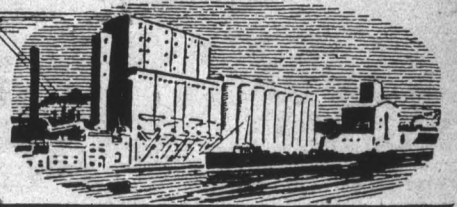


*The Michigan*  
**BUSINESS FARMER**



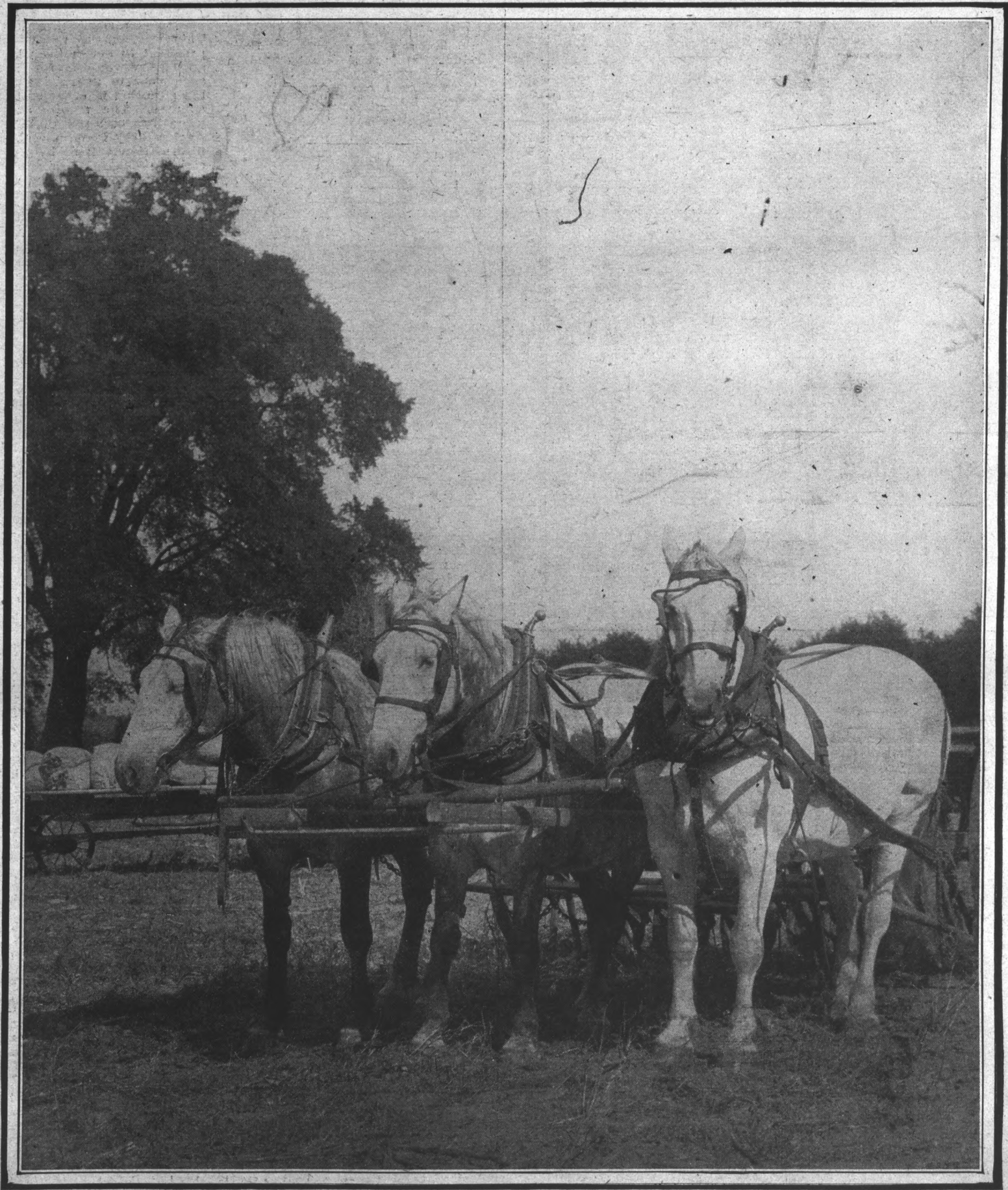
An Independent  
Farm Magazine Owned and  
Edited in Michigan



VOL. X, No. 18

SATURDAY, APRIL 28, 1923

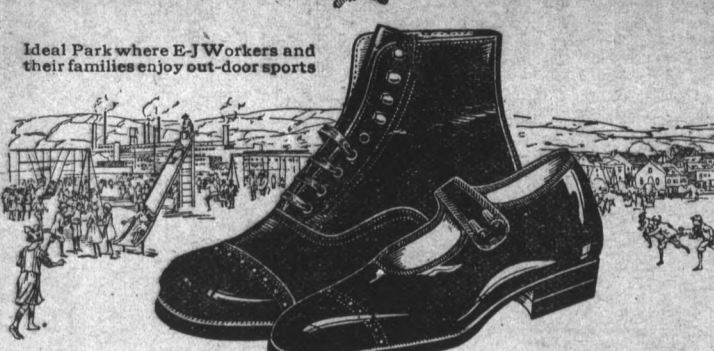
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## Current Agricultural News

### FRIDAY PREDICTS PROSPEROUS YEAR FOR FARMER

CONSIDERABLE damage done to fruit and truck by freezing during month," a statement from the bureau of economics, U. S. Department of Agriculture, concerning the crop situation in the southern states, bears out the prediction of President David Friday, of M. A. C., that Michigan is due for an unprecedented period of agricultural prosperity.

"From a purely selfish standpoint," declared President Friday, "the recent frosts in the southern states have done more to guarantee good crop prices for Michigan producers than any other factor."

He stated that Michigan Agricultural College would not have to conduct an extensive research program in agricultural marketing for the next year, inasmuch as the farmers could find a ready market for their products at prices far exceeding those of any year since 1919.

"It will be a banner year for the growers," he affirmed, "and they can thank the frost for it, almost entirely."

### BIG REDUCTION IN POTATO ACREAGE

A REPORT of special interest to commercial potato growers has just been made by the statisticians of the U. S. Bureau of Agricultural Economics in the leading potato states. By an exchange of this information, L. Whitney Watkins, Commissioner of Agriculture and Verne H. Church, Agricultural Statistician for Michigan, have been able to make a report on the intentions of potato growers with respect to their operations in 1923, in Michigan and competing potato states.

There is to be a decreased acreage in all principal potato states, but the market decrease will occur in the western states where acute car shortage prevented early moving of the crop, and where the low prevailing prices and high freight rates have made it unprofitable to market at all in many sections. Colorado expects to reduce its acreage 20 per cent; Idaho, 22 per cent; North Dakota, 25 per cent; and South Dakota, Nebraska and New Jersey, 15 per cent. These are the states that showed the greatest increases in acreage last year, and this report shows the general tendency to return to normal.

Minnesota's statistician estimates a ten per cent decrease, Wisconsin and New York will decrease their plantings to the extent of six per cent, Michigan eight per cent, Maine seven per cent and Virginia nine per cent.

The eastern states were able to clean up their last year's crop fairly well and if they can finance their fertilizer purchases satisfactorily will decrease their acreages only a few per cent. In the central states like Michigan, the increased acreage last year was principally in the counties bordering on the main commercial districts rather than on the farms of large growers. The discouraging prices at which many new growers sold will cause some drop out this year entirely or to reduce their acreage.

The reductions indicated will bring the acreage close to, or slightly below that of two years ago. With a normal yield, a crop sufficient for the needs of the country should be produced from that area. Such a crop would not leave a large surplus to force the price down below the cost of production, as was the case in 1922. With the tendency toward the increased use of certified seed and suitable commercial fertilizers, better average yields per acre should be obtained.

### M. A. C. GETS SUGAR BEET TEST STATION

THE Federal sugar beet experiment station formerly located at Blissfield, Michigan, has been transferred to East Lansing under a new cooperative arrangement whereby the U. S. Department of Agriculture and the college will work together in joint sugar beet investigation work, according to announcement made here this week.

Important developments in plant

breeding and experimental work of value to the sugar beet industry of the state will be undertaken by the new station. Prof. F. A. Spragg, famous plant breeder with the M. A. C. crops department, and his assistant, E. E. Down, will cooperate with the federal workers in extensive projects and cultural investigations.

Michigan ranks third among the states of the country in sugar beet production, and an effort will be made by the college crops department, to whom the Blissfield equipment has already been turned over, to develop the strongest possible sugar beet work in the state.

### PLANT LESS WHEAT THAN LAST YEAR

A SPECIAL inquiry was made this year in 11 states relative to what farmers intended to plant. This was in the nature of an experiment to determine whether such an inquiry would be for practical use each year in appraising farmers of the situation in other sections of the country. The results exceeded expectations and the U. S. Bureau of Agricultural Economics believes the information will be helpful to farmers in planning their season's work. The following report was issued by L. Whitney Watkins, State Commissioner of Agriculture, and Verne H. Church, U. S. Agricultural Statistician, on the subject.

For the United States, the acreage of the principal crops intended to be planted, in percentage of last year's acreage grown for harvest is as follows: spring wheat, 94.5; corn, 102.6; oats, 102.6; barley, 105.7; flax, 189; potatoes, 90.9.

In Michigan, the tendency is for an increase of principal crops except spring wheat and potatoes. The spring wheat acreage is a small factor and has decreased materially in late years, but a further decrease of 22 per cent is indicated by the reports. The decrease in potatoes is reported as eight per cent, or slightly more than the increased plantings made last year. An increase of one per cent in corn, seven per cent in oats and 22 per cent in barley is reported, but the backward spring and shortage of labor will probably prevent much of this intended increase. There is much interest in beans, and reporters estimated an increase of 17 per cent over the large acreage of last year. The marked increase in the price offered for sugar beets has stimulated interest in that crop and a gain of 56 per cent over last year is anticipated, last season's acreage being far below normal.

### M. A. C. TO HOLD FIRST HORSE SHOW

"DYNAMITING people out of cars onto horses," will be the slogan of the first annual horse show, to be held at East Lansing, May 30. The memorial day fete, the first ever planned here is sponsored by the Reserve Officers' training corps of the Michigan Agricultural college.

Captain William C. Chase, cavalry officer in the regular army, is directly in charge of all arrangements. He is assisted by the other cavalry officers detailed to the M. A. C. military detachment of R. O. T. C.

Many classes of events are being arranged: The charger class, open to all comers; cadet jumping, an exhibition of riding and jumping to be staged by the military cadets of the college; open jump; the ladies' mount, and the horsemanship class, for cadets only. It is expected the 117th field artillery, of Lansing, will enter one gun from each battery in the exhibition riding.

Cavalry exhibitions will be staged throughout the afternoon, and bands will give a continuous concert.

Cups and ribbons are to be awarded for the various events. The cups will be donated by individuals in Lansing, the M. A. C. Officers' club and the college military unit.

Dealing with birds and their habits, an English naturalist says that among common British birds the one which built the most wonderful and the most beautiful nest was the long tailed tit, which used nine hundred feathers to line its nest.

SATURDAY  
APRIL 28th.  
1923

VOL. X. NO. 18

Being absolutely independent  
our columns are open for the  
discussion of any subject per-  
taining to the farming business.

"How to the line, let the chips fall where they may!"

# The Michigan BUSINESS FARMER

"The Only Farm Magazine Owned and Edited in Michigan"

Published Bi-Weekly  
Mt. Clemens, Mich.

TWO YEARS \$1

Entered as second-class mat-  
ter, August 22, 1917, at the  
post-office at Mt. Clemens,  
Mich., under act of March  
3rd, 1879.

## What the Present Legislature Has Accomplished

*Of the Many Bills Proposed of Interest to Michigan Agriculture, Some Have Passed, Some Have Been Vetoed and Some are Marking Time Awaiting Support from Home*

By STANLEY M. POWELL

WHILE the present session of the Michigan State Legislature is being accused by the press and public of enacting the least constructive legislature of any session in history, it is refreshing to review its accomplishments and to note the friendly attitude shown toward Michigan agriculture. Perhaps this is due to the fact that many of the Senators and Representatives are farmers themselves, perhaps it is due to the fact that Michigan farmers are today better organized than ever before and their organizations are co-operating in a splendid way, and perhaps it may be due to the fact that the public is realizing that there can be no stable social conditions or real prosperity until agriculture is placed on a sound financial basis:

The law-makers seem to be responsive to the general public demand for strict governmental economy and the adoption of a pay-as-you-go policy. Appropriation requests are being cut to the limit and no new or radical expenditures have been sanctioned. A bill has been passed which will suspend for two years at least the payment of state rewards on highways.

### Corporation Tax Extended

It is generally agreed that there is great injustice in the present distribution of the taxation burden in Michigan and the Legislature has been carefully considering various proposals looking to a more equitable solution of this perplexing problem. One of the first moves along this line was an amendment to the corporation tax law which will lower the minimum from \$50 to \$10 and considerably raise the maximum above the present limit of \$10,000. The exact maximum is yet a subject of disagreement between the Senate and the House. The Senate placed the figure at \$50,000 while the House wishes to assess the large corporations still more and would place the maximum figure at \$450,000. Both branches have agreed to reduce the rate from 3½ mills to 2½ mills on the capital stock and surplus of the corporation.

### The Byrum Income Tax

Perhaps the most far reaching of all the proposed taxation changes now being considered is Representative Byrum's state income tax. This measure would provide a straight 4 per cent tax on all personal incomes in Michigan after exempting \$1,000 for a single person, \$2,000 for a married and \$400 for each child under 18 years, or other dependent. This tax, which would yield \$16,000,000 or \$18,000,000 annually would entirely replace the general property tax for state purposes. It would thus shift the burden of state support from real estate and personal property which is already struggling under the heavy load of county, township, city, village, school and highway support and would place it upon those having comfortable incomes many of whom are not now paying any taxes, except perhaps the federal income taxes.

During the past week this state income tax measure has been passed by the House of Representatives and is now being considered in the Senate. Enemies of the income tax are, of course, extremely active and if the measure is to receive support in the Senate the members of that body must be assured that here is a strong demand for it in their local communities. When this bill was up in the House it was agreed by all that it was the best state income tax which they had ever studied and that its

### ELEVATOR EXCHANGE BACKS CASE BILL

SENATE BILL No. 308 introduced by Senator Bernie L. Case, ordered printed, and referred to the Committee on Agriculture. To prevent unlawful discrimination in the purchase of potatoes and to provide punishment for the same.

The People of the State of Michigan enact. Any person, firm, co-partnership, corporation or association engaged in the business of buying potatoes for the purpose of resale, who shall, with the intention of creating a monopoly or destroying the business of a competitor, discriminate between different sections, localities, communities or cities of this State, by purchasing such potatoes at a higher rate or price in one locality than is paid for potatoes of like grade and quality by said person, firm, co-partnership or corporation in any other locality, after making due allowance for the difference, if any, in the actual cost of transportation, shall be deemed guilty of unfair discrimination and upon conviction thereof shall be punished by a fine not to exceed five hundred dollars or by imprisonment in the county jail not to exceed six months.

WHEREAS, the farmers' co-operative marketing movement is of the utmost importance to the greatest number of the people in Michigan including both farmers and consumers, and

WHEREAS, unjust discrimination on the part of competitors purchasing agricultural products at several different points in the state constitutes one of the most serious handicaps to the farmers' co-operative marketing movement.

BE IT RESOLVED, that the board of directors of the Michigan Elevator Exchange, representing one hundred and seven local co-operative elevators and associations serving 2,500 farmers, hereby requests the members of the legislature to give the Senate Bill No. 308 introduced by Bernie L. Case, their support.

BE IT FURTHER RESOLVED, that the agricultural committees of both houses be requested to report the bill out as promptly as possible.

The secretary of the Michigan Elevator Exchange is hereby instructed to forward copies of this resolution to the members of the said committees. Signed: W. E. Phillips, Decatur; Carl Martin, Coldwater; M. Shisler, Caledonia; Jas. Eardley, Rockford; Geo. McCalla, Ypsilanti; John Nicholson, Marlette; H. D. Horton, Kinde, Board of Directors, Michigan Elevator Exchange, at regular meeting April 18, 1923.

enactment into the laws of Michigan would be a credit to the state.

Debate over this bill chiefly centered around Rep. Geo. Watson's proposal to attach a referendum clause to the bill which would require its submission to the voters before becoming effective. This motion was finally defeated and probably this fact lost many votes for the bill, but it was finally passed with votes to spare.

Many representatives who were personally strongly in favor of a state income tax voted against the Byrum bill because the voters in their home districts had voted down the state income tax constitutional amendment at the last general election. Many of these representatives admitted that the voters in their districts were misled as to just how the income tax would affect them, and so voted against it when in reality they would have been greatly benefited by its passage. However they did not care to place themselves in a position of seeming to know more about what was good for the voters than the voters themselves knew.

Rep. Nevins pointed out that there were two or three voters to each tax payer in Michigan and so it would be hard to get the salaried men and those securing their income from investments in tangible property to vote an income tax upon themselves. He felt that it was up to the legislature to decide this matter directly. Rep. John Espie of Clinton county called attention to the large proportion of the wealth and earning power of the state which is not contributing to its support, and declared, "this state cannot exist half taxed and half tax-free."

Rep. Byrum, father of the bill, in a masterly address urging the passage of his measure, called attention to the general sentiment which has developed throughout the State calling for a reduction of the levy on general property and a redistribution of the burden of governmental support. He quoted official figures showing the increase in taxes during the last two decades and pointed out that an ever increasing proportion of the property of the State is unable to pay these taxes. He declared that this proposed income tax would not be burdensome on any individual, but would tax all in proportion to their ability to pay and that it would produce about \$18,000,000 annually, which would be sufficient to finance the State without any general property tax for this purpose.

He pointed out that by making the general property tax a purely local matter it would encourage local economy, because high property taxes could not then be blamed on the action of the Legislature. Local economy is after all of first importance because 87 percent of all taxes are local and only 13 per cent go to the state.

### Highway Funds Biggest Problem

Early in the present session it was realized that one of the biggest taxation problems of the state was the matter of raising funds for highway purposes. Not only did this require larger amounts for construction of new roads and the maintenance of roads already built, but there was also the matter of the interest and principal of the \$32,000,000 of state highway bonds which had been issued and for which no arrangements had been made regarding final payment.

After thorough analysis of this situation it was decided by many of the leading law makers that a two cent gasoline tax would be the most workable and most equitable solution of this perplexing problem. In accordance with this decision the Warner two cent gasoline tax was passed through both the House and the Senate by substantial majorities. However, the Governor vetoed this bill and so the fight was lost for this session at least. The Senate now appears willing to submit to the Governor's desire for a weight tax on automobiles to bring in the needed increase in revenue.

### Farmers Want Tax Commission

There is every indication that the Legislature will yield to the desires of the farmers' organizations of the state to retain the present state taxation commission. It was proposed to abolish this commission and create a state department of taxation to be controlled by one commissioner to be appointed by the governor at an annual salary of \$6,000. It was openly rumored that it was the plan to fill this position with a Detroit man. In view of the great power which he would have over the assessment and equalization throughout the state it would certainly not be advantageous to the rural districts in regard to taxation in the hands of a Wayne County sympathizer. The bill never got out of the committee and we trust that it never will.

### Covert Act May be Amended

Abuses of the Covert highway law led to a strong feeling among many people and some of the representatives that this law should be repealed. This movement went so far that Rep. Peter Lennon of Genesee introduced a bill calling for the repeal of this measure. However, after thorough study of the situation it has been decided that the objectionable features of the law may be removed while some of its advantages may be retained. Consequently several amendments to safeguard the Covert act are now receiving consideration and will no doubt become law.

### The Meggison Primary Bill

An equalization of the opportunity for securing a primary school education in all parts of the state is being sought through the passage of the Meggison bill providing for a new method of distributing the primary school interest fund. Under the present law this valuable state aid is apportioned directly in accordance with the school census of the several districts with no regard to the number of students attending school or to the ability of the district to support schools.

The Meggison bill which has already passed the House by a vote of 72 to 22 provides that the fund shall be distributed directly in proportion to the school census of the district, directly in proportion to the school attendance of children from that district and inversely in proportion to the equalized assessed valuation of the district. The enactment of this law will give the aid in proportion as it is needed and will be a great boon to the proper and more sparsely populated districts of the state where the valuation per school child is very low and where the rate for school purposes is consequently high at present. If this bill passes the Senate it will be, no doubt, the greatest advance in educational progress which has ever been made possible by action of the Michigan State Legislature.

(Continued on Page 10)

# New York Dairy League Sets Pace For Michigan

## How Seventy Thousand New York Dairymen Have Turned Salesmen and Are Putting Punch Into Cooperative Marketing



Big distribution plant of the Dairymen's League Cooperative Association at Avenue B and 19th Street, New York City. This modern distribution plant located in the heart of the metropolis was purchased by the League and taken over on September 1, 1922. A large part of the pooled milk of the association goes direct to this plant in New York, from which it is delivered to the wholesale and retail trade. When they are not busy distributing milk the big trucks connected with this plant, are delivering cases of "Dairy-leaf" evaporated milk, which is the brand name recently adopted by the association for this product.

NEW YORK CITY is quite used to waking up in the morning and finding its mental citadels under bombardment from the advertising batteries of some new kind of tooth paste, face powder, or chewing gum or even sometimes a new kind of food product. It has become a habit for New Yorkers to spend much of their time reading advertising signs in the subways, railroad stations, and newspapers. But New York woke up the other morning to find not only a new brand of food product before its eyes but a new brand put out by a new kind of business organization. It was advertising put out by 70,000 farmers, telling about a product as old as the hills and one that is on the tables of young and old in some form or other almost every day in the year; namely, milk and more specifically evaporated milk, on the market under the brand "Dairy-leaf," the new trade name of the Dairymen's League Cooperative Association, Inc. Authorities say that it is the biggest and best food product campaign that New Yorkers have ever enjoyed.

The big gun in the great battery of outdoor signs of the League in New York is an animated electric sign at the north end of Longacre Square between Broadway and Seventh Avenue. Eleven so-called "high spots" illuminated at night make up the secondary battery while there are two hundred and sixty-five painted walls scattered throughout the length and breadth of Manhattan and Brooklyn. Of course, along with this is linked up a comprehensive campaign of advertising in the newspapers, magazines, subway trains, and retail stores. These 70,000 dairy farmers of New York State and vicinity who make up this giant marketing association have adopted the methods of big business and they are succeeding.

Of course, along with this advertising the association has turned loose upon New York and Philadelphia a group of about forty high powered salesmen who have been selling this farmer brand of evaporated milk almost as fast as the association plants could make it.

### Took Cow to Start Campaign

The first inkling that New York had that the dairy farmers of the League had something up their sleeves was when the association presented a fine Holstein cow to the Central Park animal farm. In his presentation speech, President G. W. Slocum of the League said that the association was giving this cow to the city because there was so many little boys and girls learning to drink good pure milk who did not know anything about how it was obtained. Dr. R. S. Copeland, at that time Health Commissioner of New York but later elected to the senate of the United States, who accepted "Dairy-leaf", which by the way was the name of this cow, on behalf of the city, expressed his great joy

and satisfaction at the appropriateness of the gift. New York newspapers and newspapers in many other parts of the country carried

ly becoming the most popular member of the animal family in the park.

This was the first time that the name "Dairy-leaf" appeared in the New York papers but it has appeared many times since and the high quality of the farmer made evaporated milk which is being sold under this brand name is now going to many thousands of homes in New York and Philadelphia.

We can't enter into the details of the selling campaign here but there is certainly one feature of it that ought to be mentioned, and that is

duce it. Their plants manufacture it. It leaves them for a time while it is being transported by railroad to New York but there the League's own trucks pick it up again and eventually deliver it at the door of the retailer. In other words, the farmers of this association, so far as New York is concerned, have constituted themselves producers, manufacturers, wholesalers, and salesmen. The result is that the association is receiving for its evaporated milk the full advertised price without any deduction for middlemen's services.

