected days must. Even the Berkshire knew something unusual was in the air, for did not every bit of his three hundred pounds still tingle from the contact of that awful brush which Rebecca had wielded so skillfully. Then, too, he knew there was not a bit of dust from the tip of his turned up nose to the little twisted stump of a tail, for she had finished by putting on something that made him slick and shiny. Rebecca was so excited that she scarcely noticed her father or brother, having having eyes only for that precious bit of pig flesh, on which she felt all the future of herself and family hung.

But, arriving at Pine Tree, Henry

(Continued on page 17)

# Sugar Men Distort Facts to Deceive Farmers

Statements That Leaders are Untrue to Cause and That Movement is Failing is Pure Fiction

**F**AILING by honorable means to make any headway against the organized strength of the beet growers, the manufacturers have turned to falsehoods and misrepresentations in the hopes of undermining the farmers' faith in their chosen leaders. It has been repeatedly stated that the leaders are agitators and are prompted by selfish motives. What these motives may be has not yet been explained, however. The statement has persisted in some sections that Manager C. E. Ackerman has deserted the growers and signed up a contract on the old basis. Naturally these statements set a good many farmers to thinking, but if they think long enough they will clearly see that the statements are but a part of a studied propaganda on the part of the manufacturers to destroy the organization. Manager Ackerman has NOT signed a new contract, nor has he in any way decreased his efforts in behalf of the growers. He has been on the job every minute since he was elected to handle the organization work, and has been obliged to neglect his own business affairs in order to devote undivided attention to the growers' campaign. Today Mr. Ackerman stands as confident as ever of the ultimate success of the movement, and he will be found fighting to the last ditch.

But he is not alone by any means. The loyalty and determination of the beet growers as the planting season approaches is a revelation of the new spirit of cooperation among the farmers, and there is no evidence of weakening on their part. On the contrary there is multiplied evidence that the growers will not recede a single step from their position even though the alternative may be the planting of some other crop.

At Ithaca last week only twenty out of five hundred beet growers present had not returned their contract, and those twenty signified their intention of returning their contracts at once. At Ashley a few farmers had accepted contracts as a result of the story of the field men that the organized movement was failing and that the leaders had gone back on the growers. As soon as they learned the true facts these men

**The "Strike" the Last Resort**

**T**HERE IS one word in the English language which is in singularly bad repute just at the present time. It is the word, "strike." The railway switchmen of the country are on a strike. Transportation is paralyzed, and both financial and physical suffering is in prospect. The sugar beet growers of Michigan are on strike, and the issues which have lead up to their strike may easily be confused by the uninformed with the issues involved in the switchmen's strike. But there is a vast difference between the two, a difference which make the one wholly indefensible and the other wholly justifiable.

To explain: The "strike" is the measure of last resort. When all efforts have failed to bring two parties to a contract, whether verbal or written, to a mutually satisfactory understanding, and when courts of arbitration have failed to settle the differences, then the "strike" may be necessary and excusable. The sugar beet growers have tried for four months to secure a conference with the manufacturers for the purpose of arbitrating their differences. Their advances have been spurned by the manufacturers, who have even refused to meet with the representatives of the growers. Hence the growers have "struck" to the extent of quitting the production of sugar beets and using the land for other crops. If there is a shortage of sugar as a result of this action the public will put the blame where it properly belongs, upon the shoulders of the manufacturers.

The case of the switchmen is different, if we understand the situation correctly. Many of the railroads claim that they had no intimation that a strike was brewing. At least no suggestion was made on the part of the switchmen that a conference be held with the employers. They simply struck without warning, giving the employers no opportunity whatever to listen and adjust the grievances in a peaceful way. The distinction between the farmers' strike and the switchmen's strike should be kept clearly in mind.—Editor.

cancelled their contracts. In the office of one of the sugar companies is the contract of a single beet grower pinned to the wall as if to show all beholders that the growers have deserted their cause. They haven't enough wall space in the offices of any sugar company in Michigan to show all the contracts that have been returned and which, providing the manufacturers do not meet the growers' demands, will represent thousands of acres of beet land turned over to some other crop.

#### Don't Accept Seed

It is claimed that the field agents who are distributing the beet seed are asking farmers to transfer it from the company's bags to their own. In years past the companies have always left their own bags. The reason for this request is apparent. A contract assumes an exchange of something of value. The only thing of value which passes between the

manufacturer and the grower is the beet seed, and the manufacturer undoubtedly holds that when a farmer "accepts" his seed, he virtually binds himself to the contract. If a field agent leaves a bag of seed at a farm it is not the fault of the farmer, but if the farmer transfers the seed to his own bags, then he is a party to the "acceptance."

#### Western Growers Strengthen Their Position

We are in receipt of a letter from Mr. Albert Dakan of the Intermountain Farmers' Ass'n of Colorado, enclosing copy of contract in which the farmers have entered with the Western Slope and other sugar companies. The contract is much more favorable than that under which both the western and Michigan growers raised beets last year, but the price offered is slightly less than the price which the Michigan farmers are ask-

ing for this year's crop. Mr. Dakan comments upon the contract as follows:

"This is the contract agreed upon between the Holly Sugar Company and the farmers for beets for the Grand Junction factory, 1920 crop. All the Colorado sugar companies have recognized the farmers' committee this spring. The Great Western Sugar Company will meet the farmers' committee soon and take up the 1921 contract. The farmers decided not to wait again until planting season, but to have it worked out early so they could cut out beets and plan for other crops if the company is not disposed to give a square deal."

#### Contract Specifies Conference

There are at least three paragraphs in the western contract which will be of particular interest to the Michigan growers. They read as follows:

"That the first party (the grower) shall have the privilege of selecting at his own expense, a man of reliable character satisfactory to second party, to check the tares and weights of the beets grown under this contract at the receiving station where such beets may be delivered, and the party of the second part will meet with representatives of the Beet Growers' Association for the purpose of agreeing upon weighmasters and tarenmen for all receiving stations, and also agree that all weigh stations after being opened up for the season will be open for receiving beets from seven a. m. until five thirty p. m. each working day, and that company employees will remain on duty until all wagons are weighed back; also all scales at receiving station shall be inspected during receiving campaign, by a competent party.

"To permit growers to pile beets on the ground at all stations after October 15th, providing there are no cars in which to load beets on hand and there is no chance of securing same within three hours.

"Party of the second part (the sugar Co.) agrees that before making a beet contract for the season of 1921 they will meet with the representatives of the Beet Growers' Association, to discuss and endeavor to draft a contract satisfactory to both parties concerned."

#### "Negotiate With Growers," Advises "Facts About Sugar"

**T**HE FOLLOWING article occupied the entire editorial page of the March 27th issue of "Facts about Sugar", which is published weekly by the "Domestic Sugar Producers, Inc", and is "devoted to American sugar production". The editorial might well have been based upon the controversy which is now at its height here in Michigan between beet growers and sugar manufacturers. It is an open indictment of the "stiff-necked attitude on the part of company officials who have refused to meet with representatives of their growers". It is a virtual endorsement of the claims of the Michigan beet growers to recognition. No grower could have presented a better argument for negotiation between himself and the manufacturer than is here presented by the manufacturers' own publication. We submit it without further comment to the sugar beet growers and particularly to those who may think that the growers' demands for a conference are unreasonable:

#### Beet Industry's Big Problem

**"W**HILE THE beet sugar industry is conducted with a high degree of efficiency there is one phase of its operations in which improvement is urgently needed. That is in the relationship between the sugar companies and the growers of beets.

"It is natural and perhaps inevitable that differences of opinion should develop as to the prices and methods of payment for the crop. Between the minimum figure below which the farmer finds it more profitable to cultivate other crops and the maximum above which the companies find it less unprofitable to close their factories than to operate them there is a margin which must cover the profits of both parties. The proper division of this margin may be a subject of negotiation and compromise but such negotiations can and should be carried on in a businesslike way.

"This is not a counsel of perfection. It is a thoroughly practical proposal for the reason that it will operate to the advantage of both the growers and the companies. The method of adjustment by public controversy is expensive to both sides. The struggle to obtain fifty cents or a dollar a ton more frequently delays the work of preparing the soil for the crop. Instead of plowing his beet fields in the fall, which is the best time, the grower waits until after his contract is finally settled, which is frequently so far along in the spring that he is late

in getting in his crop, is behindhand in his work throughout the season and obtains a final yield of immature beets which nets him less than would a full crop of higher sugar content at the lower rate. The company is unable to place its orders for bags, fuel and other supplies until its officers can form an approximate idea of the volume of beets to be handled and its operations are handicapped in consequence. Abandoned acreage, inferior yields and a low quality of beets resulting from delays and lack of co-operation leave both grower and manufacturer dissatisfied.

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"Our observation has been that a large part of the trouble between beet growers and sugar companies has been caused by outsiders who have stirred up ill feeling among the former from motives not at all related to a sincere consideration for their welfare. To a certain degree it has been encouraged by a stiff-necked attitude on the part of company officials who have refused to discuss prices with representatives of their growers but have insisted on confining their business relations to individual farmers. Since uniform prices necessarily prevail in the territory of every company we can see no good reason why group conferences should meet with objection provided the groups are really representative. To demand that the companies shall submit to the dictation of outside individuals who have nothing at stake either in the growing of beets or the manufacture of sugar is altogether unreasonable.

"Misunderstandings arise from lack of frankness on both sides. Growers are misled by unfounded reports of enormous profits earned by sugar companies and company officials do not take the trouble to correct these statements. Farmers put forward exaggerated figures as to the cost of making their crop and insist that these shall be the basis of price agreements. The heat of a contest over prices is not a time when frank statements of fact are likely to be offered or accepted. In July and August, when there is a lull in the activities of the growers and companies alike, is a far better time to get together for a full and friendly discussion of problems and conditions. That is the time when growers and company officials should begin to lay plans for the following season. We hope that midsummer of the present year will see a beginning of such conferences.

"The problem of the relationship between growers and companies is one that has been sidestepped or met by unsatisfactory makeshift arrangements too long. The future welfare and progress of the beet sugar industry demands that it be met courageously, frankly and in a spirit of mutual accommodation. The man who inaugurates such a plan of procedure will be one of the greatest benefactors of the industry."

# CURRENT AGRICULTURAL NEWS OF THE WORLD

GRINNELL'S

## BEAL CITY CO-OPERATIVE ASS'N

Just a few words to readers of M. B. F. Organization is the only key to success for the farmer. We have been shipping our live stock for only a few years and day by day we add new members to our list of shippers of live stock. I can not see how some farmers still hang to the old style of selling to the local buyer and give him the best of the deal. Here we are feeding the stock from 6 months to 3 years and when we get the stock in shape to sell, up comes a telephone call from the local buyer. He talks one minute with you and you sell, and in this minute he makes more clean cash than you do in the three years feeding. Why not handle the business end of our business and get all that belongs to you. I herewith send you the financial report of the Beal City Live Stock Shipping Association as given by Wm. Bleise, manager of the association. Respectfully yours.—A. P. D., Isabella Co.

Financial report of Beal City Live-stock Shipping Ass'n., Weldeman, Mich., Jan. 27, 1919 to Jan. 31, 1920. Total amount received, \$63,440.42; total amount paid for stock, \$62,641.24; balance for home expense, \$799.18. Paid out for manager, \$266.60; paid telephone and postage, \$3.83; paid lumber and straw, \$65.44; paid to insurance fund, \$417.20; paid to insurance excess, \$17.62; paid to joining fees, \$18.00; paid to Michigan Livestock Exchange, \$7.00; paid for hardware, \$3.49; total, \$799.18. Insurance fund, Jan. 31, 1920. Total received from insurance fees and excess, \$482.62; total paid out for loss, \$426.68; balance on hand, \$55.94. Wm. Bleise, Manager.

Our readers appreciate these little items of news about farmers' co-operative associations. Let us have more of them.—Editor.

## BRECKENRIDGE CO-OP. BUYS WHEELER ELEVATOR

A deal was recently made by which the Breckenridge Farmers' Elevator purchased and is now operating the Wheeler Elevator. Stock in the Breckenridge elevator was worth 50 per cent or more advance on its original cost and together with profits it was decided to declare a 100 per cent dividend. The original stock was nominally \$25,000 but only \$15,000 had been sold. This stock dividend made \$30,000 stock, an increase to \$75,000 was authorized and of this \$42,000 has already been disposed of. This institution is in a very prosperous state and all the stockholders are pleased with conditions. It is expected that Walter Swope will be the new manager. He is an experienced man and will be a very successful manager of this elevator.

## DEVELOPMENT OF U. P. CATTLE INDUSTRY

The following report of the growth of the livestock industry in the upper peninsula was recently made by John A. Doelle, secretary-manager of the Upper Peninsula Development Bureau:

"The past three years have brought to upper Michigan some hundred or more new settlers, representing about twenty-five new ranches devoted to the grazing of approximately 41,000 head of sheep and 6,000 of cattle. The Cloverland Cattle Company, Manistique, and the Blaney Land and Cattle Company, near Blaney, are the two largest of the livestock operations, and these two propositions are looked upon to test out the cut-over areas of Cloverland for grazing purposes. They are both well organized and well officered and the results achieved by both should stand as a criterion for what others may expect to accomplish with a big grazing proposition.

"We cannot as yet, make any definite prediction, regarding upper Michigan's adaptability for cattle-raising on a large scale. We are looking to these people to furnish us with

the material. We do not feel, by any means, that Cloverland has ever been fully tested out for sheep and cattle. We know that most of our new settlers are making good, and are satisfied. We know, too, that a few have left us and gone back to the west.

"Though we know positively that only in one case has there been any complain about the land itself, the general conception is that all of those who left were dissatisfied—and, since we are exploiting this comparatively new country, the criticism has come thick and fast. The Bureau has had to fight most of it—and it is proving a big job. Influential western interests have allied against us in defense of their own properties and reputation. We know that Cloverland can and will make good—but constantly we are met by this destructive opposition which is taxing the Bureau to capacity to fight off."

## MERRITT CO-OPERATIVE ASS'N ORGANIZED

A co-operative marketing association with a membership of over 60 farmers has been organized at Merritt. Merritt is situated in the eastern part of Missaukee Co. and centrally located in as good a stock raising and grain growing locality as Michigan affords. This country is still in the making with plenty of cut over and partially cleared lands for enterprising, progressive farmers who wish to make a home. They will market stock of all kinds—beef, dairy cattle, sheep and hogs as well as wool, cream, poultry, eggs, grain, hay and potatoes.

The officers of the Merritt Co-operative Marketing Association are Frank B. Shaw, president; H. H. Hamilton, secretary and J. T. Hoard, treasurer.

## WHO GOT PROFITS ON APPLES

"Godfrey & Sons, commission merchants, cleaned up \$90,000 on apples last winter, which they bought for \$4 and \$5 a barrel from the farmer, and then sold to the retailer for \$11 and \$12," declared Mayor Hoan of Milwaukee during a speech delivered in Milwaukee on Friday evening.

"But why did the farmer sell his apples at \$4 and \$5 a barrel?" you naturally ask, for the simple reason that he was not organized to market them himself. He must either take that or let them rot, so he took what he could get. The commission merchant was prepared to buy them in a time of plenty, at harvest, and then placed them in storage until Mr.

Consumer was ready to shell out the mazuma for them. He charged all he could get and since Mr. Consumer was getting big wages and had plenty of money he charged a plenty for fear the money might otherwise burn a hole in Mr. C's pocket. But why blame the other fellow for taking the money when the producer and consumer are too indifferent to get busy and help themselves? Mr. Farmer doesn't want the money, it gives him a headache to take care of it and Mr. Consumer doesn't want it because he fears that it is "the root of all evil."

## AWAKENING IN N. E. MICHIGAN

Any one who has paid attention to Northeastern Michigan during the past quarter century and who has watched its rather slow development since its first big asset, the pine forests, were swept away by the demand for lumber and who sees the spirit which the various communities are going at a new development cannot but help to give notice to the awakened energy which has come to these communities.

Boards of commerce, farm bureaus, farmers' co-operative societies are springing up all over the district and are taking an active part in making their individual communities better places for homes and far better places in which to live and enjoy life than in the crowded industrial cities, where people often occupy beds in relays and where the rent of a single room is frequently more than that of a comfortable house in a small community, and where the profiteer fixes his price for necessities according to the wages paid by the factories.

Good roads are being constructed in every county and are helping not only to make life more comfortable for those who live near them, but are attracting hundreds of outsiders every year, especially during the summer season when the lakes and streams, the trout, bass and pike fishing, lure the city-weary men and women to the great out-of-doors.

Northeastern Michigan, with its fertile fields, its streams and its lakes and even with its stretches of jack pine plains, is a wonderful country, one that is better to come to than it is to go away from, and the people who are already a part of it will do well, not only to stay here, but to help spread its fame throughout the land by telling of the good things which it offers and by continuing the splendid spirit of co-operation and helpfulness which has been aroused among them during the past few years.

## My Experience in Draining Quicksand

TEN YEARS ago I moved from central Ind. to Newaygo county, Mich., and bought a farm. After framing it a year I found that tile drainage was needed on much of it. As there was no tile mill available I concluded to buy a hand cement tile machine. We operated it in the basement of the house in winter months, putting in all of our winter output the following spring. They are all holding up good except the swamp land, just begun decaying. Will say in regard to the cement tile, they will not stand up in any acid soil as the acid eats up the lime and they decay. Soil that has sufficient lime, they become firmer, but will say that I like them very much where I have to go through a bad piece of quicksand as the ends are straight and lay closer together.

Five years ago we bought 100 acres on the banks of the Muskegon river, 125 feet above river bed with many of the old river channels running across it and very wet and springy. We were not in need of any outlet but some method to tile-drain it, as the man we bought out had failed. When we came to examine it we found 16 inches of soil on top with six inches of quicksand under it with living water. Under this were six to 12 inches of gravel so when we commenced to dig the

whole thing would tumble in on us. We managed to get about four rods and abandoned it until fall; then completed it by putting one rod or two in each day, letting the water drain out of the quicksand.

If anyone does not know the nature of quicksand, just pour a few shot in a vial of water and hold it up and look at it. Quicksand is round of any size and will run with water, turning your tile on end. Many swamps and slews could be drained in Michigan by putting your tile in, in the fall, when there is no water, by going below the quicksand or draining the water off by degrees. Quicksand is as solid as any other sand when the water is drained off from it. I have improved many quicksand swamps and bogs in the past 10 years. All are giving perfect satisfaction. Gravel or cinders are the top soil, in fact anything that will screen the water out of the sand packing any of the three tightly around the tile. I have hauled gravel to these flaggy bogs when I would sink out of sight digging my ditch ahead of me and laying a single tile at a time, pouring gravel on it and pack it under and around it until it became perfectly solid, keeping a small board over the end. We have grown just as good corn over these spots as anywhere else in the field.—F. Moore, Newaygo, Mich.

## A SUCCESSFUL SALE

One of the most successful sales of the season and the first private sale to be held under the management of the Michigan Holstein Friesian Association occurred at Lansing on April 1st when Dwight G. Rapp dispersed his splendid herd of thirty head of Holsteins for a total of \$9,775, or an average of \$325 per head. The top price of \$800 was paid by James B. Jones of Detroit, Mich., for the splendid show cow and producer, Rosa Belle Nudine 2nd. The junior sire sold for \$700 and a 25-lb. four year old, Elmhurst Elsie Pontiac Clotho brought \$600. The heaviest buyer was E. F. Leland of Fort Wayne, Ind., who purchased eight head of the best for a total of \$3,100. The fact that everything was absolutely guaranteed and sold on a 60 day guarantee against tuberculosis with retest privilege gave the buyer every protection and bidding was lively throughout.

## FARM BUREAU BACKS COLLECTIVE BARGAINING

Receiving word that the Capper-Hersman bill legalizing collective bargaining by farmers was being held up in committee, Sec'y Bingham, of the Michigan State Farm Bureau, recently dispatched a letter, a copy of which follows, to each Michigan congressman and senator:

"Michigan farmers are anxious for action on the Capper-Hersman collective bargaining legislation now before Congress and it is the request of the Michigan State Farm Bureau, representing 37,548 Michigan farmers, that you endeavor to have this measure reported out of committee at an early date and urge its passage.

"Collective buying and selling of products must be done by farmers if they are to obtain full value of their products. Their natural isolated conditions make individual sale and purchase of commodities costly and unsatisfactory in a variety of ways, hence the vital need of the farmers, not only of Michigan but of the entire country, for legislation such as the Capper-Hersman bill is intended to be."

## POTATO MARKETS REMAIN FIRM

There was a limited to moderate movement of white varieties at Michigan and Minnesota shipping points. Demand and wire inquiry were fairly active. Prices ranged 10c higher than last week at \$5.70 to \$6.10 sacked per 100 pounds f. o. b. shipping points. Middle western consuming markets also were firm, advancing 15c to \$.65 to \$.615. St. Louis and Kansas City were again higher than the other markets at \$.615 to \$.650. New York round whites No. 1 gained about 30c reaching \$5.55 to \$6.15 with moderate demand. In New York bulk round whites No. 1 ranged \$5.70 to \$5.85 per 100 pounds. Maine Greenmountains were again unchanged in New York at \$5.55 to \$5.85. Shipments the past week were lighter than the previous week by about 350 cars and nearly 1,000 less than during this period last season 2,563 cars were shipped compared with 2,914 last week and 3,408 the same week last year. Virginia Norfolk section planting is still in progress but the ground is wet from heavy rains. Seed stock is still slow in arriving. Florida—After the early damage to the Hastings section from water and frost a comparatively small crop was expected but from the present appearance of the vines, the crop will be much larger than seemed possible three weeks ago. A few potatoes will move from the section during April. The bulk of the crop will move, however, after May 10 with the movement running over into early June. With the season later than usual, accurate yield figures can not be determined at present. The crop however, is in excellent condition at present and a yield at least up to the average is expected.—Bureau of Markets report for week ending April 5th.



# MARKET FLASHES



## WHEAT PRICES TOPS SEASON'S RECORD

WHEAT PRICES PER BU., APR. 13, 1920			
Grade	Detroit	Chicago	N. Y.
No. 2 Red	2.72		3.05
No. 2 White	2.70		3.02
No. 2 Mixed	2.70		3.02

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
No. 2 Red	2.55	2.50	2.51
No. 2 White	2.53	2.47	2.48
No. 2 Mixed	2.53	2.47	2.48

The Detroit wheat price is the highest today of the season the market advancing ten cents per bushel since last week. There is active demand for this grain, a considerable amount of which is now going overseas. The milling demand was good prior to the rail strike, but the shutting off of electric power may lessen this demand temporarily. Reports from the fall wheat acreage continue to be of a discouraging nature, the abandoned acreage exceeding the average by a large margin, and many of the fields now in bearing being infested with the Hessian fly. In the face of such conditions no one would assume to say to what heights wheat may go before the 1921 crop is harvested.

## CORN DROPS AFTER ADVANCE

CORN PRICES PER BU., APR. 13, 1920			
Grade	Detroit	Chicago	N. Y.
No. 2 Yellow	1.73	1.68	1.81 1/2
No. 3 Yellow	1.73	1.68	1.81 1/2
No. 4 Yellow	1.68	1.59	1.80 1/2

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
No. 2 Yellow	1.65	1.59	1.80 1/2
No. 3 Yellow	1.65	1.59	1.80 1/2
No. 4 Yellow	1.62	1.59	1.78

Corn was strong with other grains at the close of last week but on account of the difficulty of dealers to get their cars switched which forced them to pay demurrage charges, buying has dropped off considerably and there is an easier tone to the market. As soon as the rail congestion in the local yards is relieved and dealers can make good on their sales activity is expected to be resumed at least until such time as the suspended transportation of the country gets into motion again and supplies increase.

The bears who have been so conspicuous in the corn market for months past seem to have lost courage and there are few who dare gamble on lower prices. Opinion is practically unanimous that this market will tend upward until the new crop is harvested.

## OATS REACH NEW HIGH LEVEL

OAT PRICES PER BU., APR. 13, 1920			
Grade	Detroit	Chicago	N. Y.
No. 2 White	1.12	1.04	
No. 3 White	1.12	1.02 1/2	
No. 4 White	1.11		

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
Standard	.70	.70	.70
No. 3 White	.70 1/2	.69	.72
No. 4 White	.69 1/2	.69	.70

Oats have reached \$1.13 per bushel on the Detroit market, and gains strength every day. This crop is woefully short and a good many who had hopes of large supplies back in the farmers' hands have at last come to realize this fact. Oats have been in moderately good demand for export all the season. It was expected that the oat states would increase their acreage materially this spring but early forecasts of the acreage do not bear out that expectation. The backward spring from which all sections of the country are suffering has delayed seeding and farmers are getting uneasy. While it is yet too early to make a prediction on the 1920 oat acreage it is not believed that it will be much more than normal. This would be an unusual situation for as a general rule farmers plant heavily of a crop following a season of scarcity and high prices. Oats will be a safe crop for Michigan this year.

## RYE AND BARLEY

Rye continues firm, but there is little trading as we go to press, because of the scarcity of supplies. The price on the Detroit market is quoted at \$1.97. Barley has likewise ad-



**DETROIT**—Strike causing uncertain markets. Potatoes advance. Corn slumps following advance. Beans higher. Wheat in active demand and higher. Oats slump 2c after the advance. Hay in demand. Live stock in demand but supply is small.

**CHICAGO**—Markets very uncertain. Oats advance 3c. Corn off 1c. Potatoes higher.

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

## Weekly Trade and Market Review

THE ENTIRE commercial situation of the northern half of the country is at the mercy of the rebel strikers, and no one can say what the outcome will be. The strike has forced thousands of industrial plants to close their doors, throwing hundreds of thousands of workmen out of employment. Freight is at a standstill and the passenger service demoralized. Perishable food in transit has been left to rot and cities are short of supplies.

The effect of the strike is seen in nearly all industrial and commercial activities of the country and even if settled at once the loss occasioned will run into millions and will still further upset the financial balance. Profiteers and speculators are taking advantage of the shortage of supplies to boost prices and unheard of prices are being paid this week for some commodities in most of the cities of the strike region.

Practically all grain, with the exception of corn, vegetables and dairy products have advanced as a result of the strike. The farmer will receive little benefit of this increase, however, as the prices are abnormal and furnish no basis on which to make contracts for future supplies. The advance has scarcely been felt at local buying points, as the elevators and produce buyers naturally look for a reduction from the high crest of the "strike" prices when the movement again becomes normal and supplies increase. As a matter of fact the farmer will undoubtedly suffer eventually from the strike. The high price curtails consumption and it takes some time to recover from this effect even after normal conditions again prevail.

The strike has upset all predictions on the market. Except for this disturbance the grain markets would undoubtedly have advanced in a normal way, but it is almost certain that there will be some drop from present levels, though probably not great.

wanced jobbers offering \$3.25 per cwt. for No. 3 grade.