This advertising and selling campaign will gradually be extended to other large centers and over the entire eastern half of the United States. Nothing like it has ever been attempted by dairymen anywhere in the world. It is doubtful if any more businesslike merchandising campaign has ever been put on by any group of farmers anywhere.

It is evident that the League dairymen planned to do something big on a big scale and effective when they hired as sales and advertising director some few months ago Mr. S. Q. Grady, formerly acting in the same capacity with the Raisin Growers of California. Cooperative marketing of dairy products under a brand new name has been preached for some time but it remained for the New York State dairymen to achieve the first big results.

### Farmer Made Ice Cream Too

And this is not all. The League is anticipating great increases in its ice cream output during the approaching season. The three manufacturing plants of the association are so located that unfortunately League ice cream cannot be distributed to New York City but it will be distributed throughout a large portion of the state the same as last year. The selling of 430,000 gallons of League ice cream last season broke all first season records in the history of ice cream manufacturing. Its high quality was proclaimed everywhere. The pooling dairymen (Continued on page 25.)



Dairymen's League plant at Carthage, N. Y. This building was formerly used as a factory but was entirely remodeled under the direction of the League's own engineering department. It is one of the best equipped shipping and manufacturing plants which the association owns. During the present season this plant is turning out over 1500 gallons per day of the popular League ice cream.

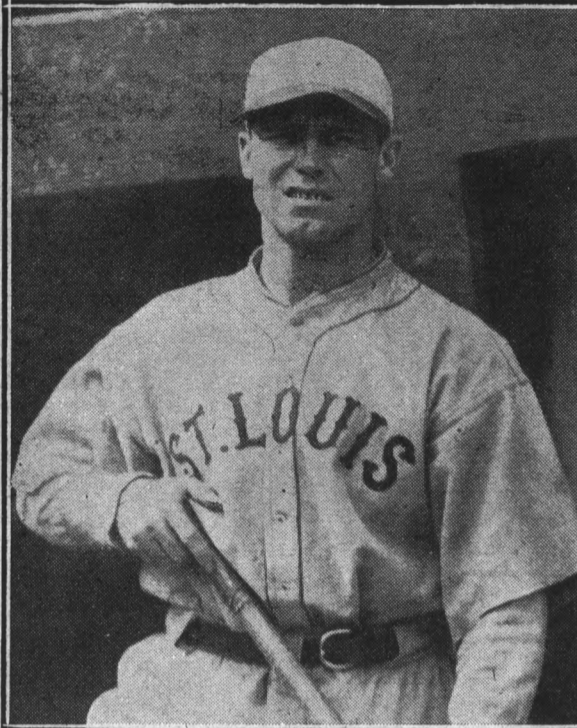
long stories about this gift of the League Farmers to the metropolis. Suffice to say that "Dairy-leaf" has proved herself to be one of the best mixers in the park zoo and is rapid-

that the entire operation from the time the milk leaves the udder of the cow until it reaches the retailer's counter is in the control of the farmers association. Their dairies pro-



Reproduction of one of the giant outdoor billboards used to advertise these farmer-made products in New York City and elsewhere. By means of these outdoor signs, some of them three stories high, these 70,000 farmers who belong to the League are telling New Yorkers and many other consumers about the new and "creamier" evaporated milk which they are making under the new brand name of "Dairy-leaf". These farmers are banking the success of their gigantic sales campaign on quality and the whole idea in the advertising which they are doing is "take a can, and convince yourself." These 70,000 New York farmers are blazing a trail into the markets of the world.

# PICTURES FROM FAR AND NEAR



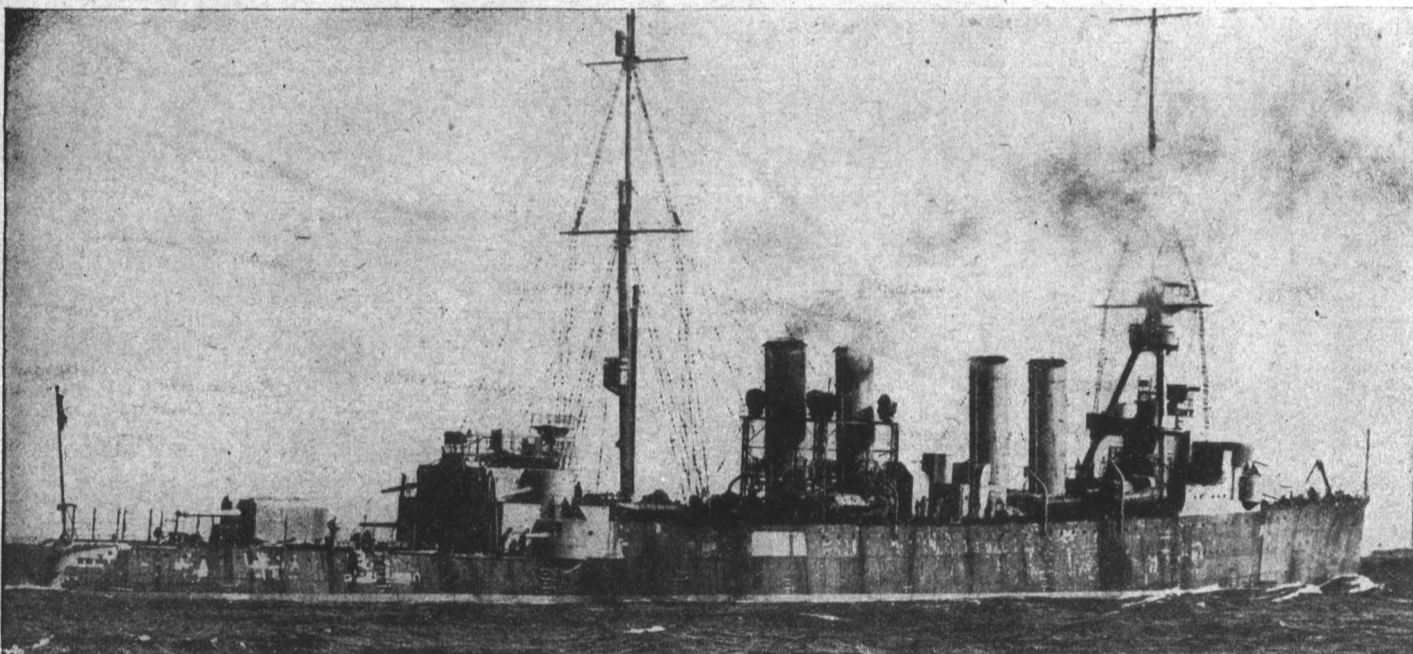
**MAY NEVER PLAY BALL AGAIN.**—George H. Sisler, famous player of the St. Louis Browns, who, it is reported will not play ball this season, and possibly will never appear on the diamond again. Sisler's eyes are bothering him. He sees "double" and even the best physicians in this country seem to be unable to remedy his trouble.



**LOOK OUT—YOU'LL FALL!**—Carlo Aldini, known as the "Douglas Fairbanks" of Germany, who heads a German film company is seen here on top of a New York sky-scraper doing a few stunts. This is the first German film company to come to New York to get proper settings for movie thrillers. None of it for us. We prefer to keep at least one foot on solid earth.



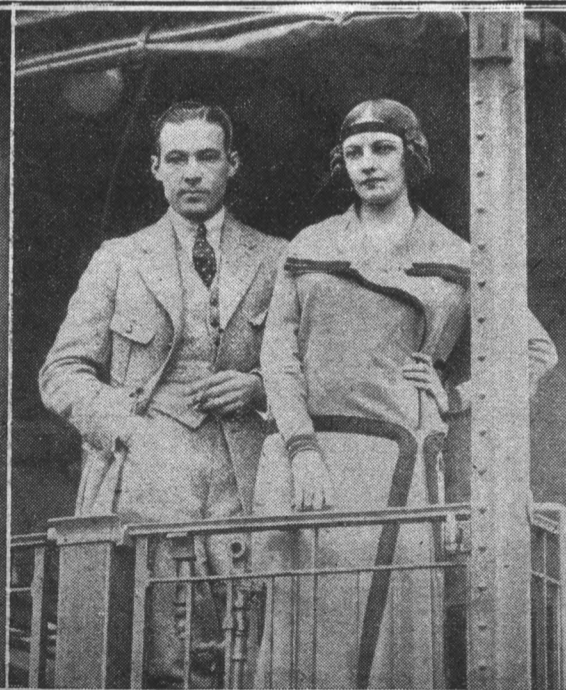
**VENUS NEWLY RISEN FROM THE WAVES.**—Venus Anadyomene, queen of the winter bathing beauties, at San Antonio, returns from communion with Father Neptune. No, the draped mass is not a veil of moss, but her natural, home-grown raven tresses, which measure 58 inches in length.



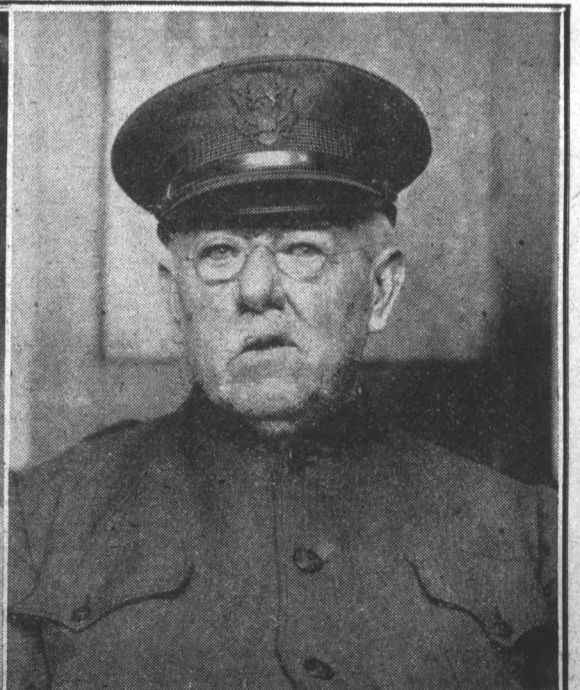
**CRUISER "DETROIT", NEW SPEED QUEEN OF UNITED STATES NAVY.**—Michigan's metropolis and America's fourth city has been signally honored by having the speediest boat in the navy named after her. Reports say that her maiden trial trip which was showed her to have a speed of 30 knots per hour the fastest ship of her size in the world. The new "Detroit" represents a class of speed cruisers developed from the experience in the late war, when it was proven that the heavier and slower boats were too vulnerable to the aerial attacks of bomb carrying aeroplanes. The new type of tripod mast, superseding the basket construction is shown on this new ship and her long lines suggest more of the torpedo-boat destroyer, than the heavier cruiser. She will carry a crew of over 1,000 men. The city of Detroit presented the ship with a beautiful ship's clock, suitably engraved and of the finest workmanship. Perhaps with the "lakes to ocean" canal opened up, the cruiser "Detroit," may sometimes visit the proud city whose name she so fittingly bears. It has been suggested that the "Detroit" be manned with men whose homes are in Michigan.



**TO TEACH AMERICAN METHODS IN PHILIPPINES.**—Miss Pilar P. Herrera, a graduate of the University of the Philippines and former instructor in chemistry in the same university, who will receive her Ph. D. at Columbia University. Upon her frail shoulders she has taken the task of attempting to inculcate American methods of education in her native country.



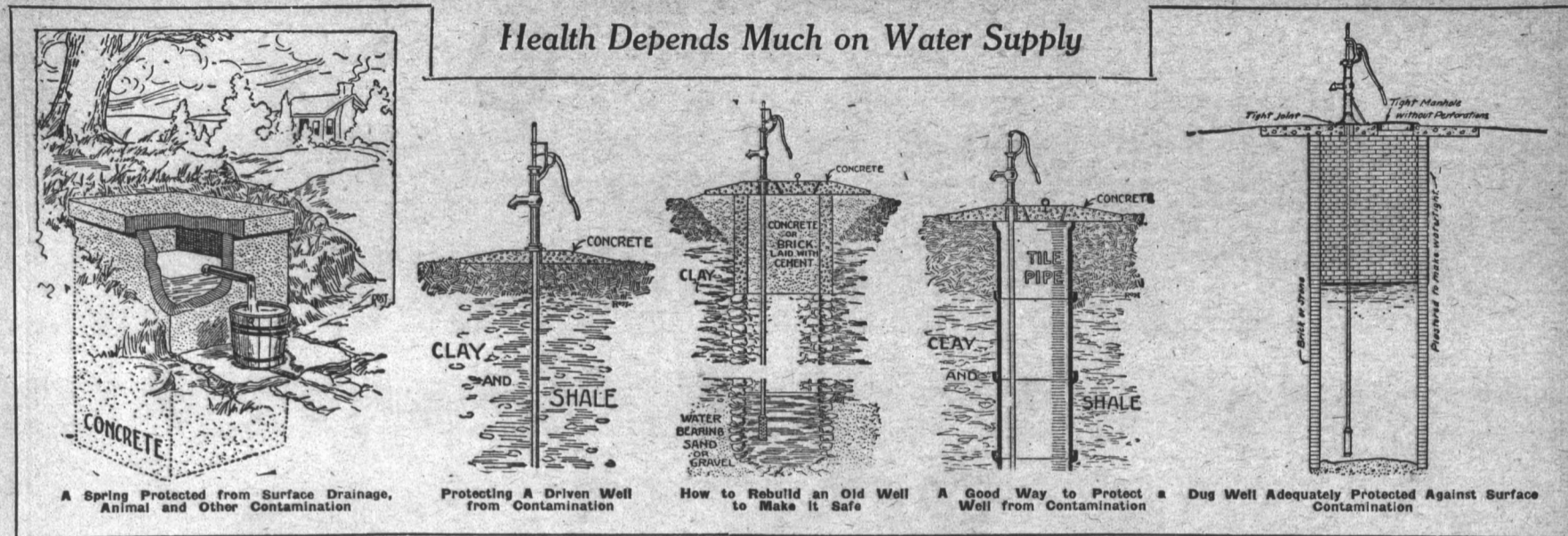
**SHE IS ENVIED BY THOUSANDS.**—A new and unconventional picture of Rodolph Valentino and Winifred Hudnut—snapped on the rear of their private car while on their dancing tour of the large cities. It is rumored that Rodolph and the movie producers have about come to a settlement of their recent controversy and that he is soon to return to the pictures.



**CIVIL WAR VETERAN STILL ON ACTIVE DUTY.** Nat Poyntz who is perhaps the only veteran of the Civil War who served in the Confederate Army and is now on duty in the U. S. Army. He holds the post of field clerk in the Quartermaster Corps, assigned to duty at the Army Base, South Boston. Nat is 76 years old and was born in Maysville, Mason County, Ky. He joined the Confederate Army at the age of 14.

# Are You Protecting the Health of Your Family?

## Health Depends Much on Water Supply



A Spring Protected from Surface Drainage, Animal and Other Contamination

Protecting a Driven Well from Contamination

How to Rebuild an Old Well to Make it Safe

A Good Way to Protect a Well from Contamination

Dug Well Adequately Protected Against Surface Contamination

THE water supply for the average country or farm home comes from a well or a spring. Wells and springs may furnish fine water, or they may furnish water so unfit for drinking as to cause disease or death. In a limestone section there are usually many fine springs. Unfortunately, a good proportion of these are so contaminated that the water is unfit to drink. Many wells are in the same bad condition. Most of this contamination, however, is due to causes which the farmer can remedy easily at small cost.

**Springs.**—While springs are sometimes contaminated from sources of pollution a long distance away, most of the trouble comes from nearby places, such as an open privy, surface drainage from the barn yard or road, and similar easily preventable causes. To eliminate these, a sanitary privy should be built, and surface drainage diverted from the spring.

The best way to prevent surface drainage from entering and contaminating the water is to dig out the spring carefully, going down into the ground 18 to 24 inches, and then walling up around the spring with a tight wall and covering with a tight cover, so that surface and rain water, animals and dirt cannot get in. A concrete mortar does very well.

The main object is to keep contamination out of the spring. A pipe in the wall makes a good outlet for the water and prevents contamination by dipping into the spring.

**Wells.**—There are various kinds of wells, as shallow and deep; dug, driven, or bored. The shallow dug well, especially when it has an open top, with a bucket to be let down into the well, is nearly always contaminated in some way, though not always, of course, so as to produce sickness or death.

Most of this contamination, except in wells less than 8 or 10 feet deep, enters from the top. In other words, the ground water, especially when it

is 8 or 10 feet down is usually fairly pure. But filth from the shoes of persons using the well, from pigs and dogs, and from the feet of chickens which may have been scratching around an open privy, enter through or around the cover and pollutes the water, frequently causing disease.

Dug wells are usually 3 or 4 feet in diameter and loosely walled with stone, or occasionally with brick, but the walls are seldom water tight. Contamination from the ground surface easily passes down and around the cover, which is often nothing more than rotting boards, and through the loose wall into the water. Usually it is also easy for pol-

lution to soak directly through the board cover into the well. Even a stone cover allows plenty of chance for the entrance of filth and contamination.

The driven well is better, for the iron pipe is tight all the way to the ground water, but there should be protection around the top to prevent the passage of surface wash down along the pipe to the ground water.

Open top wells with buckets are most dangerous, for they allow dirt and animals to enter; while the bucket, handled by every user, is usually soiled with many kinds of dirt and filth. The bucket ought to be replaced with a pump, and the well protected with a tight top and casing.

Of equal importance is a tight top. This should be made of concrete, as shown. Dig out around the well to a depth of 6 inches for 2 or 3 feet back from the well hole. Lay timbers across to hold the concrete, while setting, and pour the cover, placing the pump so there will be no leakage around it; or the cover may be poured in another place and moved over the well. In either case, reinforcing is desirable, if the well is more than 30 inches in diameter. Wagon axles, iron rods, iron pipe, etc., make good reinforcing.—The Progressive Farmer.

## Is Organization Helping the Potato Men?

By KRIS P. BEMIS, Mason County Agricultural Agent

WHAT is organization doing for the potato grower? That question confronts potato growers as they look back upon the past season, with its over-production in the Northwestern States, due to plunging in potatoes by owners of so-called infested wheat land.

The Michigan Potato Growers Exchange at Cadillac, now affiliated

with the Farm Bureau, offers the only grower-controlled agency for selling potatoes in Michigan. It sells for co-operative farmers' associations only, and is run from the bottom up. It is out to get every cent it can for the grower.

Most of you will remember that back in March, in that period of (Continued on Page 23)

## U. S. Weather Bureau Explodes Theory that Man Can Cause Rainfall

RAIN-MAKING is a futile undertaking, according to the Weather Bureau, United States Department of Agriculture. To produce one inch of rainfall over an area of an acre, approximately 113 tons of moisture would have to be drawn up into the air and then precipitated. There are 640 acres in a square mile, for which 72,320 tons of moisture would be required. A square mile, however, would be scarcely a dot in the center of any section where drought prevails, as in Arizona or parts of Texas. It would be less than one-seventh of the area of the District of Columbia.

Enormous forces are required in nature to elevate moisture above the earth before it can be precipitated. Billions of horsepower are represented in the cloud that separate over the house-tops; and even if some artificial means were found to cause the aggregation and fall as rain of the infinitesimal drops of which it is made up, calculation shows that only a trifling amount of precipitation would result. There must be some way by which the moisture laden atmosphere can be lifted to a considerably higher altitude, to lower its temperature and thus precipitate a considerable part of its moisture content.

It is quite true that in the laboratory a small amount of moisture can be precipitated by the use of special equipment. Meteorologists of the Weather Bureau of the U. S. Department of Agriculture say that they do not know of any scheme for the artificial production of rain on a scale of practical magnitude, nor for otherwise affecting atmospheric be-

havior. Widespread drought is due to lack of sufficient moisture in the atmosphere and the absence of other conditions essential to the formation of rain. If there is little moisture to bring down, obviously no device for causing rain artificially has any value, because of the absurdity of supposing that human agencies can supply adequate amounts of water for extended areas when the atmosphere itself is practically dry.

In spite of these facts, statements appear at intervals in the press heralding new ways of making rain, preventing rain or fog, or forestalling the disastrous effects of storms. These ideas are not new. Ten years or more ago certain countries in Europe were thrown into excitement, reflected in the newspapers, over the possibility of a scheme called "hail-shooting." It was believed that by shooting bombs into the air before an oncoming storm it could be dissipated, thus averting consequent destruction to crops from rain or hail. Contrary to the opinions of the best meteorologists a good deal of money was spent in experimenting with "hail-shooting," but little is ever heard of it now.

More recently, in our own country, a man achieved prominence by advertising a contrivance, which he proposed to build at various points where more rain would be welcome. This scheme was entirely from proposals to shoot bombs, sprinkle hygroscopic or nonhygroscopic dust particles in the air, or electrified sand, to induce precipitation. It consisted of powerful fans at the base of high towers for forcing upward great quantities of air and thus stimulating the conditions

which occur in storms and cyclones when rain is produced. This plan is futile and economically impossible.

The case of the man who contracted with farmers in drought-stricken regions to produce an inch or more of rainfall within a period of two or three months for a consideration of \$1,000 per inch is well known. This man, claimed to be able to cause rain by a secret process with the use of chemicals. If the rain came and the man collected his fees; if the rain failed he lost nothing. Now the average amount of rain for each region is accurately recorded, and under a long drought and within the limits of the record a shrewd operator is quite safe in promising precipitation and collecting \$1,000 per inch from desperate farmers.

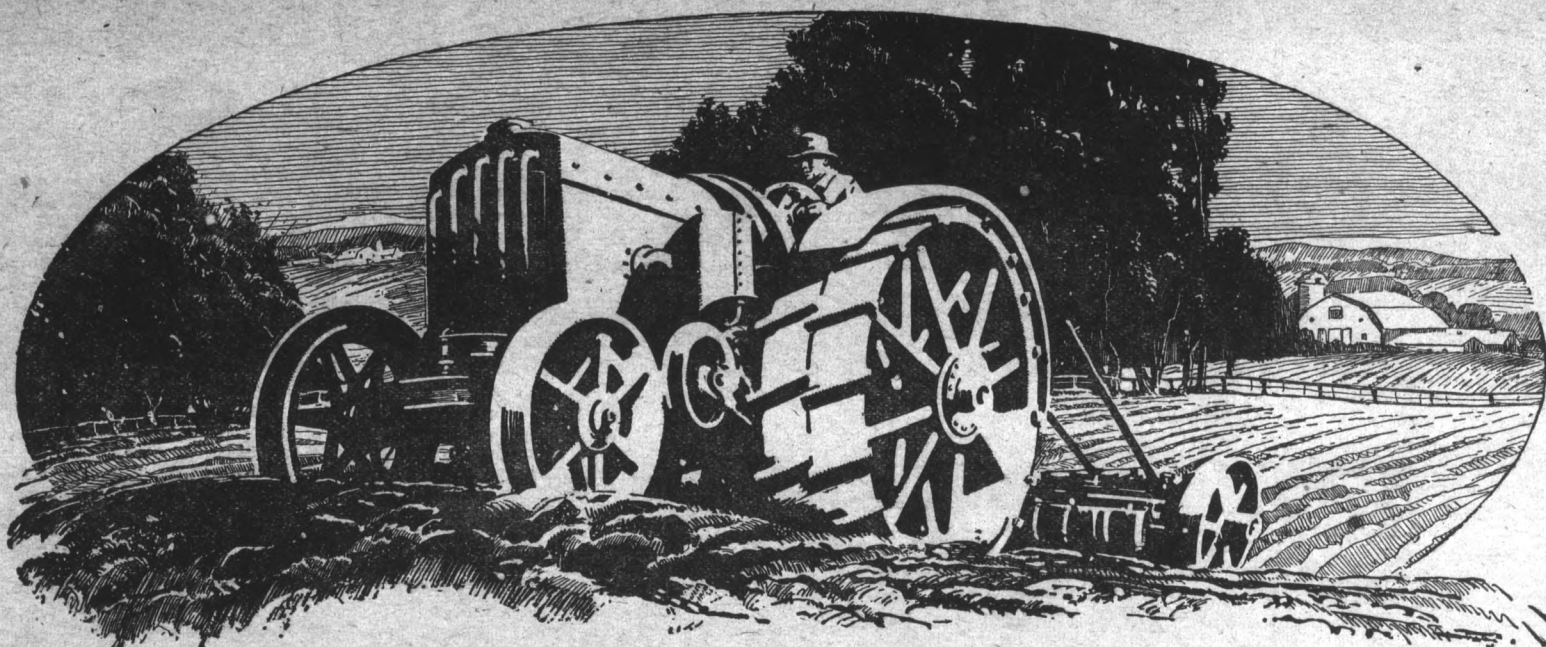
A recent proposal is to cause precipitation by sprinkling dust particles in the air by means of apparatus carried on airplanes, on the theory that these will aid condensation. Cloudiness due to dust particles, however, takes place long before precipitation occurs, and frequently continues after the rain is over, indicating that the motes and dust particles do not necessarily cause precipitation. If clear weather follows rainfall, it may be because new dry air has moved in from other localities.