## BEANS FIRM AND HIGHER

BEAN PRICES PER CWT., APR. 13, 1920			
Grade	Detroit	Chicago	N. Y.
O. H. P.	6.75	7.25	7.50
Red Kidneys	13.00	14.75	

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
O. H. P.	7.50	7.50	8.00
Prime	6.75	7.00	7.25
Red Kidneys	10.25	11.00	10.75

Beans have taken another advance of 15c, the second in ten days, and the smallness of receipts is helping to sustain the market. Demand is as quiet as ever, but domestic supplies are gradually diminishing and there must come a change in this market before long. We had hoped by this time to have more encouraging news for our bean growers, but the "news" has not yet broke. Very

few farmers are selling beans at present prices, feeling that they would prefer to carry their crop over for another season if necessary rather than take a loss at present prices.

## POTATOES \$5 PER BUSHEL

SPUDS PER CWT., APR. 13, 1920		
Grade	Boiled	Bulk
Detroit	8.55	7.45
Chicago	7.25	7.45
Pittsburg	9.17	8.10
New York	9.00	

PRICES ONE YEAR AGO		
Grade	Boiled	Bulk
Detroit	2.90	2.25
Chicago	1.90	1.90
Pittsburg	3.50	3.40
New York	2.25	2.20

Potatoes responded the most as the result of the strike which still further curtailed supplies already inadequate for the normal demand. In two days' time potatoes advanced on the Detroit market from \$9.50 per 150 pounds to \$12.50. Some sales

were reported at around \$7 per bushel but the district attorney's agents soon got busy and forced the prices down, claiming that the profiteers were taking advantage of the situation. The strike is seriously interfering with the carlot movement of potatoes and local dealers are going slow on their purchases. If the strike continues long, thereby forcing people to pay exorbitant prices or go without spuds, it may have a serious affect upon the price for the balance of the season. A period of warm weather immediately following the settlement of the strike would, it is the opinion of some, mean a sudden unloading of supplies to take advantage of the high prices with the result that prices would immediately drop to below normal values. However, the price of potatoes is now so high that there is little likelihood that they will drop much below the level which they have held for several weeks past.

## HAY STRONG

HAY PRICES A YEAR AGO			
Grade	Detroit	Chicago	N. Y.
No. 1 Tim.	33.50	34.00	34.50
Stan. Tim.	32.50	33.00	33.50
No. 2 Tim.	31.50	32.00	32.50

HAY PRICES PER TON			
Grade	Detroit	Chicago	N. Y.
No. 1	32.50	33.00	33.50
Light Mix.	31.50	32.00	32.50
Olover Mix.	34.00	34.50	35.00

Inadequate supplies and strong demand is keeping the hay market in a firm condition. The lateness of the spring will retard the pastures and force many farmers to feed hay for several weeks later than usual. A big factor in the future of this market will be the car supply and transportation. We do not look for any material declines in this market, but feel that farmers who want to take advantage of the top-notch price should not delay much longer in getting their supplies to market.

## BOSTON WOOL MARKET

The Commercial Bulletin says: "There is a somewhat better tone to the market, as shown in the government auction Thursday. Fine wools are still in demand, and there is said to be some business in medium wools but prices are somewhat uncertain on these wools."

"The foreign markets are steady. The manufacturing situation is hardly changed, mills being well engaged on old orders, but finding new business very uneven. Little new is reported from the west."

Ohio and Pennsylvania fleeces—Delaine unwashed, 97c@91; fine unwashed, 74@76c; 1-2 blood combing 83@85c; 3-3 blood combing, 62@70c.

Michigan and New York fleeces—Fine unwashed, 70@73c; delaine unwashed, 85c; 1-2 blood unwashed, 80@82c; 3-4 blood, unwashed, 67@68c.

Wisconsin, Missouri and average New England—1-2 blood, 72@75c; 3-3 blood, 63@65c; 1-4 blood, 60c.

Virginia, Kentucky and similar—1-2 blood unwashed, 35@36c; 1-4 blood, unwashed, 67@68c.

Secured basis: Texas—Fine 12 months \$1.90@1.95; fine 3 months, \$1.60@1.70.

California—Northern, \$1.90 @ 1.95; middle county, \$1.70@1.75; southern, \$1.50@1.60.

Oregon—Eastern No. 1, staples, \$2 @2.10; eastern clothing, \$1.70@1.80; Valley No. 1, \$1.70@1.75.

Territory—Fine staple, \$2.05 @ 2.15; half blood combing, \$1.85 @ 1.95; 3-3 blood combing, \$1.50; fine clothing, \$1.75@1.85; fine medium clothing, \$1.65@1.75.

Pulled—Extra, \$1.95@2.05; AA 1.90@1.95; A supers, \$1.65@1.75. Mohairs—Best combing, 60@65c; best carding, 55@60c.

## THE WEATHER FOR THE WEEK

As Forecasted by W. T. Foster for The Michigan Business Farmer



WASHINGTON, D. C., April 17, 1920.—Warm waves will reach Vancouver about April 14, 24, 27, May 1, and temperatures will rise on all the Pacific slope. They will cross crest of Rockies by close of 17, 22, 23, May 2; plains sections 18, 23, 28, May 3; meridian 30, upper great lakes, lower Mississippi valleys, Ohio-Tennessee valleys 19, 25, 30, May 4; eastern sections 20, 25, May 1, 5, reaching vicinity of Newfoundland about April 27, 28, May 2, 6. Storm waves will follow about one day behind warm waves, cool waves about one day behind storm waves.

cropweather from near April 17 to near May 6. Severe storms and most rain are expected during the week centering on April 23 and frosts will go far south during the week centering on April 17. No material cropweather change is expected during April. The average precipitation and the departures from normal temperatures for February, March, April, thus far, are expected to continue, at least, to May 6. This is a very plain, easily understood, positive crop weather forecast covering April 17 to May 6.

The most dangerous storms ahead of us appear to be timed for the weeks centering on May 12 and 24. First mentioned will probably be most severe, but I advise care in reference to both of them. Heavy rains are expected from the first mentioned where precipitation has already been sufficient.

W. T. Foster



**DETROIT PRODUCE MARKET**

Offerings of all kinds of produce are light and market firm. The scarcity less obvious in eggs than elsewhere. Offerings quite liberal and there is no sign of scarcity for the next few days. Potatoes higher and very scarce. Buyers taking all the poultry offered and the supply is sufficient. Dressed hogs and calves are scarce and firm, in the fruit deal trading was slow and general tone steady, although western boxes were quoted higher and the supply was light. This line feels the effect of the strike more than any other as the goods have so far to come over the railroads. Butter receipts are quite liberal and lower prices are quoted. Chicago quotes lower butter prices owing to shipments going to that market instead of elsewhere. It is the same here. Detroit is getting butter that would go to New York but for the strike.

Apples—Western boxes, \$4.50 @ 5; Baldwin, \$3 @ 3.50; Greening, \$3.25 @ 3.50; Steel's Red, \$3.50 @ 4 per bu.

Calves (dressed)—Fancy, 25 @ 26c No. 2, 20 @ 22c per lb.

Onions—Indiana, \$6.50 @ 7 per 100 pound sack.

Dressed hogs—Best, 20 @ 21c; heavy, 18 @ 19c per lb.

Live poultry—Spring chickens, best, 40 @ 42c; leghorns, 40 @ 42c; hens, 45 @ 48c; small hens, 42 @ 45c; roosters, 24 @ 25c; geese, 30 @ 35c ducks, 40 @ 45c; turkeys, 44 @ 45c per lb.

**LIVESTOCK IN BETTED POSITION**

The strike has raised the most havoc in the livestock trade, and because of the necessity of feeding en route, rail shipments have all but ceased in some of the mid-west sections. This immediately makes for a tighter and higher prices for the stuff that was fortunate enough to reach the livestock yards. Farmers who are in a position to truck or drive their cattle to the Detroit yards will profit from the present situation. We have heard a number of farmers state that they were going to truck their cattle through to Detroit this week. The strike is also a temporary benefit to the farmer who sells to his local butcher who as a rule purchases a large share of his meat in dressed form from the packers and who will be obliged to depend upon the local supply until freight is again moving.

**LIVE STOCK MARKETS**

**CHICAGO**—Cattle: Killing yearlings mostly 25 to 50c higher; top, \$14.75; other beef steers and she-stock about 25c higher; bulk steers, \$11.50 @ 13.50; best heavy steers, \$14.25; butcher cows, largely \$8.50 @ 10; canners around \$5; bulls are steady to lower, demand narrow; veal calves, \$1 to \$2 lower; bulk to packers, \$12 @ 12.50; no trade in stockers and feeders. Hogs: Market unevenly higher; bulk 25 to 50c higher, heavy weight gaining most; top, \$15.25; bulk, \$14.40 @ 15.25; closed strong; pigs, 25 to 50c higher; light pigs largely \$12.50 @ 13. Sheep: Market mostly steady; offerings are largely shorn lambs at \$16 @ 17.25; on load, \$17.50; no good woolled lambs offered; good woolled ewes, at \$14.

**EAST BUFFALO**—Dunning & Stevens report: Cattle, strong. Hogs: strong; heavy, \$17 @ 17.50; yorkers, \$18 @ 18.25; pigs, \$17.25 @ 17.50. Sheep: steady, wool lambs, \$22.50; clipped, \$19 @ 20; yearlings, \$18.50 @ 19.50; wethers, \$16 @ 17; ewes, \$14 @ 14.50. Calves, \$7 @ 19.

**FARMING FOR EUR**

Farming for fur promises to become a lucrative occupation. Many skunk farms are now in operation and fox farms as well. This is especially true in Canada. Prince Edward Island, the smallest province of the Dominion, with an area of only two thousand square miles (about the size of three ordinary counties in the central West) and a population of only ninety-four thousand people, has two hundred seventy-five fox farms, from which the revenue the past year has been \$1,000,000. It is conservatively estimated that this revenue can be doubled.

**General Review of Potato Market**

**THE POTATO** market this spring has shot holes into everybody's predictions. Sixty days ago, ninety per cent of the farm papers, the farmers and the market experts were in agreement that prices had reached their high level and that any changes would be downward. Thirty days ago found values even higher, but with the prophets still quoting scripture, statistics and precedent to prove that the crest had been reached. But the "false prophets" of the Bible had nothing on the potato prophets of 1920. The potato market is still soaring and no man knows to what heights it may go.

It is inevitable that some farmers should have been deceived by the reports and predictions that have been made and been a little hasty in disposing of their holdings. **THE BUSINESS FARMER** advised its readers to hold their potatoes until late in December when it recommended that a portion of them be sold. The price at that time was good in comparison with the prices of the previous two years, and we feared that prices might recede as they had so frequently done in previous years following the holiday season. Fortunately, this did not happen, but we continued to advise our readers who had their stock stored in readily available places, to keep feeding their supplies to the market gradually, believing that this practice would if followed consistently bring to the majority of growers the largest possible returns for their crop. Hundreds of farmers who stored their potatoes in pits last fall and were unable to reach them until spring found their stock frosted and even the high prices insufficient to compensate them for the loss sustained by reason of their holding them over. Others who stored their potatoes in this manner without any damage to the spuds have profited by so doing.

Some farmers have taken exception to the advice given by **THE BUSINESS FARMER** claiming that by following it they lost money. Investigation shows that the majority of

these did not follow this advice to the letter. A good many who had their potatoes in warehouses sold all their holdings last December when we advised them to sell a part. They thought they would go us one better, concluding that if it was our judgment that it was good business to sell a part of the crop, it was better business to sell all, which was, of course, not the case. We are frank to admit that farmers who followed our advice to the letter and fed their potatoes to the market gradually have not received as much money from their crop as those who ignored this advice and held all their spuds till this spring. Yet at no time since January 1st has the price been so low as to cause the farmer who sold an actual loss. This fact is inescapable: That had all the farmers of the country withheld their potatoes from the market last winter waiting for the higher prices of spring, the consumer would have gone without potatoes, and warm weather would have seen hundreds of carloads dumped onto the market to meet a decreased demand and consumption, which would have resulted in low prices and losses to the farmer. It must be apparent to everyone that some farmers must lose or sell at a low price in order that other farmers may secure the top price. Not all can get the highest price of the season. For price is subject to many influences aside from supply and demand, such as weather, movement, condition of supplies, prices of other foods, etc.

Some time when all the farmers of the country are organized the potato growers will recognize the absolute necessity of selling portions of their crop at stated seasons of the year. All that is necessary for them to do to prove to their own satisfaction the wisdom of such a course is to refer back to former years, and figure out in dollars and cents the practice that would have brought them in the greatest amount of money.

**Dairymen Want a Central Distributing Plant**

(Continued from page 3)

like a fair proposition to Judge Connolly, and we understand that he has taken the matter under advisement and will take some action to officially determine what the farmers should receive for their milk during the period in which their fair price to the consumer may be in force. Additional hearings are being held upon the matter as we go to press.

**Would Dairymen Strike?**

It has been rumored that the dairymen might strike if the price fixed by the Fair Price Board was too low to pay them cost of production. While there is not, of course, any law which prevents an individual from refusing to produce milk or anything else the Lever law through which the Fair Price Board gets its legal authority, expressly forbids two or more persons to conspire for the purpose of limiting production of foodstuffs, and under this law which will remain in effect until the treaty of peace with Germany is signed, it would clearly be illegal for the members of the Milk Producers' Ass'n to agree among themselves to reduce production and sale of their product. It is not believed, however, that such an eventuality as this is likely to occur. Present negotiations are likely to result in a continued fair price to the farmer which will enable him to carry on his business without loss or curtailment.

**General Dairy Situation**

The development in the Detroit area is particularly unfortunate at this time because of the surplus of dairy products. Farmers who have sold milk to condensaries have already felt the pinch of slackened demand. In the dairy districts surrounding some of the big cities the price has dropped 50 per cent. In

Chicago farmers are receiving but \$2.50 per cwt. for their milk, and their Association held a big meeting down there last week to determine what should be done.

It goes without saying that the dairy industry cannot stand the loss which now seems inevitable without serious damage. Farmers will certainly be obliged to reduce their herds and cut down production. Then in time the vast surplus of condensed milk may be consumed and condensaries will again be in the market. But by that time the dairy herds will have been depleted, and we shall have another period of shortage and high prices, to be followed in due season by surplus and low prices.

**Would Advertise Product**

The only means that has been suggested for getting rid of the milk surplus without loss to the producer, is to advertise the product, and create a greater demand from the people of the cities. Manufacturers and producers of nearly all other commodities spend enormous sums in advertising their product, and with good results. The Michigan Milk Producers' Ass'n has an advertising fund but it is not large enough to secure appreciable results. Under a plan which we are not at present at liberty to disclose the State Association hopes to inaugurate, with the approval of the members, an intensive advertising campaign, to cost at least \$40,000, one-half of which will be borne by the producers and the other half by the distributors. At such meetings as this proposition has been discussed, the majority of the producers have favored it, and it is our conviction that the plan mentioned, if backed by sufficient amount of money, will increase the demand and consumption of dairy products very materially.

**WOOL FUTURE**

Wool has sold at 60 to 69 cents per pound during the past week at shearing stations adjacent to Chicago, these prices being paid for half blood Western clips. Fine wools are worth 80c to \$1.00 per pound in Boston, while quarter-blood goes begging bids.

How long this condition will continue must be left to conjecture. J. D. Halliday, president of the National Wool Warehouse Company at Chicago, himself an extensive wool grower, who says:

"Supply of grease wool, here and abroad, while ample for present needs is meeting an extraordinary demand so that growers need feel no concern about maintenance of prices. Manufacturing equipment in this country and abroad is working to full capacity, weavers in the United States consuming about 60 million pounds of wool monthly. The buying power of the public appears ample and well distributed, which coupled with the temperamental disposition of the American people to buy beyond actual needs when means are plentiful, supplies the requirements of a strong wool market.

"An unusual situation is presented in the wide range of prices between the different grades of wool, which is without precedent and is the direct result of an insistent consumptive demand for fine fabrics. This has impaired the market for medium and coarse wools. It is a condition not likely to continue, however, probability being that attractive and serviceable fabrics resulting from the blending of coarse and fine wools, will in due time appeal to the sentiment and common sense of the buying public, resulting in readjustment of prices favorable to medium and coarse grades."

**UNCLE RUBE SPINACH SAYS**

(Continued from page 4)

receivin' less than they are entitled to and two railroad companies unwillin' to pay a fair wage to men in dangerous occupations will be the means of throwing thousands of men an' women out of employment, will prevent the shipment of the necessities of life into the city, will help the farmers from disposin' of their farm products, will shut off the supply of raw material from hundreds of the factories an' stagnate business entirely for nobody knows how long.

What is true of Battle Creek is true of hundreds of other cities an' communities an' yet there is no law to reach such matters—the government through congress an' president Wilson or who ever it is that's responsible for the laws of this free democracy have been so busy jangling over the League of Nations an' what we shall do for European countries that, by gash they've forgot that we have a country of our own to look after an' everything seems to be running loose and wild don't seem to be no head to anything an' kinda looks like we would all go to the devil an' nothin' being done to stop us.

Seems to me there might be some sort of commission appointed who would have absolute authority to settle all disputes between laborers and employers an' if either party refused to abide by their decision jest lock 'em up until they come to their senses. Sure it is, if there is not somethin' done purty soon there is gain' to be a jamboree right here in free America that will make the little squabbles over in Europe, that country that our president loves so well, look like a summer picnic.

When men are out of work an' money runs low an' expenses runs high an' hunger stares 'em in the face an' their family are gettin' destitute then look out! Darn rash thoughts gets into a fellers system at such a time an' strange things happen an' who will the blame rest on—not on Europe nor on the hungry and destitute, but, seems to me the government down at Washington will have a mighty serious subject for thought. What do you think? Cordially yours —UNCLE RUBE.

**SLANDER**

Counsel—"Was the prisoner sober?"  
Witness—"No, sir; he was as drunk as a judge."  
The Judge—"You mean as drunk as a lord!"  
Witness—"Yes, my lord!"—London Tit-Bits.

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AND while Francis Morgan and the long and suffering Maya half breed plodded on deeper into the Cordilleras to overtake the rest of their party ahead, and while the oil fields of Juchitan continued to go up in increasing smoke, still farther on, in the heart of the Cordilleras, were preparing other events destined to bring together all pursuers and all pursued—Francis and Henry and Leoncia and their party; the peon; the party of the hacendados; and the gendarmes of the Jefe and, along with them Alvarez Torres, eager to win for himself not only the promised reward of Thomas Regan but the possession of Leoncia Solano.

In a cave sat a man and a woman. Pretty the latter was, and young, a mestiza, or half-caste woman. By the light of a cheap kerosene lamp she read aloud from a calf bound tome which was a Spanish translation of Blackstone. Both were bare-footed and bare-armed, clad in hooded gabardines of sack-cloth. Her hood lay back on her shoulders, exposing her black and generous head of hair. But the old man's hood was cowed about his head after the fashion of a monk. The face, lofty and ascetic, beaked with power, was pure Spanish. Don Quixote might have worn precisely a similar face. But there was a difference. The eyes of this old man were closed in the perpetual dark of the blind. Never could he behold a windmill at which to tilt.

He sat, while the pretty mestiza read to him, listening and brooding, for all the world in the pose of Rodin's "Thinker." Nor was he a dreamer, nor a tilter of windmills, like Don Quixote. Despite his blindness, that ever veiled the apparent face of the world in invisibility, he was a man of action, and his soul was anything but blind, penetrating unerringly beneath the show of things to the heart and the soul of the world and reading its inmost sins and rapacities and noblenesses and virtues.

He lifted his hand and put a pause in the reading, while he thought aloud from the context of the reading.

"The law of man," he said with slow certitude, "is today a game of wits. Not equity, but wit, is the game of law today. The law in its inception was good; but the way of the law, the practice of it, has led men off into false pursuits. They have mistaken the way for the goal, the means for the end. Yet is law law, and necessary, and good. Only, law, in its practice today, has gone astray. Judges and lawyers engage in competitions and affrays of wit and learning, quite forgetting the plaintiffs and defendants, before them and paying them, who are seeking equity and justice and not wit and learning.

"Yet is old Blackstone right. Under it all, at the bottom of it all, at the beginning of the building of the edifice of the law, is the quest, the earnest and sincere quest of righteous men, for justice and equity. But what is it that the Preacher said? 'They made themselves many inventions.' And the law, good in its beginning, has been invented out of all its intent, so that it serves neither litigants nor injured ones, but merely, the fatted judges and the lean and hungry lawyers who achieve names and paunches if they prove themselves cleverer than their opponents and than the judges who render decision."

He paused, still posed as Rodin's "Thinker," and meditated, while the mestiza woman waited his customary signal to resume the reading. At last, as out a profound of thought in which universes had been weighed in the balance, he spoke:

"But we have law here in the Cordilleras of Panama, that is just and right and all of equity. We work for no man and serve not even paunches. Sack-cloth and not broadcloth conduces to the equity of judicial decision. Read on, Mercedes. Blackstone is always right if always rightly read—which is what is called a paradox, and is what modern law ordinarily is, a paradox. Read on. Blackstone is the very foundation of human law—but, oh, how many

## "Hearts of Three"

By JACK LONDON

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

### Synopsis of Preceding Chapters

**FRANCIS MORGAN**, a New York millionaire, becomes bored with society and decides to take an extensive fishing trip. Regan, Francis' broker, plans to ruin Francis through his Wall Street holdings. Regan pays Torres, a dark-skinned visitor from the Caribbean Islands who knows of a treasure buried by a pirate ancestor of Francis, to lure young Francis away. The lure works and Francis starts out alone. He lands on an island whither he has been beckoned by a girl on the shore. The girl mistakes Francis for a lover with whom she has quarreled. Francis explores another island where he meets a young man who gives him the name of Henry Morgan and proves to be a relative of Francis. He is also hunting for the treasure. They form a partnership. Francis learns that Henry is the lover of the girl he met and that her name is Leoncia Solano. Francis returns to the first island where he is captured by Torres and the Jefe Polifco of San Antonio. They proclaim him to be Henry, whom they wish to hang for a murder he did not commit. They are about to hang him when Henry appears. They release Francis and throw Henry into prison. The Solanos and Francis release Henry and they escape to the boat that Francis has chartered. They are pursued by Torres and the Jefe with his soldiers. They land on an island where they procure horses and start through the hills with the Jefe and his gang in pursuit.

wrongs are cleverly committed by clever men in his name!"

Ten minutes later, the blind thinker raised his head, sniffed the air, and gestured the girl to pause. Taking her cue from him, she, too, sniffed:

"Perhaps it is the lamp, O Just One," she suggested.

"It is burning oil," he said. "But it is not the lamp. It is from far away. Also, have I heard shooting in the canyons."

"I heard nothing—" she began. "Daughter, you who see have not the need to hear that I have. There have been many shots fired in the canyons. Order my children to investigate and make report."

Bowing reverently to the old man who could not see but who, by keen-trained hearing and conscious timing of her every muscular action, knew that she had bowed, the young woman lifted the curtain of blankets and passed out into the day. At either side the cave-mouth sat a man of the peon class. Each was armed with rifle and machete, while through their girdles were thrust naked-bladed knives. At the girl's order, both arose and bowed, not to her, but to the command and the invisible source of command. One of them tapped with a back of his machete against the stone upon which he had been sitting, then laid his ear to the stone and listened. In truth, the stone was but the out-jut of a vein of metalliferous ore that extended across and through the heart of the mountain. And beyond, on the opposite slope, in an eyrie commanding the magnificent panorama of the descending slopes of the Cordilleras, sat another peon, who first listened with his ear pressed to similar metalliferous quartz, and next tapped response with his machete. After that, he stepped half a dozen paces to a tall tree, half dead, reached into the hollow heart of it, and pulled on the rope within as a man might pull who was ringing a steeple bell.

But no sound was evoked. Instead a lofty branch, fifty feet above his head, sticking out from the main trunk like a semaphore arm, moved up and down like the semaphore arm it was. Two miles away, on a mountain crest, the branch of a similar semaphore tree replied. Still beyond that, and farther down the slopes, the flashing of a hand-mirror in the sun heliographed the relaying of the blind man's message from the cave. And all that portion of the Cordilleras became voluble with coded speech of vibrating ore-veins, sun-flashings, and waving tree-branches.

While Enrico Solano, slenderly erect on his horse as an Indian youth and conveyed on either side by his sons, Alesandro and Ricardo, hanging to his saddle trappings, made the best of the time afforded them by Francis' rear guard battle with the gendarmes, Leoncia, on her mount, and Henry Morgan, lagged behind. One or the other was continually glancing back for the sight of Francis overtaking them. Watching his

opportunity, Henry took the back-trail. Five minutes afterward, Leoncia, no less anxious than he for Francis' safety, tried to turn her horse about. But the animal eager for the companionship of its mate ahead, refused to obey the rein, cut up and pranced, and then deliberately settled into a balk. Dismounting and throwing the reins on the ground in the Panamanian method of tethering a saddle horse, Leoncia took the back trail on foot. So rapidly did she follow Henry, that she was almost treading on his heels when he encountered Francis and the peon. The next moment, both Henry and Francis were chiding her for her conduct; but in both their voices was the involuntary tenderness of love, which pleased neither to hear the other uttering.

Their hearts more active than their heads, they were caught in total surprises by the party of hacendados that dashed out upon them with covering rifles from the surrounding jungle. Despite the fact that they captured the runaway peon, whom they proceeded to kick and cuff, all would have been well with Leoncia and the two Morgans had the owner of the peon, the old-time friend of the Solano family, been present. But an attack of the malarial fever, which was his due every third day, had stretched him out in a chill near the burning oil-field.

Nevertheless, though by their blows they reduced the peon to weepings and pleadings on his knees, the hacendados were courteously gentle to Leoncia and quite decent to Francis and Henry, even though they tied the hands of the latter two behind them in preparation for the march up the ravine slope to where the horses had been left. But upon the peon, with Latin-American cruelty, they continued to reiterate their rage.

Yet were they destined to arrive nowhere, by themselves, with their captives. Shouts of joy heralded the debouchment upon the scene of the Jefe's gendarmes and of the Jefe and Alvarez Torres. Arose at once the rapid-fire, staccato, bastard-Latin of all men of both parties of pursuers, trying to explain and demanding explanation at one and the same time. And while the farrago of all talking simultaneously and of no one winning anywhere in understanding, made anarchy of speech, Torres with a nod to Francis and a sneer of triumph to Henry, ranged before Leoncia and bowed low to her in true and deep hidalgo courtesy and respect.

"Listen!" he said, low voiced, as she rebuffed him with an arm movement of repulsion. "Do not misunderstand me. Do not mistake me. I am here to save you, and, no matter what may happen, to protect you. You are the lady of my dreams. I will die for you—yes, and gladly, though far more gladly, would I live for you."

"I do not understand," she replied curtly. "I do not see life or death in the issue. We have done no wrong. I have done no wrong, nor has my father. Nor has Francis Morgan, nor has Henry Morgan. Therefore, sir, the matter is not a question of life or death."

Henry and Francis, shouldering close to Leoncia, on either side, listened and caught through the bubble-bubble of many voices the conversation of Leoncia and Torres.

"It is a question absolute of certain death by execution for Henry Morgan," Torres persisted. "Proven beyond doubt is his conviction for the murder of Alvaro Solano, who was your own full-blood uncle and your father's own full-blood brother. There is no chance to save Henry Morgan. But Francis Morgan can I save in all surety, if—"

"If?" Leoncia queried, with almost the snap of jaws of a she-leopard.

"If . . . you prove kind to me, and marry me," Torres said with magnificent steadiness, although two Gringos helpless, their hands tied behind their backs, glared at him thru their eyes their common desire for his immediate extinction.

Torres, in a genuine outburst of his passion, though his rapid glance had assured him of the helplessness of the two Morgans, seized her hands in his and urged:

"Leoncia, as your husband I might be able to do something for Henry. Even may it be possible for me to save his life and his neck, if he will yield to leaving Panama at once."

"You Spanish dog!" Henry snarled at him, struggling with his tied hands behind his back in an effort to free them.

"Gringo cur!" Torres retorted, as, with an open back-handed blow, he struck Henry on the mouth.

On the instant Henry's foot shot out, and the kick in Torres' side drove him staggering in the direction of Francis, who was no less quick with a kick of his own. Back and forth like a shuttlecock between the batalladores, Torres was kicked from one man to the other, until the gendarmes seized the two Gringos and began to beat them in their helplessness. Torres not only urged the gendarmes on, but himself drew a knife, and a red tragedy might have happened with offended Latin-American blood up and raging, had not a score or more of armed men silently appeared and silently taken charge of the situation. Some of the mysterious newcomers were clad in cotton singlets and trousers and others were in cowled gabardines of sackcloth.

The gendarmes and hacendados recoiled in fear, crossing themselves, muttering prayers and ejaculating: "The Blind Brigand!" "The Cruel Just One!" "They are his people!" "We are lost."

But the much-beaten peon sprang forward and fell on his bleeding knees before a stern-faced man who appeared to be the leader of the Blind Brigand's men. From the mouth of the peon poured forth a stream of loud lamentation and outcry for justice.

"You know that justice to which you appeal?" the leader spoke gutturally.

"Yes, the Cruel Justice," the peon replied. "I know what it means to appeal to the Cruel Justice, yet do I appeal, for I seek justice and my cause is just."

"I, too, demand the Cruel Justice!" Leoncia cried with flashing eyes, although she added in an undertone to Francis and Henry: "Whatever the Cruel Justice is."

"It will have to go some to be unfairer than the justice we can expect from Torres and the Jefe," Henry replied in similar undertones, then stepped forward boldly before the cowed leader and said loudly: "And I demand the Cruel Justice."

The leader nodded. "Me, too," Francis murmured low and then made loud demand.

The gendarmes did not seem to count in the matter, while the hacendados signified their willingness to abide by whatever justice the Blind Brigand might mete out to them. Only the Jefe objected.

"Maybe you don't know who I am," he blustered. "I am Mariano Vercara e Hijos, of long illustrious name and long and honorable career. I am Jefe Politico of San Antonio, the highest friend of the governor, and high in the confidence of the government of the Republic of Panama. I am the law. There is but one law and one justice, which is of Panama and not in the Cordilleras. I protest against this mountain law you call the Cruel Justice. I shall send an army against your Blind Brigand, and the buzzards will peck his bones in San Juan."

"Remember," Torres sarcastically warned the irate Jefe, "that this is not San Antonio, but the bush of Juchitan. Also, you have no army."

"Have these two men been unjust to any one who has appealed to the Cruel Justice?" the leader asked abruptly.

"Yes," asserted the peon. "They too, have beaten me and without cause. My hand is bloody. My body is bruised and torn. Again I appeal to the Cruel Justice, and I charge these two men with injustice."

The leader nodded and to his own men indicated the disarming of the prisoners and the order of the march.

"Justice!—I demand equal justice!" Henry cried out. "My hands should be so tied, or no hands be so tied. Besides, it is very difficult to walk when one is so tied."

The shadow of a smile drifted the lips of the leader as he directed his men to cut the lashings that invidiously advertised the inequality complained of.

"Huh!" Francis grinned to Leoncia and Henry. "I have a vague memory that somewhere around a million years ago I used to live in a quiet little old burg called New York, where we foolishly thought we were the wildest and wickedest that ever cracked at a golf ball, electrocuted an Inspector of Police, battled with Tammany, or bid four nullo with five sure tricks in one's own hand."

"Huh!" Henry vouchsafed, half an hour later, as the trail, from a lesser crest, afforded a view of higher crests beyond. "Huh! and hell's bells! These gunny-sack chaps are not animals of savages. Look, Francis! They are semaphoring! See that near tree there, and that big one across the canyon. Watch the branches wave."

Blindfold for a number of miles at the last, the prisoners, still blindfolded, were led into the cave where the Cruel Justice reigned. When the bandages were removed, they found themselves in a vast and lofty cavern, lighted by many torches, and, confronting them, a blind and white-haired man in sackcloth, seated on a rock hewn throne, with, beneath him, her shoulder at his knees, a pretty mestiza woman.

The blind man spoke, and in his

voice was the thin and bell-like silver of age and weary wisdom.

"The Cruel Justice has been invoked. Speak! Who demands decision and equity?"

All held back, and not even the Jefe could summon heart of courage to protest against Cordilleras law.

"There is a woman present," continued the Blind Brigand. "Let her speak first. All mortal men and women are guilty of something or else are charged by their fellows with some guilt."

Henry and Francis were for withstraining her, but with an equal smile to them she addressed the Cruel Just One in clear and ringing tones:

"I have only aided the man I am engaged to marry to escape from death for a murder he did not commit."

"You have spoken," said the Blind Brigand. "Come forward to me."

Piloted by sackcloth men, while the two Morgans who loved her were restless and perturbed, she was made to kneel at the blind man's knees. The mestiza girl placed his hand on Leoncia's head. For a full and solemn minute silence obtained while the steady fingers of the Blind One rested about her forehead and registered the pulse-beats of her temples. Then he moved his hand and leaned back to decision.

"Arise, Senorita," he pronounced. "Your heart is clean of evil. You go free.—Who else appeals to the Cruel Justice?"

Francis immediately stepped forward.

"I likewise helped the man to escape from an undeserved death. The man and I are of the same name, and, distantly, of the same blood."

He, too, knelt, and felt the soft finger lobes play delicately over his brows and temples and come to rest finally on the pulse of his wrist.

"It is not all clear to me," said the Blind One. "You are not at rest nor at peace with your soul. There is trouble within you that vexes you."

Suddenly the peon stepped forth and spoke unbidden, his voice evoking a thrill as of the shock of blasphemy from the sackcloth men.

"Oh, Just One, let this man go," said the peon passionately. "Twice was I weak and betrayed him to his enemy this day, and twice this day has he protected me from my enemy and saved me."

And the peon, once again on his knees, but this time at the knees of justice, thrilled and shivered with superstitious awe, as he felt wander over him the light but firm finger-touches of the strangest judge man ever knelt before. Bruises and laceration were swiftly explored even to the shoulders and down the back.

"The other man goes free," the Cruel Just One, announced. "Yet is there trouble and unrest within him."

(Continued on page 15)

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### Johnson and the League of Nations.

JOHNSON'S success in Michigan is being pointed out as a repudiation of the League of Nations idea. We do not look upon it as such at all. Johnson's attitude toward a League of Nations has not been generally understood, and thousands voted for the Californian who in their hearts believe in an international peace tribunal and supposed that Johnson favored the idea although opposed to the league covenant in its present form.

Johnson won in Michigan on his personality. As the running mate of Roosevelt in 1912 he polled a tremendous vote, far greater in fact than he polled in the primary election. His pugnacious countenance, his record as a scrapper, his condemnation of special privilege and the corrupting influence of money in politics, and his former association with Roosevelt,—all had a powerful influence on the popular imagination which found expression at the polls.

Johnson's success in Michigan was fortunate in several respects. In only one respect we can mention was it unfortunate. Of all the candidates in the field Johnson depended the least upon organization and political palaver. While all his leading opponents spent thousands of dollars to line up the party machines and to advertise their promises, Johnson went over the heads of the local organizations straight to the people and won by pure personality. His success restores our faith in the good sense of the people and their ability to think and act for themselves without the dictation of the local political machines. In that respect Johnson's success was fortunate.

But all the advantages that democracy might have gained in the triumph of independent action over organized dictation may be more than offset by the blow to the League of Nations idea which the Johnson success seems to deliver. Greater than all the nation's domestic problems combined is the question of America's future place in the affairs of the world. Within a League of Nations we can at least partially observe what is going on about us in the diplomatic affairs of our neighbors. Outside of the League we have the entire world against us, jealous of our prosperity, distrustful of our "democracy", injured at heart because we cannot trust it, and therefore ready upon any pretext to organize a coalition against us. Outside of the League of Nations, with all the other powers on the inside, the United States must equip and maintain a standing army and navy of sufficient strength to whip the world.

The League of Nations issue will loom up larger and larger as the conventions and election approach, and if the people have their way about it the candidate who gives the best promise of securing for the United States a safe and dignified position in the international peace tribunal, will be the next President. An ideal way of sounding out the sentiment of the people on the League of Nations issue would be by a referendum vote which would bind the next President to carry out the wishes of the people.

In this way we would not have to sacrifice a Johnson on the issue or take a lesser man.

### Exit Edwards.

THE WETS must be pretty well starved for propaganda food to find any comfort in the Michigan election which gave Edwards 13,196 votes, or less than 4 per cent of the entire vote cast in Michigan. Yet they are using the Edwards vote as an argument that the "prohibition sentiment is turning".

In the old local option days there were always a few people in every community who voted for every candidate for office who was known to be opposed to local option. That was all the qualification the candidate had to have. He could be the most depraved individual of the community, and yet there was always those few who went to the polls and voted for him if they voted for nothing else. These voters aren't all dead yet by any means, and in the aggregate they represent quite a considerable body of people. They have shown their hand in every election of recent years where the wet and dry issue have been in evidence, and they showed their hand in last Monday's election when they put all other considerations of their country's welfare behind them and voted for Edwards.

It is no surprise that Edwards received 13,000 votes. The surprise is that he didn't receive twice as many. If the Edwards votes shows anything at all it shows that the people of Michigan have reaffirmed their faith in prohibition and given Mr. Edwards notice to make a graceful exit from the political field.

### Agricultural Editors Organize.

THE FARM paper editors who have been talking about the advantages of organization have acted upon their own advice and last week at Chicago the American Agricultural Editors' Association came into being. It is not the primary purpose of this association to secure benefits for the editors who are its members, but to help them be of greater service to the farmers who read their publications.

This may be accomplished in many ways. For one thing the association will endeavor to establish more sympathetic and helpful relations between the Department of Agriculture and the farmers. For another it will seek to formulate some general agricultural policies to which all members can subscribe and help to promote. Rural credits, the rural church and school, better marketing and similar matters relating to the welfare of the farmer and his family will receive the united attention of the organized editors.

The association expects also to take an interest in legislative affairs touching agriculture. In the past the farm papers have frequently acted in tacit concord but no effort has been made to marshal their opinions into an organized influence. Hence the force of their efforts has largely been lost. In the future the farm paper editors will speak to Congress through their association and should be able to exert a large and beneficial influence.

### Clouding the Issue.

THE SUPPORTERS of Mr. Dickinson's candidacy for Governor have a great deal to say about the courageous manner in which he attacked the Newberry expenditures just prior to the primary election, but they are conspicuously silent about his change of front a few weeks later when in a resourcefully penitent mood he published an open letter urging all good Republicans to stand by Mr. Newberry at the election.

Far be it from us to cast any reflections upon the record of Lieutenant Governor Dickinson. That he has been a bold, consistent and helpful champion of prohibition we are glad to admit. That he has served the people well and faithfully in the several offices with which they have honored him is a fact which cannot be disputed. Give to Mr. Dickinson all the credit that is his due, and his qualifications will even then fall far short of those possessed by the farmers' candidate, Milo D. Campbell.

Mr. Campbell has been an outstanding figure in Michigan politics for many years, and has invariably stood for progressive legislation and

reform. When he was a member of the Michigan legislature back in 1885 he actively supported the state's first prohibition amendment, and has been a zealous temperance advocate ever since. His experience, both as a legislator and an executive, has been broad and fruitful. He is an organizer, a doer, a man of sterling principles, active and aggressive in defense of the right and in opposition to the wrong. He is a fighter. It shows in his face. It shows in his figure. It shows in his deeds. He is not only a farmer, but a leader of farmers and during the past five years has performed a service for milk producers and others engaged in farm enterprises, the value of which cannot be estimated.

Mr. Campbell is making a clean and honest campaign. He has spread no distasteful stories about his opponents nor scattered any innuendos that they are not what they seem to be. As the choice of the state's three largest farm organizations, he has a right to claim that he is "the farmers' candidate", and to solicit the support of the farmers as such.

There are at least three important reasons why the farmers should vote for Milo Campbell. The first is that he is the biggest man in the field today for the job. The second is that his chances for success among the present contenders are excellent. The third is that the farmers would have a man in the Governor's chair who has lived with them and worked for them and knows their every problem. Is it necessary to say more?

### Strikes.

WE CONCEDE the right of the laboring man to organize and strike if necessary in order to secure fair treatment from his employer. But we concede to no man the right to strike to enforce unreasonable demands and vent his spite upon the public. The man who believes in the doctrine that his organized might makes it always right for him to strike regardless of the merits of his case or the welfare of the public is a nuisance and should be dealt with by law. The switchmen who have gone on a strike in many of the leading railroad centers of the country belong to this type and are entitled to no sympathy or consideration from the public. They are not only striking at a time when the welfare of the country depends upon the maximum of production and transportation, but they are striking in defiance of the orders of their own union chiefs. Gov. Allen of Kansas has, as usual, taken a forward step to force these men to lay their claims before a court of arbitration and go back to work pending the decision, and every true American citizen will back his and all other efforts to bring an end to unjustifiable and unauthorized strikes.

### Mr. Fordney Failing.

THERE WAS a time when Congressman Fordney was one of the most influential members of Congress. As chairman of the House Ways and Means committee his influence was both sought and feared. Industries that desired a protective tariff had but to enlist the support of Mr. Fordney and their bill was invariably reported out of his committee. But, oh, "how the mighty have fallen". In the last six months a half dozen or more special tariff bills have safely passed his committee and the House, but Mr. Fordney cannot muster enough votes in his own committee to pass the farmers' bean tariff bill, a measure which ought to command every ounce of his influence. Ought it to be necessary to suggest to the thousands of bean growers who live in Mr. Fordney's territory that next fall would be an excellent time to recall their representative in Congress, and put a better man in his place?

In the March issue of the Michigan Patron, "Jim" Helme calls W. H. Wallace "Michigan's Gary", and is unable to account for the autocratic attitude assumed toward the farmers by a man who is on the board of the farmers' college. It's the dollars, Jim. Mr. Wallace has many excellent qualities, but personal qualities cannot be allowed to take precedence over the dollar. Mr. Wallace, like a good many other men, will let all the virtues in the world go to the devil before he will give up the dollar.



# What the Neighbors Say



## THINKS WHISKEY GOOD FOR FLU

This has been a long and lonesome, also cold winter. There was not much recreation in this part of the woods, only to go outside and freeze and come inside and thaw out which caused much sickness. It was the flu, flu, flu, and nearly everyone had it, including myself and family, and if it had not been for some neighbors who didn't have it there would possibly have been more who would have crossed the river.

Now I see different letters about flu and whiskey. Some people say imagination is very nearly the whole cure for sickness. If you get a doctor and he gives you some medicine and you imagine the medicine and the doctor are all right you will get well quicker, etc. Well, now I didn't mean to say that the doctor isn't all right and that his medicine isn't all right, for if it were not for the doctors, St. Peter would be a good deal busier than he is. Now if you lived out in the country about six miles and farther and the snow was piled four and five feet deep and there was a blizzard for two or three days and it was impossible for you to get a doctor out to see you when you are coming down with the flu—I don't mean to say when you are near death, understand, but just coming down with it—when those chills start to play tag and hide and seek up your spine, and when you have to eat raw onions and drink ginger tea and black pepper tea, and you feed your children the same dose, and when they see you coming with another dose they will back up and shake their heads, and say "no,"—now if you had quart of good pure whisky and you fixed up a good warm drink and went to bed and covered up and began to sweat for an hour or so, I wonder if it would help or not? Well, I imagine it would, at least until the roads broke and you could get a doctor. There are some doctors who might be paid for saying that whiskey is no good. You know that isn't the experience of us farmers. I have seen doctors give whiskey to a day old baby for colic, and he didn't do it to make him cry harder.

I would like to see our government provide some way next December, January and February so that a man with a family could get a quart and a single man over twenty-one get one pint in the same way as we get our sugar with cards.—J. S., Onaway, Mich.

Your plan, John, would serve no better purpose than to give every male inhabitant a chance to have a little jag. Instead of decreasing flu mortality it would very likely increase it, for the vital statistics show that the rate of mortality in flu and pneumonia cases are much greater among the users of alcoholic stimulants than among total abstainers. Let a man who has frequently indulged in alcoholic drinks contract pneumonia and in the majority of cases it is all up with him. The records of the health authorities of the United States government and the various states prove that whiskey is neither a preventive nor a cure for these cases, individual experiences to the contrary notwithstanding. Therefore, why should the government permit the use of whiskey?

I know about your northern Michigan Mizzards, John. I've traveled in the teeth of them more than once. I've wallowed through snow-banks three and four feet deep with the thermometer ten below, and I've had my share of cough and colds and chills and sneezes. My parents had six children and raised them all, and not to my knowledge have any of them ever tasted whiskey, either in a pure or adulterated form. There were a good many times when we couldn't get a doctor for days, and I shall not forget the hot ginger tea, the calomel, and the hot foot-baths which my mother prepared for us and which always did the business until the doctor came.

The fact of the matter is, John, that people who have become accustomed to the use of whiskey both as a beverage and a medicine, think they cannot get along without it, but the people who have never had it in their house, have had just as good success if not better with other stimulants and sweat producers, and wouldn't use whiskey if it was as free and plentiful as the air.—Editor.

## SQUARE DEAL FOR LABOR

Editors M. B. F.—Your editorial "Paying the County Agent" was excellent. We've got to pay our way. These are critical times. Appeals to patriotism and the commotion of war have resulted to the disadvantage of the average citizen but the slow-moving, ponderous sentiment of the American farmer will eventually set things right. However, I do not like his or your at-

titude toward labor. This attitude is what drove our labor from the farm. I want labor to come back well paid and with shorter hours. We cannot lay the high cost of living to high wages. The laboring man never has or never will get more than is coming to him. We cannot say that the labor shortage is due to short hours. Of what commodity are we short enough to make it profitable for labor to produce it?

Everything should be left to the law of supply and demand until everything is governed. The laborer has only his labor to sell. Let him strike if he does so peacefully.

Blame for much suffering was laid at the door of the striking coal miner. Mine owners and railroads were more to blame than he. Farmers, like myself, who could have cut wood were as much so. If all the present laborers should die there wouldn't be a labor shortage. More of us would go to work although not quite so hard or for such long hours or so little pay.—Stanley Warner, Barry County.

You are in error to assume that we are unfriendly to labor. We have conceded the right of labor to strike if necessary to secure fair treatment. Nearly all other farm papers question that right. But what we ask for the farmer we cannot with reason deny to others. If you will read or re-read our editorial entitled, "Reaction" in the March 30th issue, you will learn where we stand with respect to labor.—Editor.

## CITY IS HOME OF "SITE VALUE"

There seems to be a prejudice against the "site value" tax among farmers that is hard to understand. The home of the "site values" is in the cities and towns. There is scarcely any "site values" in agricultural land. It may be that the prejudice arose because the earlier advocates of this form of taxation called it a "land value" tax and the farmer failing to distinguish between "land value" and "improvement value" jumped to the conclusion that he would get the worst of it. It may be that this prejudice was fostered by certain designing city dwellers and politicians who have always missed no opportunity to exploit the farmer through his prejudices. We know very well that he has always paid more than his just share of taxes. The farmers' values are improvement values. If all the farm land in VanBuren county had been stripped of its original timber last year, it would cost as much to remove all the stumps, drain the swamps and build the roads within two years as the land exclusive of buildings is worth. Therefore there is little if any "site value" in the farm land of Van Buren county as a whole. The fact is, we farmers have so very little "site value" that we are compelled to tax our improvements and personal property to maintain our schools, roads, and township government. Why, then, should we ob-

ject to a "site value" tax which is located in the cities and which we and our fathers and grandfathers have been creating for four or five generations. The amount of revenue such a tax would produce would depend upon the amount of "unearned increment" taken but it seems only fair that a portion should be taken. Those who argue that all of this value which is produced by society as a whole should be taken by taxation are not practical reformers because of the difficulties of determining the amount of this value and the effects of taxation upon it. However, it is certainly time that we make an effort to appropriate a part of the "unearned increment" or "site value" of land for the use of its creators (who are the whole people) by means of a special "site value" tax. Here is an inexhaustible source, from which the revenues of government can be drawn for all time, if it is brought into force intelligently and gradually.—John O. Stafford.

Glad to have your views on this important subject, Mr. Stafford. Possibly the reason for the prejudice among the farmers against site value taxation is that they do not understand it. We may all have our theories and opinions, but what counts with the taxpayer are facts which will show a comparison between agricultural taxes under the two systems.—Editor.

## WAITING FOR FARM BUREAU

I have been a Democrat since '76, but like Dave Harem's horse will stand without tying. Have never been locked to a party slate and had the key thrown away. Shall vote for Campbell for governor and Hoover for president. We need a few like Governor Allen, of Kansas, to show the mob what American laws can do.

I admire Gov. Sleeper as a man and he is a warm personal friend of mine, but as a governor as far as the farmers and taxes are concerned he has been a fizzle. We do not want any more Ivories, Forresters or Merriemans in our state legislature either. If the last four years have been a business administration give us a farmer's legislature and governor now for a change.

We have tried the schoolmaster and the banker and a lawyer, elevator, legislature. They have done us up to a finish. Now give us something else that is used to hard knocks. Send along your Farm Bureau in to Sanilac county. We read it up here and are waiting for it.—H. W. B., Sanilac County.

Truly this is an age of evolution. Two letters on the same mail, (the above is one of them)—one from a Democrat, the other from a Republican, both declaring themselves free in the future from partisan ties and ready to vote for the "best man" no matter on what ticket a candidate.—Editor.

## PRAISE AND CRITICISM

I have been a reader of your M. B. F. since its first issue and think you are issuing a very good paper. Of course, I could not expect any mortal man to edit a paper that would exactly suit me or anyone else. You see no two of us mortals think exactly the same on every question. Now, for instance, you were determined that the railroads were better under government ownership. I cannot agree with you there, but if I am entitled to my belief so are you. I never could see where the government made a great success in anything pertaining to the railroads or the wire service either.

Might say I am one of thousands who tried to please the government by going into hog raising on a large scale. This all to my sorrow. I lost heavily last year and expect to all but quit the game this year. Hogs are now very numerous here now and many cows are being sold. Many of the big cattle feeders here lost money this winter. Help is not to be had. Old and young are going to Jackson or Lansing to help make autos and also get rich.

Remember me to Uncle Rube.—L. W. M., North Adams, Mich.

We couldn't make much of a paper out of M. B. F., if we tried to please everybody all the time. The best we can do is to weigh carefully both sides of every question and take the course which seems to us the wiser. Most of the farm papers are opposed to government control or ownership of railroads. Most of the advertisers in farm papers are opposed to it. It would be easy, therefore, for us to take the same stand. But our study of the railroad situation convinces us that the interests of the people were best served during the war by government operation. In fact that is conceded by the rail heads themselves. Hence, we assume that the interests of the public would be best served in time of peace by the same.—Editor.

## THANKS M. B. F. FOR FAIRNESS

I wish to express my sincere thanks to you for your kindness and fairness in publishing my letter on the defense of Socialism, in your April 3rd issue of M. B. F., "just as I wrote it." I am aware of the fact that organized capital has throttled the daily press and all popular literature in this country and is plotting to suppress and abolish all literature not of their class. This means the abolition of free speech and a free press in this country. I am also aware of the fact that the editors of some of the daily papers actually mutilate and destroy the real meaning of a letter written for the benefit of the poor man and laborer. The meaning of many letters is thus changed to the opposite and so badly distorted as to be scarcely recognizable by the writer. Who do the editors do this? I answer, "Because they are in sympathy with organized capital, and against organized labor including the farmer." Organized capital has no more respect for farmers than it has for labor unions and the farmers will soon find this out to their own sorrow. Organized capital stands against the farmer, and I am happy to know that M. B. F. does not lean on organized capital for its financial support. My sympathy goes to the editor in his effort to maintain freedom of speech and a free press. Wishing you abundant success and prosperity.—A. G. Quimby, Mich.

No man deserves thanks for doing what is his manifest duty. While I would probably not agree with you that capital is in organized opposition to laboring men and farmers or that it has subsidized the press to make its opposition more effective. I do recognize that hundreds of newspapers exclude the truth from their columns for fear of antagonizing its patrons. Undoubtedly capital has spread misleading tales about organized labor and its ultimate aims. But is it not equally true that labor agitators have misrepresented capital, and pictured it as a Great Destroyer, ruthless and heartless? Are the so-called "capitalist" papers and more arbitrary and one-sided than the organs of union labor or socialism. Not all employers of capital are deadly enemies of labor. And we rejoice to see that not all labor union heads believe in the destruction of capital. We believe in the free and open discussion of the relations between farmers, laboring men and industrial heads, to the end that each may share in the good things of life according to his just deserts.—Editor.

## The Week's Editorial

### THE NON-FARMER AND THE BOOM IN FARM LANDS

THE RECENT unprecedented boom in farm lands, in which men in no way identified with farming have taken a conspicuous if not an intimidating and leading part, will not tend to allay hostilities mischievous for the farmer. The land gambler, working strictly in the interests of number one, has talked grandly of doubling, tripling and quadrupling values. To the fanfare of trumpets, the crashing of cymbals and the tintinnabulation of bells, the slick promoters of the land game have kept up a running patter about garden spots of the world, heavy yields, soaring prices, money in the bank, and all those things to be found in the bright lexicon of bunk and balderdash! To the land gambler the boom has meant some easy money, which will have to be worked out of the soil by the man who cultivates it. To the leisured land speculator it has meant an enhancement in the value of his holdings, which must be reflected in the rents he charges for their use. To the farmer it may mean more or less: enrichment here, impairment of fortune

there, and bankruptcy somewhere else. To the consuming public it has meant only a scramble to get in on a good thing, and that the farmer is guilty of profiteering, as charged in the indictment.