Presence or absence of dust particles in the atmosphere does not, in the opinion of meteorologists, have anything to do with the distribution of rainfall. As a rule, far more dust particles are present in the atmosphere everywhere than would be essential, were the dust hypothesis

correct, to bring about abundance of precipitation. On the other hand, enormous quantities of rainfall occur over the ocean where there is least dust. Some places in the Hawaiian Islands have an annual rainfall exceeding 500 inches, and yet the air is nearly dust free. The most dust in the atmosphere, except near industrial cities, occurs over dry and semi-arid regions.

The suggestion has also been made that powdered quicklime be employed to precipitate moisture. On this point the Weather Bureau says that dry, powdered quicklime, exposed to the atmosphere absorbs a certain quantity of moisture—that is, it dries the air. Dry quicklime is used in many industrial operations for drying gasses. The moisture absorbed in these cases completely disappears as available water and forms new chemical compound commonly called air-slacked lime. Unless exceedingly fine, this sprinkled quicklime, after absorbing about one-third of its weight of water, would fall to earth, leaving the air drier than before. Any exceedingly fine particles remaining in the air would very slowly absorb carbon dioxide, also present in the air in very small quantities and form a substance chemically the same as limestone or marble. If the plan to sprinkle dust of some sort into the air were feasible at all, it would therefore appear to be better to sprinkle finely powdered marble in the air in the first place, because this would not rob the atmosphere of any of the moisture present.

All of these schemes, however, are, in the opinion of the Weather Bureau, entirely futile.



# Polarine Lubricates Perfectly 137 Makes of Tractors

## Tractor Chart of Recommendations

Trade Name	Motor Oil	Trade Name	Motor Oil
Adaptable	H.	Linn	S. H.
Allis-Chalmers, 6-12	H.	Little Giant, A & B	S. H.
Allis-Chalmers, 15-25	S. H.	Magnet, 14-28	S. H.
Allis-Chalmers, 18-30 and 20-35	S. H.	Mark VI	S. H.
All Work	S. H.	McCormick-Deering, 15-30	H.
Andrews-Kinkade	E. H.	Minneapolis, 12-25 and 17-30	S. H.
Armington	S. H.	Minneapolis, 22-44 and 35-70	E. H.
Aultman-Taylor, 15-30	S. H.	Mogul	S. H.
Aultman-Taylor, 22-45 and 30-60	S. H.	Moline Universal	S. H.
Automotive	S. H.	Monarch	S. H.
Avery, Model C	H.	Montana	E. H.
Avery, 8-16, 12-20, 12-25, 14-28, 18-36, 25-50, 40-65, 20-35	E. H.	Nilson Junior and Senior	S. H.
Avery Track Runner	S. H.	Oil Gas, 20-42 and 25-50	E. H.
Bates Steel Mule, All Models	S. H.	Pebria	E. H.
Best Tracklayer, All Models	E. H.	Pioneer, 18-36 and 30-60	E. H.
Big Farmer	E. H.	Port Huron	S. H.
Big Four E-B	E. H.	Quadpull	S. H.
Buckeye Trundaar	E. H.	Reed	S. H.
Burnoil	E. H.	Rex	S. H.
Capitol, All Models	E. H.	Rogers	E. H.
Case, 10-18, 12-20, 12-20, 15-27, 9-18	S. H.	Rumley, Oil Pull, 12-20, 16-30 and 20-40	E. H.
Case, 22-40	S. H.	Rumley, Oil Pull, 30-60	E. H.
Case, 12-25, 30-60, 40-72	E. H.	Russell "Junior", 12-24	S. H.
Case, 20-40	E. H.	Russell Boss	S. H.
Cletrac, All Models	S. H.	Russell "Giant", 30-60	E. H.
Coleman	E. H.	Sampson, Model M	H.
Dart Blue "J"	S. H.	Savage A	E. H.
Dill Harvesting	H.	Shawnee, 6-12 and 9-18	H.
Eagle	E. H.	Shelby, All Models	S. H.
E-B, All Models	S. H.	Square Turn	E. H.
Ellwood	S. H.	Stinson	S. H.
Farm Horse	E. H.	Titan	S. H.
Farquhar, 15-25	S. H.	Topp-Stewart	S. H.
Farquhar, 18-35 and 25-50	S. H.	Townsend	E. H.
Fitch Four Drive	E. H.	Traylor	H.
Flour City Junior	H.	Trundaar	S. H.
Flour City, 20-35	S. H.	Twin Ports	E. H.
Flour City, 30-50, 40-70	E. H.	Twin City, 12-20 and 20-35	S. H.
Fordson	H.	Twin City, 40-65 and 60-90	E. H.
Fox	E. H.	Uncle Sam All Models	S. H.
Frick, All Models	S. H.	Wallis	S. H.
Good Field	H.	Waterloo Boy	S. H.
G-O	S. H.	Wellington, 12-22 and 16-30	S. H.
Grain Belt	S. H.	Wetmore	S. H.
Gray	S. H.	Wheat	S. H.
Great Western	S. H.	Western	E. H.
Hadfield-Panfield	S. H.	Wisconsin	E. H.
Hart-Parr, All Models	E. H.	Yuba Ball Tread	S. H.
Heider	S. H.		
Holt Caterpillar, All Models	E. H.		
Huber, All Models	S. H.		
Indiana	H.		
International, 8-16	H.		
International, 15-30	S. H.		
Khumb	E. H.		
Lanson, All Models	S. H.		
Leader	E. H.		
Leonard Four Wheel Drive	S. H.		
Liberty	E. H.		
Lincoln	S. H.		

N. B. For recommendations of grades of Polarine to use in automobiles and trucks consult chart at any Standard Oil Co. (Indiana) station.

Polarine lubricates perfectly—137 different makes of tractors. No matter how extreme the temperature—the grade of Polarine indicated in the Chart will remain of the right viscosity. It will spread rapidly. It will form a perfect film between the moving frictional surfaces. It will insure long life to the bearings; complete protection to piston and cylinder.

Changing to Polarine has saved many a farmer hundreds of dollars a year in repair bills. Yet Polarine cost little, if any, more than the lubricant you are using now.

# Use Polarine

THE PERFECT MOTOR OIL

## Made in Five Grades

It outstrips any lubricant on the market in maintaining its body through any extreme of temperature. Its elasticity and adhesiveness cause a perfect seal and complete lubrication at all motor speeds and temperatures.

Don't fool yourself into fancied security, by thinking, "Oh, the oil I'm using works all right—why bother to change? It's just as good!" There is no "just as good," or even "second best" lubrication. There is one right lubricant for your tractor. It is specified in the Chart. When you do not use this lubricant, you fail to get the maximum of economy, efficiency and saving of wear on your engine. Change your motor oil very frequently—it is the essence of economy.

Remember the resources—the experience—the scientific experts of the Standard Oil Company (Indiana) are behind every gallon of Polarine sold. This means maintained quality—at all seasons, in all temperatures—and everywhere throughout 10 middle Western states.



Standard Oil Company

910 So. Michigan Ave. (Indiana)

Chicago, Illinois

HAVE MORTGAGE RENEWED

A loaned B a certain amount of money and took a mortgage on B's farm. The mortgage was to run for three years and will expire the 17th of this month. The interest is 7%.

—If A is willing to forego his right of foreclosure, it seems that B ought to be willing to pay the interest on the loan without coercion.

CHANGING SCHOOL DISTRICTS

About three years ago I purchased a farm at Lowell, Mich., I did not know at the time that, by request of the owner who had children to educate, it had been set over into the school district of the town of Lowell.

—It would be necessary first that you get the written permission of the board of education of Lowell to have this farm transferred to another district.

The law governing this procedure is found under Sections 5655-56 of the Compiled Laws of 1915, pages 21-22 of the 1921 school laws, and Section 5737 of the Compiled Laws of 1915, page 68 of the 1921 school laws.

DEFAULTS IN PAYMENTS

A and B bought 80 acres of land on a contract. They agree to pay \$100 per payment. Contract reads \$100 or more on January 30th of each year until full amount is paid.

Farmers Service Bureau

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

ed when transferred last time. A's contract has never been changed in any shape or form since first written in 1917.

—When one of two or more joint purchasers in a land contract pays more than his share of the purchase price, he has a right of contribution from the others for their share.

The mortgage of the vendee in a land contract takes no greater rights than the vendee had; he simply acquires the right to purchase the property for the consideration stipulated in the contract of purchase.

SAWING LUMBER FOR MARKET

Would you please advise me how to cut and saw the following logs? Red oak, maple, elm, ash, white oak and hickory to the best advantage of the manufacturer?

—I would not advise cutting or sawing until you had taken the matter up directly with the purchaser and obtained the specifications wanted.

The minimum diameter to which trees may be cut would depend largely on the use to which the timber was to be put.

ly does not begin to put on "clear" lumber until it gets to be about 14 inches in diameter breast height.

ALLOWED 30 DAYS TO REDEEM

I have been a subscriber for your paper for the past few months and note you always help a fellow when he is down.

We have a payment due soon, owing to the exceptionally poor financial year we will not be able to meet the principal.

—Compiled Laws of 1915, Secs. 13-240-13257 providing for foreclosure of land contracts, provides that the vendee shall be allowed 30 days in which to redeem the premises after judgment is rendered against him in the foreclosure proceedings.

KEEPING CHILD AFTER SCHOOL

Would a teacher have the right to make a pupil stay after school each night if he could not pass the monthly tests?

—The statutes remain silent with reference to the type of punishment that may be administered by the teacher.

If in the case in question the pupil's failure was due to wilful neglect or carelessness on his part the teacher might deem it advisable to require him to devote a little extra time to study and special preparation after school.

NO SATISFACTORY METHOD TO CONTROL SPARROWS

What can I do to kill the English sparrows round my barn, something that will not harm chickens, cats or my dog if they should eat it or eat the sparrows?

—There is no satisfactory method yet evolved for the control of the English Sparrow. In spite of all the control measures used thus far, the bird maintains its numbers and only by concerted efforts and persistent measures can any relief be assured from the pest.

the number of Sparrows. Persistent destruction of the nests about barns and out-buildings on the farm is also effective. The use of poison has several bad features. Contrary to general belief, there is no poison known which will kill Sparrows and at the same time be harmless to other birds and animals.

BELIEVES HE IS OVERTAXED

I am writing in regard to our taxes on 8 acres of land. The valuation is \$1,180 and the taxes for this year \$70.12.

—The amount of money a township may raise by taxation for ordinary expenses is limited by law, the maximum amount depending upon the population of the township.

HORSEHIDE ROBE

I would like to know how to soften a spot about a foot square, in a horsehide robe, which was caused by placing it over a frozen radiator while thawing it out.

—Try applying butter (not salted) lard or most animal fat. If this has no effect, try using warm water to first soften and then apply the fat or most animal oil.

SIGNS OF OIL

We have an open well about 7 feet deep where we water our cattle and horses in the winter, and there is always oil on top.

—As to the significance of the signs described, I would advise that in

The "Idle" Life of a Farmer's Wife

By Tyson

A series of eight comic panels showing a farmer's wife engaged in various household activities from 4 A.M. to 10 P.M. The text in the panels describes her busy schedule, including making butter, doing outdoor sports, and entertaining guests.



southeastern Michigan such signs appear to have no significance other than indicating that oil formations are present. There is a belt extending through southeastern Michigan in which seepages of oil and gas are very common about ponds, around springs, and in wells. In fact in many places the seepages are sufficient to make the water unfit for stock use even, except in the manner described. Some of the farmers in the vicinity of Royal Oak and Warren, northwest of Detroit, find so much gas in their water wells that they separate the water and use the gas for heating and lighting purposes. Some of these wells last several years. There are large gas springs throughout the belt extending from Alcona county northward, in an arc around to Manistee where geological conditions are similar to those in southeastern Michigan.

The reason for these signs appears to lie in the fact that the above described belts lie directly over the edges of formations which are known to contain oil and gas. These substances are constantly escaping from the edges of these formations upward into the sands and gravels in the surface deposits which cover the underlying bed rocks. The surface seepages may be some miles away from the pools if they exist. There is little to indicate just where the most favorable places are for the occurrence of pools. There are definite possibilities for oil throughout the belt extending from north of Port Huron southeastward into Ohio. Many small oil and gas wells have been drilled in and about Port Huron. The Mt. Clemens mineral wells yield very considerable quantities of gas and some of them have yielded oil. At least one of the bath houses uses gas from its wells to aid in firing its boilers.

Judging from your address your farm lies in the northern belt of seepages. Anywhere in the belt northeastward around to Alcona County would be favorable for such phenomenon. The largest surface gas well ever struck in Michigan was on Portage Lake, just north of Manistee. The oil formations lie directly beneath conway and seepages in that region are to be expected.

As to analysis of the sample, I would advise that if you send us a sample of the oil as skimmed from the water we would be very pleased to make a qualitative chemical examination, free of charge. We would like, however, an exact description of the occurrence, the precise location, and any other information which might have any bearing on the explanation of the local causes.—R. A. Smita, State Geologist.

**CAN RECOVER FROM COMPANY**

Last November I sold my white pea beans at the elevator and I asked them to screen three bushels of them and save them for me, which they said they would and so I paid them for screening them. The elevator at that time wasn't in working condition, therefore they couldn't screen them that day. When I went to get the beans they said they had forgotten to save out the beans but admitted they remembered my telling them to save and screen three bushels. They wanted me to take three bushels of beans which they had gotten in afterward but wanted me to pay the difference in price; in the meantime beans had raised in price. I have called them up a number of times and they keep putting me off. I understand they have quit buying produce now and the building is up for sale. How can I get my seed beans? I am not in a financial condition that I can stand to lose these beans.—N. R., Sand Lake, Mich.

—If you left the beans with the elevator company with instructions to screen and save them for you, and they failed to save them, I am of the opinion you could recover from the company whatever amount would be sufficient to purchase the same amount of beans, of like quality, at the present market price.—Asst. Legal Editor.

**GROWTH OF SWEET CLOVER FIRST SEASON**

I would like to ask you a question on sweet clover. If it was sowed with just a few oats could I cut hay off it this year? When should it be cut? What is its feed value? Is

it equal to alfalfa?—R. S., Harrison, Mich.

—The growth made by sweet clover the first season will depend very largely upon soil and seasonal conditions. When the soil is well supplied with lime, of fair fertility, and there is plenty of rainfall, sweet clover usually produces a crop of hay the same season as sown. However, if the soil is inclined to be somewhat acid, or the season a little too dry, sweet clover will not make much of a growth. It should be cut early enough so that the plants will make five or six inches of top growth to prevent winterkilling. Sweet clover is a leguminous crop and the hay is quite high in feeding value, but hardly equal to alfalfa hay.—C. R. Megee, Farm Crops Dept., Mich. Agricultural College.

**OFFERED TO PAY TAXES**

A buys a lot from B. A resides in one county and the lot is located in another county. Said lot to be in a subdivision near a certain city, it being an eighty acre description which was laid out in blocks and lots. The purchase was made in the year 1916. B furnished A a warranty deed, said

being on record in said county, showing Liber and Page number, etc. A has been making inquiry from year to year as to the amount of taxes due on his lot, always giving his correct description, but he was always informed that said tract was not assessed in lots but as acreage and that they had no other way of collecting the taxes than such. A again makes inquiry for the year 1922 and receives the following answer: That said tract is still assessed as acreage and this plat will never be recorded, so it will always continue to be assessed as eighty acres of land. The taxes on the above eighty acres of land are unpaid on the records of this office for the years 1919, 1920, 1921. Signed "County Treasurer." I wish to ask your consideration on what steps to take in order to avoid having said lot sold for taxes. Could the eighty acres (including this lot) be sold for taxes under such circumstances, for A has offered to pay his tax but was always denied of being any taxes against him?—R. E. D., Tawas City, Mich.

—Compiled Laws of Michigan, 1915, Sec. 4049 provides that "any person

owning an undivided share or other part or parcel of real property, assessed in one description, may pay on the part thus owned by paying an amount having the same relation to the whole tax as the part on which payment is made has to the whole parcel. The person making such payment shall accurately describe the part or share on which he makes payment \* \* \*"

If, upon offering to pay your taxes, you are told by the township treasurer that no taxes are due, and, relying upon such statement, you do not pay them, your land could not be sold for delinquent taxes.—Asst. Legal Editor.

**RABBIT HIDE TANNING**

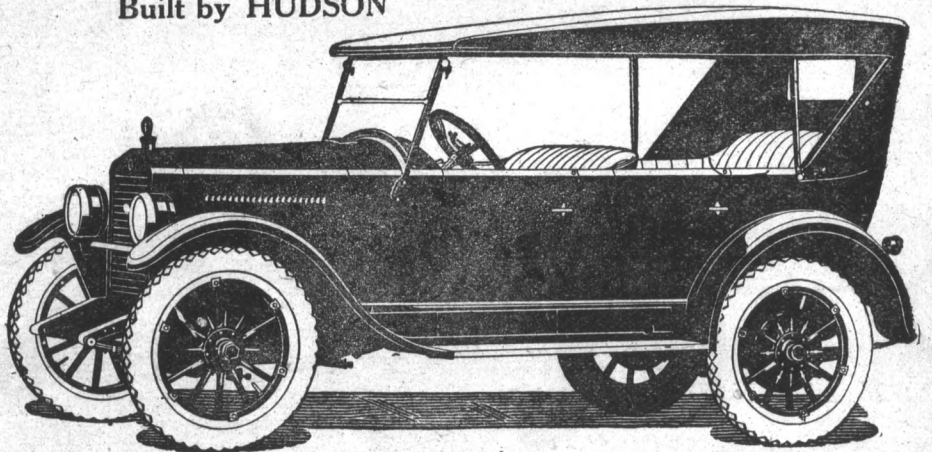
Would you please tell me through the columns of The Business Farmer how to tan rabbit hides with the fur on?—A. E. P., Detroit, Mich.

—Take a quart of oatmeal, a half pound of powdered alum and the same amount of salt; mix and add soft water enough to make a thick paste. Stretch the skin on a board, flesh side out and apply the paste, spreading it on about a half inch (Continued on Page 25)

**E S S E X**

Built by HUDSON

Touring  
**\$1045**  
Cabriolet \$1145  
*Freight and Tax Extra*



**Essex Stays Young**

**Because of Hidden Values**

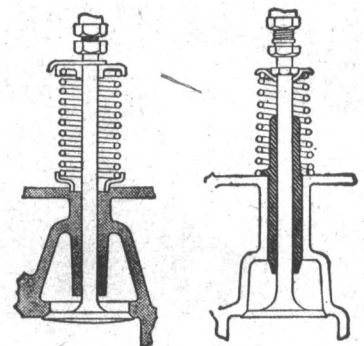
In Essex particular attention is bestowed on hidden values.

Finest roller bearings are used throughout, where commonly bushings are used. For weight carried the frame is the sturdiest built, save one. European and American experts call its chassis the finest of its size.

Easily made adjustments keep the car snug and free of noise. Essex design and construction minimize service needs, and account for its remarkable acknowledgment among owners as a long life car.

Essex cars that have seen 50,000 and 60,000 miles of service are today as dependable as when new. And they continue the economy of their first cost in years of reliable service.

Another Essex Feature  
Giving Low Maintenance  
Cost and Good  
Service



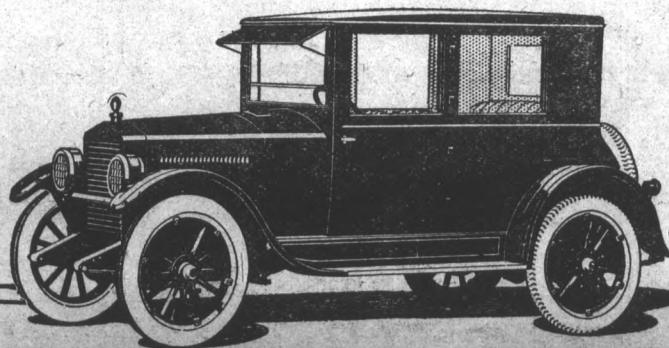
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# What Present Legislature Has Accomplished

(Continued from Page 3)

## Bovine Tuberculosis Eradication

Farm organizations and pure-bred live stock associations have united behind an adequate five-year program for the eradication of bovine tuberculosis in Michigan. A bill has already passed both branches of the legislature which paves the way for county co-operation in carrying out this work and an adequate appropriation bill to finance the indemnities on condemned cattle during the next two years is receiving favorable consideration in the Senate. If this disease can be checked and stamped out in Michigan it will be of great direct financial benefit to Michigan farmers and dairymen and will promote the health of Michigan citizens.

## A Forestry Measure

From the standpoint of the northern part of the state perhaps one of the most important bills is Rep. Meggison's measure which is intended to promote useful forest growth in the state. One of its chief provisions allows land carrying a satisfactory timber stand to be taxed annually on its bare-land value without regard to the value of the timber which is accumulating. Then at the time when the timber is matured and ready for market a harvest tax would be assessed.

Friends of the bill point out that an annual tax on the accumulated value of all of the stand of timber is not adapted to such a long-time crop and that in actual operation it results in the timber being harvested long before it is mature. It is thought that this bill would result in more forests in Michigan and in their more efficient handling.

## To Curb the "Land-Sharks"

Another measure which has for its purpose the orderly settlement and development of the northern portion of the State is also being sponsored by Rep. Meggison. This bill was drafted by the Development Bureau of the State Department of Agriculture and is the so-called "Land Certification" bill. This bill has been considered for several weeks by the House Judiciary Committee and has finally been so amended that it is satisfactory to them and it will, no doubt, pass the House at an early date. It is the purpose of this bill to prevent the land sharks from dumping worthless land on prospective Michigan settlers and thus giving Michigan real estate a black eye.

## Farmers Defeat Full-Crew Bill

Farm organizations were, no doubt, largely responsible for the defeat in the Senate of the proposed full crew railway bill. This measure would require an additional flag man on certain specified trains and would set a vicious precedent whereby labor could dictate to the railroads in regard to their operating conditions. As long as we continue to make it harder for the railroads and increase their operating cost we cannot logically ask them for lower rates on farm products which we buy and sell.

## For Cheaper Steel

At the request of the Michigan State Farm Bureau a resolution was passed by both Houses of the Legislature urging Congress and the Interstate Commerce Commission to take immediate steps to abolish the practice of selling all steel on the Pittsburgh Plus basis. Pittsburgh Plus it is explained is a shrewd practice of those engaged in steel manufacture of selling all rolled steel on the Pittsburgh price, plus the freight from Pittsburgh to point of delivery. Michigan steel, it must be remembered, comes largely from Gary and South Chicago where it can be manufactured much more cheaply than at Pittsburgh. Despite this fact we must pay the higher Pittsburgh price and the phantom freight all the way from Pittsburgh.

## Filled Milk Bill a Law

Another bill which was also prepared and sponsored by the State Farm Bureau would prevent the manufacturer and sale within the state of "filled milk," milk from which the butter fat has been wholly or partly removed and replaced with a vegetable oil. This bill has already become a law, having passed both Houses and having been signed by the Governor.

Enactment of this measure at this time is regarded as most timely because Michigan Farm Bureau officials discovered that filled milk manufacturing companies which had been outlawed in other states were planning to move their machinery and equipment to Michigan. Filled milk is not a healthful product and does not contain the necessary vitamins to make a good food for children so the passage of this law not only benefits farmers and dairymen but city dwellers as well.

## Eastern Time Defeated

After considerable debate the House of Representatives defeated the bill which would make eastern time the standard time for Michigan. This proposal had quite general opposition among the rural districts who feel that they get up early enough as it is without turning the clock ahead. Fruit and produce growers and dairymen have especially hostile to the faster time. If the city people want to go to work a little earlier in the morning the farmers will be perfectly willing.

## Standardization Bills Pending

In an effort to standardize Michigan farm products and increase their demand on the big markets, several bills have been passed setting up definite state standards and grades and requiring honest labeling, in order that the consumer may know what he is purchasing.

A bill has already been passed and become a law which sets up fat and moisture content standards for cheese and requires honest labeling. Perhaps with this law we may win back some of the trade which Wisconsin, with its standardized and guaranteed cheese has won from us during the past few years.

At the request of the grape growers, a bill has been passed setting up three standard grades of grapes sold in closed packages within the state. An amendment to the apple standards bill is now being considered.

There is some prospect that Michigan may take the lead in the adoption of a state truth-in-fabric law. Wyoming passed such an act two years ago and has found it very successful. State legislatures in several other states now have similar measures under consideration.

Even the friends of this proposal are agreed that a federal law would be preferable to a state act, but they point out that Michigan had a state pure food law 15 years before the federal enactment was secured. Rep. Sanson of Caro has a very conservative and workable state truth-in-fabric bill which he has successfully piloted through the House committee of the whole. His bill is now up for final passage on third reading by that body.

Through fair and unprejudiced legislative news sent out by Michigan State Farm Bureau to all of the weekly papers of the state the residents of rural districts have been kept better informed on legislative issues than ever before. Perhaps this knowledge on the part of the folks back home regarding just what sort of representation they were getting and what important issues affecting agriculture were pending has had something to do with the enactment of this beneficial agricultural legislation.

Many important bills effecting the farmer still await final passage and it would be well worth the time of any rural citizen to watch closely what takes place during the next two weeks. Let your Senator and Representative know what you think about these issues. He is there to carry out your wishes. That's what you sent him there for.

## FARM BUREAU SEED DEPT. OPENS DETROIT OFFICE

THE Michigan State Farm Bureau has established a branch office of the Seed Department on the Eastern Market at Detroit, in connection with the Produce Exchange at 2729 Russell street. The Detroit branch will carry Michigan adapted western Grimm and Idaho alfalfas, hardy northern-grown clovers and legumes, grain, timothy and grass seeds.

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# FROM THE OLD TO THE NEW

A SERMON BY REV. DAVID F. WARNER

BIBLE TEXT—II Cor. 5:17.

"Old things are passed away, behold they have become new."

At once, this will seem like a sweeping, revolutionary statement. But it is. It carries with it a revolutionary spirit and law. It gets clear entirely of past tradition. Paul poses as an ardent reformer who is crying, "Down with the past." It sounds like the cry of the Bolshevik. It seems to say there is nothing good in old beliefs and ways; we must strike out entirely on new paths.

Now, because of this new temper in Christ's teaching, Christianity was looked upon as a class movement by some. Why? Because of the promise of social redemption and political release. It piqued the church leaders because of its seeming favoritism and its breaking down of a conventional and unsocial religion; and rulers tried to crush it, because, they said, it subverted all good government.

But did Paul have reference to sudden revolution in church and state? No. Discerning readers of the apostle know that he refers to a spiritual revolution in the individual; and thru this individual, to a new and reconciled society. He is summoning an inner and true estimate of things and values. He is saying we need a new look upon life, and not according to worldly estimates. According to Moffat, he is emphasizing, not "externals," but "inward reality." Said Livingston, "I will place no value on anything I have or may possess except in relation to the Kingdom of God." Livingston demonstrated the reality of this Pauline doctrine. Have you? The annals of history are filled with the names of those who caught this new thing; this new way of life. "Is your name written there?" And many, to have their old life merge into the new, must pay the martyr's price. How much are you paying?

From now on, says Paul, I know Christ no longer after the flesh, after externals; but in inner consciousness. The historical Christ had become the spiritual, abiding Christ. "It is no longer I that live, but Christ that liveth in me." This Pharisee, "as touching the law," became a mystic, as touching the spirit, Life no longer consisted in forms, rituals, ordinances, and sense matters. The apostle demonstrated in his own life the truth that, "If any man be in Christ" he has passed out of these into the new, creative things of the spirit. And it ought to be said here, that nothing in the church today, so hurts its progress as the mechanical theory of salvation and arbitrariness as to its ordinance life. It cuts the nerve of stewardship and is blighting to the spirit of unity. Here is where we may well pray that this old, unreasoning, uncharitable, spirit may pass away. Yet, for most of us, there is something fine and beautiful and necessary in symbol worship. Only, let us be charitable about externals.

Old things have been made into new. This is the divine way. It is the law of transformation, not destruction. We find it illustrated in Creation; in the scientific law of matter and energy; in the vegetable kingdom where the old seed becomes the new grain; and in the law of the resurrection which give us a new body out of the old.

And so, there shall be "a new heaven and a new earth." Not thru destruction or annihilation, but thru transformation. This new earth is to be filled with transformed individuals. Faith will have the world getting continually newer and freer. Life is full of promise and good in proportion as we accept the spiritual companionship of Christ; the saving mission of the church; and the new, moral push in the doings of men. Said a friend and bank president to me, "There is a place for everyone to grab hold." This is true since new and brotherly plans are engaging the thoughts of men. A great moral revolution is on and I am sure it is the spirit of the lowly Nazarene that has filtered down thru the centuries.

Do you see? Old things becoming new in Christ is the law of Christian progress. It provides for change and growth. It would not try

to maintain old, wornout opinions and allegiances and try to galvanize them into new life. But would adapt the principle in new methods and loyalties to meet changes and customs in human life. Just this is the secret of growth in a religion that was dedicated by Christ to the universal man. And at this writing we have no better evidence of this in the church realm, than a change of front on the part of foreign missionaries, relative to the demands of a western denominationalism of the natives of the Orient. Good, virtue, love, light, faith—these do not change but they take new forms.

And this is the testimony of history. The Jewish nation passed away, but not her witness to the true God. Imperial Rome fell, but not her witness to the necessity of law and order. Similarly, we are beholding world changes in our day. Governments are being made over into new forms. God is working thru it all that the old may become new.

And who cannot trace the operation of this law in science and invention. What startling achievement by man in our own day thru a co-working with God's laws. "For thou hast made him (man) but little lower than God, and crowned him with glory and honor." All hail THE MAN! And may his transfigured followers soon come into their promised dominion. Even now, "The meek shall inherit the earth." They may pass from the old to the new.

But again, we have the witness of the church to this new creation. For the sin of Adam, God did not destroy the race. But out of a fallen, perverted, human nature he provided for a converted nature. He took a man of flesh (Jesus) and made him the groundwork of a new man. Man, which fell in the first Adam was made new in the second Adam. God came to our earth in man, and not to destroy, but to fulfil; to perfect and make complete. The Jewish temple, rites and practices were established by God only as parenthetical provisions in the process of developing this new creature. Their meaning is perpetuated in the man, Jesus. Hence we are not come unto the old Sinai but unto the new Sinai; "unto Mount Zion, and unto the city of the living God, \* \* \* \* to the spirits of just men made perfect, and to Jesus, the mediator of a new covenant."

The old perishing world is passing, friend. And where do you stand? A recent magazine says, "We are on the very threshold of a new age. The dates are unimportant, for in the advance of the plan of the ages it is not the sharp-cut dates, but periods of time, that are important. Old things pass away in a fading out process; new things gradually dawn. Only on looking backward do the people usually realize that "a great thing took place back there. Surprisingly few of the real turning points of the world come amid signs and wonders and people standing in awe of what is passing. In the minds of most, the War was THE cataclysm, because it was noisy; but something greater than the War, tho much less clamorous, is in passage now."

Jenny Lind, after discovering her power as a singer, was given a new outlook on life. She said, "I got up that morning one creature and went to bed another." A good, Christian woman said to me "I have passed out of bondage into liberty." These are free testimonies to a new creation. Verily, we are given a new standing before God. My Father is near when I know the love and sympathy and attention he bestows upon Christ he bestows upon me. Judgment is gone. Gloom, suspicion, and doubt are passed away. And when, men, everywhere, will give "conscious allegiance" to the new, creative power of Christ; when they are ready to line up with Christian duty and brotherhood obligations; then, "old things are passed away; behold they are become new." Then will have come to pass the Patmos dream, "I saw a new heaven and a new earth, for the first heaven and the first earth are passed away."

**AN OMISSION**

The article "Preventing the Potato Landslide" which appeared in our March 31st issue was published through the courtesy of Farm, Stock and Home. It was through error that credit was not given to this publication.

## 12,000 People Killed By Automobiles in 1922 Automobile Insurance now a Necessity

More than 12,000 persons were killed by automobiles in 1922. 1,347 children are victims in 78 cities of more than 50,000 population. Pedestrians should use greater care, parents should guard the lives of their children, and automobile owners should drive carefully and keep insured.

The Citizens' Mutual pays about 300 claims each month, amounting to about 30,000. With the heavy traffic on all highways and in the cities, accidents are very frequent. The Company is enjoying a greatly increased business for 1923 because:

- 1st. The company has had nine seasons of experience.
- 2nd. It has settled over 12,000 claims.
- 3rd. It has assets on April 17 of over \$258,000.
- 4th. Every policy carries \$5,000 of liability and up to date the policy has been sufficient to take care of every claim.
- 5th. It has carried insurance for many years for Ex-Governor Rich, Ex-Governor Warner, a number of Circuit Judges, and State and County officers in nearly every part of the state.

The rate is very light in comparison with the stock insurance rates. Insure today; tomorrow may be too late. See our local agent.

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**KEEP THE BUSINESS FARMER COMING  
SEE PAGE 25**

(Continued from April 14th Issue)

"John—John Aldous—"  
 "Joanne! Oh, my God—  
 Joanne!"

She swayed as he sprang to her, but she was smiling—smiling in that new and wonderful way as her arms reached out to him, and the words he heard her say came low and sobbing:

"John—John, if you want to, now—you can tell me that my hair is beautiful!"

And she was in his arms, her warm, sweet body crushed close to him, her face lifted to him, her soft hands stroking his face, and over and over again she was speaking his name while from out of his soul there rushed forth the mighty flood of his great love; and he held her there, forgetful of time now, forgetful of death itself; and he kissed her tender lips, her hair, her eyes—conscious only that in the hour of death he had found life, that her hands were stroking his face, and caressing his hair, and that over and over again she was whispering sobbingly his name, and that she loved him. The pressure of her hands against his breast at last made him free her. And now, truly, she was glorious. For the triumph of love had over-ridden the despair of death, and her face was flooded with its colour and in her eyes was its glory.

And then, as they stood there a step between them, there came—almost like the benediction of a cathedral bell—the soft, low tinkling chime of the half-hour bell in Aldous' watch!

It struck him like a blow. Every muscle in him became like rigid iron, and his torn hands clenched tightly at his sides.

"Joanne—Joanne, it is impossible!" he cried huskily, and he had her close in his arms again, even as her face was whitening in the lantern-glow. "I have lived for you, I have waited for you—all these years you have been coming, coming, coming to me—and now—that you are mine—mine—it is impossible! It cannot happen—"

He freed her again, and caught up a lantern. Foot by foot he examined the packed tunnel. It was solid—not a crevice or a break through might have traveled the sound of a voice or the explosion of a gun. He did not shout. He knew that it would be hopeless, and that his voice would be terrifying in that sepulchral tomb. Was it possible that here might be some other opening—a possible exit—in that mountain wall? With the lantern in his hand he searched. There was no break. He came back to Joanne. She was standing where he had left her. And suddenly, as he looked at her, all fear went out of him, and he put down the lantern and went to her.

"Joanne," he whispered, holding her two hands against his breast, "you are not afraid?"

"And you know—"

"Yes, I know," and she leaned forward so that her head lay partly upon his breast.

"And you love me, Joanne?"

"As I never dreamed that I should love a man, John Aldous," she whispered.

"And yet it has been but two days—"

"And I have lived an eternity," he heard her lips speak softly.

"You would be my wife?"

"Yes."

"Tomorrow?"

"If you wanted me then, John."

"I thank God," he breathed in her hair. "And you would come to me without reservation, Joanne, trusting me, believing in me—you would come to me body, and heart, and soul?"

"In all those ways—yes."

"I thank God," he breathed again. He raised her face. He looked deep into her eyes, and the glory of her love grew in them, and her lips trembled as she lifted them ever so little for him to kiss.

"Oh, I was happy—so happy," she whispered, putting her hands to his face. "John, I knew that you loved me, and oh! I was fighting so hard to keep myself from letting you know how happy it made me. And here, I was afraid you wouldn't tell me—before it happened. And John—John—"

She leaned back from him, and her white hands moved like swift shadows in her hair, and then, suddenly, it billowed about her—her glorious hair—covering her from crown to

# The Hunted Woman

By James Oliver Curwood

Michigan's Own and America's Formost Author of the Great Northwest

Copyright by James Oliver Curwood

hip; and with her hands she swept and piled the lustrous masses of it over him until his face, and head, and shoulders were buried in the flaming sheen and sweet perfume of it.

He strained her closer. Through the warm richness of her tresses his lips pressed her lips, and they ceased to breathe. And up to their ears, pounding through that enveloping shroud of her hair came the tick-tick-tick of the watch in his pocket.

"Joanne," he whispered.

"Yes, John."

"You are not afraid of—death?"

"No, not when you are holding me like this, John."

He still clasped her hands, and a sweet smile crept over her lips.

"Even now you are splendid," she said. "Oh, I would have you that way, my John!"

Again they stood up in the unsteady glow of the lanterns.

"What time is it?" she asked.

He drew out his watch, and as they both looked his blood ran cold.

"Twelve minutes," she murmured, and there was not a quiver in her voice. "Let us sit down, John—you on this box, and I on the floor, at your feet—like this."

He seated himself on the box, and Joanne nestled herself at his knees, her hands clasped in his.

"I think, John," she said softly, "that very, very often we would have visited like this—you and I—in the evening."

A lump choked him, and he could not answer.

"I would very often have perched myself at your feet like this."

"Yes, yes, my beloved."

"And you would always have told me how beautiful my hair was—always. You would not have forgotten that, John—or have grown tired?"

"No, no—never!"

His arms were about her. He was drawing her closer.

"And we would have had beautiful times together, John—writing, and going adventuring, and—and—"

He felt her trembling, throbbing, and her arms tightened about him.

And now, again up through the smother of her hair, came the tick-tick-tick of his watch.

He felt, her fumbling at his watch pocket, and in a moment she was holding the timepiece between them, so that the light of the lantern fell on the face of it.

"It is three minutes of four, John."

The watch slipped from her fingers, and now she drew herself up so that her arms were about his neck, and their faces touched.

"Dear John, you love me?"

"So much that even now, in the face of death, I am happy," he whispered. "Joanne, sweetheart, we are not going to be separated. We are going—together. Through all eternity it must be like this—you and I, together. Little girl, wind your hair about me—tight!"

"There—and there—and there, John! I have tied you to me, and you are buried in it! Kiss me John—"

And then the wild terrible fear of

a great loneliness swept through him. For Joanne's voice had died away in a whispering breath, and the lips he kissed did not kiss him back, and her body lay heavy, heavy, heavy in his arms. Yet in his loneliness he thanked God for bringing her oblivion in these last moments, and with his face crushed to hers he waited. For he knew that it was no longer a matter of minutes, but of seconds, and in those seconds he prayed, until up through the warm smother of her hair—with the clearness of a tolling bell—came the sound of the little gong in his watch striking the Hour of Four!

In space other worlds might have crumbled into ruin; on earth the stories of empires might have been written and the lives of men grown old in those first century-long seconds in which John Aldous held his breath and waited after the chiming of the hour-bell in the watch on the cavern floor. How long he waited he did not know; how closely he was crushing Joanne to his breast he did not realize. Seconds, minutes, and other minutes—and his brain ran red in dumb, silent madness. And the watch! It ticked, ticked, ticked! It was like a hammer.

He had heard the sound of it first coming up through her hair. But it was not in her hair now. It was over him, about him—it was no longer a ticking, but a throb, a steady, jarring, beating throb. It grew louder, and the air stirred with it. He lifted his head. With the eyes of a madman he stared—and listened. His arms relaxed from about Joanne, and she slopped crumpled and lifeless to the floor. He stared—and that steady beat-beat—a hundred times louder than the ticking of a watch—pounded in his brain. Was he mad? He staggered to the choked mouth of the tunnel, and then there fell shout upon shout, and shriek upon shriek from his lips, and twice, like a madman now, he ran back to Joanne and caught her up in his arms, calling and sobbing her name, and then shouting—and calling her name again. She moved; her eyes opened, and like one gazing upon the spirit of the dead she looked into the face of John Aldous, a madman's face in the lantern-glow.

"John—John—"

She put up her hands, and with a cry he ran with her in his arms to the choked tunnel.

"Listen! Listen!" he cried wildly. "Dear God in Heaven, Joanne—can you hear them? It's Blackton—and his men! Hear—hear the rock-hammers smashing! Joanne—Joanne—we are saved!"

She did not sense him. She swayed, half on her feet, half in his arms, as consciousness and reason returned to her. Dazedly her hands went to his face in their old, sweet way. Aldous saw her struggling to understand—to comprehend; and he kissed her soft upturned lips, fighting back the excitement that made him want to raise his voice again in wild and joyous shouting.

"It is Blackton!" he said over and over again. "It is Blackton and his men! Listen!—you can hear their

picks and the pounding of their rock-hammers!"

## CHAPTER XX

AT LAST Joanne realized that the explosion was not to come, that Blackton and his men were working to save them. And now, as she listened with him, her breath began to come in sobbing excitement between her lips—for there was no mistaking that sound, that steady beat-beat-beat that came from beyond the cavern wall and seemed to set strange tremors stirring in the air about their ears. For a few moments they stood stunned and silent, as if not yet quite fully comprehending that they had come from out of the pit of death, and that men were fighting for their rescue. They asked themselves no questions—why the "coyote" had not been fired? How those outside knew they were in the cavern. And, as they listened, there came to them a voice. It was faint, so faint that it seemed to whisper to them through miles and miles of space—yet they knew that it was a voice!

"Some one is shouting," spoke Aldous tensely. "Joanne, my darling, stand around the face of the wall so flying rock will not strike you and I will answer with my pistol!"

When he had placed her in safety from split lead and rock chips, he drew his automatic and fired it close up against the choked tunnel. He fired five times, steadily, counting three between each shot, and then he placed his ear to the mass of stone and earth and listened. Joanne slipped to him like a shadow. Her hand sought his, and they held their breaths. They no longer heard sounds—nothing but the crumbling and falling of dust and pebbles where the bullets had struck, and their own heart-beats. The picks and rock-hammers had ceased.

Tighter and tighter grew the clasp of Joanne's fingers, and a terrible thought flashed into John's brain. Perhaps a rock from the slide had cut a wire, and they had found the wire—had repaired it! Was that thought in Joanne's mind, too? Her finger-nails pricked his flesh. He looked at her. Her eyes were closed, and her lips were tense and gray. And then her eyes shot open—wide and staring. They heard, faintly though it came to them—once, twice, three times, four, five—the firing of a gun!

John Aldous straightened, and a great breath fell from his lips.

"Five times!" he said. "It is an answer. There is no longer doubt." He was holding out his arms to her, and she came into them with a choking cry; and now she sobbed like a little child with her head against his breast, and for many minutes he held her close kissing her wet face, and her damp hair, and her quivering lips, while the beat of the picks and the crash of the rock-hammers came steadily nearer.

Where those picks and rock-hammers fell a score of men were working like fiends: Blackton his arms stripped to the shoulders; Gregg, sweating and urging the men; and among them—lifting and tearing at the rock like a madman—old Donald MacDonald, his shirt open, his great hands bleeding, his hair and beard tossing about him in the wind. Behind them, her hands clasped to her breast—crying out to them to hurry, hurry—stood Peggy Blackton. The strength of five men was in every pair of arms. Huge boulders were rolled back. Men pawed earth and shale with their naked hands. Rock-hammers fell with blows that would have cracked the heart of a granite obelisk. Half an hour—three quarters—and Blackton came back to where Peggy was standing, his face black and grimed, his arms red-scared where the edges of the rocks had caught them, his eyes shining.

"We're almost there, Peggy," he panted. "Another five minutes and—"

A shout interrupted him. A cloud of dust rolled out of the mouth of the tunnel, and into that dust rushed half a dozen men led by old Donald. Before the dust had settled they began to reappear, and with a shrill scream Peggy Blackton darted forward and flung her arms about the gold-shrouded figure of Joanne, swaying and laughing and sobbing in the sunshine. And old Donald,

## THE LATE SPRING

Oh, day in month of April,  
 Like the month of March much more,  
 For so cold the wind is blowing  
 It prevents the open door.

Your looks almost deceive me,  
 As sitting in this chair  
 The sun's rays thru the window  
 Make you appear quite fair.

The fleecy clouds of white  
 Sailing in a lovely blue,  
 With the sunshine coming in between  
 Speak very well of you.

But frost is in the ground  
 And how can grasses grow  
 In places which this morning  
 Were cold with sullen snow.

The heavy wraps are with us yet,  
 And stoves and coal pails tell  
 That winter still is quite alive,  
 Tho we have sung his knell.

Where are the soft and balmy winds  
 To warm and cheer our soul,  
 And where the birds whose melodies  
 From out their throats should roll?

Did not we hear a robin  
 About a month ago,  
 Tell us spring was coming,  
 Why does it tarry so?

And yet, Oh day in April,  
 Tho cold and bleak you are,  
 We're very thankful for you—  
 It could be worse, by far.

—By Parm Mayer

clasping his great arms about Aldous, cried brokenly:

"Oh, Johnny, Johnny—something told me to foller ye—an' I was just in time—just in time to see you go into the coyote!"

"God bless you, Mac!" said Aldous, and then Paul Blackton was wringing his hands, and one after another the others shook his hand, but Peggy Blackton was crying like a baby as she hugged Joanne in her arms.

"MacDonald came just in time," explained Blackton a moment later and he tried to speak steadily, and tried to smile. "Ten minutes more, and—"

He was white.

"Now that it has turned out like this I thank God that it happened," said Aldous, for the engineer's ears alone. "We thought we were facing death, and so—I told her. And in there, on our knees, we pledged ourselves man and wife. I want the minister—as quick as you can get him, Blackton. Don't say anything to Joanne, but bring him to the house right away, will you?"

"Within half an hour," replied Blackton. "There comes Tony with the buckboard. We'll hustle up to the house and I'll have the preacher there in a jiffy."

As they went to the wagon, Aldous looked about for MacDonald. He had disappeared. Requesting Gregg to hunt him up and send him to the bungalow, he climbed into the back seat, with Joanne between him and Peggy. Her little hand lay in his. Her fingers clung to him. But her hair hid her face, and on the other side of her Peggy Blackton was laughing and talking and crying by turns.

As they entered the bungalow, Aldous whispered to Joanne:

"Will you please go right to your room, dear? I want to say something to you—alone."

When she went up the stair, Peggy caught a signal from her husband. Aldous remained with them. In two minutes he told the bewildered and finally delighted Peggy what was going to happen, and as Blackton hustled out for the minister's house he followed Joanne. She had fastened her door behind her. He knocked. Slowly she opened it.

"John—"

"I have told them, dear," he whispered happily. "They understand. And, Joanne, Paul Blackton will be back in ten minutes—with the minister. Are you glad?"

She had opened the door wide, and he was holding out his arms to her again. For a moment she did not move, but stood there trembling a little, and deeper and sweeter grew the colour in her face, and tenderer the look in her eyes.

"I must brush my hair," she answered, as though she could think of no other words. "I—I must dress."

Laughing joyously, he went to her and gathered the soft masses of her hair in his hands, and piled it up in a glorious disarray about her face and head, holding it there, and still laughing into her eyes.

"Joanne, you are mine!"

"Unless I have been dreaming—I am, John Aldous!"

"Forever and forever."

"Yes, forever—and ever."

"And because I want the whole world to know, we are going to be married by a minister."

She was silent.

"And as my wife to be," he went on, his voice trembling with his happiness, "you must obey me!"