Town and city owners of farm lands, held for speculation, cannot be insensible of the danger to themselves in exploiting the original sources of supply. It cannot be difficult for them to visualize a position, becoming more and more uncomfortable and, possibly, eventually untenable. The most natural and most probable action on the part of any person menaced is to seek asylum with those who may be strong enough to protect them. It is for members of the farmers' organizations to determine what their attitude toward such refugees of social warfare shall be. They need not decide whether the land speculators and the land gamblers are threatened with a worse punishment than they deserve, but only whether they can afford to jeopardize their own position, which is not so seriously assailed, by giving aid and comfort to men whose position is bitterly criticized and whose footing is insecure.—Iowa Homestead.



# The Farm Home

## A Department for the Women



Edited by MABEL CLARE LADD

**R**IGHT now is the time to think of the planting of shrubbery if you are to start it this spring. Nurserymen are displaying shrubs and small trees for re-planting, and even a small expenditure will be enough to make a showing and each year you can add a few shrubs or vines.

The Spiraea and Japan Quince are both lovely shrubs for early blooming and the foliage is pretty all the year around. Personally I think there is nothing prettier than the beautiful trumpet shaped, rose colored weigela and they can be planted right with the spiraea with good effect for they are about the same size.

A friend just purchased a new bungalow on the outskirts of the city and will motor in each day. She took me out to see it when it was first completed, and it was certainly pretty, but somehow it looked so bare—so new—nothing homelike about it. Later in the summer I visited her to find that shrubs had hidden the foundation, the lawn was all sodded, young maples had been planted across the front of the lot and she had even laid plans for the transferring of quite a large sized maple tree for the back yard this spring. The other day I visited her again and she showed me a pretty little bird house which will be put up in the tree which has already been planted while the ground was frozen. And she is planning on erecting a lattice gate over the back fence and having it covered with Dorothy Perkins, while a wistaria vine will be planted this spring over the back porch. Even the garage will be partially hidden by the French lilacs in purple and white.

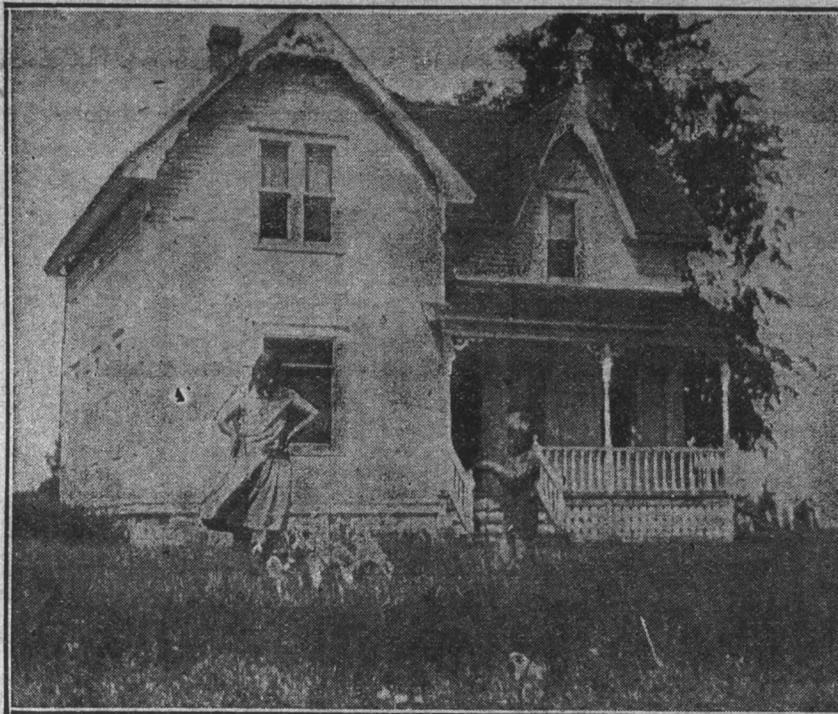
And mind you, this is not a city residence. It is in the suburbs and they have a small plot of ground where they have their own garden and raise a few chickens. But my friends has caught the idea of the "Home Beautiful." The house is the picture—the frame is the garden and grounds. And she has not only added to the beauty of her home but had added materially to its value. She tells me that real estate dealers and home seekers are continually stopping and asking her if it is for sale.

There must be a nurseryman not far from your home, but if not, just write to the Farm Home Department, tell us how much you can spend for shrubs this spring—what you would like, etc., and let us help you out.

### OUR READERS OWN COLUMN

**D**EAR MISS LADD: I am going to take advantage of your Personal Service Shopping Bureau. I have been looking for bolts of cotton satin—sometimes called Nusatin and don't seem to be able to find any in our stores except in ready made garments. Do they carry it in stock in the Detroit stores and how much is it per yard?—Mrs. X. Y. Z.

Dear reader: It seems that almost every material of late has two or three different names. I find no store here that has what they call "Nusatin" but one of the leading stores informs me that they think you refer to what they carry and call Venetian Cloth, which is a cotton satin—washable and used principally for the wash skirts. They carry it in white only and the 32 inch sells at \$1.25 and \$1.50 per yard, the difference in price being due to a difference in weight and then there is one which measures 36 inches and retails at \$2.00 per yard. No difference in price is made when it is bought by the yard. I also found what is called a "two season satin" which is cotton back but is not guaranteed to wash. This comes in nearly all colors and retails at \$2.00 per yard. Our Shopping Bureau will be glad to get samples and prices if you will give full information—that is the colors you are interested in and what use you desire the material for. In ask-



Trees and shrubs beautify the home grounds, but more beautiful than these are the children at play in the yard, for they typify the true home life. The above picture is that of the farm home of Mr. and Mrs. Louis Pulver, of Williamsburg, one of our contest pictures.

ing questions of this department, always be as explicit as possible as it helps us in shopping for you.

Dear Miss Ladd: Can you advise me whether it will be possible for me to get separate glass bottle for my silver table castor and where I could procure the same, also the cost. I would like to secure enough for two casters, each containing a salt and pepper shake, a vinegar bottle, oil bottle and mustard jar. Also could your purchase for me a ball of rose crochet cotton—size 70 and what would be the cost?—Mrs. E. H. C.

Dear Mrs. C.: In the first place you did not give me the size of the bottles you wished for the casters. However in this instance it will not be necessary for I have made inquiry of all the larger wholesalers as well as the retailers and they all advise me that because of the various styles and sizes, it is impossible for them to carry a stock of extra bottles except in a very few cases where they carry bottles to fit casters which they sell in large quantities to hotels, restaurants, etc. Therefore unless your casters were of late make and standard size and design, I would not be able to help you out in this matter.

Yes, I can purchase rose crochet cotton, No. 70 for you at 35c per ball. If you desire me to buy this, send me a sample of the rose color you would like it to be like as nearly as possible as there are many shades of rose—

an old rose, a rose pink and a regular rose.

Editor Woman's Department, M. B. F.: Will you please tell me what will take beef blood out of an ingrain carpet. We soaked it in salt water and then washed it but the stain still remains.—Mrs. R. K.

Dear Mrs. K.: How I wish you had inquired before attempting to get the stain out at all. The proper treatment is to soak any cloth article stained with blood in cold water over night, being sure that the water covers the stain entirely. Then with warm water and ivory soap wash it thoroughly, rubbing the spot well, and you will always find this effectual. Salt sets color every time and I doubt if you can get the stain out after you have applied it. You know they always soak new calicoes and gingham in salt water before washing them in order to set the color, and it has acted the same way with the blood stain of course. However you might try the cold water and then with a brush and hot soapy water, perhaps with persistent effort and a lot of elbow grease you may be able to do something with it.

My dear Miss Ladd: Will you please give me the names of several movie magazines and their prices.—Mrs. T. G.

Dear Madam: The two best known movie magazines are the "Motion Picture Classic," the subscription

price of which is \$2.50 per year, and "Photo Play," at \$2 per year.

Mrs. C. W.: Yes, we can secure for you a pattern for child's overalls. Send 15c for the pattern and give size of the child. You did not give us this information. Perhaps you wanted the pattern for the child for whom you ordered the other patterns, but as you did not state, and that child is only two, we hardly judge it might be the same. Patterns you know, cannot be exchanged so we dislike to buy without definite instructions as to size, etc.

Dear Miss Ladd: Will you please tell me through the paper how much one of those wire dish drainers are with a place for spoons, knives and forks in the center.—Mrs. A. A. C.

Dear Mrs. C.: The baskets which you desire are \$2.50 each, to which you would need to add 6c parcel post charges and it would be better to also add insurance charge as an article of that nature might become bent in the mail unless it were insured. The baskets with just the compartments for plates, cups and saucers are \$1.75 and are more used as the silver scratches so easily that most persons do not care to dry it this way.

The Farm Home Department: If you have not already too many methods of keeping ham, in answer to Alvina, I think ours is worth printing.—Mrs. O.

Dear Mrs. O.: We are all anxious to learn. Your way sounds practical and I gladly print it as it is sure to help some one. Make a mixture of sugar and salt, twice as much sugar as salt (or molasses may be used) and 1 tablespoon salt petre to 1 pt. sugar. Rub this on the ham every third day for nine days—making three times in all. Then smoke the hams. After they are smoked, remove the skins, slice and pack in crocks. I use a wooden potato masher to press the slices firmly down. Fill in all the cracks and crevices with bits of fat and melted grease. One can usually try out enough grease from the rhines to fill in the space and cover the ham, but if not pour melted lard over the top—enough to thoroughly cover the meat. When you use the ham, always melt the fat and recover the unused portion.

Dear Miss Ladd: How shall I address the chemist of the Food and Drug Department.—Mrs. H. M.

Dear Mrs. M.: Address your letter to Michigan Food and Drug Department, 302 University Avenue, Ann Arbor, Michigan.

### MUSICAL TERMS

**S**O MANY calls are received for new games to be used for social affairs that we propose from time to time to publish good guessing games. They sharpen the wits and furnish pleasant pastime.

- Part of a fish—Scales.
- What a tight shoe does—Presto.
- A fine dandy—A swell.
- Something to keep the cattle in pasture—Bars.
- What a pair of shears should be—Sharp.
- To open a door with—Key.
- Short letters—Notes.
- What tired people like—A rest.
- What a weather vane does—Turn.
- Three sisters of the same age—Triplets.
- What can a pocket do—Hold.
- A vegetable—A beet (beat.)
- Month of the year—March.
- A black, stick substance—Pitch.
- What a tape line helps to do—Measure.
- Something to wear—A tie.
- Mean and low—Base (bass.)
- One residence in an apartment house—Flat.
- A boy under twenty-one—Minor.
- Officer in the army—Major.

**WEEKLY CHEER**  
Cheerfulness is what greases the axles of the world; some people go through life creaking.  
—Anonymous

### As We Give

Cast behind thee grief and sadness,  
That would linger in your mind,  
For the world is full of gladness—  
Only seek, and you shall find,  
Ye whose eyes behold the beauty  
Wrought by nature's willing hand,  
Tread the path of earnest duty,  
As your conscience would command.

Love is law, assistance pleasure—  
As we give shall we receive;  
Freely let us always measure,  
And in noble deeds believe,  
While as mortals we are living,  
Let us aid a struggling friend,  
And to him when you are giving  
Also to the Lord you lend.

Clad in robes of sweet emotion,  
Mid the wreck of ebbing time,  
Lost in glory of devotion,  
Dwell our deeds of love sublime,

Each fair and priceless treasure,  
In our memories to live,  
Bringing thots of love and pleasure,  
Never slow their hopes to give.

Time and life are onward fleeting,  
Opportunity shall wane;  
Be not then content with seeing  
Lives whose lots are hopeless pain.  
Live to aid and comfort others,  
To assist a purpose pure;  
To encourage weary brothers  
And their fainting hopes assure.

When the shades of death descending  
Call us from our daily strife,  
Each fond hope and purpose ending  
In the path of mortal life;  
We shall know our fair ideal  
Risen from the lowly sod;  
Each kind thot and deed made real,  
In the image of our God.

—Marion Cowa

**"HEARTS OF THREE"**

(Continued from page 11)

Is one here who knows and will speak up?"

And Francis knew on the instant the trouble the blind man had divined within him—the full love that burned in him for Leoncia and that threatened to shatter the full loyalty he must ever bear to Henry. No less quick was Leoncia in knowing, and could the blind man have beheld the involuntary glance of knowledge the man and woman threw at each other and the immediate embarrassment of averted eyes, he could have unerringly diagnosed Francis' trouble. The mestiza girl saw, and with a leap at her heart scented a love affair. Likewise had Henry seen and unconsciously scowled.

The Just One spoke: "An affair of heart undoubtedly," he dismissed the matter. "The eternal vexation of woman in the heart of man. Nevertheless, this man stands free. Twice, in one day, has he succored the man who twice betrayed him. Nor has the trouble within him aught to do with the aid he rendered the man said to be sentenced to death undeserved. Remains to question this last man; also to settle for this beaten creature before me who twice this day has proved weak out of selfishness, and who has just now proved bravely strong out of unselfishness for another."

He leaned forward and played his fingers searchingly over the face and brows of the peon.

"Are you afraid to die?" he asked suddenly.

"Great and Holy One, I am sore afraid to die," was the peon's reply.

"Then say that you have lied about this man, say that his twice succoring of you was a lie, and you shall live."

Under the Blind One's fingers the peon cringed and wilted.

"Think well," came the solemn warning. "Death is not good. To be forever unmoving as the clod and rock is not good. Say that you have lied and life is yours. Speak!"

But, although his voice shook from the exquisiteness of his fear, the peon rose to the full spiritual stature of a man.

"Twice this day did I betray him, Holy One. But my name is not Peter. Not thrice in this day will I betray him. I am sore afraid, but I cannot betray him thrice."

The blind judge leaned back and his face beamed and glowed as if transfigured.

"Well spoken," he said. "You have the makings of a man. I now lay my sentence upon you: From now on through all your days under the sun, you shall always think like a man, act like a man, be a man. Better to die a man any time, than live a beast forever in time. The Ecclesiast was wrong. A dead lion is always better than a live dog. Go free, regenerate son, go free."

But, as the peon, at a signal from the mestiza, started to rise, the blind judge stopped him.

"In the beginning, O man who but this day has been born man, what was the cause of all your troubles?"

"My heart was weak and hungry, O Holy One, for a mixed-breed woman of the tierra caliente. I myself am mountain born. For her I put myself in debt to the hacendado for the sum of two hundred pesos. She fled with the money and another man. I remained the slave of the hacendado, who is not a bad man, but who, at first and always, is a hacendado. I have toiled, been beaten, and have suffered for five long years, and my debt is now become two hundred and fifty pesos, and yet I possess naught but these rags and a body weak from insufficient food."

"Was she wonderful?—this woman of the tierra caliente?" the blind judge queried softly.

"I was made for her, Holy One. I do not think now that she was wonderful. But she was wonderful then. The fever of her burned my heart and brain and made a task-slave of me, though she fled in the night and I knew her never again."

The peon waited, on his knees, with bowed head, while, to the amazement of all, the Blind Brigand sighed deeply and seemed to forget time and place. His hand strayed involuntarily and automatically to the head of the mestiza, caressed the shining black hair and continued to caress it while he spoke.

"The woman," he said with such gentleness that his voice, still clear and bell-like, was barely above a whisper. "Ever the woman wonderful. All women are wonderful . . . to man. They love our fathers; they birth us; we love them; they birth our sons to love their daughters and to call their daughters wonderful; and this has always been and shall continue always to be until the end of man's time and man's loving on earth."

A profound of silence fell within the cavern, while the Cruel Just One meditated for a space. At the last, with a touch dared of familiarity, the pretty mestiza touched him and roused him to remembrance of the peon still crouching at his feet.

"I pronounce judgment," he spoke. "You have received many blows. Each blow on your body is quittance in full of the entire debt to the hacendado. Go free. But remain in the mountains, and next time love a mountain woman, since woman you must have, and since woman is inevitable and eternal in the affairs of men. Go free. You are half Maya."

"I am half Maya," the peon murmured. "My father is a Maya."

"Arise and go free. And remain in the mountains with your Maya father. The tierra caliente is no place for the Cordilleras-born. The hacendado is not present, and therefore cannot be judged. And after all he is but a hacendado. His fellow hacendados, too, go free."

Henry stepped forward: "I am the man," he stated boldly, "sentenced to the death undeserved for the killing of a man I did not kill. He was the blood uncle of the girl I love, whom I shall marry, if there be true justice here in this cave of the Cordilleras."

But the Jefe interrupted. "Before a score of witnesses he threatened to his face to kill the man. Within the hour we found him bending over the man's dead body that was yet warm and limber with departing life."

"He speaks true," Henry affirmed. "I did threaten the man, both of us heady from strong drink and hot blood. I was so found, bending over his dead warm body. Yet did I not kill him. Nor do I know, nor can I guess, the coward hand in the dark that knifed out his life through the back from behind."

"Kneel both of you, that I may in-

terrogate you," the Blind Brigand commanded.

Long he interrogated with his sensitive questioning fingers. Long, and still longer, unable to attain decision his fingers played over the faces and pulses of the two men.

"Is there a woman?" he asked Henry Morgan pointedly.

"A woman wonderful. I love her."

"It is good to be so vexed, for a man unvexed by woman is only half a man," the blind judge vouchsafed. He addressed the Jefe. "No woman vexes you, yet are you troubled. But this man"—indicating Henry—"I cannot tell if all his vexation be due to woman. Perhaps, in part, it may be due to you, or to what some prompting of evil may make him mediate against you. Stand up, both men of you. I cannot judge between you. Yet is there the test infallible, the test of the Snake and the Bird. Infallible it is, as God is infallible, for by such ways does God still maintain truth in the affairs of men. As well does Blackstone mention just such methods of determining the truth by trial and ordeal."

(Continued next week)



# Tests That Proved Hudson Also Speak for Essex

## And Essex Holds World's 50-Hour Endurance Record

Built by the same makers, Hudson's unequalled records also speak for Essex. They foretold performance never expected of a light car.

The prophecies now are facts.

An Essex stock chassis set the world's 50-hour endurance mark of 3037 miles. That is officially certified by the American Automobile Association. And Essex holds the world mark of 1061 road miles in 24 hours. A stock touring car did that.

Local road, speedway and hill climbing records in every section of the country are held by Essex. Scores of abusive tests have proved the endurance that 30,000 owners find in the daily service of their Essex cars.

### Judge Essex Quality By the Hudson Standard

But it is not only in the performance that Essex shows the same stamp of quality as Hudson. Its beauty of line, its luxury of appointment are the work of years of leadership in coach design.

See the care and completeness, even in the smallest details. Its riding comfort, its smooth, quiet running ease, with the suggestion of well-contained reserve power, are qualities comparable to the finest of high-priced cars, yet you gain all of the advantages of the light weight type, more important today than ever.

Judge the Essex, not by the lightweight

standards that you have known, but by the much more exacting requirements of the large costly cars. Measure it by the highest standard of performance and fine quality, rather than by its moderate price.

You, too, will find the appeal that has won 30,000.

In the Hudson's unmatched records this important fact is clear—No ability is sacrificed in one direction to gain supremacy in another.

### Hudson Records Prove Its All-Round Mastery

Hudson is the fleetest. Its stock car speed records have never been equalled. On the speedway its racing cars won more points than any other team ever gained.

But its speed means no forfeit of other qualities. For in official tests, the Super-Six has also out-performed all other types, in endurance, hill-climbing and acceleration. In every motor performance it has established leadership by unanswerable proofs.

Only a supreme advantage, that others cannot use, could account for such all-round dominance. Hudson has it in the Super-Six motor. It minimizes vibration to within 10 per cent of vanishing—nearer the ideal than any type we know.

In the same size motor the exclusive Super-Six principle added 72 per cent to power, and 80 per cent to efficiency. Endurance is practically doubled.

Hudson Motor Car Company, Detroit, Michigan.

(3055—173)



# The Children's Hour

**DEAR CHILDREN:** Again this week I am more than pleased to publish four drawings submitted by our children which have won prizes. The names of the prize winners are below the pictures, except one where I do not find the name and address appeared on the picture. Remember, even though you write a letter when you send in an original drawing, be sure that your correct name and address and your age appear on the bottom or back of the actual drawing.

One of our little prize winners, Hazel Ball, writes us that she is going to study art. Of course that will place her in the professional class. We are sure that she will make a success of her work and wish her all manner of success, but as ours is a contest for amateurs, we will no longer be able to award her prizes for that wouldnt be fair to those who never received any instruction and are competing.

An inquiry comes from one of our correspondents as to how they shall submit their drawings. Of course if you have regular drawing paper and drawing ink, that is the best thing to use. Many haven't it though and no way of getting it, so we accept drawings in lead pencil but none are accepted in colors as they cannot be reproduced. Now let's get busy little folks and see who will be next.

No drawing are accepted which are traced. Some have been submitted but of course we had to discard those. I have found such a splendid little poem this week that I hope you will all enjoy. It is supposed to be for little boys, but I think it is just as good for little girls as for little boys. Affectionately yours, LADDIE.

### TRY TO BE THE FELLOW THAT YOUR MOTHER THINKS YOU ARE

While walking down a crowded city street the other day,  
I heard a little urchin to a comrade turn and say:

"Say, Jimmie, don't yer know, I'd be as happy as a clam,  
If I only was de feller dat me mudder t'inks I am."

"She t'inks I a ma wonder, and knows her little lad  
Would never mix wit' nottin' dat was ugly, mean or bad.

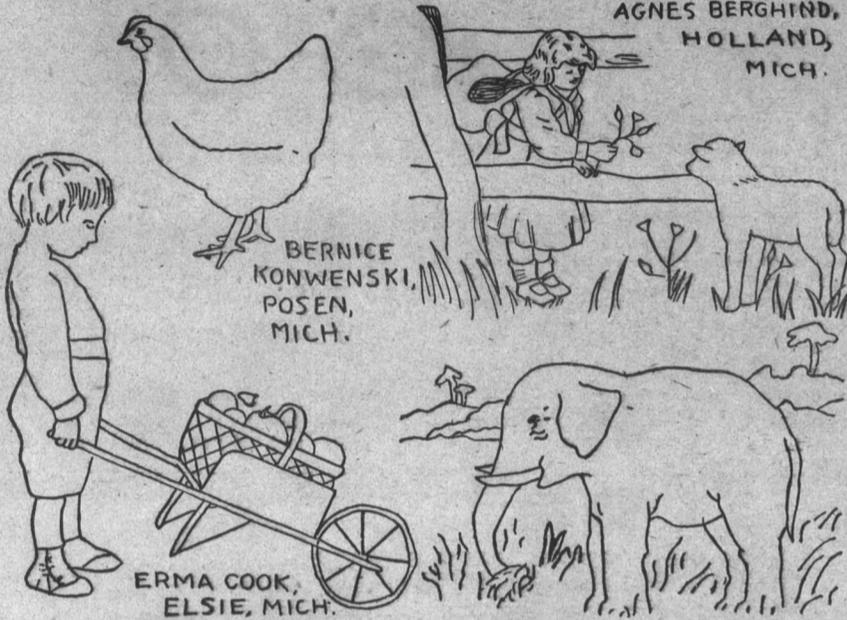
I often sit and t'ink how nice 'twould be—gee whiz,  
If a feller was de feller dat his mudder t'inks he is."

So, folks, be yours a life of toil or undiluted joy,  
You still can learn a lesson from the small, unlettered boy;  
Don't try to be an earthly saint, with eyes fixed on a star—  
Just try to be the fellow that your mother thinks you are.  
—Noodles Fagan.

### OUR BOYS AND GIRLS

Dear Laddie—I am a boy thirteen years old and in the seventh grade. For pets I have some cats and a Shetland pony. I drive the pony to and from school. I like all my studies at school, except arithmetic. I live on a farm of 120 acres. We have 14 cows, four calves and three geese. We have a milking machine and it takes about half an hour to milk 12 cows. We have 50 chickens. We get two geese eggs and 20 hens eggs. We set our incubator about three weeks ago, and we had 55 little chickens out of 100 eggs. We set it again this morning with 32 hens eggs and nine geese eggs. My father takes the M. B. F. and he likes it very well. I like to make out Walter Wellman's puzzles. I am sending the name of the fifth animal which I believe to be antelope. You asked us if we liked a complete or continued story. I like a complete story best. Hoping to see my letter in print I will close.—Lloyd Shreve, R. F. D. 4, Lansing, Mich.

Dear Laddie—I am sending one copy of one of my drawings to see if I can't win a prize. If this one will not win I have some that will be sure to win the prize. I am just a country girl and am going to high school. I am in the 9th grade and have only one year at this school yet. My father has taken the M. B. F. for one year and is going to renew it for another year. My father has sold his farm because of his health, and we expect to have a sale soon. Well, I have



AGNES BERGHIND, HOLLAND, MICH.

BERNICE KONWENSKI, POSEN, MICH.

ERMA COOK, ELSIE, MICH.

not said much about myself, so I guess I will let you know who I am. I am about six foot five inches high and am quite fleshy, blue eyes, light brown hair and a fair complexion. I weigh about 140 lbs. I always read the boys and girls letters and like them fine.—Sarah Kobel, Elmira, Mich.

Dear Laddie—I am a girl 11 years old and in the 4th and 5th grades. My teacher's name is Miss Gladys Lutz and I like her very well. I have one sister and one brother. We have 160 acres of We are building a new brick bungalow. We have taken the M. B. F. for the past year and enjoy it very much. If some of the girls would write me I would gladly answer them.—Your little friend, Ethel Wehmeyer, Bentley, Mich. R. 1.

### My Plans for the Summer

When school is out I am planning to go to Detroit for a couple of weeks. While I am there I am going to stay with my uncle and aunt. I want to go to Belle Isle and see all the things of interest for children and have all the fun there is to have. I want to go to the park some day and see all the different things, and I would like to go through the Ford factory. When I get back home I am going to help in the garden and make up for lost time.—Hazel Gere, Clio, R. 3.

Dear Laddie—I am a boy nine years old and in the second grade. I started to school when I was 7 years old. We have two horses and one calf and papa gave it to me. My sister has a cow too. I am glad spring is here. I like to read

the boys and girl's letters. I have one sister and no brothers. We live on an 80-acre farm. My father has a Buick car. We have seven cows and two pigs, and about 30 chickens. We get from one egg to six a day. I wish some of the boy would write to me. My brother takes the M. B. F. and we like it very much. My teacher's name is Mr. Gamble.—Vernie Peterson, Rodney, Mich., R. 2.