"I think that I shall, John."

"Then you will not brush your hair, and you will not change your dress, and you will not wash the dust from your face and that sweet little beauty-spot from the tip of your nose," he commanded, and now he drew her head close to him, so that he whispered, half in her hair: "Joanne, my darling, I want you wholly as you came to me there, when we thought we were going to die. It was there you promised to become my wife, and I want you as you were then—when the minister comes."

"John, I think I hear some one coming up the front steps!"

They listened. The door opened. They heard voices—Blackton's voice, Peggy's voice, and another voice—a man's voice.

Blackton's voice came up to them very distinctly.

"Mighty lucky, Peggy," he said. "Caught Mr. Wollaver just as he was passing the house. Where's—"

"Sh-h-hh!" came Peggy Blackton's sibilant whisper.

Joanne's hands had crept to John's face.

"I think," she said, "that it is the minister, John."

Her warm lips were near, and he kissed them.

"Come, Joanne. We will go down."

Hand in hand they went down the stair; and when the minister saw Joanne, covered in the tangle and glory of her hair; and when he saw John Aldous, with half-naked arms and blackened face; and when, with these things, he saw the wonderful joy shining in their eyes, he stood like one struck dumb at sight of a miracle descending out of the skies. For never had Joanne looked more beautiful than in this hour, and never had man looked more like entering into paradise than John Aldous.

Short and to the point was the little mountain minister's service, and when he had done he shook hands with them, and again he stared at them as they went back up the stair, still hand in hand. At her door they stopped. There were no words to speak now, as her heart lay against his heart, and her lips against his lips. And then, after those moments, she drew a little back, and there came suddenly that sweet, quivering, joyous play of her lips as she said:

"And now, my husband, may I dress my hair?"

"My hair," he corrected, and let her go from his arms.

Her door closed behind her. A little dizzily he turned to his room. His hand was on the knob when he heard her speak his name. She had reopened her door, and stood with something in her hand, which she was holding toward him. He went back, and she gave him a photograph.

"John, you will destroy this," she whispered. "It is his photograph—Mortimer FitzHugh's. I brought it to show people, that it might help me in my search. Please—destroy it!"

He returned to his room and placed the photograph on his table. It was wrapped in thin paper, and suddenly there came upon him a most compelling desire to see what Mortimer FitzHugh had looked like in life. Joanne would not care. Perhaps it would be best for him to know.

He tore off the paper. And as he looked at the picture the hot blood in his veins ran cold. He stared—stared as if some wild and maddening joke was being played upon his faculties. A cry rose to his lips and broke in gasping breath, and about him the floor, the world itself, seemed slipping away from under his feet.

For the picture he held in his hand was the picture of Culver Rann!

(To Be Continued)

GOVERNMENT BULLETINS OF INTERESTED IN MAY

A SMALL list of Farmers' Bulletins and Circulars of general interest during May is believed to be of value to our readers. Copies may be obtained free by addressing the Division of Publications, United States Department of Agriculture, Washington, D. C. Specify number and name and whether Farmers' Bulletin or Department Circular.

Farmers' Bulletin 450, Some Facts About Malaria; 602, Production of Clean Milk; 701, Bagworm; an Injurious Shade Tree Insect; 710, Bridge Grafting; 863, Irrigation of Grain; 932, Rodent Pests on the Farm; 948, The Rag Doll Seed Tester; 959, The Spotted Garden Slug; 975, The Control of European Fowl-brood; 977, Hay Caps; 984, Farm and Home Drying of Fruits and Vegetables; 1191, Cheesemaking on the Farm; 1198, Swarm Control; 1247, American Moles as Agricultural Pests and as Fur Producers; 1250, Green Manuring; 1266, Preparation of Peaches for Market; 1310, The Corn Earworm.

Department Circular 25, Points for Egg Buyers; 36, Use of Poultry Club Products; 219, Phoma Rot of Tomatoes; 238, U. S. Grades for Potatoes Recommended by the United States Department of Agriculture.

BAD ANY TIME

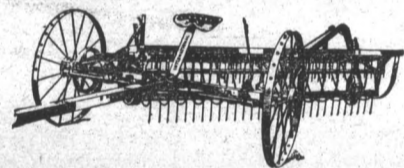
Dad—"Son, there's nothing worse than to be old and broken."  
Young Hopeless—"Yes, father—to be young and broke."—Punch Bowl.

# Air-Cure Your Hay with McCormick-Deering Hay Tools

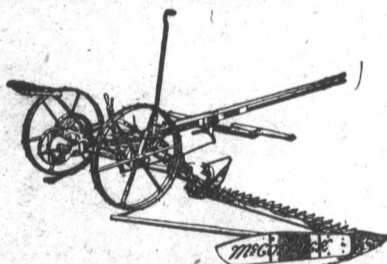
IT ISN'T sun-drying that puts quality into hay, but *air-curing*. And hay is air-cured best when side-tedded into light, breeze-sifting windrows such as those that trail off in the wake of the

## McCormick-Deering Side Rake and Tedder

You can follow closely behind the mower with this machine and rake the hay before the leaves begin to wilt. The teeth strike the heads of the hay first and rake clean, picking up every last wisp—and there is no shattering of leaves. The hay is turned completely over and deposited in snug, airy windrows through which the air circulates freely, curing evenly both stems and leaves with its magic touch.



McCormick-Deering Side Rake and Tedder



McCormick No. 6 Mower

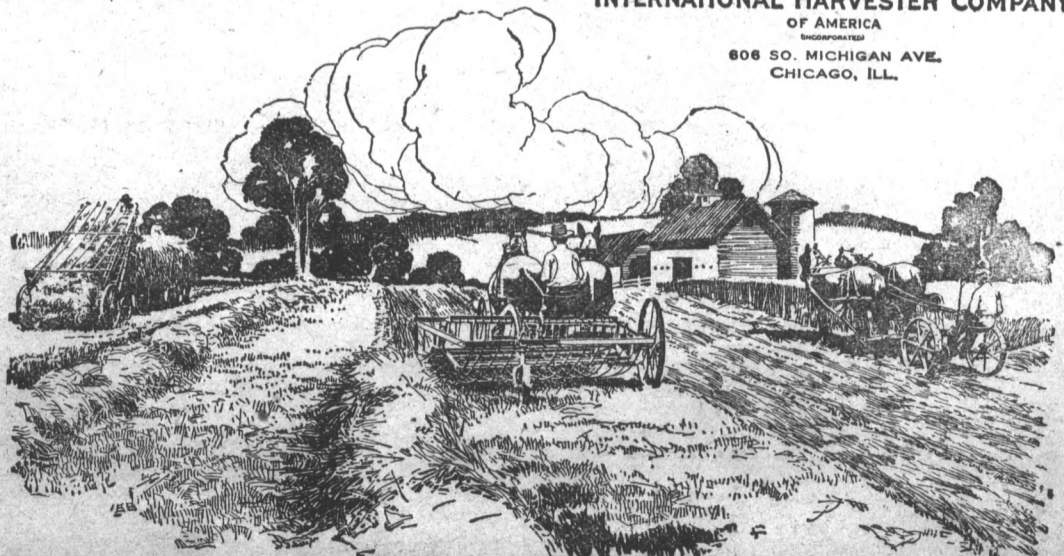
There are points of mechanical excellence that distinguish this fast-working, gentle hay-handling machine from all other types of side rakes and tedders. There are also many points of mechanical excellence that distinguish all hay machines made in the International Harvester factories—McCormick, Deering and Milwaukee mowers, McCormick-Deering self-dump rakes, tedders, sweep rakes, stackers and loaders. Ask your near-by McCormick-Deering dealer to show you.

INTERNATIONAL HARVESTER COMPANY

OF AMERICA

INCORPORATED

606 SO. MICHIGAN AVE.  
CHICAGO, ILL.



# The Michigan BUSINESS FARMER

SATURDAY, APRIL 28, 1923

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### RELIABLE ADVERTISERS

We will not knowingly accept the advertising of any person or firm who we do not believe to be thoroughly honest and reliable. Should any reader have any cause for complaint against any advertiser in these columns, the publisher would appreciate an immediate letter bringing all facts to light. In every case when writing say: "I saw your advertisement in the Michigan Business Farmer!" It will guarantee honest dealing.

"The Farm Paper of Service"

### FRED M. WARNER

THREE governor of the state to which he had come an immigrant boy from England, beloved by thousands of men and women who knew him as "Fred" and went to him with their troubles, as children go to their parents for consolation, Fred M. Warner, passed away last week at the age of fifty-eight.

Only a few months ago we watched him throw every ounce of his energy into the campaign for United States senator, when contrary to the advice of his friends, and at the risk of his position as national committeeman, he backed a man who had in former years befriended him.

Fred Warner never forgot a friend and he made friends wherever his smile went. The farmers of Michigan never had a better friend than this man, because he was never entirely out of the farming business himself. He knew the farmers problems, but only recently he was heard to remark that things were not nearly so dark for the farmer as they appeared on the surface. He believed a better day for all farmers, and particularly for the dairy farmer, was not far distant and he repeated this optimism to many a worried farmer who came to him for advice during the past year or two.

From his old-fashioned home under the elms at Farmington, Fred M. Warner was taken to the little cemetery, that from the crest of a hill overlooks the town and the industries he helped to build. No more representative throng ever assembled in Michigan to pay its respects to a beloved and worthy citizen. Rich and famous men who came in liveried equipage, mingled with simple folk whose dusty footgear showed how they had come. From the home to the cemetery, the school-children of Farmington, joined hand in hand on either side of the roadway formed a guard of honor.

A fitting tribute to a noble man who served his state so well!

### TOO MUCH IS ENOUGH

ONE of the foremost agricultural journals in this country denounced last week most severely the policy employed by Secretary of Agriculture Wallace and his Department. It was stated in this editorial that running down the farmer's business was not going to help him re-establish himself. In other words, that the last thing you would tell the banker of whom you were trying to borrow money would be the discouraging side of your business. You would want to paint an optimistic picture, which would go to show that in the near future your business would be on a sound foundation, and you would be back in a position to repay the loan he was making you.

There can be no question but what the airing of the farmer's demoralized financial condition has reduced by a great many millions of dollars the value of the farms in this country. The price of any commodity is set by the demand for it, and buyers are not going to clamor for a business which is reported to be in such bad shape as the farming business is.

Probably it is true that no single source of information has been so prolific in its output of this sort of publicity as has the Department of Agriculture.

However, Secretary Wallace is not to be hastily condemned because it is undoubtedly true that he

was trying to prove to the lawmakers (then in session at Washington) that the situation was, as we know it to be, very serious, and that unless some changes were made and some relief offered the farmer, a serious catastrophe might result.

It is not clear to us how the Secretary could have made these facts known without making them public, and if he made them public than the farming business generally had to suffer the consequences.

Farmers as a whole may not be in as bad shape as has been painted. We have talked with many farmers in Michigan who had a satisfactory year in 1922. Satisfactory because they had already adjusted themselves to post-war conditions, knew that the change had to come, specialized in dairy or other cash crops, and were so fortunately situated that they were able to show a profit for the year. We readily grant that these are exceptions and that the average farmer in Michigan, as in other states, did not secure a satisfactory return from his material and his labor last year.

We do believe, however, that optimistic publicity given to the farming business at this time will aid in re-establishing conditions, and we believe that Secretary Wallace has in the Department of Agriculture, the most potent force through which this information may be broadcasted.

### A DAIRYMAN'S QUESTIONS

"WHY is it," asks a Livingston county dairyman, "that the price of milk is cut during the months of March and April, two of the most expensive months in which to produce milk, when it is sold to the consumer at the same price as January milk?"

That sounds like a perfectly fair and reasonable question and one which we trust Dr. Friday will include in his present study of the milk marketing conditions in Michigan and particularly in the Detroit area.

This same inquiring dairyman who is not afraid to ask publicly some of the questions which come to him while he is feeding his cows, wants to know why the price of milk is quoted at the terminal and not at the receiving station. Here are two subjects worthy of investigation and study.

We hope to publish the answers from the milk commission and Dr. Friday in our next issue and in addition perhaps some of our readers can throw further light on these or other dairymen's questions. Inasmuch as the lid is off the milk-can, let's scrub-it, steam-it and thus sterilize it inside and out. The Business Farmer has no intention of picking a fight, but we certainly will not stay out if we can help the milk producers and we are pretty sure we can!

### FARM BUREAU AND LABOR DON'T HITCH

CLARK L. Brody, Secretary and Manager of the Michigan State Farm Bureau, had to lay down the law last week to the representatives of the labor unions who were trying to secure the passage of the Full-Crew bill, which he characterized as unwarranted, "because it added an unnecessary burden on the people of Michigan." It is said that the labor union representatives had promised their support of the income tax measure if the farm bureau would support the union Full-Crew bill.

Union labor and farm organizations, although theoretically similar, are in fact economically opposed to one another inasmuch as the farmer is a capitalist, and also an employer of labor.

The farmer knows that while he has been put through a period of deflation, the like of which is unparalleled in the history of this country, labor, thanks largely to their unions, has been able to maintain a standard of wages so much higher than the price of farm products that there is no comparison.

The farmer is interested in seeing labor well employed and efficient in its work, but when the hours of labor are cut down to a point where the mechanic is giving only a part of himself for a wage too high, then it is the farmer, as the largest consumer of manufactured products, who must pay for this lack of efficiency and extravagance.

Theorists and hair-brained economists are always trying to weld a link between union labor and farm organizations, but when it comes down to a show-down and the actual facts are weighed, it usually works out about as it did in the recent demonstration at our own state capitol.

### POTATO GROWERS GET TOGETHER

THE silver lining of the black cloud which hovered over the potato growers has already come to the surface in the formation of a national potato growers' association, which will

include the potato growers of all of Michigan, Maine, New York, and other potato growing states, and which will be operated on the same plan which has been so successfully used by the fruit growers of California, the cotton producers of the south, and the tobacco growers of Kentucky.

It is planned to operate a national sales agency with offices in the larger cities, and probably a direct control of the markets will be thus maintained. It is our opinion that the only way out of the present farm dilemma is the operation of farmer-owned selling agencies. It would seem that the success met by the co-operative marketing on this basis in other states has proved the efficiency of this plan, and we know of no better staple in which to extend the experiment than in potatoes. We certainly commend this plan to the potato growers of Michigan.

### THE ROAD BUILDING PROBE

THE gasoline tax measure which went down to an inglorious defeat, thanks to the veto of Governor Groesbeck, focused the attention to the State Highway Department, for which the extra funds were found to be necessary.

Remarks were passed in the legislature which were not complimentary to the State Road Commissioner or to the work that has been accomplished. In answer to these charges, Commissioner Frank Rogers invited the Senate to make a thorough investigation of his department, all of its activities, and where its money had been spent, which was so commendable that his suggestion was promptly accepted.

It seems to be a pretty well-accepted idea not only from the farmer but from the tax-paying class in Michigan generally that some revision of the road building program must be made which will not call for an increase in taxes, except as they come directly from those who use the roads, which, luckily (?), today includes most of us.

The Business Farmer will be glad to place before the investigating committee any instances of apparent misuse of road building funds or any other conditions regarding the road building program which should be brought to their attention. We agree not to divulge the name of the sender, providing all of the facts as stated will bear investigation by us.

### A SPRING TONIC

THE two days last week when the summer came back to give us a promise of what we might expect was a better "spring tonic" than all of the patent potions which we might accumulate from the apothecary.

There is one satisfaction which comes to us who live so far north and that is the contrast which comes in the spring of the year, after a stretch of winter which we sometimes think will never end.

There is a sensation which comes to the man who follows the plow in new turned earth on a day like this which cannot be compared with any similar experience in this old world of ours.

The farmer's wife and family too, can lift their hands to high Heaven and give some thanks when spring comes that they are not confined within the narrow walls and shut in by the clutter of buildings on all sides, as are the millions who live in cities.

Be glad you are alive this year, friends. Take an inventory of the things you have to be thankful for and it may go a long way toward making up for the things you wish you had.

Try it, and you will have the best prescription we know of for a "Spring Tonic."

### NAMING THE FARM

DID you ever stop to think as you drove along a country road that every farm looks alike except the one with a name on it. As a recent writer pointed out, there is exactly as much reason for naming your farm as naming your horse, your dog, or your cat, and yet you name them because you are fond of them and want to distinguish them from others of their kind.

A farm is just a farm, after all, unless it is named, and certainly it is not hard to select a name for something which is near and dear to you for a reason.

That lone pine, the orchard, the twin silo, the winding stream, the long view, the hill-crest, the old homestead; look about you and you will find a dozen subjects that might suitably name your farm and from these select the one that seems best to distinguish your farm from that of your neighborhood.

A new sense of proprietorship comes from the possession of a "named" farm, yet how simple it is to give your farm this distinction.

# PUBLISHER'S DESK

## MR. JONES OF OLNEY, ILLINOIS

There are so many folks with farms for sale these days that the farm land sharks are thicker than flies around a molasses barrel, if we are to believe the reports which we get.

We have told readers of the methods employed by the Warren-McRae Farm Agency of Logansport, Indiana, and recently we have had several inquiries regarding Jones, of Olney, Illinois, who has a very much different scheme, the efficiency of which we are not informed.

It is, we believe, Mr. Jones' plan to insert a description of your farm for sale in 'The Farm Buyers Guide', and the cash payment which he asks pays for this ad. At the same time the seller promises to pay a commission if the farm is sold through the advertisement thus inserted.

The scheme operated by Mr. Jones may be all right, and if any of our readers have had dealings with Mr. Jones, satisfactory or otherwise, I would be glad to hear from them, as the number of inquiries I have had leads me to believe this gentleman to be doing a considerable business in the state of Michigan.

It has been some time now since we have heard from any readers doing business with Warren McRae, Logansport, Indiana. Either he has withdrawn from the state of Michigan or Business Farmer readers are sufficiently warned so that we do not hear from them. I feel quite sure that he has cancelled his advertising in Michigan, and if any of our readers have had recent dealings with him of any kind, the publisher would be glad to hear from them.

## SECOND-HAND AUTOMOBILES

Doping up old Lizzie  
and addin' a little paint,  
Makes her run like sixty  
and look like what she ain't!

Let me warn my readers that prices on second-hand automobiles were never lower than they are today and I understand that Detroit street corner dealers are planning on driving into the country whole fleets of large and small used cars which might better be headed for the scrap-heap and foisting them off on farmers and small-town folks.

The great big seven passenger cars that weigh tons, and burn gasoline like a bonfire are the real drugs on the market. The agent who offers to sell you one of these ice-wagons may in truth tell you it cost \$5,000 only three years ago and still he offers it to you for \$500! He may not be lying, but the car will probably be a liability and a big one on your shoulders from the day you buy it.

Undoubtedly there are good used cars on the market, but if you insist on buying one, be sure you get it from a dealer you know and can trust, for buying and trading hosses in the old days was kindergarten work compared to the second-hand automobile business of today.

## PAPERS THAT NEVER STOP

Many readers write to ask if they can be made to pay for a periodical which has been mailed by the publisher after the subscription paid for has expired.

Unfortunately we must reply "yes", for the law is that the publisher may assume that the subscriber has simply neglected to re-

new his subscription and the periodical may be mailed for one year from date of expiration and remuneration therefor collected.

Many publications make it a rule to stop on expiration of the subscription, this as often makes bad friends of the reader, as does the policy of continuing for one year, unless notified to discontinue.

A publication cannot collect more than one year in arrears, nor for any period after it has been notified by the subscriber to stop.

## BUYING NURSERY STOCK

Don't buy nursery stock from a stranger! If you will paste that bit of advice up somewhere in your house you will save yourself some of the worries which many of my correspondents have sent in to me.

An agent, who has found it more profitable to carry a nursery order book and catalog, than do plain "tramping" can be sure of landing one or two suckers a day, out of a dozen calls. Usually he asks for half-cash down, the balance to be paid when trees are received. Sometimes however, when in a pinch, he will take 10% down or \$1 on every \$10 represented in the order.

When the deluded purchaser writes the "nursery company" he gets either a curt letter telling him they never heard of the agent in question or the letter is returned by the post-office marked "not known at this address".

If I were buying nursery stock I would want to know exactly the company I was buying from, how long they had been in business and then I would want to see the stock and examine it before I paid for it. The answer is in my opening sentence:

Don't buy nursery stock from a stranger!

## MUTUAL FIRE INSURANCE

Mutual insurance societies are founded on a perfectly safe and economical system which has been in operation in all parts of the world and on all possible risks for many, many years. The success of a mutual depends however so much on the men in whose hands lie its destiny that all too often we hear of one leaving its members in the lurch with nothing but some worthless office fixtures and a big assessment to be paid.

Recently I have received more than one inquiry regarding a state mutual fire insurance company, which I have promptly turned over to the state insurance commissioner, thus through promptly bringing this company to the attention of the proper authorities, I may be able to save the farmer-members what might have otherwise been a most serious loss, not only to this, but to other mutuals in Michigan.

## GETTING MONEY ON CHATTEL MORTGAGES

The Publisher is curious to learn if farmers throughout Michigan are unable to borrow money on chattel mortgage. In response to readers in the northern part of the state, an investigation was made and the bank frankly admitted that it was not in a position to accept chattel mortgage because it could not watch the collateral.

Apparently this brings us back exactly where we started in the matter of extending credit, if the renting farmer cannot secure a small loan covering a period in which he is pressed for money, it leaves the renter and the tenant entirely at the mercy of the money grabber, and makes it doubly hard for him under present-day farming conditions.

## AMERICAN HORTICULTURAL COMPANY, DES MOINES, IA.

We have several claims pending against this concern; all of them are small, but we have not been able to secure a satisfactory settlement for our readers. Last year this company sent out vouchers which were to be accepted this year as cash, but a reader informs us that after sending the voucher in she has had no reply from the company. We are doing our best to secure satisfaction for our many readers

# First Mortgage Real Estate Gold Bonds

There is no escaping the fact that there is a consistent, continuous growth in the conviction that the qualities of Federal first mortgage bonds entitle them to a special rating and a preferred ranking among safe securities.

Write for Booklet AG847

Tax Free in Michigan

Free from Federal Income Tax of 4%

6 1/2%

# FEDERAL BONDS

(947)

## Are Better Bonds

FEDERAL BOND & MORTGAGE COMPANY  
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# MONEY TO LOAN

On the 33-Year Government Amortization Plan to desirable borrowers who own good, well-managed farms in Michigan and Ohio, and wish to borrow not over 50% of the value of their land plus 20% of the appraised value of the buildings.

No commissions—Low interest rates. No stock investment. Unusually prompt and satisfactory service. If your loan will meet these requirements, write us.

FIRST JOINT STOCK LAND BANK OF CLEVELAND  
Guardian Building, Cleveland, Ohio



**Why Not PUT THIS NEW MILL ON YOUR OLD TOWER**

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main frame bearing subject to wear. This is useless, and easily replaceable. Gives by dependable work without stopping. Fits any 4-post mill shaft. Why not about your close home now with a good Willard? This is your chance—F. O. S. Albion. Erect it yourself. Ask your dealer, or write direct to Union Steel Products Co. Ltd. Dept. 34 Albion, Mich., U. S. A.



**CLARE ROAD LEVELER**

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**WANTED—SINGLE MAN FOR YEAR.** Prefer some feeding experience, good wages and good home. State wages in first letter. Position open April 1st. O. E. A. H. A. U. O. H. Whitmore, Michigan.

**HOW WOULD YOU LIKE TO ACT AS THE BUSINESS FARMER AGENT IN YOUR COUNTY?**

Write Circulation Manager  
Care This Paper

**WANTED POSITION—OUR SUCCESSFUL** farm manager, 36 years of age, widower, no children. This man is honest, clean and a hard intelligent worker. Graduate U. of Wis. and life experience as farmer. Address him, HERMAN R. FRANZEN, Akron, Lancaster County, Pa.

**WHEN WRITING ADVERTISERS MENTION M. B. F.**

**The Collection Box**

The purpose of this department is to protect our subscribers from fraudulent dealings or unfair treatment by persons or concerns at a distance.