Dear Laddie—This is the first time I have written to you. I live on a farm of 120 acres. I have a big dog and he is a great pet. We have 20 little new baby pigs. They are all white. Our chickens are all white too. They are leghorns. We get more than six dozen eggs a day I go to school every day. I'm in the 6th grade. I would like to see my letter in print. My papa takes the M. B. F. and I enjoy reading the letters from the boys and girls.—Robert E. Brudges, Bailey, Mich.

Dear Laddie—This is the first time I have written to you. I live on an 80 acre farm and have seven little pigs and the mother pig is dead. I have two little nieces. We have a piano and phonograph.—Laura, Bennett, West Branch, Mich., R. F. D. 3, Box 54.

Dear Laddie—I am a girl 11 years of age. My father owns a farm of 240 acres. We take the Business Farmer and like it very much. I have a brother 19 years old. I have one little dog, named Shap. We have 24 head of cattle. I like to read the boys' and girls' letters.—Winifred Roberts, Newberry.

Dear Laddie—I am 13 years old and am in the 6th grade. I have a mile to walk to school. My teacher's name is Miss Irene Biergans. I enjoy reading the boys and girls letters. I'd rather have a complete story each week than a continued one. My father has been taking the M. B. F. for many years. I have five brothers and one sister, her name is Agnes. She is five months old. As my letter is getting long I will close, hoping to see it in print.—Esther Wirth, St. Johns, Mich.

Dear Laddie—I have been reading the children's page and am very interested in it, so I thought I would write. I am a girl ten years old and am in the 6th grade. I like the puzzle corner and like to study them out. I go to the district No. 7 school. I like the stories and am very interested in them. My teacher's name is Mrs. Martain Monzo. I like her real well. I like the continued stories best.—Your friend, Minnie Monzo, Carsonville, Mich., R. 3

Dear Laddie—This is the first time I have written to you. I am a boy 15 years old and in the 5th grade at school. I have three sisters and two brothers. We live on a 40-acre farm. For pets I have a dog. There are 11 pupils in our school. Our teacher is Miss Fuller. She is a good teacher and I like to go to school. I like to read the letters in the M. B. F.—Howard Huff, Gladwin, Mich.

Dear Laddie—I am 10 years old and in the 5th grade. My parents have taken the M. B. F. for a long time and we all think it a fine paper. I do because it has the Children's Hour in it. I like to read the boys' and girls' letters. I have one brother. My teacher is Miss Kate Creore. I will close hoping to see my letter in print.—Ilah M. Miller, Dimondale.

Dear Laddie—This is the first time I have written to you. Step over, please, and let me join your merry circle. I live on an 100-acre farm. We have five head of horses, 30 head of cattle, etc. I am 15 years old May 13th next. I wish some of the boys and girls would write to me for I would answer. Your new niece—Edna Cruickshank, Alger, Mich.

Dear Laddie—I am a girl 13 years old and attend the Warren school. I am in the 6th grade. My teacher is Miss Evelyn Kenyon. I like her very much. I have two sisters and one brother. Their names are Irene, Dorothy and Arthur. Dorothy is the baby. We have two horses and five cows. We live on a 40-acre farm.—Edna Boehm, Auburn, Mich.

Dear Laddie—This is the first time I have written to you. I live on an 180-acre farm. I have six sisters and five brothers; three of my brothers were in the war. I made out the farm cut-out puzzle and got pig for the answer. I will close by adding that I am 11 years old and in the 7th grade.—Helen Mongeon, Brimley, 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 have read in M. B. F. that you give prizes if you solve the puzzles by Walter Wellman. I found that by cutting and putting the puzzles together it formed a pig. He was scared very much.—Vernon Sandel, Boyne City, Mich.

Dear Laddie—I am a girl 11 years old and in the 7th grade. My teacher is Miss Pomella. I like her. I have one-half mile to walk to school. I have six brothers and two sisters. My sisters are twins. For pets I have a dog named Nick and two cats, Jack and Nigger.—Marguerite Donnellon, Tyre, Mich.

Dear Laddie—This is the first time I have written to you. I am a girl 10 years of age and will be 11 in June. I have one brother and one sister. Their names are, Howard, who is 12 and Margaret, 4 years old. I will close as I am going to draw a picture.—Florence Faber, St. Johns, Mich.

Dear Laddie—I have written to you before. My mother died last year, April 9 leaving four children and twins born on April the first. We call them our little "April Fools." I have a step-mother now and two step-brothers who are twins. I am 10 years old and in the 5th grade.—Mary Yeske, Gallen, Mich.

Dear Laddie—This is the first time I have written to you. My father owns a 40-acre farm. We have two cows and a calf. For a pet I have a cat, Tabby. I have a sister, Herberta and a baby brother, Clark. I hope to see my letter in print.—Alma Morehouse, Doster, Mich.

Dear Laddie—I am a boy 7 years old. I go to school and am in the 2nd grade. We live on an 80-acre farm. My father takes the M. B. F. I have a sister; her name is Maxine. She is four years old and goes to school.—Lloyd Teller, Gagetown, Mich.

Dear Laddie—I have been reading the stories and letters in the M. B. F., and was interested so thought I would write. My father takes the M. B. F. and likes it very much. I have three brothers. We live on an 120-acre farm.—Rhea Leone Bisard, Grant, Mich.

Dear Laddie—This is the second time I have written to you. I am 9 years old but will be 10 April 2. I am in the 5th grade. I like my teacher very much; her name is Eulah Welch.—Mabel Delamater, Farwell, Mich.

## ARITHMETIC

BY WALTER WELLMAN

I CAN NAME ALL THE PRESIDENTS OF THE UNITED STATES.

-PA=

Here are two examples in arithmetic. If you can add and subtract the names of the articles, you should have, as a result, of two of the names of former presidents of the United States. Can you do it?

Answer to last week's puzzle:  
BIRD SOFA FEAT HER F LOCK TO GET HER  
BIRDS OF A FEATHER FLOCK TOGETHER



# County Crop Reports

**SANILAC (C)**—Well March has passed and it was a very nice month. We are not having much rain, not as much as there ought to be. The roads are good most all over the country for this time of year. April is coming in rather cool. We are having a good deal of high wind, but no damage has been done around here up to the present. Wheat and meadows have come out of the winter looking good, but I think a good rain now would help a lot, it would settle the ground and start things growing. The farmers are pressing up what hay they had to spare from the winter feeding. The flu and measles and other sickness around here are about done. Some of the farmers are getting ready for the spring work, such as cleaning out the manure and other spring work.—A. B. Prices offered at Sandusky: Wheat, \$2.25; oats, 91; rye, \$1.65; timothy seed, \$5.40; clover seed, \$9; alsike, \$31; hay, No. 1 timothy, \$25; No. 1 light mixed, \$25; beans, (C.H.P.), \$6; potatoes, \$1.50@2 bu; butterfat, 64; eggs, 40; hogs, 10@15; veal calves, 14@16.

**MANISTEE**—Some of the farmers are cutting wood, attending auction sales of which there is a number around here. Some are hauling and selling potatoes, there is buying at all the buying stations, lots of cars being loaded here and also being shipped at prices the highest for many years. One of our old neighbor residents died a few days ago. Weather tried to warm up some but it caught cold and we have been having it very cold and stormy, also terrible heavy winds, almost a cyclone. Trees were blown down and other damage. Not much building being done here. Some buying at sales. Sugar is 18 and 20 cents a pound here. Kerosene oil getting cheaper, 21 cents a gallon. Pitty on the poor oil man to lose money for their customers that way.—H. R. A. Prices offered at Bear Lake: Potatoes, \$5 cwt; white beans, \$5.25 cwt; rye, \$1.60; wheat, \$2.10; butter, 50; eggs, 38; butterfat, 65; hogs on foot, 13 1-2, dressed, 18; beef, 5@8 alive, 10@13 dressed; veal, 18 dressed; live chickens, 25; hides, 18.

**SHIAWASSEE**—A severe storm took place in this part of the county Sunday at about noon that lasted far into the night with a high north wind, not extremely cold, but very disagreeable. Some oats have been sown on fall plowed ground. But very little plowing has been done as yet this spring. Farmers having sugar bushes report very short but satisfactory run of sap. Wheat generally came thru the winter in good condition. Clover seeding has not stood the winter well.—D. H. M. Prices offered at Corunna: Wheat, \$2.43@2.45; corn on ear, \$1.50; oats, 92; rye, \$1.65; hay, No. 1 timothy, \$23; No. 1 light mixed, \$25; rye straw, \$8; wheat-oat straw, \$12; beans, (C.H.P.), \$5.75 cwt; potatoes, \$2.75; onions, \$5.50; cabbage, 4; hens, 28; springers, 32; ducks, 12; geese, 38; butter, 58; butterfat, 63; eggs, 38; sheep, \$10@11; lambs, \$13.50@21; hogs, \$11.50@12; beef steers, prime, \$10; beef cows, \$7@7.75; veal calves, best, \$15@16; wool, dull; apples, \$2@3.

**MASON**—Quite a little plowing was done during the last of March. Colder weather with frequent snow flurries have retarded the work. High prices combined with favorable weather and roads brought the reserve stock of potatoes. The county agent proposition lost out by a majority of 61 votes at the April election. It is now up to the farmers of the county to either buy out the Gleaner interest in the Scottsville warehouse and elevator and continue doing business as the Mason County Co-operative Association or combine with the Gleaners. Both are good. Either can be made a 100 per cent success if everybody boosts.—E. M. Prices offered at Scottsville: Wheat, \$2.35; rye, \$1.70; hay, No. 1 light mixed, \$25; wheat-oat straw, \$10; potatoes, \$5.30; hens, 30@32; butter, 55; butterfat, 64; eggs, 36; dressed beef, \$13@14; veal calves, \$18@20.

**ALLEGAN**—Farmers busy preparing oat ground. Weather very backward at present. We have just had a very severe snow storm. About four inches of snow fell in the last twenty-four hours. Previous to this, the soil was getting into good condition for working. Potatoes in this section have all been sold. Wheat in this section came through the winter in fine shape. Roads were in very bad shape, but are in fairly good condition at present.—W. F. Prices offered at Allegan: Wheat, \$2.40; corn, \$1.60; oats, 95; rye, \$1.65; hay, No. 1 timothy, \$28; wheat-oat straw, \$9; beans (C.H.P.), \$6.75; potatoes, \$5 cwt; sheep, \$8.50; lambs, \$10.50; hogs, \$12.50; beef cows, \$7; veal calves, \$18.

**MIDLAND**—The farmers are beginning to plow for the spring crops. The weather is unsettled, some rain and wind. The soil is in good condition to plow. Some hay is being sold now. Some silos are being built. Some damage was done by the storm of last Sunday night, moving some barns from their foundations. There was an awful cyclone in Adams county, Ind., the writer's home town. Relatives, friends and neighbors' buildings laid flat.—J. H. M. Prices offered at Hemlock: butter, 55; butterfat, 64; eggs, 38.

**GRAND TRAVERSE**—Farmers are not doing much these days; very cold and disagreeable weather. Auction sales still in progress. A sad accident occurred in this vicinity today. A hired man was hurt badly by a bull. Two doctors were called and they started to take him to a hospital and when about two miles on the road he died. Another prominent man, a farmer, had three fingers out of his left hand while buzzing wood.—C. L. B. Prices offered at Williamsburg: Wheat, \$2.35; corn, \$1.50; rye, \$1.60; hay, No. 1 timothy, \$41; potatoes, \$3.25 bu; butter, 50; butterfat, 72; eggs, 87.

**VAN BUREN**—Farmers have been busy at their grapes, some trimming, posting, tightening wires, drawing out brush and tying. Fred Murch has a new tractor to try out on his vineyard. Business was stopped by Sunday's blizzard, not much been doing this week. Tuesday night thermometer got down to ten degrees above, affecting the cherry buds, Early Richmond especially. Paw Paw community is about to form a co-operative association for benefit of its farmers. There is a fine prospect for fruit this year up to the present. V. G.

**MONROE (W)**—We are having some cold bad weather at present. The weather man must have March and April mixed up, for we had fine weather in March. Some of the farmers sowed their oats, barley and spring wheat in March. The farmers are now hauling manure and doing odd jobs on account of the cold weather. Wheat and new seedings are looking fair at this writing. Prices offered at Petersburg: Oats, 97; hay, No. 1 timothy, \$25; No. 1 light mixed, \$22; hens, 28; ducks, 30; turkeys, 30; dairy butter, 55; butterfat, 63; eggs, 40; hogs, \$14; beef steers, 10; beef cows, 5; veal calves, 18.

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## Rebecca Wins the Prize

(Continued from page 5)

Sharp caused more than one comment on his unusually clean and well groomed appearance. Mr. Johns, the groceryman, was the first to remark, "Well what in the world has come over Henry Sharp? Just look at him, shaved and as spick and span as if he had just stepped out of a bandbox. He seems to have lost that sloppy droop to his shoulders, even."

"He sure has," replied Sam. "I bet there is a woman in it somewhere. I've always noticed when a widower begins to spruce up there is a prospective wife No. 2 some place near by."

"Success to her. She has done a good work so far," replied Mr. Johns, mentally reviewing the fact that at that very moment Sam owed him a large bill for groceries, while Henry Sharp had been doing a strictly cash business ever since he had been working in the mine.

All interest was now centered in the various entries. The judge was talking about confirmation, quality and conditions; he had also examined the books of each boy and girl, while they were almost beside themselves with alternate hop and fear.

Rebecca felt an unusual kindness in her father's manner when he came up and taking hold of her arm whispered, "Becky, your pig is the finest one here; everybody says so. I'm mighty proud of you, Becky."

Becky Sharp had no recollection of

the happening of the remainder of the day, but to the shiny black Berkshire that evening after he had been safely placed in his old pen she confided, "You nice old piggy, you won the prize all right, and you made Daddy clean up and go to work, and you are going to send me to the University, to a really school, cause you know Daddy said it was, because I worked so hard to make money to get you. That made him feel ashamed of himself for not giving mother any of the better things she wanted so badly, and that is the reason he is putting twenty dollars in the bank every month for me, so that when I get old enough I'll be going to the school that my mother went to;" and in her ecstasy of excitement Rebecca gave the black Berkshire entirely too much feed for one three hundred pound porker, but he, the gourmand that he was, grunted contentedly in his best piggy manner.

Sam whispered to the groceryman the next time he was in the store, "I was right, wasn't I Johns? You remember I told you there was a woman somewhere, because Henry Sharp was so changed, but I never thought it was his fourteen year old daughter."

As he tied up the allotted two pounds of sugar Mr. Johns replied, "She is a plucky youngster, all right, but I believe its the memory of that wife of his who died some years ago, that worked the change in Henry Sharp."

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SENATOR DUNLAP STRAWBERRY PLANTS \$1 per hundred postpaid. Order early. MAPLE LAWN FARM, Sheridan, Mich.

SEED CORN—EARLY MATURING, SELECTED Pickett's yellow dent. \$3.50 for 56 lbs. shelled corn, bags extra at 50c, or send them by parcel post. E. N. BALL, Hamburg, Mich.

MAPLE SYRUP WANTED. State how and in what quantity you can ship it and the price. Address Box W, care Michigan Business Farmer, Mt. Clemens, Mich.

WANTED—MARRIED MAN TO WORK ON farm by month or year. Can furnish house, garden and milk. State wages wanted, size family, etc., in first letter. VERNON CARPENTER, Cass City, Mich.

FUNNIEST BOOK IN PRINT. SEND 25c for "The Diary of a Doctor's Son." PACIFIC BOOK COMPANY, 7036 Holmes Avenue, Los Angeles, California.

I HAVE A FEW THOUSAND ASPARAGUS plants for sale at \$6 per 1,000. F. J. STRATTON, R 2, Three Oaks, Mich.

Farmers Service Bureau

Prompt, careful attention given to all complaints or requests for information addressed to this department. (Subscribers desiring a personal answer by mail to a question of a legal nature should enclose \$1 for a reply.)

A CURE FOR WORMS

(1) Are copperas and copper sulphate a sure cure for worms in horses? Should they be mixed and how much should be fed at a time?  
(2) What is good for fleas on dogs?  
(3) What will keep a horse's tail from scaling off and the hair from coming out?—E. C., Alcona County.

(1) Copperas and Copper Sulphate are by no means desirable drugs to be given, for worms in horses; they are used as a tonic in convalescence; and to reduce enlarged glands. These drugs can safely be mixed, but should be given either in the form of a ball or in a mucilaginous solution, the dose is one drachm each twice daily. The following will be found the most satisfactory treatment for the common round worm found in the intestines of horses. Tartar emetic, given in two drachm doses twice daily in the feed for four to six days, or one half ounce dissolved in warm water is given on an empty stomach, followed in four to six hours by one pint of raw oil.

(2) To rid a dog of fleas, first bathe animal thoroughly with warm water to which add one tablespoonful baking soda; this will soften the nits which, by the way, will be found on the ends of the hair. Then for each quart of warm soft water, add one ounce of Creolin and bathe thoroughly; washing the head and ears first; dry with flannel cloths and repeat in three days if necessary.

(3) If a horse's tail is scaly and the hair comes out, the following treatment will be found very beneficial: Give one ounce Fowler's solution of Arsenic twice daily for two weeks. Externally use the following lotion: Zinc Sulphate and Sugar of Lead equal parts one ounce; add soft water to make one quart and apply, rubbing well in morning and night.—W. A. Ewalt, veterinary editor.

IMPROVEMENT OF ROAD

About forty rods from where I live there is a short steep sand hill that a person can hardly get over with an empty wagon. Last year the man that threshed in our neighborhood would not attempt to go over it and I had to haul my grain about a mile before I could get it threshed. I have told the road commissioners to fix the road four or five times and they always tell me that they did not have money to fix it with.—A Reader, Osceola County.

The highways are under the control of the highway commissioner. If he has no money to improve the road there is no way to compel him. The manner and amount of such improvements are very largely in the discretion of the highway commissioner.—W. E. Brown, legal editor.

PETITION FOR BUILDING ROAD

Last spring my neighbor and myself as well as all the farmer men of our town, signed a petition for to grade and gravel 3 3/4 miles of road to comply with the state requirements so to draw the reward. Now we signers were to give varying sums which amounted to \$1,960. This petition was read twice at the township meeting last April, voted on and accepted by the voters of our township. But the township board refused to build same and did not. In said petition it stated that said road was to be finished in 1919. Of course we did not have to pay the \$1,960, but wanted the road and were ready and willing to do our part.—F. A. H., Tuscola County.

Your letter does not specify what statute the petition was filed under. I am unable to determine without an examination of the law under which the petitioners attempted to proceed. Under ordinary conditions I would expect that the town board had authority to exercise their discretion in the matter of any petition.—W. E. Brown, legal editor.

MINORS IN GAMBLING HOUSE

I would like to ask the question if any one has the right to allow school children to go into any public place where they shake dice for pennies.—A Subscriber, Gratiot County.

The following is a part of the statute, sec. 7223, governing the matter referred to: "No minor child under seventeen years of age, nor any minor who is a student in any public, private or parochial school in the state of Michigan, shall be permitted to remain in any saloon \* \* \* or in any place of amusement known as a dance house, concert saloon, variety theatre; or in any house of prostitution; or in any room or hall occupied or used for hire, gain or reward, for the purpose of playing

billiards, pool, cards, dice, or any other unlawful game; or in any room or hall used or occupied for gaming, pool selling or betting in any manner whatever; or in any room or hall in which any cigars or tobacco are sold or kept for sale, where any such games are played. Any proprietor, keeper or manager of any such place who shall permit any such minor child or minor student to remain in any such place, and any person who shall encourage or induce in any way such minor child or minor student to enter such place or to remain therein shall be deemed guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than \$25 nor more than \$50 or by imprisonment in the county jail not less than ten days nor more than 30 days, or both such fine and imprisonment in the discretion of the court.—W. E. Brown, legal editor.

FILING CLAIM FOR LOSS

On Jan. 2nd I shipped by Michigan Central R. R. 10,048 lbs. of sweet corn to The Landreth Seed Co., Port Huron, Mich. When I shipped the corn it was in good condition, dry and cool. I have several neighbors who will make affidavit to this effect. The shipment was delayed in transit and I have received a letter from the seed company in which they inform me that the corn came to them in poor condition, wet and was not fit for seed, and they have offered to sell it for me for \$50.00 per ton. The price which I was to receive was 7 cents per pound and as I have carried out my part of the contract it does not seem fair to me that I should stand the loss on this which amounts to considerable. Can I file claim with the railroad company with any expectation of receiving the difference in price between what I was to receive and what the seed company offered me? Would you advise me to allow the seed company to sell the corn or not? I hold sample of the corn showing the condition when shipped. How would you advise me to proceed? This shipment was on the road over six weeks.—C. B., Branch County.

If your arrangements with the Seed Company required you to deliver the corn at their station in good order, it would be best for you to file claim with the R. R. It is, however, a matter that involves so many difficulties to comply with all of the requirements that it will be quite necessary for you to consult local counsel to assist you in the details of proving a claim either against the Seed Company or against the R.R.—W. E. Brown, legal editor.

ADOPTING A CHILD

If you were to take a child without adopting it when it was a baby, and keep it until it was 16 years old, could you adopt it without the consent of its guardian if it was the wish of the child and the people that had the child? Would the guardian of it still be the guardian, or would the adopted parents be its legal guardians over all its property from its former parents or other property that it should inherit from some other relative, or would the guardian still hold until the child was 21 years old, and if not where would you go to have the legal papers made out and what would be the legal charges? If the guardian would not give up his guardianship what could be done? G. E. B., Clinton County.

The law requires the consent of the parents, or parent. If no parent then the guardian. If the child is sixteen and desires the adoption to take place and the guardian refuses consent the Judge of Probate would be justified in removing the guardian and appointing another upon the suggestion of the child. Such guardian can then consent. The guardian appointed by the court might be continued as guardian of the property but not of the person. Or the Judge of Probate might discharge the guardian entirely as the best interests of the child would require.—W. E. Brown, legal editor.

FOUR OR SEVEN INCH GRAIN DRILL

Which is the best, a grain drill that sows four inches or one that sows seven inches apart, that is puts the grain in the ground 4 or 7 inches apart.—R. W. L. Isabella County.

Experiments seem to show that there is no particular advantage in drilling small grains in rows only four inches apart. This method of drilling, however, has been used to advantage for grass seeds. The four-inch drill will usually cost more and will be somewhat heavier draft on heavy soils.—O. E. Robey, acting head of Department of Farm Mechanics, M. A. C.

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BREEDERS ATTENTION!
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This service is free to the live stock industry in Michigan to avoid conflicting sale dates
LET "BUSINESS FARMER" CLAIM YOUR DATE!

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Preventive and curative of colds, roup, canker, swollen head, sore head, chicken pox, limber neck, sour crop, cholera, bowel trouble, etc. Mrs. T. A. Morley of Gallen, Mich., says: "Have used Germozone 17 yrs. for chickens and could not get along without it." Geo. F. Vickersman, Rockdale, N. Y., says: "Have used Germozone 12 years; the best for bowel troubles I ever found." Frank Sluka, Chicago, Ill., writes: "I have lost but 1 pigeon and no chickens in the 3 yrs. I have been using Germozone." C. O. Petrain, Moline, Ill., "I never had a sick chick all last season." Bernard Horning, Kirksville, Mo., says: "Cured my puniest chicks this spring." Ralph Wurst, Erie, Pa., says: "Not a case of white diarrhoea in 3 yrs. I raise over a thousand a year." Good also for rabbits, birds, pet stock.
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SEED CORN
Have you any to sell?
A little ad in M. B. F.'s Classified Business Farmers' Exchange will do the trick!

## Commercial Fertilizer on Depleted Soils

(Continued from page 4)

erously growing seedling is more likely to produce a good heavy plant than a slowly growing seedling.

Some crops are better adapted to certain classes of soils than others. It may be cited, for example, since sandy soils tend to be drouthy, the crops that possess the more deeply penetrating root systems are more successfully grown on them. On the other hand, since the heavy soils tend to resist penetration and are less subject to drouth, the shallow and more fibrous rooted crops are successful. Again, different varieties of crops may be higher yielders than others when grown on the same soil. Some varieties, or strains readily succumb to plant diseases, while others are very resistant. Inasmuch as the rotation of crops is essential for ideal conditions for plant growth it should certainly be practiced whether or not fertilizers are used.

We are forced to conclude that the greatest net returns are to be obtained from the use of fertilizers when all conditions are as near ideal as possible for plant growth.

Since fertilizers are applied to soils because of deficiency of plant food, or of slow availability of one or more elements that are present, the amount to apply will be governed by a number of conditions.

When one applies a relatively small amount of a mixed fertilizer and the early growth of the crop is stimulated, and later on obtains its food primarily from the soil, it must be looked upon as a process of stimulation. Let us suppose, for example, one applies 200 lbs. per acre of a 2-8-2 fertilizer to wheat, which means an application of 4 lbs. ammonia, 16 lbs. of phosphoric acid, and 4 lbs. of potash, and the yield of the wheat is 30 bushels per acre, then more nitrogen and potash are removed from the soil than are added in the fertilizer mixture. This undoubtedly means, unless one is supplying nitrogen to the soil by means of legumes or stable manure, he is rapidly approaching nitrogen shortage in the soil. However, since most upland soils are well supplied with potential potassium there is less tendency for a shortage in this substance.

In practice many apply a sufficient amount of fertilizer to the soil to supply the crop with the various elements and ignore the plant food present in the soil. This system of fertilizing is generally practiced when the soils are devoted to large cash crops where quality and earliness are chief considerations, as in the production of market, garden and green house crops.

The law of diminishing returns must be considered in soil management. It is well recognized that small applications of manure or commercial fertilizer results in a greater percentage increase of yields than do larger ones. Owing to this condition

and the fact that the cost of fertilizer increases with the quantity used the value of the crop finally becomes less than the cost of the fertilizer treatment. If one were to apply a mixed fertilizer at the rate of 100, 200, 400, 800, 1,600 and 2,000 lbs. to the acre respectively he would find that the fertilizer would cease to be profitable for most crops when the application exceeded 400 pounds per acre. If large cash crops such as potatoes, beets and cabbage were being grown the maximum profits would be obtained from somewhat larger applications.