In every case we will do our best to make a satisfactory settlement or force action, for which no charge for our services will ever be made, providing:

- 1.—The claim is made by a paid-up subscriber to The Business Farmer.
- 2.—The claim is not more than 6 mos. old.
- 3.—The claim is not local or between people within easy distance of one another. These should be settled at first hand and not attempted by mail.

Address all letters, giving full particulars, amounts, dates, etc., enclosing also your address label from the front cover of any issue to prove that you are a paid-up subscriber.

THE BUSINESS FARMER, Collection Box  
Mt. Clemens, Mich.

Report Ending April 23, 1923

Total number claims filed	1215
Amount involved	\$21,529.37
Number of claims settled	744
Amount secured	\$11,897.36

# Save Your Thresh Bill

Have the man who owns a Red River Special do your threshing this year.

He will save enough more of your grain and time to pay your thresh bill. The

# Red River Special

with its "Man Behind the Gun" and the Beating Shakers separates by force.

It Beats the Grain Out of the straw and chaff like a man would with a pitchfork.

Buy the Junior to run with your little tractor.

Write for our free catalog telling how you can save your Thresh Bill

**Nichols & Shepard Co.**  
(In Continuous Business Since 1848)

Builders exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Traction Engines

Battle Creek, Michigan

**GUARANTEED 10,000 MILES BRAND NEW CORDS**

**30x3 3 \$6.95**

Every One First Quality—Guaranteed

Size	Tubes	Price
30x3	.....	\$6.95
30x3 1/2	.....	8.45
30x3 1/2	.....	8.95
32x4	.....	10.65
32x4	.....	11.85
32x4	.....	12.45
32x4	.....	13.25
32x4 1/2	.....	16.95
32x4 1/2	.....	18.80
32x4 1/2	.....	18.95
32x5	.....	22.05
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Buy at these amazing prices. Send no money. Specify sizes and number of tubes. All every possible need—TODAY.

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## Rheumatism

### A Remarkable Home Treatment Given by One Who Had It

In the year 1893 I was attacked by Muscular and Sub-Acute Rheumatism. I suffered as only those who are thus afflicted know for over three years. I tried remedy after remedy, but such relief as I obtained was only temporary. Finally, I found a treatment that cured me completely and such a pitiful condition has never returned. I have given it to a number who were terribly afflicted, even bedridden, some of them seventy to eighty years old, and the results were the same as in my own case.

I want every sufferer from any form of muscular and sub-acute (swelling at the joints) rheumatism to try the great value of my improved "Home Treatment" for its remarkable healing power. Don't send a cent; simply mail your name and address, and I will send it free to try. After you have used it, and it has proven itself to be that long-looked-for means of getting rid of such forms of rheumatism, you may send the price of it, One Dollar, but understand I do not want your money unless you are perfectly satisfied to send it. Isn't that fair? Why suffer any longer, when relief is thus offered you free. Don't delay. Write today.

MARK H. JACKSON  
265J Dunston Bldg., Syracuse, N. Y.  
Mr. Jackson is responsible. Above statement true.

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Expert Instructors, Lowest Tuition Rates, New Methods. Texts and first lessons of any course on approval. You pay postman only ONE DOLLAR and postage, balance as you wish. Courses in Advertising, Journalism, Photographic Journalism, Federal Tax Accounting, Salesmanship, Office Management, Business Administration. Postal will bring either course—your first O. O. D. payment \$1.00 and postage, returnable if not satisfied.

WALHAMORE INSTITUTE  
Dept. E, Lafayette Building, Philadelphia, Pa.

KEEP THE BUSINESS FARMER COMING  
SEE PAGE 25

## What the Neighbors Say

**WE** are retired farmers now, but we hold a hearty interest in the farmers and we enjoy the M. B. F. and feel that it is doing a great service to all. Long may it live and prosper.

Some time ago on "What the Neighbors Say" page, there was an interesting article from Mrs. R. B., Ohio, on "Personal Freedom" of which, it would seem, she is completely deprived of. I hoped some capable writer would defend her, for, unfortunately, there are many wives who suffer practically the humiliation and in your issue of March 17th comes a splendid article of defence from "Molly Brown" I am am just bubbling over to add a few words of support.

If there were more women like Molly Brown there would be fewer men like Mr. R. B. and the world would be better for it.

Good for you Molly, you have loyally championed a just cause. The marriage license doesn't rob either party of their personal rights and privileges and there should be equality, co-operation and a kindly unselfish consideration, each for the rights and comforts of the other.

The average wife puts in as many weary hours of toll as the husband and she is justly entitled to a fair share of the profits. If not, why not? The husband doesn't oblige his hired help to ask for their wages. Then why should the wife have to ask for money? Doesn't she earn it? If the head of the house thinks she doesn't, just let him hire some one to fill her place for a while and it will take long to convince him that he will pay far more for inferior services.

A generous husband, and there are many of them, too, will give his wife an allowance according to his means and spare her the humiliation of having to ask for every dollar she wants and then probably be expected to tell what she wants it for. Ye Gods! That is enough to fill the heart of a proud woman, with scorn and contempt rather than love and devotion. But it has been said that a woman can dig her own grave and step down into it behind the look and the smile and the duty she gives her husband and it may be years before he finds it out. However, I question her wisdom or if he would love her better for it. For with man its the unattainable that is the most desirable. Come on, Uncle Rube, let us hear from you on this subject.

—Sincere Subscriber, Caro, Mich.

### WHAT IS WRONG WITH FARMING?

**T**HERE is much uneasiness and more or less dissatisfaction, because the farmers' products as a whole have not advanced in price as rapidly as other commodities. It is a fact that cotton and wool have advanced more rapidly than the average of the commodities, in which advance the farmer should participate if he does his marketing wisely. Not only the cotton growers and wool growers, but the growers of citrus fruits, vegetables, raisins and apples and dairymen, etc., have very greatly improved their margin of profits through marketing associations. What is known as the "dirt farmer" or the raiser of potatoes, corn, wheat, etc., are the ones who are most badly hit and who are lacking in marketing organizations. In fact, they are the victims of organization on the part of others.

It is reasonable to say that the export market for American grains is cut off and will be so for many months, if not years, to come on account of the inability of foreign countries to pay the debts they have already contracted, to say nothing of their ability to pay for new commitments.

It is acknowledged that we raise more grain than our domestic market will consume. It seems that there is only one way to provide for the consumption of the surplus, inasmuch as that surplus cannot be sold abroad, and that way is to increase the home market. Inasmuch as we cannot send our surplus to the foreigner, we can bring the foreigner to our surplus. Heretofore, the population of our country has grown rapidly and the increase in

population has required a very considerable increase in the amount of farm products. On account of the immigration laws recently passed by congress at the request and in the interest of the labor unions, the flow of immigrants to this country has been cut down to the minimum. If a considerably larger number of immigrants were admitted it would result in the larger consumption of farm products at home and would also furnish larger supply of farm labor.

The writer of this article is a nursery man and finds it necessary to pay sixty cents per hour for good help in the nursery. He can secure common labor for forty cents per hour, but it is cheaper to pay sixty cents for good efficient help. The difficulty in securing farm labor and its extraordinary high cost together with its average inefficiency, is due to the scarcity of labor caused by the law mentioned above. Farmers are obliged to hire and put up with the inefficient labor that is discarded by the manufacturers, who are obliged to offer extraordinary inducements in the way of wages to secure help enough in a very much depleted labor market. The manufacturers can pay higher wages and get their choice of labor, the inefficient surplus going to make up the supply of farm labor with which the farmer must be content. There was a time when high grade Irish, English, German, Dutch, and other skilled farmers immigrated to this country in considerable numbers. They are prevented from coming at this time on account of the law restricting immigration and particularly on account of the "contract labor" law both of which were enacted at the request of the American Labor Unions and are at the expense of the American farmer.

It does not take a farmer long to figure out and appreciate that an increase in the number of foreign immigrants would very quickly increase the domestic demand for his farm products and would furnish a materially larger supply of help, and would result in a more efficient grade of farm laborers. Neither would it take a farmer long to figure out that if his home market was increased and his cost of production from the increase of farm labor were reduced, that his margins of profit would at once be increased with the result of materially changing status of the farmers' bank account.

There is another angle that the farmer should consider, namely, that increased immigration would reduce not only the farmers' cost of production, but would reduce the cost of producing the various products that the farmer is obliged to buy. The cost of these manufactured products is greatly increased by the restricted labor supply as it exists under the present law. We would, therefore, see this happy condition, that the farmers' income and margin of net profits would be materially increased at the same time and the cost of the farmers' purchases would likewise be materially decreased. This point could be elaborated, but it seems so clear to the writer that it seems unnecessary to dwell upon it further. There is, however, another thought in connection with this, and that is that after the farmer has produced his crops at the minimum cost he has yet to transport them to his market. The American Federation of Labor has seen to it that the cost of moving the farmers' crops should be at a maximum rather than a minimum, due to labor shortage and to increase of costs due to higher wages and diminished efficiency, all due to labor union conditions.

It is not the intention of this article to take up matters in relation to politics, but there is one point in which the farmer is vitally interested, and that is that he should not allow himself to be made the cat's paw to rake chestnuts out of the fire for the labor unions. The labor unions are directed and engineered by very able and shrewd men at the head of whom is Mr. Gompers, and anyone who thinks Mr. Gompers is asleep at the switch is mistaken. Labor unions have been trying to get the farmers to join with them polit-

ically, and it seems almost a foregone conclusion that such a union of labor with us farmers would be engineered largely through Federation of Labor headquarters. We need mention only one instance and that a very recent one as follows:

Last summer there was a strike on the railroads to prevent the reduction of wages and the consequent reduction of freights. The result of this strike was that rolling stock including both cars and engines were largely relegated to the bad order yards when the labor unions had gained their end of maintaining high wages (and they are the highest paid of all labor). The rolling stock was in bad order, and the farmers' crops were ready to be moved to market. What was the result? It was impossible to move a large per cent of the perishable crops, including fruits and vegetables with the result that the farmer lost his crop and his year's work. In other words, the farmer held the bag while the labor union came through with undiminished wages. The writer may be a poor judge of conditions, but it seems to him that in nearly every case, the farmer foots the bill and the labor union absorbs the profit.

Please excuse discretion, which may seem to be a political one and let us return to the question of immigration. With the very restricted labor market, due to the law afore-mentioned, it is the easiest thing in the world through strikes, for any union to force an increase in wages. This statement hardly needs to be elaborated. There is only one thought in this connection and that is that in England the farm laborers have organized and there is a farm laborer's strike in progress in that country. The question before us farmers at this time is this: With the very much decreased immigration and restricted labor, how long will it take for us to get into the same condition that they are now in, in England and be up against the farm hands' union with greatly increased wages?

The writer has only attempted herein to make a few suggestions which might be greatly simplified and in that way clarified and made forcible. The writer has simply tried to lay before other farmers what seems to him to be the cause of our trouble and to suggest that we cannot too quickly ask for relief in the shape of a repeal of the law which creates for us unnecessary hardship in view of the fact that the farmer in the end has to carry the burden of all increases in costs in all of the industries.

If farmers would promptly write to their senator and representative in congress and insist upon less restriction of immigration, I am sure would greatly help the situation and in the end would materially increase the net profits of their farming operations. Let us take some action along this line and do it promptly.—Harry S., Cooper, Wisconsin.

### VOTERS DISFRANCHISED BY SMOKE

**A**T our April 2nd town meeting I noticed several "prominent townsmen" smoking—some almost continuously during meeting. A certain man being remonstrated with, said "any person that did not like tobacco smoke should not come to the town hall," he would smoke anyway.

Not even the women voters present were asked if they enjoyed or appreciated tobacco smoke second handed. It appeared as if all those citizens male or female, who had not formed the habit of smoking were to be smoked out and thus disfranchised.

Let us suppose a parallel case. Some person builds a few small fires of old rags and chips in the hall. Would these same gentlemen smokers stand for it? Not for a minute.

As I heard a lady say "While so much is being said about health measures—all people should by state law be protected in their natural rights to assemble in public halls, with pure invigorating air free from smoke."

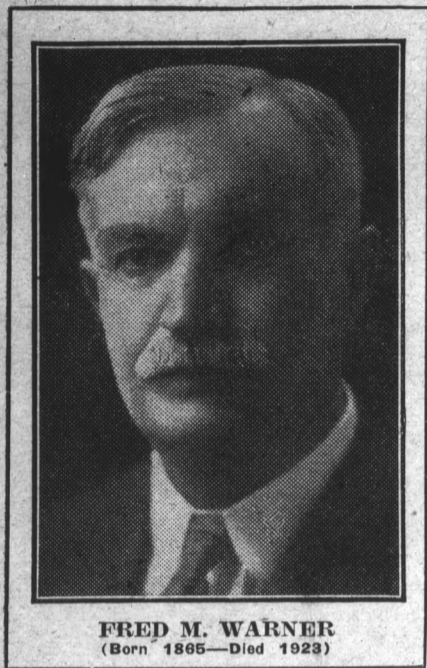
I fully acknowledge the right of the smoker to isolate himself from the public and smoke to his heart's content. However, when in public places, the right of the public to free, unpolluted air, is first. Will some reader kindly suggest the remedy?—A subscriber, Almo, Mich.



# Warner's Life an Inspiration

Fred M. Warner, Three Times Governor of Michigan, Rose to Prominence in Spite of Great Difficulties

By JOHN FITZGIBBON



FRED M. WARNER  
(Born 1865—Died 1923)

THE son of an English immigrant who was so poor that, dying when the boy was seven years old, the mother gave him for adoption to an Oakland County merchant. Fred M. Warner, by his own efforts, achieved large success in business lines and was elected Governor of Michigan before he was 40 years old. Prior to his election as chief executive of the State he had been the youngest senator in two Legislatures, as well as the youngest man to be elected Secretary of State, excepting Stevens T. Mason, the first governor of the state, he was the youngest governor Michigan has had, and the only governor that was elected for three successive terms.

Born in Nottinghamshire, England, July 21, 1865, Gov. Warner was seven years old when he first saw the United States.

His parents located on a small tract of wild woodland near Farmington, Oakland County. Soon afterwards his father died. P. Dean Warner was then a citizen of importance at Farmington, about 18 miles out Grand River avenue from Detroit City Hall. He was speaker of the Legislature in 1867 and a state senator in 1869. Having no sons of his own, Senator Warner adopted the young English lad and gave him his name.

The boy went through all the classes in the Farmington village school and then entered the Michigan Agricultural College. Student life did not appeal to him and so at the end of his first year in college he quit of his own accord and went to work in the general store of his foster-father. In addition to the store the elder Warner conducted a bank.

It was here that the young man learned his first lessons in trading and banking. He early showed a strong aptitude in both lines.

### In Business at 20

He was barely 20 when he made his first venture in business. The bicycle craze came on and the long obsolete high wheel machine began to appear in the early 80's. The craze caught the future Governor and he invested \$165 of his savings in a wheel. For doing so his foster father reproved him. "You'll never get ahead in the world if you squander money that way," was the parental admonition. But he got back in parental favor on the bicycle question. Securing the agency of several makes he cleared \$800 the first season.

Incidentally, he accumulated a handful of medals, for he became the amateur champion of Michigan.

When he was twenty-one his foster-father turned the management of the general store over to him. He had been a voter but a year or so when he was elected president of Farmington. Six times he was re-elected. His entrance into state politics was in 1894, when he was elected senator for the district that

then comprised Oakland and Macomb counties, and he was re-elected two years later.

From a skeptic on the merits of the primary system when he entered on his first term, Gov. Warner before he finished his third term was an ardent advocate of the system. In the face of bitter opposition by machine legislators, he had enacted the first genuine State-wide primary law, as well as a law for the selection at primaries of party candidates for United States senator. This was several years before the Federal Constitution was amended so as to provide for the election of senators by direct vote.

Gov. Warner got his second renomination with opposition; and, still having no enemies in his party, he was re-elected in 1906 by a plurality of 97,549.

Gov. Warner had about made up his mind that, having had the customary two terms, he would retire. When the machine leaders began talking of what they would do to him if he ever again sought office, he accepted their def. He gave notice that he was going to smash precedents and be a candidate for a third consecutive term. Twice he had been nominated by State conventions. Now he was going to seek nomination from the electors at the primaries. The machine picked a popular state official for their candidate. The primary contest was exceedingly warm.

Gov. Warner in a valedictory at the close of his third term, mentioned that, as the State's chief executive he advocated and helped make into law the Two-Cent Fare Act, the act creating the State Railroad Commission and giving the commission large powers to regulate rates, and the service of public utilities, and act making stock watering illegal and the act establishing a binder twine plant at Jackson Prison. This latter was opposed viciously by a powerful lobby of prison labor contractor, yet it has proven to be one of the best investments the State government ever made. In his valedictory he said: "The people also will benefit by a score of other good laws advocated by me and passed during my administration which those in control of the Republican Party in Michigan at this time do not dare to repeal."

### Never Lost His Temper

Gov. Warner's dominant characteristics were never to lose his temper in a controversy; never to use heated language or epithets in referring to a political adversary, to try to make friends instead of enemies, yet not yield when he was sure he was right, even if by such a course he broke a friendship; to proceed cautiously before he arrived at a conclusion, but when he arrived to adhere to his conclusion; to remember his friends and also his enemies, and to be naturally genial, but never effusively so. He had a smile that was infectious, never was spoiled in the least by business or political successes. He had remained just "Fred" even to the humblest of his acquaintances and had always led a temperate life.

When 23 years of age Mr. Warner started a cheese factory at Farmington. Twenty years later he had 2 cheese factories in several counties and was making 1,500,000 annually. At Farmington he acquired a farm of 250 acres and another of 1,000 acres in Sanilac County. He became chief owner and president of the bank his foster father established, now the Farmington Exchange Bank. He was one of the organizers of the United Savings Bank, of Detroit, and has been vice-president of it since its organization.

Shortly after he retired as Governor in 1911, he began changing his dairying business, marketing in Detroit the milk from his herds, in addition to what he purchased from a great many farmers, instead of turning it into cheese.

At the state election in 1920, Mr. Warner was elected Republican National committeeman from Michigan and he held this place up to the time of his death.—The Detroit News.

## MR. FARMER!

Mr. Dealer Mr. Jobber

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IS  
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Are you remembering in purchasing your binder twine that you have a factory of your own at Jackson?

It is making the best twine that can be placed on the market and has a mixture of fiber this year. Manila is added to the sisal to give extra strength.

The State Farm Bureau and other organizations and dealers of the state are in position to handle your twine. If they do not, write direct for prices as we want you to use your own twine as we make 14,000,000 lbs. more than Michigan can use.

## Michigan State Prison

HARRY L. HULBERT, Warden  
JACKSON, MICH.

## THIS BEAUTIFUL BRIDAL WREATH

AND 4 OTHER HARDY ORNAMENTAL SHRUBS

Planting a few shrubs this season will soon make your home a beauty spot and a greater joy to live in. Also, if you should later decide to sell it, you will find it more salable and worth a few hundred dollars more. Our collection consists of the following five most desirable varieties. They are not little, greenhouse-rooted cuttings, such as are often given in offers of this kind. These shrubs are all field grown, healthy and thrifty, and are sure to give satisfaction. We would recommend that you accept our special offer without delay, as this offer may be withdrawn at any time.

### Beautiful Your Home at Our Expense

**SPIREA VAN HOUTTEI (Bridal Wreath)**—A leader among shrubs, and a beautiful ornament at all seasons. A round and graceful bush with arching branches, covered with white flowers in early summer. No doubt the most useful of all shrubs.

**ALTHEA (Rose of Sharon)**—A beautiful shrub that nearly everyone is familiar with. Flowers profusely in late summer and early fall, when few other shrubs are in bloom.



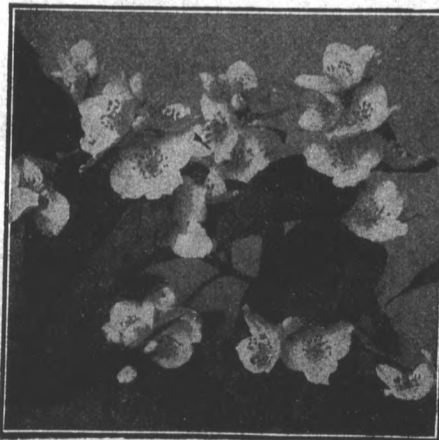
Spirea Von Houttei (Bridal Wreath)

**BUSH HONEYSUCKLE**—Handsome bush with pink and white flowers in the early spring, followed by beautiful and showy red berries during summer and fall.

**FORSYTHIA (Golden Bell)**—The first shrub to bloom in the spring, the golden-yellow flowers appearing before the leaves; frequently while the ground is still covered with snow. Branches cut off in winter and put in a vase of water will bloom in the house.

**SYRINGA (Mock Orange)**—One of the finest of the tall shrubs. Valuable for backgrounds, screens, grouping and specimens. Flowers white and very fragrant. Beautiful for cutting.

These are the five grandest shrubs for all climates, and will be delivered to you, by parcel post, postpaid, as per our special offer below.



Syringa (Mock Orange)

### OUR SPECIAL OFFER

ALL FIVE SHRUBS, above described, shipped from our Michigan nursery, direct to your mail box, postage paid and safe arrival guaranteed, for **ONE DOLLAR**, which includes a One Year New or Renewal subscription to The Michigan Business Farmer. This may apply on your own renewal or add any new name **ONE FULL YEAR**.

Order of THE BUSINESS FARMER, Mt. Clemens, Mich.

DEAR Nieces and Nephews: All letters entered in our contest, including those published in last issue, were put on file and at 12 o'clock, April 14th, I began reading, one at a time, to decide who wrote the best letter. The first one I read seemed so very good and I laid it one side for further consideration. The second one seemed equally as good and so did the third and fourth and fifth and so on, and I continued to lay each letter aside for further consideration until when I finished the last letter and turned to reconsider the ones I had laid aside for that purpose I discovered I had not thrown out a single one. I again went through them all but results were the same—they all best—I was no further ahead than I was when I started. Then the office force came to my assistance by choosing a committee composed of several members of the force and offering the service of the committee to decide for me. I turned the letters all over to them and they finally declared that Katie Prowant, Durand, Michigan, was the winner. And the prize is a pair of shears, small size, just right to use when doing any sewing, making patterns, etc.

Each and every department and article was declared the best but the one chose most was the article "The Truth About Henry Ford." Over half of the writers stated they thought all would be more interested in that article than any other article or department.

I hope you will not forget Mothers' Day. Remember your mother with a small token of appreciation and continue to show your love for her each day by helping her all you can with her work. Sometimes it will take you away from your play and you will not feel like doing it but remember that mother is always ready to help you and wants to have you enjoy yourself although many times it causes her considerable extra work.—UNCLE NED.

#### OUR BOYS AND GIRLS

Hello Uncle Ned:—I am writing to tell you which department I like best of the Business Farmer, and why I think the readers will like it, too. The "Farmers' Service Bureau" is my choice. I think the readers will like it best because it is a clearing department for every farmer's everyday troubles, and if at any time a question on any subject comes up in their home that they want answered and answered right, all they need to do is to just let the Farmers' Service Bureau Department know about it and they answer it by return mail or through the next issue of the Business Farmer—and say, Uncle Ned, if you can't decide after April 14th, just ask the Farmers' Bureau Service Department. I'm sure it can help you. Ha! Ha! I will close with best wishes. From Katie Prowant, Durand, Mich.

Dear Uncle Ned:—I have been a reader of the Business Farmer for about two years and I thought I would write to you and your merry circle. I live on a farm of 400 acres. We raise nearly everything that is to be raised in this county, or is suitable for this climate. I have been having the most difficult time trying to find an article for this contest. It seems as tho they are all so helpful and such a service to the people it was very hard for me to pick or choose the best department in this issue, but I found it at last. Your niece, Loretta Moore, Levering, Mich. Contest letter attached:

#### The Publisher's Desk

This is why I think this department is the best in the issue and also in previous issues of the Business Farmer: Because it enables you to get the best advice available concerning your troubles, also there is no charge for this. It warns the subscribers of this farm paper against and concerning fraudulent oil companies and farm agencies and such companies. This department tries to give legal as well as prompt service to subscribers.

Dear Uncle Ned:—Can those that live in town, but their parents own a farm, compete in this contest? If so, I'm going to try and tell why I think "The Truth About Henry Ford" the most interesting. It shows that he is doing great things for his employees. It shows that his fac-

## The Children's Hour



ories have fire departments, telephone and telegraph offices, hospitals and motion picture studio and everything that is necessary for safety and enjoyment. These are for all, the rich and the poor.

It shows that he is putting automobiles and tractors on the markets at low prices. It also shows that he is as good an American as anybody in America. This is all for now. Your niece, Mary Klurk, 209 East Plain St., Eaton Rapids, Mich.

Dear Uncle Ned:—I think your idea about our letter to you telling you what article we like the best in this magazine is a good one. I also like mystery prizes.

I read the last issue carefully, in fact, I read all of the issues. I liked the article "The Truth About Henry Ford," by Sarah T. Bushnell, the best, because I think Henry Ford is one of our greatest living Americans. You know, too, that Henry Ford may run for president of the United States, he may even be our president, and we should know more about him. This article has been running in this magazine for quite a while. I have read it every time. In the last issue it told about his schools, hospitals and other things. Don't you think the person who is bright enough to invent a Ford deserves a great deal of credit? I do. I will close now so my cousins will have room for their letters on our page. With love, your niece—Beryl Bradley, Dexter Mich.

Dear Uncle Ned:—I have read carefully each article and department of the Business Farmer, and think they are all very good, but have decided that the raising of potatoes and learning how to get the best yield is the most interesting of all. I have discussed the fact with father, and he also thinks this is an interesting article, being that they are a quick crop and easily grown. Why I think readers would like this article is because if they are farmers they naturally would want to get, also know how to get, the best yield from their crop, and they can surely find the facts they are looking for by reading the Business Farmer.—Mildred Ward, Imlay City, R4, Mich.

Dear Uncle Ned:—I am a farmer girl fifteen years of age and am in the eighth grade at school. I am 4 feet 11½ inches in height and weigh 104 pounds.

I think the most interesting article in the Business Farmer is "The Truth About Henry Ford," because he has the most remarkable factory in the world, and he is an extraordin-

ary man, raising up wages and lowering the price of automobiles. Therefore, I think its the most interesting article in the Business Farmer.—Stella Adolph, R5, Yale, Michigan.

Dear Uncle Ned: I have read many interesting letters from boys and girls and liked them very much, and thought I would write to you. I am a boy 16 years old and live on a farm of 40 acres with my father and mother. My birthday is the 17th of October and if I have any twin sisters or brothers I would like to hear from them. Well, I must close but maybe I will write again sometime. Everybody please write to me as I would like to hear from you.—Joseph Forstner, Jr., Allegan, R. F. D. No. 1, Mich.

Dear Uncle Ned:—As I was reading the M. B. F., I saw you would like to have some help. I am willing to help you decide the most interesting department in the Business Farmer.

I think the most interesting department is "Poultry for Profit." I think it is interesting because some people want to buy poultry and they want to know what kind to buy for they want profit off their chickens. I also have another department I think is quite interesting. That is "Michigan Crops." I think this is quite interesting because some men are thinking of what crops to put in, where, and how much they might earn and if they read it they know better what to do.

This is the first time I am writing to you. I would like to join your merry circle. I live one quarter of a mile west of the school house. I am in the sixth grade in school. The one that guesses my age correctly will receive a letter. My age is from 10 to 15 years. I live on a ninety acre farm. I like it very well. I had a lot of fun this winter riding on my sled and skating. I have one sister and two brothers. I am anxious to know if I win the prize or not, so I would like to have an answer soon. Your niece, Florence Bloemsma, Marion, Michigan, Route 3, Box, 57.

Dear Uncle Ned:—I have read the letters in the Children's Hour and at times nearly decided to write, so at last I did. I have three brothers and one sister. I am twelve years old and in the seventh grade at school. Three schools are going to have a program together. Our school has an indian part. It is going to be a week from Friday night. I read in the last M. B. F. about

the contest you were giving, and I thought it was a good chance for me to try. I have been looking at the paper and find what I think will prove of great interest to our parents and all farmers, and that is the "Market Flashes." Every farmer wants to get the best he can for his crops. But do not think I am slighting you Uncle Ned, for all us children like the Children's Hour best, but I think grown-up people are not so interested in the parts we are most. Well I must say good-bye to Uncle Ned and cousins. I wish some of the cousins would write to me. Your niece, Mildred Burk, Marion, Mich.

Dear Uncle Ned:—Of the M. B. F. I think the "Pictures from Far and Near" are very interesting, and are most pleasing to every one. The Children's Hour is very nice, too, but the pictures are the best, because old people can enjoy them as well as the young. From the pictures that we see and read about, it teaches us what there is on different lands and places. If a person does not travel or even go about a bit, they do not know anything of the world. By having pictures people can look at them and read about them and always learn, because they are never too old to learn. If the people cannot read some one could read for them to help them. We can learn how the world is progressing from pictures alone. Your niece, Rose Arnold, Box 474, R. F. D. 4, Mt. Clemens, Michigan.

Dear Uncle Ned:—I am a girl of eleven and live on a twenty acre farm and like the Children's Hour very much.

In the March 31st issue you asked the best department in the paper. I think "The Truth About Henry Ford" is the very best. His success rules are indeed true. The story is interesting because he is a real man. It is wonderful; his and his wife's work of helping the poor and friendless as well as his employees. My father and mother think the story very nice. They have always liked Henry Ford. He is the poor man's friend, and a true American. His factory, foundry and trade school are certainly worth reading about. I remain, your reader, Faith E. Harris, Alpena, Mich.

Dear Uncle Ned:—I have never written before but hope you will accept this letter from an old reader. I am a farm girl and live on a farm of 160 acres. I am 5 ft. tall and weigh 103, pounds. My birthday is the 15th of April. Have I a twin? I was 13 years old. I saw Bernice Mauer's riddle and think the answer is "Each." Am I right? I would like to earn the prize Uncle Ned is giving, so here is my opinion of the things in the paper for this week:

"Preventing the Potato Landslide" was good. "The Farmers' Service Bureau" and also "What the Neighbors say" and "Fruit and Orchard" are very good. "Poultry for Profit" is also good. I know that a great many people are interested in "The Truth About Henry Ford" It is very good. I think that every Michigan farmer should have the paper. It is very good. All the way around it is hard to pick out which is the best things in the paper.

There, Uncle Ned, is what I think. No one helped me make it up. I did it myself. I have no father, but have a step-father. I will go to high school Harbor Springs next year. How many of the cousins go to Sunday School and church? I do and love to. I have always gone and always will. We have a fine teacher. Goodbye with love to all the cousins. Let's boost our page. Lovingly yours, Elsie L. Mahler, Harbor Springs, R. R. 1, Mich.

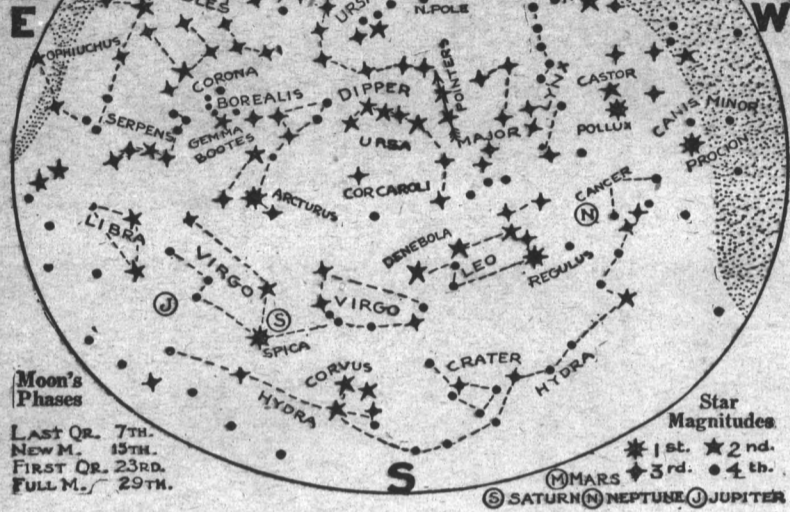
Dear Uncle Ned:—May I enter your contest about the most interesting article or department in your M. B. F.? I have been a constant reader of your M. B. F. for the last few years, and I find the entire paper very interesting, but I think "The Children's Hour" is the most interesting, because it brings boys and girls closer to each other from different parts of our state and we get to know boys and girls outside of our own county and neighborhood. I do like to read the different letters from so many different boys and girls. Your niece, Peral Smith, R2, Box 66, West Branch, Mich.

# The Heavens in May

By DR. C. S. BRAININ  
Columbia University, Observatory staff

## MAY SKY MAP

9 o'clock  
May 5  
8 o'clock  
May 20



Every evening a curtain goes up on the "greatest show on earth", and yet it is spread right over your farm home, no matter where you live. That you may appreciate this show we publish this chart of the May sky and the comments of a famous authority. If enough of our readers indicate their interest in this department, by telling us so, even on a postal card, we will make this a regular monthly feature of The Business Farmer.—The Editor.

THE first two weeks of May present a particularly fine opportunity for the observation of the largest planet of the entire solar system, the giant Jupiter. On May 5 the planet will be in opposition to the sun, which means to the astronomer that it will lie exactly opposite the sun in the sky; it will rise at sunset and set at sunrise, approximately.

Furthermore, the earth will be nearer to the planet, and, therefore, it will appear larger in the telescope and brighter to the naked eye. Its stellar magnitude will be about minus two; brighter than Sirius, the brightest of the fixed stars, whose magnitude is minus one and six-tenths. Sirius has already set at map time and will not appear on the map for many months.

Jupiter will be found in the southeastern sky below Spica, the first magnitude star of the constellation of Virgo. No other very bright stars are near the planet and it is itself very much brighter than Spica.

Fairly close to Spica is another bright planet, Saturn, with its rings, which can easily be distinguished from the fixed star by the absence of twinkling. Saturn also is much brighter than Spica, although not nearly so bright as Jupiter. Saturn's magnitude is about plus one-half. Spica's about plus one and two-tenths. It will be remembered that the smaller the magnitude order the greater the brilliancy and that minus magnitudes are a continuation of the series of magnitude numbers toward the side of greater brightness.

If one is so fortunate as to possess a small telescope or a good field glass, observation of the satellites of Jupiter and their movements will well repay effort and time. The discovery of these satellites by Galileo was the first discovery in the heavens made by means of an optical instrument, marking a most significant milestone in the progress of science.

Galileo discovered four companions with the planet and satisfied himself by a careful study of their movements that they really were satellites of the great planet, just as the moon is a satellite of the earth. He discovered only the four larger of the Jupiter family of moons, and these are the only ones visible in any small or moderate sized telescope. But there are, in reality, nine members of the satellite family, the remaining five having been discovered by the use of the very largest telescopes and with the help of the photographic plate.

Up to 1892 which, of course, is

long after the beginning of what we may call modern astronomy, only the four satellites discovered by Galileo in 1610; were known to the scientific world. In that year Prof. E. E. Barnard announced the discovery of a fifth satellite, lying closer to the planet than any of those already known. Two more were discovered photographically by the American observer, Perrine, in 1905. Then an eighth was found by Melotte of Greenwich, England, and a ninth and last—at present—by S. B. Nicholson of Lick Observatory in California.

These latter two are very far from the planet and have the peculiarity of moving about clock-like direction i. e., from east to west, instead of the reverse direction, which is the general direction of orbital movement in the solar system. Whether the reverse direction means a difference in origin or evolution from these satellites having the normal direction of movement is not at present clear.

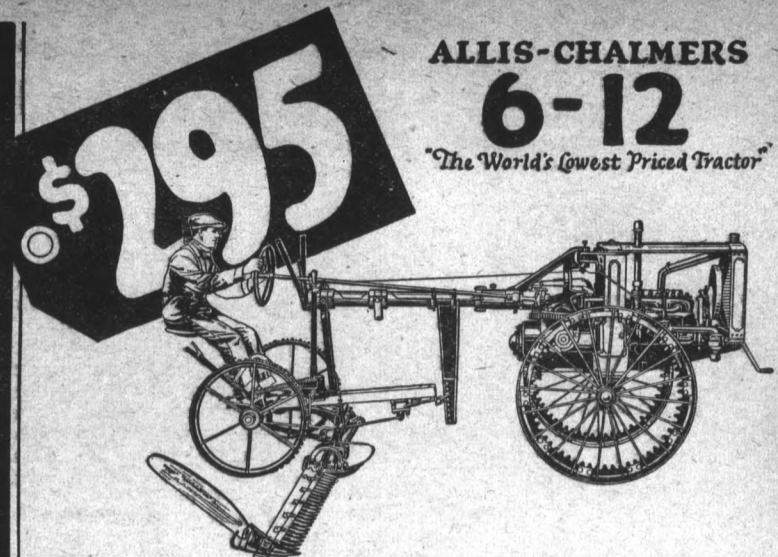
The amateur astronomer, with a small telescope at his disposal, will find particularly interesting the plotting of the movements of the satellites with respect to their great planet and also the observation of satellite eclipses which are very frequent. Since the satellites revolve about Jupiter, they will at times be hidden from view by the bulk of the planet, and this forms one kind of eclipse. Again, the satellite may be in a position where it should be visible from the earth, but is in the shadow cast by the planet, and is thus deprived of the sunlight by means of which it is made visible to us.

This is another kind of eclipse. But more interesting a phenomenon than either of these is that of the passage of a satellite in front of the face of Jupiter itself. In that case it will often throw a tiny shadow on the planet's brilliant orb, and this tiny black speck can be seen to move across the planetary disk. The satellite itself can also be seen, in a large telescope particularly, when crossing one of the dark cloud belts seen on the planet. These remarks refer, of course, to the Galilean satellites only.

The winter constellations are now disappearing from our map and the evening heavens. The grand aggregation of stars known as the constellation of Orion, the Hunter, is below the horizon at map time, although it can still be observed low down in the West at about the end of the twilight. Sirius also is gone, and Procyon is about to follow.

The visible first-magnitude stars are Capella in the far Northwest, Procyon in the Southwest, Pollux of the Gemini, Regulus in Leo, Spica in Virgo, Arcturus in Bootes and, rising in the Northeast, the brilliant blue-white Vega of the Lyre.

It is interesting to note that a great circle through the positions of Pollux, Regulus and Spica, also Jupiter and Saturn, marks the approximate course of the celestial ecliptic through the heavens.

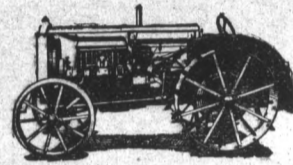


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Keep The Business Farmer Coming—See Page 13.

## SIGNS OF SPRING

The sun's so bright an' hot today  
I just feel sure it's spring to stay;  
My sweater's a scratchy thing,  
An' that's a sure-nough sign o'  
spring!

Besides, the birds are coming back  
To the orchard trees. An' such a  
pack

Of tiny ants on the rockpile, too;  
An' the air all smells so green an'  
new.

My daddy says warm days in spring  
Make little boys grow like every-  
thing.

—Nina Hatchitt Duffield.

## OF GARDENS

AND because the breath of flowers  
is far sweeter in the air, where  
it comes and goes, like the  
warbling of music, than in the hand,  
therefore nothing is more fit for that  
delight, than to know what be the  
flowers and plants that do best per-  
fume the air. That which  
above all others yields the sweetest  
smell in the air, is the violet; espe-  
cially the white double violet, which  
comes twice a year, about the mid-  
dle of April, and about Bartholom-  
ew-tide. Next to that is the musk  
rose; then the strawberry leaves dy-  
ing, with a most cordial smell; then  
the flower of the vines—it is a little  
dust, like the dust of a bent, which  
grows upon the cluster, in the  
first coming forth; then sweet-briar;  
then wallflowers, which are very de-  
lightful, to be set under a parlor, or  
lower chamber window; then pinks  
and gilliflowers, especially the mat-  
ted pink and clove gilliflower; then  
the honey-suckles, so they be some-  
what afar off. Of bean-flowers I  
speak not, because they are field-  
flowers; but those which perfume  
the air most delightfully.

—Francis Bacon.

## OUR FRIENDSHIP GARDEN

DO you know what a "Friendship  
Garden" means? It is a beauti-  
ful thing to have. It cherishes  
so many loving thots and brings us  
so much closer to our neighbors.

Just think, if you want to you can  
start one this spring and have such  
a variety of beautiful flowers and  
shrubs for little or no expense. A  
"Friendship Garden" means the giv-  
ing of a slip off some plant or if  
you have a good supply of pansies or  
baby breath, lily of the valley, pinks  
or any flower that multiplies fast  
and you can spare some out of your  
garden, give it to your friend and  
neighbor and in exchange, she may  
have some different kind that would  
find a lovely spot in your garden.

These exchanges may start with  
just a root of some treasured plant  
that would never be missed, and  
what happiness it would bring to see  
it growing in your neighbors front-  
yard. A slip off of the old vine that  
would help cover up the bare places  
around Mrs. Jones' front porch.

Surely this would bring a great  
deal of beauty to your neighborhood  
and make the whole county known  
for its beauty and thotful women-  
folks. A forget-me-not bed can  
give so much of itself and still re-  
main as tho untouched. The  
marigold is always a thing of  
beauty in a garden and grows  
so rapidly and propagates so  
fast.

There are so many species of  
Perennials that once you have  
started them growing in your  
yard you will enjoy untold hap-  
piness from the wonderful flow-  
ers that come each year with so  
little effort attached to them.

Let us all try this year to see  
what we can do to make our  
front-yard attractive.

## ANNUAL FLOWERING PLANTS

FOR natural beauty and pleas-  
ing color effects it is hard  
to beat some of the old-  
fashioned flower gardens made  
up of annual plants. Nowadays  
temporary plantings are not  
relied upon when conditions will  
warrant the use of more perma-  
nent material, such as shrubs  
and perennials. Annual flower-  
ing plants, however, should cer-  
tainly be encouraged.

When quick, though tempo-  
rary, effects are desired, and  
when flowers are needed at a  
season of the year when blos-  
soms are scarce on permanent  
plant material, annual flowering  
plants are useful. The most  
perennials that once you have



## The Farm Home

### A Department for the Women

Edited by MRS. ANNIE TAYLOR

DEAR, dear friends:—Your many letters have been appreciated and I have not found time to reply to all of them, as yet, because I wanted to be sure in this page to suggest some things you must do this spring to make your grounds more attractive. Please write me some more letters on your flowers and shrubbery, I am going to hold open the prizes until I hear from you. Then remember, dear folks, I am passing around the hat for your letters on "How To Earn Money at Home". If you have found a way, how nice it would be to pass the idea along to some other woman, who perhaps has a little brood she is mothering and whom your suggestion will be a God-send. Please, write me, on the above and other subjects. I want this to be, O, such a friendly corner of our paper for the women and girls in the thousands of farm homes which The Business Farmer reaches. Remember I will never use your name or initials if you do not wish it and your letter to me will be sacredly confidential, if you wish it so, I want to be,

Your Friend,  
Mrs Annie Taylor

Address letters: Mrs. Annie Taylor, care The Business Farmer, Mt. Clemens, Michigan.

sults are obtained with an open lawn as a foundation, with trees making a frame for the house and giving a grateful shade, accompanied by shrubs and permanent flowers to round off the corners. In the bays or pockets of such plantings, or in beds and borders, annual flowering plants will furnish bright blooms at a time when the shrubs or perennials may be dull and uninteresting.

When permanent planting, especially shrubbery beds, are newly set they often look thin and ragged, and interplantings of annuals will fill in the otherwise bare spaces with attractive foliage and brightly colored flowers.

#### GARDEN HERBS —LET'S GROW THEM

THE herb garden of our grand parents' time have almost ceased to exist and the present generation knows nothing of many of the herbs cherished a generation or two ago, yet there are some of the old Southern gardens that have preserved the custom and uses of the herb garden. Many of us are interested in some of the several more common herbs. All of the herbs below may be started in the early spring:

**Caraway.**—(Carum carui). The seeds are used for cakes, confectioneries, pastries, etc., and the leaves for soups. Grown from seeds

sowed where they are to grow.

**Dill.**—(Anethum graveolens). The seeds of this annual have a peculiar pungent taste and are used in many ways as a condiment and as an addition to (dill) pickle to increase the flavor. The whole plant is strongly aromatic. Grown from seed sown where they are to grow.

**Fennel.**—(Feniculum vulgare). An aromatic annual used for making tea for children and as a flavoring in cooking. Similar to oil of anise. The shoots are eaten blanched. Seed, leaves and stems used.

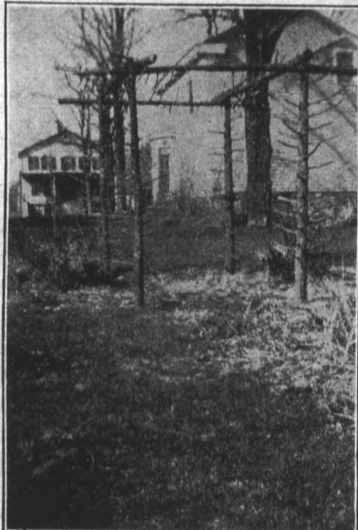
#### Horhound.

(Marrahium vulgare). The leaves and buds of this perennial are used for making cough medicines and for flavoring candy. Propagated by seeds or division of plants.

**Lavender.**—(Lavendula vera). This hardy perennial produces flowers used for the distillation of the oil of lavender, lavender water, etc. The dried flowers are used for cushions and stored with linens and wearing apparel to which is imparted the pleasant and characteristic lavender odor. Propagated by cuttings and seed.

**Peppermint.**—(Mentha piperita). A perennial hardy species, grown mainly for producing oil of peppermint which is used in candies, chewing gum, and as a disguise in medicines and has several other uses.

**Sage.**—(Salva officinalis). The



A rose arbor constructed from cedar posts. The construction is simple when covered with vines such as morning glories, honey suckle, or roses, the result is very beautiful. About a foot of the branches is left on the cedar posts.



"In the morning early, if the day's work seems too much for you; if your confidence is low; your courage gone,—why that's just the time to work in your garden."

common herb intimately associated with pork sausage, used in medicine and as a flavoring for various products of the cook's art. The leaves should be taken when the flower spikes are forming, spread in a dark room, and dried as quickly as possible. Propagated by seeds; cuttings, and root division.

#### THE FLOWER GARDEN Vines for Arch or Trellis

**ANNUAL Vines.**—Balloon-vine, wild cucumber, hop-vine, morning-glory, moon-flower, balsam poppy, scarlet runner bean.

**Perennial Vines** (Harbaceus).—Kudzu vine, moon-flower, everlasting, wistaria.

**Woody Vines.**—Aklebia, Virginia creeper, Dutchman's pipe, clematis, bittersweet, matrimony-vine, honeysuckle, trumpet creeper, grape, wistaria.

**Vines for Brick and Stone.**—Boston ivy, English ivy, euonymus radicans, ampelopsis quinquefolia.

#### Beauty Border of the Vegetable Garden

**Annuals.**—Cosmos (mixed), dahlia (mixed), sage, floss flower (blue), zinnia, tickseed (yellow), verbena (mixed), petunia (mixed), bachelor's button, cockscomb, corn-flower, china aster (white), spider plant, marigold, pansy (mixed), Shirley poppy, cone-flower, sweet-william.

**Shrubby and Perennial Garden**  
**Trees and Shrubs.**—Apple, golden bell, barberry, spirea, globe-flower, deutzia, buddleia, hibiscus, weigelia.

**Perennials.**—Candytuft, peony (red), Oriental poppy, iris (blue), alyssum, Canterbury bells, milfoil, phlox (pink), phlox (red), phlox (white), tickseed, blanket flower, helenium, pink, Shasta dairy, hollyhocks, golden glow aster.

#### Window Boxes

**Plants Enduring Shade.**—Asparagus, trailing, green; dracaena indivisa, upright, green; dracaena terminalis, upright, red; English ivy, trailing, green; sord fern, upright, green; whitmani fern, upright, green; pandanus, upright, variegated; vinca, trailing, variegated; Wandering Jew, trailing, variegated; German ivy, trailing, green.