The method of applying fertilizers depends upon the amount added and the nature of the root systems of the crops fertilized. Where large applications are made broadcasting and dragging in well before seeding are followed, inasmuch as the residue is uniformly distributed in the soil for the crops that follow. For applications smaller than 400 lbs. per acres (unless mixed and distributed with some substance, like sawdust, dry earth, or muck) the grain drill with fertilizer attachment is generally employed and desirable. Where small amounts are used chiefly for the stimulation of early growth, the mixture should be applied in the hill. Some potato and beet growers apply portions of the fertilizer in the hill and the remainder along the rows later on. Thorough incorporation in the soil mass is looked upon as being essential for best returns, unless top dressings of meadows and pastures are made.

There are possibilities in altering our methods of applying fertilizers. As a general rule potash is applied to the upland soils for the benefit of the crop that is grown the year it is applied. In other words the amount added is so small that little, if any, remains in the soil for those that follow. Moreover, nitrogen is utilized in the same manner, if added in larger amounts than is needed by the crop it will be washed out before the next season. On the other hand phosphorus is and should be used in much larger amounts and, as shown in another article, does not leach out of the soil to any appreciable extent. The nitrogen and potash could be placed in the row or near it when cultivated crops are grown, and the phosphate distributed throughout the soil mass. Such an arrangement should result in the most efficient use of the fertilizer constituents. This would apply where one purchases the unmixed goods.

If one is using small amounts of mixed fertilizers mainly for crop stimulation, and the residues ignored, they may be applied to any crop, but if large amounts are being used and the surplus amounts of phosphorus and potash are to be utilized by succeeding crops, the mixture should be applied to the heavy cash crops in the rotation and the crops that follow make use of the residues.

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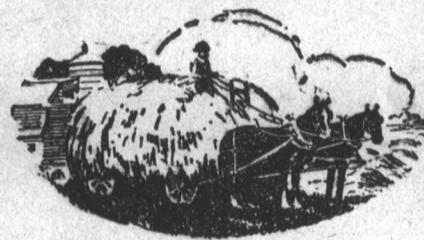
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When the crops are harvested each year in Michigan, there are thousands of farm families who say about APEX brand seeds—“they are every bit as good as they were said to be.”

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MICHIGAN SEED SPECIALISTS  
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Re-cleaned and Tested

# FIELD SEEDS

## Sense and Nonsense

### Checked His Pants, Too

A young fellow, who was off on a jaunt out west, fell into hard luck and had to pawn one of his suits. Just before starting for home he managed to get it out again. When he reached home his mother, while unpacking his trunk, came across the coat with the pawnbroker's tag on it.

“John,” she inquired, “what is this tag on your coat?”

John, not wishing to have his mother know of his temporary embarrassment said:

“Oh, I was at a dance and checked my coat.”

Soon she came across the trousers with the same kind of a tag on them.

“John,” she demanded, “what kind of a dance was that?”

### Hello, Moses

At one of the western camps was a young rookie who, during the first few days of his sojourn, was the victim of so much guying that he doubted all the men and their motives. One night while he was on guard the tall figure of one of the officers loomed up in the darkness before him.

“Who goes there?” he challenged.

“Major Moses,” replied the officer.

The rookie scented a new joke. “Glad to meet you, Moses, old top,” he said cheerfully. “Advance and give the Ten Commandments.”

### Mysterious Disappearance

“What became of that young man who was paying so much attention to you?”

“I don't know. I let him walk to the grocery store one afternoon with me, and after he saw how much we had to pay for things to eat, he just quit coming to see me.”  
Post.

### Two Wrongs, One Right

“An optimist is a man who cherishes vain hopes, and a pessimist a man who nurses vain regrets.”

“And what is the man who does both?”

“Oh, he's just a plain ordinary human.”

### A Matter of Rank

“Are you the captain of your soul?”

“Sort of a second lieutenant,” ventured Mr. Henpeck dubiously.



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Parasiticide. Disinfectant.

USE IT ON ALL LIVESTOCK

To Kill Lice, Mites, Fleas, and Sheep Ticks.

To Help Heal Cuts, Scratches and Common Skin Troubles.

USE IT IN ALL BUILDINGS

To Kill Disease Germs and Thus Prevent Contagious Animal Diseases.

EASY TO USE. EFFICIENT. ECONOMICAL.

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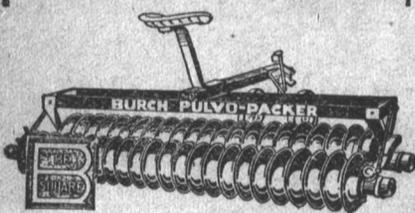
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Works in any soil. Makes V-shaped ditch or cleans ditches up to four feet deep. Allsteel. Reversible. Adjustable. Write for free book and our proposition. Owensboro Ditcher & Grader Co., Inc. Box 1562 Owensboro, Ky.

# Feeding Cows to Increase Their Milk Production

**F**EED AND production records, which should be of interest on account of the accuracy with which the nutrients fed could be calculated, were obtained during the past year on seven Holstein-Friesian cows at the Beltsville (Md.) experiment farm of the Dairy Division, United States Department of Agriculture. These cows, which are a part of the foundation herd used in line breeding and inbreeding project in charge of R. R. Graves, have now completed their first semi-official yearly test as heifers, and in accordance with the plan of the breeding work they will be tested later on as mature cows.

The cows are fed in such manner as to show their producing capacity, though no attempt was made to force them to extremes. The animals were not run on pasture, and did not receive any green feed during their lactation period. Consequently full and accurate records of all nutrients consumed are available. All of these cows were milked three times a day throughout the year's work. All test animals are handled under as uniform conditions as possible, in order that the records of the next generation, when made under the same conditions, may be comparable. The names and herd numbers of the animals that completed their records are:

- No. 228. Gerben Queen Segis Cornucopia, 294761.
- No. 227. Beauty Korndyke Gerben, 288919.
- No. 229. Mercedes Laura Ollie, 307236.
- No. 230. Watson Segis Pontiac Homestead, 316969.
- No. 231. Lone Star Pontiac Segis, 2nd, 323757.
- No. 214. Lady Colantha Walker, 365573.

No. 225. Lone Star Pontiac Segis, 239068.

Cows 228 and 227 are daughters of Hazelwood Korndyke Gerben, 98063. Cows 229, 230 and 231 are daughters of Piebe Laura Ollie Homestead King, 110474. No. 214 is a daughter of Johan Woodcrest Lad 11th, 103987, and was bred at Beltsville. No. 225 is a daughter of King Segis Pontiac Count, 93909.

All the animals in this list, with the exception of No. 214 were shipped from Minneapolis on March 22, 1918, arriving at Beltsville on April 1. With the exception of No. 229, there was no time for any special fitting, and in fact all were in ordinary condition at time of calving. No. 228 freshened April 4; No. 231 freshened April 10; Nos. 230 and 227 freshened April 18; No. 225 freshened April 29; and No. 229 freshened May 28. The following table gives a summary of the production and feed consumption, also the age of the animals at the time the test was started.

### Composition of Grain Ration

The grain mixture that was fed to these cows was made up of the following feeds, by weight:

- Corn meal ..... 2 parts
- Gluten feed ..... 2 parts
- Wheat bran ..... 2 parts
- Oats ..... 3 parts
- Dried brewers' grains ..... 2 parts
- Cottonseed meal ..... 2 parts
- Linseed oil meal ..... 3 parts

Molasses was fed at the rate of 0.6 pound per day after December 1, 1918. The dried beet pulp was fed after being soaked in water. It should be borne in mind that these cows were not fed from the viewpoint of economy of production, but rather to ascertain their producing capacity.

It will be noted that there is a considerable difference in the amount of total digestible nutrients consumed per 1,000 pounds of milk produced; per 100 pounds of fat produced; and per 100 pounds of solids produced.

There was very little difference in the size of cows 231 and 214, yet No. 214 produced 1,173 pounds more milk and 48 pounds more fat than did No. 231, and consumed slightly less digestible nutrients per 1,000 pounds milk and per 100 pounds fat produced.

### Troubles Suffered by Cows

All the cows shipped from Minneapolis suffered severely from heat during their first summer at Beltsville, Md. No. 228 was troubled some with foot rot, and was also used in a water experiment from November 5 to March 28. No. 227 was troubled for some six weeks following her freshening by an obstruction in one teat. No. 231 was off feed at two different times as a result of bloating from alfalfa hay. No. 229 was very sick in December of her test from compaction followed by a slight case of pneumonia, and lost considerable weight during her illness.

All of these animals made considerable gains in weight during their tests. Undoubtedly a part of the surplus digestible nutrients consumed over the amounts required for production and maintenance were used for this growth and gain in their weight. The surplus of digestible protein consumed was much greater than the surplus of total digestible nutrients. Men who feed cattle for large production have long thought that the narrower ration acted as a stimulus to greater production. From the standpoint of economy the narrower ration is no more costly than a wider ration, at present prices of feeds.

SUMMARY OF FEED AND PRODUCTION RECORDS FOR ONE YEAR FOR SEVEN HOLSTEIN COWS.

Number Herd	Age test started	Milk produced	Fat	Fat produced	Feed Consumed					Nutritive ratio of ration	Digestible nutrients per 1,000 lbs. milk	Digestible nutrients per 100 lbs. fat	Digestible nutrients per 100 lbs. total solids	Total digestible nutrients consumed pounds
					Grain	Beet Pulp	Alfalfa hay	Molasses	Corn silage					
230	2 yrs., 1 mo., 21 das.	20,852.1	8.29	671.505	6,468	2,033	4,462	146	8,902	1:4.2	502.8	1,525.0	422.5	10,233.1
229	2 yrs., 6 mos., 20 das.	20,063.7	3.11	625.9	5,581	2,251	4,336	182	8,196	1:4.3	477.5	1,532.6	396.4	9,578.9
228	2 yrs., 7 mos., 7 das.	15,001.1	3.24	486.133	5,543	1,692	4,344	132	9,394	1:4.2	621.1	1,917.0	517.6	9,316.7
227	2 yrs., 8 mos., 16 das.	17,753.0	3.49	619.37	5,803	1,912	4,340	143	8,822	1:4.2	530.4	1,547.0	435.0	9,576.03
225	4 yrs., 2 mos., 12 das.	21,455.3	3.16	679.99	6,613	2,410	4,466	159	8,315	1:4.2	490.8	1,548.4	427.1	10,529.1
231	2 yrs., 26 days	16,670.7	2.98	498.33	5,899	1,781	4,374	136	8,333	1:4.2	546.3	1,828.9	479.9	9,108.3
214	2 yrs., 2 months	17,843.7	3.06	546.85	5,991	1,880	4,336	182	8,758	1:4.2	543.9	1,777.2	460.9	9,708.6

## Lowering the Cost of Keeping Stock by Feeding Silage

**I** HAVE BEEN looking up this silo business of late, and I have made up my mind that Bill Spivins will have a silo next year right up alongside of his red dairy barn. I am giving you the conclusion of some two or three years of investigation, and you can put it down that I am going to do just what I say.

For several years I have milked a few cows, fed out a few steers, and practiced what you might call general farming. My wife and I have gotten along very nicely and have gotten ahead. Occasionally we keep a few accounts so we know something of what departments of our business are paying. I must confess, however, that my wife deserves the credit for telling me about the good work of the cows and chickens. For some reason it is hard for a man to keep track of these small sums which come in every few days but which at the end of the year show a surprising total. I told her that I had noticed recently that our best farmers were inclined to erect monuments somewhere among their buildings, and these monuments certainly reflected something. The round high towers give a splendid opportunity for a man to look

around him and take a survey of his property; more than that, these fellows who have the observation towers seem to have very big cream checks, and when they ship out a load of cattle there is a sort of shine and fullness to them which makes them top the market. I noticed that when they had those cold stormy spells, the men who owned the silos seemed to be perfectly content, and I am sure their cattle were. This chopping corn out of shocks when it is covered with snow and ice is not the kind of job which keeps the boys on the farm, and it's not the kind of feed

that puts the milk in the pail. The other day when I hauled in a load of corn stalks that had been weathered for some six months, and looked like hazel brush well cured my wife remarked that she would prepare some of the cabbage which had been left in our garden for my dinner. I observed the cabbages as I came in, and really thought that she had summed up the situation correctly. When I found some good old sauer kraut and spare ribs on my plate I couldn't help but think of those good cows and their brothers smiling over their mess of silage.

I figured up the other day and found that our cows were producing about one hundred and fifty pounds of butterfat a year, and this I know is above the state average; but I found that Henry Jones' cows had averaged over three hundred pounds of butterfat for the year, and this meant that he received about six times more out of his cows than I did out of mine, for it costs about so much to keep a cow a year, and of course there is no difference in the cost of milking whether a cow gives four quarts or four gallons. The investment is there, and it's a cow that



SADIE GERBEN HENGERVELD DE KOL

(Cont. on page 23)

# BREEDERS DIRECTORY

(SPECIAL ADVERTISING RATES under this heading to honest breeders of live stock and poultry will be sent on request. Better still, write out what you have to offer, let us put it in type, show you a proof and tell you what it will cost for 13, 26 or 52 times. You can change size of ad. or copy as often as you wish. Copy or changes must be received one week before date of issue. Breeders' Auction Sales advertised here at special low rates; ask for them. Write today!)

BREEDERS' DIRECTORY, THE MICHIGAN BUSINESS FARMER, Mt. Clemens, Michigan.

## CLAIM YOUR SALE DATE

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

May 10, Herefords, Newton County Hereford Breeders Ass'n, Kentland, Ind.  
May 11, Holsteins, West Michigan Breeders, Grand Rapids, Mich.  
June 8, Holsteins, McPherson Farms Co., and Cheney Stock Farm, Howell, Mich.

## CATTLE

### HOLSTEIN-FRIESIAN

#### MR MILK PRODUCER

Your problem is more MILK, more BUTTER, more PROFIT per cow.  
A son of Maplecrest Application Pontiac-182652—from our heavy-yearly-milking-good-butler-record dam will solve it.  
Maplecrest Application Pontiac's dam made 85,103 lbs. butter in 7 days; 1344.3 lbs. butter and 28421.2 lbs. milk in 365 days.  
He is one of the greatest long distance sires. His daughters and sons will prove it.  
Write us for pedigree and prices on his sons. Prices right and not too high for the average dairy farmer.  
Pedigrees and prices on application.  
**R. Bruce McPherson, Howell, Mich.**

**FOR SALE THOROUGHbred HOLSTEIN COWS**  
combining blood of Traverse City and Maple Crest stock, granddaughters of Friend Hengerveld De Kol Butter Boy.  
Prices \$300 and up  
**WILLIAMS & WHITCRE**  
R. F. D. No. 4 Allegan, Mich.

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

**For Sale: Registered Holsteins, 7 young cows, A. R. O. bred to 31 lb. bull. Herd on State Federal accredited list. Wm. Griffin, Howell, Mich.**

**REGISTERED HOLSTEINS FOR SALE, FOUR** bull calves sired by a son of King Segis Champion Mabel. He is a double grandson of King Segis De Kol Korndyke. Dams are heavy producing young cows. Prices reasonable, breeding considered.  
**G. & P. DeHOOP, Zeeland, Mich., R 4**

**HERE'S A BULL GOOD ENOUGH TO HEAD A REGISTERED HERD**  
A grandson of the \$50,000 bull. His dam a 20 lb. jr. 4 year old. Next dam a A. R. O. cow. Come and see his dam and his sisters and his fine heifer calves. This bull is coming 2 yrs. old. 90 per cent white. You will not be disappointed if you come to see him. Pedigree on request. Price \$750. Herd free from abortion.  
**H. E. BROWN**  
Breeder of Reg. Stock Only. Breedsville, Mich.

**MUSOLFF BROS.' HOLSTEIN'S**  
We are now booking orders for young bulls from King Pieter Segis Lyons 170506. All from A. R. O. dams with credible records. We test annually for tuberculosis. Write for prices and further information.  
**Musloff Bros., South Lyons, Michigan**

**REGISTERED HOLSTEINS**  
**TWO BEAUTIFUL HEIFER CALVES.** Four-fifths white, perfect individuals. Strong Pontiac Korndyke De Kol breeding. One born March 15, the other March 25. \$110 for the two.  
**EIGHT MONTHS OLD BULL.** Exceptionally fine pedigree. A splendid buy at \$100.  
**MORLEY E. OSBORNE**  
Sun Haven Farm

**Bulls From an Accredited Herd**  
**HILL OREST FARMS, Munson, Mich.**  
offers for sale their Senior Herd Sire, **RISINGHURST JOHANNA ORMSBY DIMPLE** born Nov. 25, 1915. He is a perfect individual, a show bull, gentle and right in every way, 2-3 white, a proven sire of high breeding qualities as shown by his get in our herd. Priced right. Send for bull circular, photos and pedigrees.  
**EDWARD B. BENSON & SONS**  
Munson, Mich.

**TWO BULL CALVES**  
Registered Holstein-Friesian, sired by 39.87 lb. bull and from heavy producing young cows. These calves are very nice and will be priced cheap if sold soon.  
**HARRY T. TUBBS, Etwell, Mich.**

**BABY BULLS**  
Grow your own next herd sire. We have three beautiful youngsters—straight as a line, big-boned rugged fellows. They are all by our 38 lb. senior sire, **KING KORNDYKE ORISKANY PONTIAC** from splendid individual dams of A. R. backing and the best of blood lines.  
Write for our sale list.  
**BOARDMAN FARMS**  
JACKSON, MICH.  
Holstein Breeders Since 1906

## HATCH HERD

(State and Federal Tested)  
**YPSILANTI, MICH.**

**OFFERS YOUNG SIRES**  
Yearlings and younger, out of choice advanced registry dams and King Korndyke Artistic Vale. Own dam 34.16 lbs. butter in 7 days; average 2 nearest dams, 37.61, 6 nearest 33.93, 20 nearest, 27.83.

**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.**

**PERHAPS**  
we have the bull you want. Our herd under Federal supervision headed by a 36 lb. son of King of the Pontiacs. Bull calves at your own price and terms. Three dandy fellows of serviceable age and several good young calves. Will also sell a few good heifers bred to Peldora DeKoe King of the Pontiacs son of King of the Pontiacs and Woodcrest Dora 85.89.  
Call at Hillcrest Farm, Ortonville, Mich., or write **John P. Hehl, 181 Griswold St., Detroit, Mich.**

**I WILL HOLD A COMBINATION SALE** of registered and grade Holsteins, registered and grade Angus, horses and Poland China Hogs, on April 7th, at my farm, 11 miles N. W. of Jackson, on Jackson-Springport state road.  
**VERNON CLOUGH, R2, Parma, Mich.**

**BULL CALF LAST ADVERTISED SOLD,** but have one more for sale. Nicely marked, straight back line, a fine individual, large growthy fellow with the making of a large bull. Would do someone a lot of good. Dam has a 27 lb. record, a large cow and a great milk producer. Sire a son of Friend Hengerveld DeKol Butter Boy, one of the great bulls.  
**JAMES HOPSON, JR.**  
Owosso R2 Michigan

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

**BROOKSTON FARMS REGISTERED HOLSTEIN BULL**  
Calves for sale, sired by **MARYLAND BELLE CLOTHILDE** No. 154358, born Dec. 14, 1914. A grandson of Colantha Jchanna Lad, one of the greatest living sires and of a 31.44 lb. daughter of Sir Korndyke Manor De Kol. His two nearest dams average 25.89 lbs. butter in seven days.  
**BROOKSTON FARMS**  
H. WIDDICOMB, Prop. Sig Rapids, Mich.

**OUR HERD SIRE MODEL KING SEGIS GLISTA**  
His sire a 30 lb. son of Lakeside King Segis Alban De Kol.  
His dam, Glista Fenella, 32.37 lb.  
Her dam, Glista Ernestine, 35.96 lb.  
His three nearest dams average over 33 lbs. and his forty six nearest tested relatives average over 30 lbs. butter in seven days. We offer one of his sons ready for service.  
**GRAND RIVER STOCK FARMS**  
C. G. Twiss, Mgr. Eaton Rapids, Mich.

**A NICELY BRED CALF**  
The Dam of this Calf has just made 12.77 lbs. of butter from 304.6 lbs. of milk as a senior yearling. She is from a 16.05 2 year old that freshens in April as a 6 year year old and will be tested.  
Dam is both a granddaughter of King of the Pontiacs and Woodcrest DeKol Lad 26 A. R. O. Daughters Sire of Calf is a 21 lb. grandson of the \$50,000 dollar bull. Price only \$100.00.  
**BAZLEY STOCK FARM, YPSILANTI, MICH.**  
Herd under state and federal inspection.  
Address all correspondence to **JOHN BAZLEY,**  
319 Atkinson Ave., Detroit, Mich.

**A NICE STRAIGHT LIGHT COLORED BULL** calf born February 1st. Sired by Flint Hengerveld Lad, whose two nearest dams average 32.66 lbs. butter and 73.45 lbs. milk in 7 days. Dam, a 24 lb. daughter of a son of Pontiac De Nijlander 35.43 lbs. butter and 750 lbs. milk in 7 days. Write for prices and extended pedigree to  
**L. C. KETZLER**  
Flint, 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 The Michigan Business Farmer.  
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.

## SHORTHORN

**SHORTHORNS**  
5 bulls, 4 to 8 mos. old, all roans, pall fed. Dams good milkers, the farmers' kind, at farmers' prices.  
**F. M. PIGGOTT & SON, Fowler, Mich.**

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

**MILKING SHORTHORN BULL CALVES**  
Place a pure bred milking Shorthorn bull in your herd and improve their milking and fleshing qualities. Have disposed of all females that are for sale. Have a few nice bull calves left at reasonable prices.  
**ROY S. FINCH, Five Lake, Mich.**

**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** I offer bulls 4 mo. to 16 mos. 1 cow, 1 heifer calf.  
**O. M. YORK, Millington, Mich.**

**FOR SALE SCOTCH SHORTHORN BULL** calves ready for service.  
**JOHN LESSITER'S SONS, Clarkston, Mich.**  
Phone, Pontiac 7115-F-3 or Orion Exchange

**FOR SALE**  
3 Young Registered Shorthorn Bulls  
**CLARENCE WYANT, Berrien Center, Mich., R1**

**THE VAN BUREN CO. SHORTHORN BREEDERS** Association have stock for sale, both milk and beef breeding.  
Write the secretary.  
**FRANK BAILEY, Hartford, Mich.**

**SHORTHORNS ONLY A FEW LEFT**  
**Wm. J. BELL, Rose City, Mich.**

**TWO SCOTCH TOPPED BULLS** ready for service sired by **SULTAN'S DALE** 339292 from heavy milking dams. Write  
**M. B. HALLSTED, Orion, 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.**

**HEREFORDS**  
**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.

**Hardy Northern Bred Herefords**  
**BERNARD FAIRFAX 624819 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.  
**MARION STOCK FARM**  
Tony B. Fox, Prop.  
Marion, Mich.

**MEADOW BROOK HEREFORDS**  
Bob Fairfax 405027 at head of herd. Registered stock, either sex, polled or horned, mostly any age. Come and look them over.  
**EARL C. McCARTY, Bad Axe, Michigan.**

**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.**

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

**GUERNSEYS**  
**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.**

**GUERNSEYS WE ARE OFFERING FOR** sale some splendid bull calves out of A. R. dams with records up to 500 lbs. fat. Our herd sire, a grandson of Dolly Dimples May King of Langwater, and whose dam has an A. R. record of 548 lbs. fat at 2 1-2 years is also for sale or exchange. Write for particulars and prices to  
**MORGAN BROS., R No 1, Allegan, Mich.**

**REGISTERED GUERNSEYS**  
Away with the Scrub Bull.  
Breeding better Guernseys.  
Bull calves that will improve your herd.  
**J. M. WILLIAMS**  
North Adams, Mich.

**JERSEYS**  
**Highland Farm--Jerseys**  
Offers: Bulls of serviceable age, of R. O. M. Sire and Dam's, with high production records. Also bull calves. Write for printed list of prices and description.  
**HIGHLAND FARM, Shelby, Mich., R 2.**

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

**A Few Registered Jersey** cows for sale. Herd of twenty-three to choose from. Also bulls ready for service.  
**H. C. & A. H. DONALDSON, Fenton, Mich.**

**BROWN SWISS**  
**VAL VERDE FARM BROWN SWISS** Registered calves for sale—both sex.  
**EDWIN GRISWOLD, Rt. 1, Bellaire, Mich.**

**FOR SALE**  
**I HAVE ANOTHER PURE BRED BROWN SWISS BULL CALF** that was born Feb. 4, 1920. Will give purchaser registration and transfer.  
**FRANK POET, Clare, Mich., R 6**  
Breeder of Brown Swiss Cattle

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

## SWINE

**POLAND CHINA**  
**BIG BOB MASTODON**  
Sire was champion of the world, his Dam's sire was grand champion at Iowa State Fair. Get a grand champion while the getting is good. Booking orders now. Bred gilts are all sold, but have 10 choice fall pigs sired by a Grandson of Dasher's Giant, 3 boars and 7 sows. Will sell open or bred for Sept. farrow, to **BIG BOB**  
**C. E. GARNANT, Eaton Rapids, Mich.**

**BIG TYPE POLAND CHINA BRED GILTS ALL** sold out. A few fall pigs either sex at reasonable price. Registered in buyer's name. Sired by Big Bone 4th and Big Long Bob.  
**MOSE BROS., St. Charles, Mich.**

**BIG TYPE POLAND CHINAS, CLOSING OUT** our boars and bred gilts at a bargain. Gilts with quality and size bred to a large growthy herd boar for March and April farrow.  
**L. W. BARNES & SON, Byron, Mich.**

**BIG TYPE POLAND CHINAS WITH QUALITY**  
Have for sale M's ORANGE, a fine yearling boar out of L's BIG ORANGE.  
**J. E. MYGRANTS, St. Johns, Mich.**

**WALNUT ALLEY BIG TYPE POLAND CHINA** land China. Gilts all sold. My 1920 crops will be sired by Giant Clansman No. 324731, sired by Giant Clansman and Art's Progress No. 877041.  
**A. D. GREGORY, Ionia, Mich.**

**6TH ANNUAL P. C. BRED SOW SALE,** March 13, 1920. For particulars write  
**W. J. HAGELSHAW, Augusta, 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.**

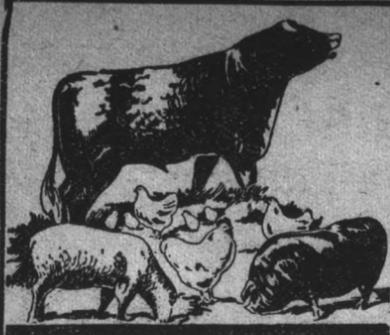
**LTPC AM OFFERING SPRING** boars, summer and fall pigs.  
**F. T. HART, St. Louis, Mich.**

**I Am Offering Large Type Poland China Sows,** bred to F's Orange at reasonable prices. Also fall pigs. Write or call.  
**CLYDE FISHER, RS, St. Louis, Mich.**

**B. T. P. O. ALL SOLD OUT, EXCEPT SOME** fall gilts. Thanking my customers.  
**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.**

**It Pays Big**  
to advertise livestock or poultry in **M. B. F.'s Breeders Directory.**



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Parasiticide. Disinfectant.  
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To Help Heal Cuts, Scratches and  
Common Skin Troubles.

**USE IT IN ALL BUILDINGS**

To Kill Disease Germs and Thus  
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Animal Industry Department of  
**PARKE, DAVIS & CO.**  
DETROIT, MICH.

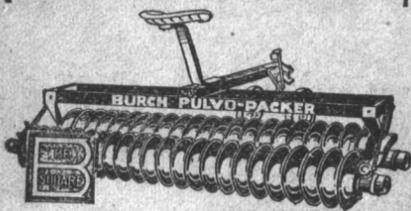
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Not connected with any other house on this market.

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Works in any soil. Makes V-shaped ditch or cleans ditches up to four feet deep. All steel. Reversible. Adjustable. Write for free book and our proposition.

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# Feeding Cows to Increase Their Milk Production

**F**EED AND production records, which should be of interest on account of the accuracy with which the nutrients fed could be calculated, were obtained during the past year on seven Holstein-Friesian cows at the Beltsville (Md.) experiment farm of the Dairy Division, United States Department of Agriculture. These cows, which are a part of the foundation herd used in line breeding and inbreeding project in charge of R. R. Graves, have now completed their first semi-official yearly test as heifers, and in accordance with the plan of the breeding work they will be tested later on as mature cows.

The cows are fed in such manner as to show their producing capacity, though no attempt was made to force them to extremes. The animals were not run on pasture, and did not receive any green feed during their lactation period. Consequently full and accurate records of all nutrients consumed are available. All of these cows were milked three times a day throughout the year's work. All test animals are handled under as uniform conditions as possible, in order that the records of the next generation, when made under the same conditions, may be comparable. The names and herd numbers of the animals that completed their records are:

- No. 228. Gerben Queen Segis Cornucopia, 294761.
- No. 227. Beauty Korndyke Gerben, 288919.
- No. 229. Mercedes Laura Ollie, 307236.
- No. 230. Watson Segis Pontiac Homestead, 316969.
- No. 231. Lone Star Pontiac Segis, 2nd, 323757.
- No. 214. Lady Colantha Walker, 365573.

No. 225. Lone Star Pontiac Segis, 239068.

Cows 228 and 227 are daughters of Hazelwood Korndyke Gerben, 98063. Cows 229, 230 and 231 are daughters of Piebe Laura Ollie Homestead King, 110474. No. 214 is a daughter of Johan Woodcrest Lad 11th, 103987, and was bred at Beltsville. No. 225 is a daughter of King Segis Pontiac Count, 93909.

All the animals in this list, with the exception of No. 214 were shipped from Minneapolis on March 22, 1918, arriving at Beltsville on April 1. With the exception of No. 229, there was no time for any special fitting, and in fact all were in ordinary condition at time of calving. No. 228 freshened April 4; No. 231 freshened April 10; Nos. 230 and 227 freshened April 18; No. 225 freshened April 29; and No. 229 freshened May 28. The following table gives a summary of the production and feed consumption, also the age of the animals at the time the test was started.

**Composition of Grain Ration**

The grain mixture that was fed to these cows was made up of the following feeds, by weight:

- Corn meal ..... 2 parts
- Gluten feed ..... 2 parts
- Wheat bran ..... 2 parts
- Oats ..... 3 parts
- Dried brewers' grains ..... 2 parts
- Cottonseed meal ..... 2 parts
- Linseed oil meal ..... 3 parts

Molasses was fed at the rate of 0.6 pound per day after December 1, 1918. The dried beet pulp was fed after being soaked in water. It should be borne in mind that these cows were not fed from the viewpoint of economy of production, but rather to ascertain their producing capacity.

It will be noted that there is a considerable difference in the amount of total digestible nutrients consumed per 1,000 pounds of milk produced; per 100 pounds of fat produced; and per 100 pounds of solids produced.

There was very little difference in the size of cows 231 and 214, yet No. 214 produced 1,173 pounds more milk and 48 pounds more fat than did No. 231, and consumed slightly less digestible nutrients per 1,000 pounds milk and per 100 pounds fat produced.

**Troubles Suffered by Cows**

All the cows shipped from Minneapolis suffered severely from heat during their first summer at Beltsville, Md. No. 228 was troubled some with foot rot, and was also used in a water experiment from November 5 to March 28. No. 227 was troubled for some six weeks following her freshening by an obstruction in one teat. No. 231 was off feed at two different times as a result of bloating from alfalfa hay. No. 229 was very sick in December of her test from compaction followed by a slight case of pneumonia, and lost considerable weight during her illness.

All of these animals made considerable gains in weight during their tests. Undoubtedly a part of the surplus digestible nutrients consumed over the amounts required for production and maintenance were used for this growth and gain in their weight. The surplus of digestible protein consumed was much greater than the surplus of total digestible nutrients. Men who feed cattle for large production have long thought that the narrower ration acted as a stimulus to greater production. From the standpoint of economy the narrower ration is no more costly than a wider ration, at present prices of feeds.

SUMMARY OF FEED AND PRODUCTION RECORDS FOR ONE YEAR FOR SEVEN HOLSTEIN COWS.

Number Herd	Age test started	Milk produced	Fat	Fat produced	Feed Consumed					Digestible nutrients per 1000 lbs. milk	Digestible nutrients per 100 lbs. fat	Digestible nutrients per 100 lbs. total solids	Total digestible nutrients consumed pounds	
					Grain	Beet Pulp	Alfalfa hay	Molasses	Corn silage					
230	2 yrs., 1 mo., 21 das.	20,852.1	3.29	671.505	6,468	2,033	4,462	146	8,902	1.42	502.8	1,525.0	422.5	10,238.1
229	2 yrs., 6 mos., 20 das.	20,063.7	3.11	625.9	5,581	2,251	4,336	182	8,196	1.43	477.5	1,532.6	396.4	9,578.9
228	12 years, 7 months	15,001.1	3.24	486.133	5,543	1,692	4,344	132	9,394	1.42	621.1	1,917.0	517.6	9,316.7
227	4 yrs., 8 mos., 16 das.	17,753.0	3.49	619.37	5,803	1,912	4,340	143	8,822	1.42	530.4	1,547.0	435.0	9,576.03
225	4 yrs., 2 mos., 12 das.	21,455.3	3.16	679.99	6,613	2,410	4,466	159	8,315	1.42	490.8	1,548.4	427.1	10,529.1
231	2 years, 26 days	16,670.7	2.98	493.33	5,899	1,781	4,374	134	8,333	1.42	546.3	1,828.9	479.9	9,108.3
214	2 years, 2 months	17,843.7	3.06	546.85	6,901	1,866	4,336	182	8,758	1.42	543.9	1,777.2	460.9	9,708.6

## Lowering the Cost of Keeping Stock by Feeding Silage

**I** HAVE BEEN looking up this silo business of late, and I have made up my mind that Bill Spivins will have a silo next year right up alongside of his red dairy barn. I am giving you the conclusion of some two or three years of investigation, and you can put it down that I am going to do just what I say.

For several years I have milked a few cows, fed out a few steers, and practiced what you might call general farming. My wife and I have gotten along very nicely and have gotten ahead. Occasionally we keep a few accounts so we know something of what departments of our business are paying. I must confess, however, that my wife deserves the credit for telling me about the good work of the cows and chickens. For some reason it is hard for a man to keep track of these small sums which come in every few days but which at the end of the year show a surprising total. I told her that I had noticed recently that our best farmers were inclined to erect monuments somewhere among their buildings, and these monuments certainly reflected something. The round high towers give a splendid opportunity for a man to look

around him and take a survey of his property; more than that, these fellows who have the observation towers seem to have very big cream checks, and when they ship out a load of cattle there is a sort of shine and fullness to them which makes them top the market. I noticed that when they had those cold stormy spells, the men who owned the silos seemed to be perfectly content, and I am sure their cattle were. This chopping corn out of shocks when it is covered with snow and ice is not the kind of job which keeps the boys on the farm, and it's not the kind of feed

that puts the milk in the pail. The other day when I hauled in a load of corn stalks that had been weathered for some six months, and looked like hazel brush well cured my wife remarked that she would prepare some of the cabbage which had been left in our garden for my dinner. I observed the cabbages as I came in, and really thought that she had summed up the situation correctly. When I found some good old sauer kraut and spare ribs on my plate I couldn't help but think of those good cows and their brothers smiling over their mess of silage.

I figured up the other day and found that our cows were producing about one hundred and fifty pounds of butterfat a year, and this I know is above the state average; but I found that Henry Jones' cows had averaged over three hundred pounds of butterfat for the year, and this meant that he received about six times more out of his cows than I did out of mine, for it costs about so much to keep a cow a year, and of course there is no difference in the cost of milking whether a cow gives four quarts or four gallons. The investment is there, and it's a cow that



SADIE GERBEN HENGERVELD DE KOL

(Cont. on page 23)



# BREEDERS DIRECTORY



(SPECIAL ADVERTISING RATES under this heading to honest breeders of live stock and poultry will be sent on request. Better still, write out what you have to offer, let us put it in type, show you a proof and tell you what it will cost for 13, 26 or 52 times. You can change size of ad. or copy as often as you wish. Copy or changes must be received one week before date of issue. Breeders' Auction Sales advertised here at special low rates; ask for them. Write today!)

BREEDERS' DIRECTORY, THE MICHIGAN BUSINESS FARMER, Mt. Clemens, Michigan.

## CLAIM YOUR SALE DATE

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

May 10, Herefords. Newton County Hereford Breeders' Ass'n., Kentland, Ind.  
May 11, Holsteins. West Michigan Breeders, Grand Rapids, Mich.  
June 8, Holsteins. McPherson Farms Co., and Cheney Stock Farm, Howell, Mich.

## CATTLE

### HOLSTEIN-FRIESIAN

#### MR MILK PRODUCER

Your problem is more MILK, more BUTTER, more PROFIT, per cow.  
A son of Maplecrest Application Pontiac—182652—from our heavy-yearly-milking-good-but-record dam will solve it.  
Maplecrest Application Pontiac's dam made 35,103 lbs. butter in 7 days; 1344.3 lbs. butter and 23421.2 lbs. milk in 365 days.  
He is one of the greatest long distance sires. His daughters and sons will prove it.  
Write us for pedigree and prices on his sons. Prices right and not too high for the average dairy farmer.  
Pedigree and prices on application.  
B. Bruce McPherson, Howell, Mich.

#### FOR SALE THOROUGHbred HOLSTEIN COWS

combining blood of Traverse City and Maple Crest stock, granddaughters of Friend Hengerveld De Kol Butter Boy.  
Prices \$300 and up  
WILLIAMS & WHITACRE  
R. F. D. No. 4 Allegan, Mich.

#### WOLVERINE STOCK FARM REPORTS GOOD

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

For Sale: Registered Holsteins, 7 young cows, A. R. O. bred to 31 lb. bull. Herd on State Federal accredited list. Wm. Griffin, Howell, Mich.

#### REGISTERED HOLSTEINS FOR SALE, FOUR

bull calves sired by a son of King Segis Champion Mabel. He is a double grandson of King Segis De Kol Korndyke. Dams are heavy producing young cows. Prices reasonable, breeding considered.  
G. & P. DeHOOP, Zeeland, Mich., R 4

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

A grandson of the \$50,000 bull. His dam a 20 lb. jr. 4 year old. Next dam a A. R. O. cow. Come and see his dam and his sisters and his fine heifer calves. This bull is coming 2 yrs. old. 90 per cent white. You will not be disappointed if you come to see him. Pedigree on request. Price \$850. Herd free from abortion.  
H. E. BROWN  
Breeder of Reg. Stock Only. Breedsville, Mich.

#### MUSOLFF BROS.' HOLSTEIN

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

#### REGISTERED HOLSTEINS

TWO BEAUTIFUL HEIFER CALVES. Four-fifths white, perfect individuals. Strong Pontiac Korndyke De Kol breeding. One born March 15, the other March 25. \$110 for the two.  
EIGHT MONTHS OLD BULL. Exceptionally fine pedigree. A splendid buy at \$100.  
MORLEY E. OSBORNE  
Sun Haven Farm

#### Bulls From an Accredited Herd

HILL CREST FARMS, Munson, Mich. offers for sale their Senior Herd Sire, RISINGHURST JOHANNA ORMSBY DIMPLE born Nov. 25, 1915. He is a perfect individual, a show bull, gentle and right in every way, 2-3 white, a proven sire of high breeding qualities as shown by his get in our herd. Priced right. Send for bull circular, photos and pedigrees.  
EDWARD B. BENSON & SONS  
Munson, Mich.

#### TWO BULL CALVES

Registered Holstein-Friesian, sired by 39.87 lb. bull and from heavy producing young cows. These calves are very nice and will be priced cheap if sold soon.  
HARRY T. TUBBS, Elwell, Mich.

#### BABY BULLS

Grow your own next herd sire. We have three beautiful youngsters—straight as a line, big-boned rugged fellows. They are all by our 35 lb. senior sire, KING KORNDYKE ORISKANY PONTIAC from splendid individual dams of A. R. backing and the best of blood lines.  
Write for our sale list.  
BOARDMAN FARMS  
JACKSON, MICH.  
Holstein Breeders Since 1906

## HATCH HERD

(State and Federal Tested)  
YPSILANTI, MICH.  
OFFERS YOUNG SIREs  
Yearlings and younger, out of choice advanced registry dams and King Korndyke Artis Vale. Own dam 34.16 lbs. butter in 7 days; average 2 nearest dams, 37.61, 6 nearest 33.93, 20 nearest, 27.83.

#### 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 NUDINE 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.

#### PERHAPS

we have the bull you want. Our herd under Federal supervision headed by a 36 lb. son of King of the Pontiacs. Bull calves at your own price and terms. Three dandy fellows of serviceable age and several good young calves. Will also sell a few good heifers bred to Peldora DeKoe King of the Pontiacs son of King of the Pontiacs and Woodcrest Dora 35.89.  
Call at Hillcrest Farm, Ortonville, Mich., or write.  
John P. Hehl, 181 Griswold St., Detroit, Mich.

#### I WILL HOLD A COMBINATION SALE

of registered and grade Holsteins, registered and grade Angus, horses and Poland China Hogs, on April 7th, at my farm, 11 miles N. W. of Jackson, on Jackson-Springport state road.  
VERNON CLOUGH, R2, Parma, Mich.

#### BULL CALF LAST ADVERTISED SOLD,

but have one more for sale. Nicely marked, straight back line, a fine individual, large growthy fellow with the making of a large bull. Would do someone a lot of good. Dam has a 27 lb record, a large cow and a great milk producer. Sire a son of Friend Hengerveld DeKol Butter Boy, one of the great bulls.  
JAMES HOPSON, JR.  
Owosso R2 Michigan

#### Four Choice Bull Calves

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

#### BROOKSTON FARMS REGISTERED HOLSTEIN BULL

Calves for sale, sired by MARYLAND BELLE CLOTHILDE No. 154358, born Dec. 14, 1914. A grandson of Colantha Johanna Lad, one of the greatest living sires and of a 31.44 lb. daughter of Sir Korndyke Manor De Kol. His two nearest dams average 25.89 lbs. butter in seven days.  
BROOKSTON FARMS  
H. WIDDICOMB, Prop. Sig Rapids, Mich.

#### OUR HERD SIRE MODEL KING SEGIS GLISTA

His sire a 30 lb. son of Lakeside King Segis Alban De Kol.  
His dam, Glista Fenella, 32.37 lb.  
Her dam, Glista Ernestine, 35.96 lb.  
His three nearest dams average over 33 lbs. and his forty six nearest tested relatives average over 30 lbs. butter in seven days. We offer one of his sons ready for service.  
GRAND RIVER STOCK FARMS  
O. G. Twiss, Mgr. Eaton Rapids, Mich.

#### A NICELY BRED CALF

The Dam of this Calf has just made 12.77 lbs. of butter from 304.6 lbs. of milk as a senior yearling. She is from a 18.05 2 year old that freshens in April as a 6 year year old and will be tested.  
Dam is both a granddaughter of King of the Pontiacs and Woodcrest DeKol Lad 26 A. R. O. Daughters Sire of Calf is a 21 lb. grandson of the \$50,000 dollar bull. Price only \$100.00.  
BAZLEY STOCK FARM, YPSILANTI, MICH.  
Herd under state and federal inspection.  
Address all correspondence to  
JOHN BAZLEY,  
319 Atkinson Ave., Detroit, Mich.

#### A NICE STRAIGHT LIGHT COLORED BULL

calf born February 1st. Sired by Flint Hengerveld Lad, whose two nearest dams average 32.66 lbs. butter and 735.45 lbs. milk in 7 days. Dam, a 24 lb. daughter of a son of Pontiac De Nijlander 35.43 lbs. butter and 750 lbs. milk in 7 days. Write for prices and extended pedigree to  
L. C. KETZLER  
Flint, 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 The Michigan Business Farmer.  
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!

## SHORTHORN

#### SHORTHORNS

5 bulls, 4 to 8 mos. old, all roans, pall fed. Dams good milkers, the farmers' kind, at farmers' prices.  
F. M. PIGGOTT & SON, Fowler, Mich.

#### THE BARRY COUNTY SHORTHORN BREEDERS

Association announce their fall catalog ready for distribution. Scotch, Scotch Top and Milking Shorthorns listed. Address  
W. L. Thorpe, Sec., Milo, Mich.

#### MILKING SHORTHORN BULL CALVES

Place a pure bred milking Shorthorn bull in your herd and improve their milking and fleshing qualities. Have disposed of all females that are for sale. Have a few nice bull calves left at reasonable prices.  
ROY S. FINCH, Fife Lake, Mich.

#### 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

I offer bulls 4 mo. to 16 mos. 1 cow, 1 heifer calf.  
O. M. YORK, Millington, Mich.

#### FOR SALE SCOTCH SHORTHORN BULL

calves ready for service.  
JOHN LESSITER'S SONS, Clarkston, Mich.  
Phone, Pontiac 7115-F-3 or Orion Exchange

#### FOR SALE

3 Young Registered Shorthorn Bulls  
CLARENCE WYANT, Berrien Center, Mich., R1

#### THE VAN BUREN CO. SHORTHORN BREEDERS

Association have stock for sale, both milk and beef breeding.  
Write the secretary,  
FRANK BAILEY, Hartford, Mich.

#### SHORTHORNS ONLY A FEW LEFT

AT OLD PRICE.  
Wm. J. BELL, Rose City, Mich.

#### TWO SCOTCH TOPPED BULLS

ready for service sired by SULTAN'S DALE 339292 from heavy milking dams. Write  
M. B. HALLSTED, Orion, 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.

## HEREFORDS

#### 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.

#### Hardy Northern Bred Herefords

BERNARD FAIRFAX 624819 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.  
MARION STOCK FARM  
Tony B. Fox, Prop. Marlon, Mich.

#### MEADOW BROOK HEREFORDS

Bob Fairfax 495027 at head of herd. Registered stock, either sex, polled or horned, mostly any age. Come and look them over.  
EARL C. McCARTY, Bad Axe, Michigan.

## 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.

#### BARTLETTS' PURE BRED ABERDEEN-ANGUS CATTLE AND O.I.C.

Swine are right and are priced right. Correspondence solicited and inspection invited.  
CARL BARTLETT, Lawton, Mich.

#### GUERNSEYS

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.  
O. A. HENNESEY, Watervliet, Mich.

#### GUERNSEYS WE ARE OFFERING FOR

sale some splendid bull calves out of A. R. dams with records up to 500 lbs. fat. Our herd sire, a grandson of Dolly Dimples May King of Langwater, and whose dam has an A. R. record of 548 lbs. fat at 2 1-2 years is also for sale or exchange. Write for particulars and prices to  
MORGAN BROS., R No 1, Allegan, Mich.

#### REGISTERED GUERNSEYS

Away with the Scrub Bull.  
Breeding better Guernseys.  
Bull calves that will improve your herd.  
J. M. WILLIAMS  
North Adams, Mich.

## JERSEYS

#### Highland Farm--Jerseys

Offers: Bulls of serviceable age, of R. O. M. Sire and Dam's, with high production records. Also bull calves. Write for printed list of prices and description.  
HIGHLAND FARM, Shelby, Mich., R 2.

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

#### A Few Registered Jersey

cows for sale. Herd of twenty-three to choose from. Also bulls ready for service.  
H. C. & A. H. DONALDSON, Fenton, Mich.

#### BROWN SWISS

VAL VERDE FARM BROWN SWISS Registered calves for sale—both sex.  
EDWIN GRISWOLD, R1, Bellaire, Mich.

#### FOR SALE I HAVE ANOTHER PURE BRED BROWN SWISS BULL CALF

that was born Feb. 4, 1920. Will give purchaser registration and transfer.  
FRANK POET, Clare, Mich., R 6  
Breeder of Brown Swiss Cattle

#### AYSHIRES

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

## SWINE

### POLAND CHINA

#### BIG BOB MASTODON

Sire was champion of the world, his Dam's sire was grand champion at Iowa State Fair. Get a grand champion while the getting is good. Booking orders now. Bred gilts are all sold, but have 10 choice fall pigs sired by a Grandson of Dish-er's Giant, 3 boars and 7 sows. Will sell open or bred for Sept. farrow, to BIG BOB.  
C. E. GARNANT, Eaton Rapids, Mich.

#### BIG TYPE POLAND CHINA BRED GILTS ALL

sold out. A few fall pigs either sex at reasonable price. Registered in buyer's name. Sired by Big Bone 4th and Big Long Bob.  
MOSE BROS., St. Charles, Mich.

#### BIG TYPE POLAND CHINAS, CLOSING OUT

our boars and bred gilts at a bargain. Gilts with quality and size bred to a large growthy herd boar for March and April farrow.  
L. W. BARNES & SON, Byron, Mich.

#### BIG TYPE POLAND CHINAS WITH QUALITY

Have for sale M's ORANGE, a fine yearling boar out of L's BIG ORANGE.  
J. E. MYGRANTS, St. Johns, Mich.

#### WALNUT ALLEY BIG TYPE POLAND CHINAS

Gilts all sold. My 1920 crops will be sired by Giant Clansman No. 324731, sired by Giant Clansman and Art's Progress No. 377041.  
A. D. GREGORY, Ionia, Mich.

#### 6TH ANNUAL P. C. BRED SOW SALE,

March 13, 1920. For particulars write  
W. J. HAGELSHAW, Augusta, 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.

#### LTPC AM OFFERING SPRING

boars, summer and fall pigs.  
F. T. HART, St. Louis, 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.

#### B T. P. C. ALL SOLD OUT, EXCEPT SOME

fall gilts. Thanking my customers.  
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.

# It Pays Big

to advertise livestock or poultry in  
M. B. F.'s  
Breeders Directory.

**NOTICE MENTION OF MY MICHIGAN**  
 Buster in Williams & Sons' Giant  
 Buster extant of their Mar. 10th sale, page 9.  
 Four fall gilts by him priced right. H. O.  
 Brown, Lehigh and Buff Rock eggs.  
 O. L. WRIGHT, Jonesville, Mich.

**L. T. POLAND CHINAS.** Orders booked for  
 spring pigs from Lino Lucans Strain.  
 ELDRED A. CLARK, St. Louis, Mich., R 3

**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 Prince and L's Long Prospect.  
 W. E. LIVINGSTON, Parma, 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.

**LSPC FOUR CHOICE SPRING AND FALL**  
 boars left. A few extra nice gilts  
 left bred for April farrow.  
 H. O. SWARTZ, Schoolcraft, Mich.

**B. T. P. C. SOWS ALL SOLD.** ORDERS  
 booked for boar pigs at weaning time from  
 Mich. champion herd. Visitors always welcome.  
 E. R. LEONARD, R 3, St. Louis, Mich.

**FOR SALE**  
**Large Type P. C. Hogs**  
 Have a few spring boars and spring gilts, also  
 yearling sows. Bred to such boars as Clansman's  
 Image 2nd, King's Giant, and Smooth Wonder.  
 They are three real boars. Free livery to visitors.  
 W. B. RAMSDALL, Hanover, Mich.

**DUROC**  
**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.

**PEACH HILL FARM** Duroc sows and gilts sired  
 by Proud Principal Romeo Cherry King Brook-  
 water Gold Stamp 6th 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.

**EBERSOLE'S BIG TYPE DUROCS. BOARS**  
 all sold. A few bred gilts for April and May  
 farrow. Also open gilts. Booking orders for  
 spring pigs. We solicit inspection.  
 ALBERT EBERSOLE  
 Plymouth, Mich., R. F. D. No. 3

**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.

**DUROCS OF BREEDING SIZE AND**  
**QUALITY.**  
 C. L. POWER, Jerome, Mich.

**Duroc sows and gilts bred to Walt's King 82949**  
 who has sired more prize winning pigs at the  
 state fairs in the last 2 years than any other Duroc  
 board. Newton Barnhart, St. Johns, Mich.

**DUROCS ONE GILT, WEIGHT 275 lbs.,**  
 \$75.00. One gilt, \$100 lbs., \$100;  
 bred to Orion boar for first of May farrow.  
 These are extra good gilts, also Sept. Pigs. 44  
 pigs farrowed from four sows.  
 H. G. KESSLER, Cassopolis, Mich.

**DUROC JERSEY GRANDSONS OF BROOK-**  
 water Cherry King or  
 Panama Special. \$20 at weaning.  
 E. E. CALKINS, Ann Arbor

**DUROC BOARS, GILTS AND BROOD SOWS**  
 of all ages. Sows bred or open. Newton  
 & Blank, Hill Crest Farms, Farmington, Mich.  
 Farm 4 miles straight south of Middleton.

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

**MEADOWVIEW FARM REG. DUROC JERSEY**  
 hogs. Spring pigs for sale.  
 J. E. MORRIS, Farmington, Mich.

**DUROC BRED GILTS** Choice breeding, splen-  
 did individuals. Bred  
 for April farrow. Would like to have you see them.  
 CHERRY LAWN FARM, Shepherd, Mich.

**DUROC JERSEY BRED SOWS AND GILTS**  
 April and May farrow.  
 Sired or bred to my 1,000 lb. herd boar.  
 JOS. SCHUELLER, Weldman, Mich.

**DUROC JERSEY FALL BOARS**  
 sired by Orion  
 Cherry King Col. 2nd, first aged boar at Detroit  
 in 1919. These are growthy and the right type  
 priced to sell.  
 W. C. TAYLOR, Milan, Mich.

**MAPLE LAWN FARM REG. DUROC JERSEY**  
 hogs. Order your spring pigs now. Pairs  
 and trios not akin.  
 VERN N. TOWNS, R6, Eaton Rapids, Mich.

**FOR SALE REG. DUROC GILTS BRED TO**  
 farrow March and April, modern  
 type, weighing 250 lbs. Sired by Brookwater  
 taxpayer and Professor Top Col. Bred to  
 Brookwater Panama Special. Price \$85 to \$100.  
 All fall pigs, both sex.  
 F. HEIMS & SON, Davison, Mich.

**WE OFFER A FEW WELL-BRED SELECT.**  
 ad spring Duroc Boars, also bred sows and  
 gilts in season. Call or write.  
 McNAUGHTON & FORDYCE, St. Louis, 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 O. 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

**DUROCS WITH QUALITY**  
 A few good gilts  
 bred for late spring farrow  
**Phillips Bros. Riga, Mich.**

**BREEDING BOAR FOR SALE**  
 Richard 10th No. 142259, a fine specimen of  
 the large type Duroc. Sired by Buskirk's Wonder-  
 er, by Plainwell Wonder. Dam by Paw Paw  
 Special. Weight 500 lbs. Not fat but in good  
 service condition.  
 A. L. REED, Hartford, Mich.

**DUROC JERSEYS. ONE TRIED SOW Sired**  
 by Orion Cherry King 6th. Bred for May farrow  
 C. E. DAVIS & SON, Ashley, Mich.

**BERKSHIRES**  
**REGISTERED BERKSHIRES FOR SALE, AUG.**  
 10 pigs for \$40 a piece, while they last. Satis-  
 faction guaranteed. Taking orders for spring pigs.  
 JOHN YOUNG, Breckenridge, Mich.

**Registered Berkshires**  
 Place orders for bred gilts for June farrow. Also  
 boars and spring pigs. 1 2-year old sow due to  
 farrow Apr 26th.  
 RUSSELL BROS., F 3, Merrill, Mich.

**LARGE ENGLISH RECORDED BERKSHIRES.**  
 Bred gilts and spring pigs for sale.  
 PRIMEVAL FARM, Osseo, Mich.

**GREGORY FARM BERKSHIRES FOR**  
 profit. Choice stock for sale. Write your  
 wants. W. S. Corsa, White Hall, Ill.

**FOR SALE REGISTERED BERKSHIRES OF**  
 the most fashionable breeding.  
 Bred or open. Gilts and young boars. Also a  
 few fall pigs. No aged stock. Prices, \$50 to  
 \$100.  
 HICKORY GROVE FARM, Pontiac, Mich., R3

**CHESTER WHITES**  
**CHESTER WHITES** Spring Pigs in Pairs or  
 trios from A-1 mature  
 stock at reasonable prices. Also a few bred Gilts  
 for May farrow. F. W. Alexander, Vassar, Mich.

**REGISTERED CHESTER WHITE PIGS FOR**  
 sale at prices that will interest you. Either  
 sex. Write today.  
 RALPH COSENS, Leaning, Mich.

**YORKSHIRE**  
**3 BRED YORKSHIRE GILTS, DUE APR. 1.**  
 From M. A. C. bred stock. \$50 each.  
 A. R. BLACK & SON, R7, Lansing, Mich.

**HAMPSHIRE**  
**HAMPSHIRE**  
 Am all sold out on sows and gilts bred for  
 spring farrowing. Have a few sows and gilts bred  
 for June and July farrowing that are good and  
 priced right. Spring boar pigs at \$15 ea. at 8  
 weeks old. Satisfaction guaranteed. Call or write  
 GUS THOMAS, New Lothrop, Mich.

**HAMPSHIRE A FEW BRED GILTS LEFT**  
 and fall boar pigs from new  
 blood lines.  
 JOHN W. SNYDER, St. Johns, Mich., R 4

**TWO FALL BOAR PIGS LEFT. BOOKING**  
 orders for spring pigs. \$15.00  
 at 8 weeks old.  
 W. A. EASTWOOD, Chesaning, Mich.

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

**SAGINAW VALLEY HERD OF O. I. C.'s CON-**  
 tains the blood of the noted champions, School-  
 master and Perfection 8th. Booking orders for  
 Feb. and Mar. pigs, either sex, no akin. Registered  
 free. John Gibson, Fosters, Mich., R 2.

**O. I. C.'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., R 1

**O. I. C. GILTS WEIGHING 200 to 275 LBS.**  
 in breeding flesh bred for March, April and  
 May farrow. Guaranteed safe in dam. I will re-  
 place any proving otherwise to your satisfaction  
 or refund purchase price in full. Have a few Oc-  
 tober boar pigs ready for spring service that are  
 right priced to sell. Herd cholera immunized by  
 double treatment. R. C. Burgess R3, Mason, Mich.

**O. I. C. ONE EXTRA CHOICE BOAR 8 MOS.**  
 old, right every way. \$50 buys him if  
 taken at once. Will ship O. O. D. for your ap-  
 proval.  
 CLARE V. DORMAN, Snover, 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.

**MUD-WAY-AUSH-KA FARM**  
 offers a few more O. I. C. bred gilts also hatch-  
 ing eggs from "Regal Dorcas." White Wyand-  
 ottes and "Parks" Barred Rocks at \$2 per 15.  
 White Runner ducks \$2 per 11 and White Chin-  
 cess Geese at 40c each. All eggs prepaid.  
 DIKE C. MILLER, Dryden, Mich.

**SHEEP**  
**IT PAYS TO BUY PURE BRED SHEEP OF**  
**PARSONS** "The Sheepsman  
 of the West."  
 I sell and ship everywhere and pay express  
 charges. Write for club offer and price list.  
 Oxford, Shropshires and Flock-Delectables.  
 PARSONS, Grand Lodge, Mich., R. 9

**WANT A SHEEP? Let American Hampshire**  
 Sheep Association send you a dandy booklet  
 with list of breeders. Write COMFORT A.  
 TYLER, Sec'y, 10 Woodland Ave., Detroit, Mich.

**REG. SHROPSHIRE BRED EWES 1 TO 3**  
 years old, large, healthy, well fleeced. Represent-  
 atives of this flock gave satisfaction in 15 states  
 last season. Rams all sold. C. Lemen, Dexter, Mich.

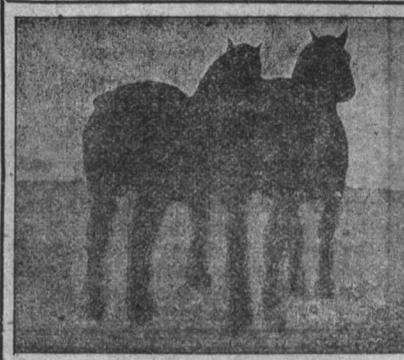
**HAMPSHIRE SHEEP**  
 Everything sold out, both ewes and rams.  
 I am breeding 50 ewes to "Stroman 209" an  
 excellent big boned type ram lamb that  
 weighed 176 lbs. October 1. Booking orders  
 for 1920 rams.  
 CLARK U. HAIRE, West Branch, Mich.

**KIDS I CANNOT SELL YOU ANY MORE**  
 ewes until next fall. To some grown up,  
 I can offer 10 very good young Shropshire ewes  
 that will lamb in April for \$400. Their lambs  
 contracted to me should net more than purchase  
 price next fall.  
 Also 10 mighty nice ewe lambs for \$350.  
 Come and see them.  
 KOPE-KON FARMS, Coldwater, Mich.

**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 \$200.  
 D. S. DEAN, Milford, Mich.

**CHOICE REGISTERED PERCHERONS For Sale**  
 1 gray mare 12 yrs.  
 1 black mare 3 yrs.  
 1 sorrel mare 3 yrs.  
 Spring Colt.  
 BARNEY GIESKEN, R3, St. Louis, Mich.

**FOR SALE—IMPORTED BELGIAN STALLION.**  
 Weight 1,800. Will sell at reasonable price if  
 sold at once. John Townsend, Armada, Mich.



**BELGIAN AND PERCHERON DRAFT STALLIONS**  
 With Size and Quality  
 MR. FARMER: Now is the time to  
 raise draft horses. I put out stallions  
 on a breeding plan. If your locality  
 needs a good draft stallion, let me hear  
 from you.  
**FRED G STEVENS**  
 Breckenridge, Mich.

**THE OLD FAVORITE**  
*"The crocodile wrench you sent me for getting my neighbor to sub-  
 scribe for M. B. F. is a whole tool box in your hand!"*

**FOR GRIPPING NUTS & FITTINGS**  
**FOR GRIPPING RODS AND SMALL PIPE**

**THE "CROCODILE" WRENCH** is drop forged from the finest tool  
 steel and scientifically tempered. Every wrench is guaranteed  
 against breakage. It is 8 1-2 inches long and weighs ten ounces.  
 Teeth and dies are case-hardened in bone black, making them hard and  
 keen. Requires no adjustment, never slips and is always ready for use.

**DIES ALONE WOULD COST \$1.50**  
 and would be worth more than that to every farmer, as they would  
 often save valuable time besides a trip to town for repairs.

**SIX HANDY FARM TOOLS IN ONE**  
 A pipe wrench, a nut wrench, a screw driver and three dies for  
 cleaning up and re-threading rusted and battered threads, also for cut-  
 ting threads on blank bolts.  
 The ideal tool to carry on a binder, reaper or mower.  
 Will work in closer quarters than any other wrench.  
 Light, strong, compact and easily carried in the hip pocket.  
 Dies will fit all bolts used on standard farm machinery.

**—HOW TO GET YOUR CROCODILE!**  
 Clip out this ad and mail it to us with the names of two new sub-  
 scribers, with \$2 to pay for them. The "Crocodile" wrench will be  
 sent to you prepaid in the next mail. Remember, the subscribers must  
 be NEW ones—not renewals.  
 (Don't forget to send your own name and address when sending the subscriptions.)

*"Keep M. B. F. coming!"*

**YOU WANT THIS WEEKLY IN YOUR MAIL BOX EVERY SATURDAY, BECAUSE—**

- it brings you all the news of Michigan farming; never hiding the plain facts.
- it tells you when and where to get the best prices for what you raise!
- it is a practical paper written by Michigan men close to the sod, who work with their sleeves rolled up!
- it has always and will continue to fight every battle for the interest of the business farmers of our home state, no matter whom else it helps or hurts!

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 tion price to all!

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No Premiums,  
 No free-list, but worth  
 more than we ask.

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 Dear Friends—Keep M. B. F. coming to the address below for  
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## Lower Cost Keeping Stock by Feeding Silage

(Continued from page 20)

must be kept; so if a cow makes a profit on one hundred and fifty lbs. of butter it is a pretty small one, and it is easy to see where this profit can be increased ten times by slightly increasing her production. The cost of hay and feed as well as of pasture is so high that it seems that a fellow has got a lot of money to throw away if he leaves half of his corn crop each year to be spoiled by the weather and storm.

I have noticed that all the Experiment stations use silos. They also have all proven that they are practical and will lower the cost of keeping stock. I have noticed that our best farmers and breeders use the silo to the limit, not only for winter but also for summer feeding; and that reminds me that when a fellow can get a profit on two hundred dollars an acre land used as pasture, he will have to get better cows than mine, and they will certainly have to be crackerjacks. I claim it can't be done especially in one of our average seasons. I have observed that when corn grows best, blue grass withers and dies; and if some of this good rich pasture land could be put into corn and that put in the silo, a whole lot more feed and profit could be obtained from the acre.

Silage is used not only for dairy cows but for all kinds of young stock, and for fattening cattle, sheep, horses, and chickens; in fact, about everything on the farm will eat it but the hired girl. Sam Jones' claim he prefers it to dill pickles.

There is another thing that I notice about this silo business. Every once in a while, in fact it is pretty near twice in a while, some darn thing goes wrong with the crop. We have a hot wind that cuts down the yield, or it gets so blamed dry it does not fill, or we have a hail which just about strips it to pieces, or a patch gets drowned out and we have to put in a late crop which gets

caught with the frost, or if we are a little late in planting, an early September frost will put it out of commission. The fellow with the silo is always prepared to save whatever he grows and then to turn it into a high priced product that can be marketed for cash as cream or beef. I figure that down in this country with the average corn crop at least one half is in the stalk and leaves. This is the average, taking one season with another. If a fellow can tell me that he can afford to grow this crop and throw half of it away, I certainly can say to him that he is fortunate. If he can save the whole crop I figure he can be sure of a profit.

Yes, I have made up my mind, and you can put me in the silo class. I will have my watch tower right up above the barn as soon as I can get it there. When the neighbors go by they will remark that Spivins is prospering; they always figured that he was a pretty smart fellow and sooner or later would show evidence of it; nothing can keep a good fellow down, and it will be only a few years before he will be buying up some of these surrounding farms. The county agent has been calling on him lately, and they claim he has been figuring on going into pure bred stock.

Yes, dear reader, Bill Spivins has got silo wise. He is going to run his farm so as to make the most of it at the same time build up the place so that when he gets through he can sell it for the top price; or if he has a boy who wants to go on with it, he will leave him the richest farm in the neighborhood. The silo is just as essential as the cow; for unless you can feed a cow well and with profit, you're better off without her. The silo will feed a cow with profit, and that it enough. What's the use of trying to prove things after they are already proven. Yours truly.—*Bill Spivins.*

# COMPLETE DISPERSAL SALE

— at —

## Clio, Mich., April 24th, 1920

at 12:30 p. m.

The entire herd of Andrew J. Littlefield, consisting of 55 head of purebred Registered Holsteins and 5 head consigned by Harry D. Gage of Clio.

### TWO THIRTY POUND BULLS

**ADMIRAL RAG APPLE**—A two year old son of Rag Apple Korndyke 8th and the 32.45 lb. four year old, Uniform Shadeland.

**BURTONDALE LIEUWKJE KORNDYKE**, a five year old son of Sir Lieuwkje Korndyke Kate DeKol and the 30.67 lb. cow Bessie Calamity Countess.

There will be ten daughters and twenty grand-daughters of the 1,200 lb. yearly record bull, **MAPLE CREST KORNDYKE HENGERVELD**.

There will be twenty daughters of the 30 lb. bull **BURTONDALE LIEUWKJE KORNDYKE**.

There will be thirty females in calf to **ADMIRAL RAG APPLE**.

About a dozen of these cows have records ranging from 14 and 15 lbs. at two years to 27 lbs. at maturity.

The rest are undeveloped young cows of fine individuality and rich breeding—just what you want for foundation stock.

You cannot afford to miss this sale if you are looking for well bred stock at a reasonable price.

All animals will be tuberculin-tested by a state approved veterinarian.

Clio is ten miles north of Flint on the Pere Marquette R. R., and the Michigan Electric Railway, and is on the Dixie Highway. Catalogs by E. M. Hastings, and will be mailed on request.

**A. J. LITTLEFIELD, Proprietor**

**S. T. WOOD, Manager**

**J. G. MACK, Auctioneer**

## POULTRY BREEDERS' DIRECTORY

Advertisements inserted under this heading at 30 cents per line, per issue. Special rates for 13 times or longer. Write out what you have to offer and send it in, we will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Advertising Department, Mt. Clemens, Michigan.

### POULTRY

## DAY OLD CHICKS

**HOMESTEAD FARMS**  
A co-operative work in Pure Breed Practical Poultry. Chicks and eggs delivered at your door prepaid. Standard Heavy and Laying Breeds.  
You will be interested in the Extra Quality White Leghorns inspected and certified as Heavy Producers by the Poultry Extension Specialist of the Agricultural College.

Live and healthy Chicks and satisfactory hatch from eggs guaranteed.

Send for new Catalog with illustrations; it will help you raise your Chicks. Also it explains the Homestead Farms plan of co-operation.

**STATE FARMS ASSOCIATION**  
Desk 2, Kalamazoo, Michigan

### ORPINGTONS AND LEGHORNS

Two great breeds for profit. Write today for free catalogue of hatching eggs, baby chicks and breeding stock.  
**CYCLE HATCHER COMPANY, 149 Philo Bldg. Elmira, N. Y.**

**COCKERELS, DRAKES, ANCONAS, BUFF** barred, Columbian, Silver Pencilled and White Plymouth Rocks; Rouen drakes, price, \$3 each. **SHERIDAN POULTRY YDS., R5, Sheridan, Mich.**

### FOR SALE MAMMOTH BRONZE TURKEYS.

ducks, either sex, \$4 each at once. Old ducks weigh 10 pounds.  
**CHASE STOCK FARM, Mariette, Mich.**

### PLYMOUTH ROCKS

**PURE BRED BARRED ROCK COCKERELS** from fine layers. Satisfaction guaranteed.  
**ROBERT BOWMAN, JR., Pigeon, Mich., R1**

**BARRED ROCK EGGS FOR HATCHING** from strong husky breeders.  
**W. C. GOFFMAN, Benton Harbor, R 3, Mich.**

**JOHN'S Big Beautiful Barred Rocks are Hen** hatched, good layers, grow quick. 30 eggs, \$3.50; 50, \$5 postpaid; cockerels, \$4 to \$6. Circulars, photos. **John Northon, Clare, Mich.**

**PURE BRED BARRED ROCKS, GOOD LAYERS.** That narrow, straight snappy barring. Score cards on hens and pullets to 94 points. Am an old timer in the business. Eggs for hatching, \$2.50 per 15. Satisfaction guaranteed.  
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**S. C. White Leghorn Hatching Eggs, \$2 for setting, \$5 for 50; \$9 for 100. Day old chicks, \$10 per 50, \$18 per 100, E. Altenbern, Allegan.**

**S. C. BUFF LEGHORNS, BABY CHICKS, EGGS** for hatching. Hens, Cockerels. Farm raised. Good laying strain.  
**J. W. WEBSTER, Bath, Mich.**

**GRABOWSKIE'S S. C. WHITE LEGHORNS** Stock and eggs for sale. Circular free.  
**LEO GRABOWSKIE, Merrill, Mich., R 4**

### WYANDOTTE

**30 Years a Breeder of Silver Laced and White** Wyandottes. Fine lot of young stock at \$3, \$4 and \$5 ea. **Clarence Browning, R2, Portland, Mich.**

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**CHICKS AND EGGS** Rose and Single Comb R. I. Reds, Barred Plymouth Rocks. Superior color. Prolific Layers. Prepaid by parcel post and safe delivery guaranteed. Illustrated catalog free.  
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**Chicks, Leghorns, Minorcas, Spanish, Houdans, Campines, Reds, Rocks, Orpingtons, Brahmas, Wyandottes.** **Tyrone Poultry Farm, Fenton, Mich.**

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**SHIPPED SAFELY EVERYWHERE BY MAIL** S. C. White Leghorns and S. C. Mottled Anconas; the great egg machines. Strong, sturdy chicks, guaranteed to satisfy. Order now for May and June delivery. Eleventh season. Catalog free.  
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**BABY CHICKS** Whelan Barron S. C. W. Leghorns—NOT show stock BUT laying stock. Their records in the world's laying contest show they are the 180 to 300 egg-a-year layers. You can call them the 200-egg-a-year birds. Baby Chicks only \$16 per 100 from this great laying strain. Enclose 15 per cent of the amount and state the date shipment is desired.  
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**BABY CHICKS 50,000 for 1920, Banded** Rocks. Exhibition quality. Booking orders now at 20c each.  
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**BLACK LANGSHANS OF QUALITY** Bred for type and color since 1912. Started from pen headed by Black Bob. First prize cock at International show at Buffalo, Jan. 1912. Eggs \$3.50 per setting of 15. Winter laying strain.  
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**ROSE COMB BROWN LEGHORN EGGS FOR** sale. One fifty per fifteen eggs. Flemish Giant rabbits that are giants. Quality guaranteed.  
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**FROM COOK'S BEST: S. C. BUFF, WHITE** and black Orpington eggs, \$4 per 15; \$7 for 30  
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**S. C. Ancona Eggs for Hatching from heavy** laying strain at \$1.75 per 15. Fertility guaranteed. Cockerels \$2.50 each.  
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**W. Wyandotte Eggs. Fishel Strain, \$1.50 per** 15; \$7.00 per 100, postpaid.  
**CHAS. A. BEATTY, Milford, Mich.**

**BARRED ROCKS** State contest winning strain direct. Special pens only headed by pedigreed males. Purebred partridge rocks. Eggs \$2.50 per 15, postpaid, \$6 per 45.  
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**WHITE WYANDOTTES; EGGS FOR HATCHING** from selected layers, \$2 per 15, prepaid. Pens \$16 to \$25.  
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**R. O. BR. Leghorn eggs, \$1.50 per setting. Pekin** duck, \$1.50 for 8. Chinese goose 40c each.  
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**BARRED ROCKS** Eggs from vigorous early laying strain. \$2 per 15. \$5 per 45 by prepaid parcel post. R. G. Kirby, R1, East Lansing, Mich.

**EGGS FROM BIG BARRED ROCKS, BRED** to lay. \$1.50 setting.  
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**Barred Rock Eggs for Early Hatching. My Breed-** ers are selected for good markings, vigor and very heavy laying, \$2 per 15, \$10 per 100.  
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**MRS. J. A. KELLIE, Maybee, Mich.**

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WHERE YOU KNOW IT WILL PAY

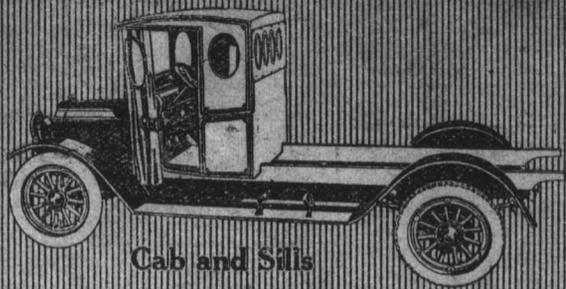
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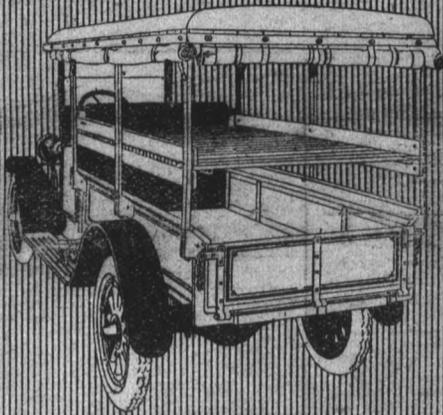
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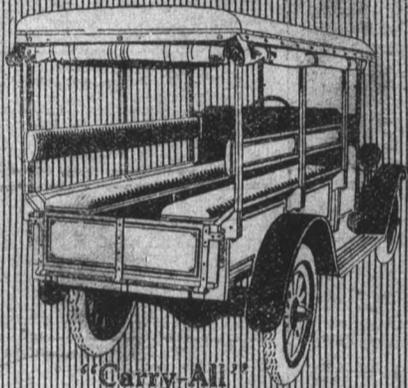
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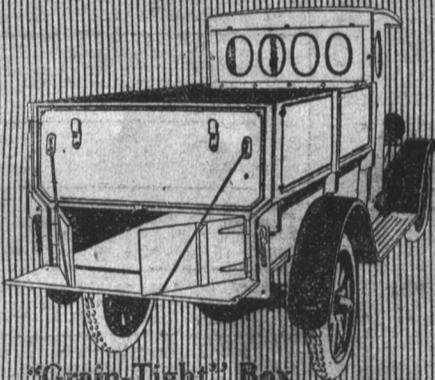
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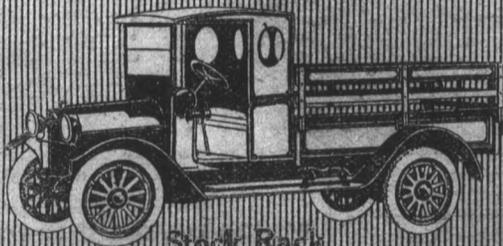
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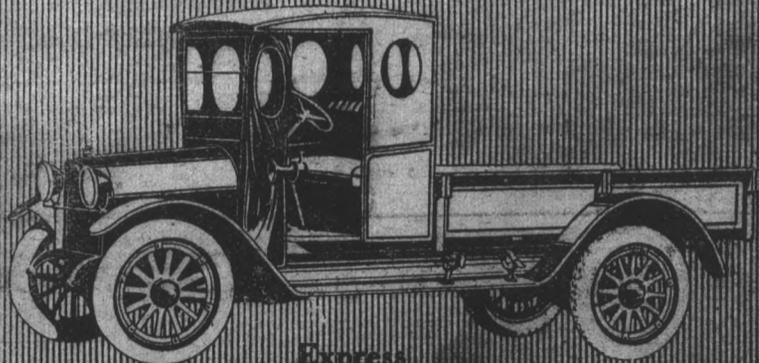
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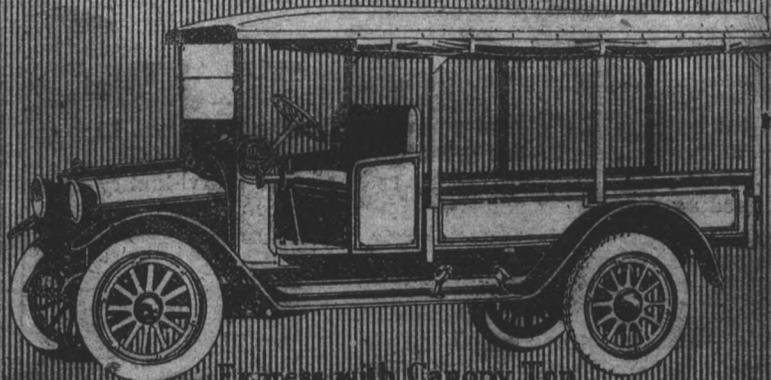
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The element of time is of even greater importance to the agriculturist, the stock raiser, the dairy or truck farmer, than it is to the urban business man.

In seed-time, haying or harvest time, the loss of a day may mean the loss of a large part of the season—and much, if not all, the net profit on the year's work.

For weather and growing crops will not wait.

Nor will the markets—either local or national.

When a broken farm implement necessitates taking the team off urgent work for several hours to get the repairs or replacements, it often means loss of many times their value—less acreage in crops—or grain lost through over-ripening.

That's when the pneumatic-tired Reo "Speed-Wagon" proves its worth and quickly pays for itself.

It leaves to the horses or the tractor the field work while it does all the road running.

This Reo "Speed-Wagon" markets at twenty miles an-hour instead of four.

Eighty per cent of the time now wasted between farm and town can be made available for increased profits.

And—the Reo will do another day's work after the horses are in the barn.

Successful farmers no longer consider getting along without a motor truck—it makes successful farmers.

*There is a Reo Dealer in your Vicinity.  
If You Don't Happen to Know Him  
Write the Factory for Illustrated Catalog*

**Reo Motor Car Company, Lansing, Mich.**

## "SPEED-WAGON"

"THE GOLD STANDARD OF VALUES"