**Flowering.**—Pansy, prostrate, yellow, purple, white.

#### Mothers Problems

##### Sometimes Delay Punishment

A MOTHER of my acquaintance had purchased a beautiful dinner-set, the first real "set" she had ever owned. Together she and her daughter were washing it and putting the glossy flowered dishes in the china closet. The mother, on her way to the dining-room with a stack of bright dinner-plates, kicked up the rag rug that lay a few steps from the table. The daughter, following directly after her failed to notice the upturned rug, caught her foot in the fold and fell, her own stack of dishes crashing to the floor and breaking into hundreds of pieces.

At the crash the mother turned and glared angrily at the girl. She placed her own dishes on the table and started with hands clenched toward her daughter. Then, suddenly, she relaxed. She bit her lips, then pointed toward the hallway. "Eva," she said, "go up to your room at once. Stay there till I tell you to come down. Right now I am too angry to think what I ought to do."

By the time the mother had cleared away the wreckage, noticed the turned-up rug which she then remembered having kicked up, and calmed down somewhat, she was ashamed of the feeling she had shown toward the daughter who was not to blame for the accident. As soon as she could she went to the girl's room, where she found her sobbing on the bed, told her she realized it was an accident and asked her to come down and help with the rest of the dishes.

A punishment for that accident would have been unjust, and the child would have known it was unjust and been hurt, perhaps forever, by it. Yet many, many unjust punishments are meted out to children because the parents punish in the heat of their anger without waiting till they can judge calmly and correctly.

Remember this incident next

placed her own dishes on the table and started with hands clenched toward her daughter. Then, suddenly, she relaxed. She bit her lips, then pointed toward the hallway. "Eva," she said, "go up to your room at once. Stay there till I tell you to come down. Right now I am too angry to think what I ought to do."

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Remember this incident the next time some accident or deed occurs which rouses you to sudden anger. Rather than ever punish unjustly, send the child responsible for your feelings to his room and do not go to him till you have weighed his offence most carefully. If you would not later be filled with regret, it is sometimes best to delay punishment.—Margaret Bartlett.

**MOTHERS' DAY**

**M**OTHERS' Day—it means so much! Mothers' Day should hold for her all the things that are beautiful. How happy we should be upon May 2nd, when we can show our living mothers all the tenderness and thoughtfulness that only a child of hers can show. No matter how trifling the deed mother will think it the sweetest and noblest because her boy or her girl was thoughtful of her on this Day set aside to commemorate the ones that have passed on and the day to show the living. Let us not be forgetful.

**AIDS TO GOOD DRESSING**

As usual there will be much sewing done in the spring, so the first step is to get the sewing machine and shears in good condition. It is hard to spare the shears to be sharpened after work is begun and on the other hand it is encouraging to find them sharp and well set when work commences.

Give the sewing machine a thorough overhauling. Take a soft cloth. Dip it either in kerosene or gasoline and wipe off the oil and dirt which has accumulated. Wipe until the parts are clean and bright. Remove revellings which have wound around the joints. When all parts are clear tighten the screws and see that everything is properly adjusted. Oil in every place where one part rubs against another. The machine is delicate in its mechanism and should be well kept and oiled to keep it from wear and also to make it run easily. A few drops of oil put on the wooden case and rubbed in well with a soft cloth will improve its appearance. See to it that the machine is supplied with needles of desired sizes and if the belt is worn a new one in the draw may save a day's delay.



**A Jaunty "Wrap"**  
4127. This is a splendid utility style, suitable for all clankings. As portrayed tweed was used, with trimming braid. The collar is convertible.  
This pattern is cut in 4 Sizes: Small, 34-36; Medium, 38-40; Large, 42-44; Extra Large, 46-48 inches bust measure. A medium size requires 5 1/2 yards of 44 inch material.

**A Jaunty Blouse Dress for Slender Figures**  
4330. This is a good style for sports materials, for taffeta, kaska, jersey and serge. Vest, collar and cuffs may be of contrasting material. A very attractive development would be red and gray ratine, with red suede for trimming, or linen, with checkered gingham.  
The Pattern is cut in 3 Sizes: 16, 18 and 20 years. An 18 year size requires 4 1/4 yards of 40 inch material. To trim as illustrated requires 3/4 yard contrasting material 40 inches wide. The width of the skirt at the foot is 2 1/4 yards.



**A Pretty Gown for "Many" Occasions**  
4040-4286. Printed silk with binding of crepe satin is here portrayed. This design is also good for voile, organdy or tissue gingham. The tiered skirt is very new and effective. It may be finished with three tiers. The blouse has a comfortable "raglan" sleeve that may be finished in wrist or elbow length.  
The Skirt is cut in 6 Sizes: 25, 27, 29, 31, 33 and 35 inches waist measure. The width at the foot is 2 1/2 yards. The Blouse is cut in 6 Sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. To make this dress as illustrated for a medium size requires 8 1/4 yards of 36 inch material.

**A Simple, Pretty Frock for A Little Miss**  
4347. Printed voile or crepe would be attractive for this style. It is also pleasing in summer, taffeta and crepe de chine. Binding in a contrasting color would be effective for trimming.  
This Pattern is cut in 4 Sizes: 4, 6, 8 and 10 years. A 6 year size requires 2 1/4 yards of 32 inch material.



**HOME SUGGESTIONS**

**P**AINTING wire screens before putting them up in the spring will keep them from rusting and will make them look like new. Porch chairs and stands can be gone over with a water-proof varnish—also good for renewing kitchen furniture that has become dingy.

Provide a place for refuse so that it may be easily put "in its place;" a waste basket of some description does this, and there is need for one in practically every room in the house. There are innumerable varieties of sizes, shapes and styles of baskets on the market; everything, from the most inexpensive to the very elaborate or some simple home-made one may be made to serve.

There is an old trick that many mothers know nothing about. That is to cut off a boy's stocking at the ankle and turn it around so that the thin darned places at the knees go underneath, where it does not show.

**The Runner's Bible**

We must humble (Ps. 37: 11), willing to be taught (Prov. 13: 18), to receive, and when joy has been let into the heart (Neh. 8: 10), and gratitude is felt, we are in a condition to receive the blessing—to know the Truth, and we can be assured that Love will guide us, that success will ultimately crown every endeavor, for all things work together for good.

We must also protect ourselves from all that would bring us harm, or even disturb us, by realizing that we are enveloped in an impenetrable armor of love and evil cannot reach us.

—if you are well bred!

At the table men should remain standing until all ladies present are seated.

Do not begin eating until all have been served.

Place napkin in lap.

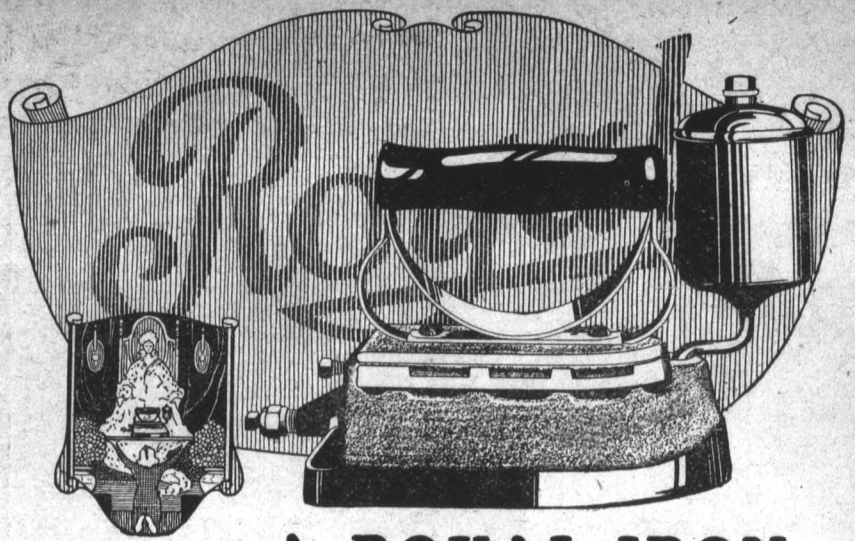
Eat quietly and slowly.

Fork should be used with tines upward.

When not in use, place knife and fork across plate.

Sit quietly until all have finished.

Notice "Polar Bear Flour" ad in this issue and send for the free cook book.



**A ROYAL IRON For the Queen of the House**

Yes, this handsome, gasoline burning iron will save her many weary steps.

Gracefully designed and attractively nickel plated. Instantly ready to use any time, anywhere.

Think of this. No stove fire, no gas tube, no electric cord needed. Handle always cool. Over 1,000,000 now in use.

**SELF HEATING IRON CO.**  
Box 402 Big Prairie, Ohio

Ask your dealer or write direct to



**DEMAND**

**POLAR BEAR FLOUR**

Most Value for Your Money

A Trial Bag will prove it!

Write us for valuable Cook Book FREE!

**J. W. HARVEY & SON,**

Central States Managers,  
MARION, IND.



**Herold-Bertsch Michigan Made Shoes**

30 years of Honest Shoe Values Behind this Footwear.



\$3 to \$3.50 at your shoe store

Lots of service for little money in this sturdy shoe. Made of all leather. Good grade of upper stock and quality sole. Michigan farmers have been wearing it for years. Try it on and see how cool and comfortable it feels. Boys' sizes also.

**Herold-Bertsch Shoe Co.**  
Grand Rapids



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At Cut Prices—8000 Mile Guarantee

**NO Price ADVANCE** on GEM CORDS—the tire that gives 8000 miles of satisfactory service. Cut your tire costs by these excellent tires at low prices. Best tire ever seen. Another Gem Cord half price for any tire not satisfactory.

**SEND NO MONEY** All GEM CORDS shipped C.O.D. Take tire home and examine it; if it isn't the best buy you ever made, return the tire and get your money back.

Size	Cords	Tubes
30 x 3	\$6.15	\$1.05
30 x 3 1/2	6.95	1.25
31 x 3 1/2	9.95	1.55
32 x 4	9.95	1.65
33 x 4	10.75	1.75
34 x 4	11.25	1.90
34 x 4 1/2	11.95	1.95
32 x 4 1/2	13.75	2.00
33 x 4 1/2	14.45	2.10
34 x 4 1/2	14.95	2.20
35 x 4 1/2	15.45	2.30
36 x 4 1/2	15.95	2.50

Do not delay. Order your season's cord tires now at these **Barstain Prices**. 5 per cent discount for cash with order.

**GEM RUBBER COMPANY**  
Dept. 163-1315 S. Oakley Blvd., Chicago



**3 CONCORD 1-Yr. Old, Heavily Rooted GRAPE VINES Only 25c POSTPAID!**

Selected mail-size vines from the Michigan Grape Belt where the finest Concord in the world are grown. Hardy, healthy, luscious vines, bred up to yield a **BUSHEL** of the finest grapes from **EVERY** vine! Three vines planted in your garden will make a vigorous start. Of rapid growth, they will soon amply supply your table. They will grow and fruit in very cold locations with a little simple winter covering. **Our Big Fruit and Garden Magazine Sent Four Months to Help You Start RIGHT!** Filled with illustrated, interesting practical stories of success with "Money Grapes." To encourage a more general planting of Grapes we make this liberal offer, and a silver Quarter takes it all. Send name and address today to **THE FRUIT BELT**  
15 Market St., Grand Rapids, Mich.

**300 STRAWBERRY PLANTS \$2 Post Paid**  
150 Dunlap, 150 Warfield  
**HAMPTON & SON, R. 14, BANGOR, MICH.**

The Business Farmer Can Use a Good Agent in Every Michigan County. Write Us.

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**SENATOR DUNLAP, WARFIELD AND GIBSON STRAWBERRIES**

Priced as low as \$3.00 1000. Send for special price-list complete. Our customers making \$1,000 per acre, so can you. Also grape vines and other small fruit.

**BABION'S FRUIT AND POULTRY FARM,**  
Chesaning, Michigan.

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The De Laval Separator is so simple, all of its parts are made with such care, accuracy and precision, that any one, no matter how inexperienced, can operate it successfully under all conditions of use. And any one capable of handling a wrench can completely assemble or disassemble it, quickly and easily, with the one simple tool shown above.

The De Laval Separator Co.  
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De Laval Separators are sold on such liberal terms that they will pay for themselves within a year. See your De Laval Agent or write us for full information.

There are over 2,500,000 De Laval Separators in use the world over—about as many as all other makes put together.

Sooner or later you will use a

# De Laval

Cream Separator and Milker

## BREEDERS DIRECTORY

Advertisements inserted under this heading for reputable breeders of Live Stock at special low rates to encourage the growing of pure-breds on the farms of our readers. Our advertising rate is Thirty Cents (30c) per agate line per insertion. Fourteen agate lines to the column inch or \$4.20 per inch, less 2% for cash if sent with order or paid on or before the 10th of month following date of insertion. SEND IN YOUR AD AND WE WILL PUT IT IN TYPE FREE, so you can see how many lines it will fill. Address all letters, BREEDERS DIRECTORY, MICHIGAN BUSINESS FARMER, MT. CLEMENS, MICH.

### 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 9—Guernseys, Wigman & Zurato, Holt, Michigan.

May 10—Holsteins, McPherson Farms Co., Howell, Michigan.

May 10—Holsteins, Geo. W. Ridgeman, Vassar, Michigan.

May 31—Shorthorns and Berkshires—Simon G. Maschie, Middleville, Michigan.

Oct. 18—Holsteins, Howell Sales Company of Livingston County, Wm. Griffin, Sec'y, Howell, Mich.

### HOLSTEINS

82 LB. SIRE—25 LB. DAM. HAVE A 15 mos. old Pontiac Korndyke, King Segis bull. Sired by a 32 lb. grandson of a 35 lb. Michigan Champion. Dam, a 25 lb. 4 yr. old, King Segis breeding. Calf well grown, straight, nicely marked. Herd federally tested—clean. Price, \$100, delivered anywhere in lower peninsula. R. JONES White Pigeon, Michigan.

4 EXTRA FINE BULL CALVES—ALL BORN in January. From heavy milking Dams and Sired by "Romeo King Segis Pontiac Korndyke." Herd T. E. tested. Bargain prices to move quick. Write today. Pedigrees free. SCHAFFER BROS., R. 4, Oxford, Michigan.

FASCINATION FARM, VASSAR, MICHIGAN. Holsteins, registered fully accredited 32 1/2 lb sire. Write your want.

### GUERNSEYS

FOR SALE—REGISTERED GUERNSEY HEIFERS at reasonable prices, also choice bull calves of May Rose breeding. H. W. WIGMAN, Lansing, Mich., Box 52.

MISSAUKEE GUERNSEYS. A NEW CROP OF calves coming soon. No females for sale. Order that new bull calf, A. R. Sire and Dam. A. M. SMITH, Lake City, Michigan.

GUERNSEYS—Registered Bull Calves, Cheap, also grades. Best of breeding for production and size. George Damken, North Manchester, Indiana.

REGISTERED GUERNSEYS—FEMALES AND Bull Calves. A. R. Sire and Dam. DR. W. R. BAKER, 4800 West Fort St., Detroit, Michigan.

FOR SALE: MAY ROSE GUERNSEY BULL Calf. Born on Nov. 20, 1922. Dam on A. R. Test. Federal Accredited Herd. GILMORE BROTHERS, Camden, Michigan.

### ANGUS

WE HAVE SOME FINE YOUNG ANGUS BULLS from International Grand Champion Stock at reasonable prices. E. H. KERR & CO., Addison, Mich.

## COMPLETE DISPOSAL SALE OF THE

GEO W. RIDGEMAN HERD OF  
**HOLSTEIN CATTLE**  
VASSAR, MICH., THURSDAY, MAY 10, 1923

Sale starts at one thirty rain or shine at my farm, 3 miles north and one mile west of Vassar, Michigan or sixteen miles east of Saginaw:

15 head of the highest quality Holstein cattle ever offered at dispersal in Michigan, a fully accredited herd never a reactor, including "Eden White Rose," world's champion Sr. 2 yr. old, producer for 1922, 305 day div., butter 883.2, milk 19,446.3; and Eden Hope, Michigan state champion Jr. 2 yr old, 30 day div., butter 100.2, milk 2106.8; two of Michigan's wonder cows, their dams, grand dams, sisters, daughters and a son of "Rose," nine daughters in all of Flint Korndyke Butter Boy whose three two year old daughters tested in 1922 ave.: butter 24.47, milk 573.2. He is the best proven son of Maple Crest Korndyke Hengerveld, The New Century Sire. Catalogues are now ready, write for one.

AUCTIONEER: W. E. ATKINS PEDIGREES: GEO. A. PROCTOR

### FARM DAIRYING

SOMETIMES farmers who keep cows as a source of income rather than to gratify a hobby, are inclined to discount records made by pure breeds, claiming that big daily yields of milk are made by milking three or four times a day or by resorting to other methods which are artificial or unnatural. No doubt the claim that the yield is the result of extra labor and not due to the natural producing ability of the cow is true in some cases, but not in all herds, for example, that of W. J. Gamble of Caro.

In this herd seven pure bred Holstein cows, freshening since Christmas, and milked but twice a day, showed on the barn sheets so far in April, an average production of 64.44 pounds each per day. Of course part of such good production is due to good care given these cows by the manager, Thomas Kimmell, but the main credit must be given to the cows themselves, that, standing in stanchions, without any babying, can roll out practically 30 quarts of milk each per day.

And some farmers say that once in a while a cow without any forcing can give a big flow for short time but she would have to be pampered to stick to it throughout the year. Such farmers may well ponder over the record made by a pure bred Holstein in a Cow Testing Association in Livingston County where she was given ordinary care by an ordinary farmer, fed ordinary farm feeds and milked but twice a day throughout the year. She yielded 17,246 pounds of milk and fat enough for 801 pounds of butter; and incidentally showed a profit over her feed costs of \$187.00.

There is certainly something in pure blood and breeding when cows can show every day production such as these cows did.

14, sow, sold to Bert Coulon, Mt. Clemens, Mich., \$35.00; 15, sow, Fred Smith, Utica, Mich., \$60.00; 16, sow, sold to Gust Cishke, Rochester, Mich., \$52.50; 17, sow, sold to W. V. Reid, Richmond, Ind., \$52.50; 18, sow, sold to H. G. Gamber, Mt. Clemens, Mich., \$67.50; 19, sow, sold to Mrs. J. C. Brown, Wabasha, Minn., \$67.50; 20, sow, sold to W. V. Reid, Richmond, Ind., \$35.00; 21, sow, sold to W. V. Reid, Richmond, Ind., \$50.00; 22, sow, sold to C. H. Jones, Pontiac, Mich., \$65.00; 23, sow, sold to Elmer Moore, Utica, Mich., \$62.50; 24, sow sold to Julius Kendt, Mt. Clemens, Mich., \$42.50; 26, sow, sold to Helen Target, Warren, Mich., \$57.50; 27, sow, sold to C. R. Wolford, Plymouth, Ohio, \$37.50; 28, sow, sold to Keystone Farms, Marion, Ohio, \$50.00; 29, sow, sold to Floyd Gale, 47.50; 32, sold to L. J. Smith, Utica, Mich., 37.50; 33, gilt, sold to H. G. Gamber, Mt. Clemens, Mich., \$67.50; 34, gilt, sold to W. V. Reid, Richmond, Ind., \$45.00; 35, gilt, sold to G. Cishke, Rochester, Mich., \$50.00; 36, gilt, sold to W. V. Reid, Richmond, Ind., \$37.50; 37, gilt, sold to W. V. Reid, Richmond, Ind., \$37.50; 38, gilt, sold to Fred Strevel, Blaine, Mich., \$55.00; 39, gilt, sold to Fred Strevel, Blaine, Mich., \$60.00; 40, gilt, sold to Bert Coulon, Mt. Clemens, Mich., \$30.00; 41, gilt, sold to Jos. Weingartz, Halfway, Mich., \$50.00; 42, gilt, sold to Fred Strevel, Blaine, Mich., \$52.50; 43, gilt, sold to Howard Gibson, Oxford, Mich., \$35.00; 44, gilt, sold to Dr. Sharp, Romeo, Mich., \$60.00; 45, gilt, sold to Mrs. Leason, Warren, Mich., \$50.00.

### VETERINARY DEPARTMENT

#### CANNOT KILL TICKS BY FEEDING SULPHUR

Will you kindly inform me whether sulphur if fed to sheep will kill the ticks on them? How should I feed sulphur to sheep, in their salt or grain, and how long and how much would I give 50 sheep to rid them for ticks? —L. K., North Branch, Michigan.

—The feeding of sulphur to sheep will not destroy the ticks, nor cause the ticks to leave the sheep. Sulphur is relished by sheep and they use considerable sulphur in producing a good fleece of wool. We, therefore, add some sulphur to the salt which we give our sheep. Just at present we are feeding our sheep the following mixture in place of salt:

20 lbs. salt, 20 lbs. precipitated bone meal, 5 lbs. sulphur. There should be no danger of the sheep catching cold if they get wet while taking this mixture.—G. A. Brown, Prof. of Animal Husbandry, M. A. C.

#### RAISING PIG ON BOTTLE

Will you please tell me what to feed a little pig when raising it on a bottle?—W. H. L., Belding, Mich.

—The feeding of orphan pigs is rather a difficult matter and requires very close attention to detail. As a general rule it is not advisable to endeavor to alter the composition of cow's milk any, but rather to start the little pigs on whole milk, feeding then from six to eight times per day a small allowance each time. To start with, a pint of whole milk per day per pig is sufficient. This should be gradually increased until the pigs are receiving about one quart of milk per day per pig, by the time they are two weeks of age, at which time the number of feeds may be reduced to three or four.

The pigs may be taught to drink by placing the milk in a shallow pan or dish and forcing the little pigs' heads in until they get a taste of milk two or three times and they will soon learn to drink. Where the bottle is resorted to, it means too much work where one has a little of eight or ten pigs. In addition to the milk, the pigs should be given access to good corn and also middlings in a small self-feeder, where they may help themselves at will. Salt, charcoal and wood ashes should be kept before them at all times.—Geo. A. Brown, Prof. of Animal Husbandry, M. A. C.

#### DOCK YOUR LAMBS

MR. Louis F. Swift has a farm at Everett, Illinois, thirty miles from Chicago, and has had more or less to do with raising sheep and lambs. Mr. Swift says:

"In order to realize best returns in the production of lambs, a certain rule must be followed. Much money has been lost by people raising lambs through failure to observe this rule, prevalent in the western states, which is as follows:

"All lambs must have their tails cut off, and all the bucks not needed for breeding purposes must be made wethers when about two weeks old."

"Nothing is so discouraging and inexcusable or financially disastrous as to see lambs in the fall or later, with long tails (which means negligence on the part of the raiser), or buck lambs sold at a big discount on account of their coarse quality for mutton, in the fall, which should have been made wethers in the spring and sold for a premium as wethers."

#### DETROIT CREAMERY HOG SALE

THE Detroit Creamery Farm had a very snappy Hampshire sale at Utica, Mich., March 19. The greater portion of the offering was taken up by Michigan buyers. The top sow selling to C. J. Cheeseman, of Clarkston, Mich., for \$118.50. Strevel & VanCamp of Blaine, Mich., bought five sows and one of the good young boar pigs. Three sows and a boar pig to Bert Coulon of Mt. Clemens, Mich. Col. F. H. Hulick of Atlanta, Ind., officiated in an efficient manner and was ably assisted by C. R. Bowers of the Hampshire Advocate. The 39 pigs sold brought \$2,486.00 an average sale of \$63.74.

Lot No. 1, Boar, sold to Fred Smith, Utica, Mich., \$410.00; 3, boar, sold to Fred Strevel, Blaine, Mich., \$82.50; 4, boar, sold to W. V. Reid, Richmond, Ind., \$85.00; 5, boar, sold to Bert Coulon, Mt. Clemens, Mich., \$70.00; 6, sow, sold to C. J. Cheeseman, Clarkston, Mich., \$118.50; 7, sow, sold to Fred Strevel, Blaine, Mich., \$52.50; 10, sow, sold to Bert Coulon, Mt. Clemens, Mich., \$75.00; 11, sow, sold to Earl Terry, Clarkston, Mich., \$50.00; 12, sow, sold to Fred Strevel, Blaine, Mich., \$40.00; 13, sow, sold to Keystone Farms, Marion, Ohio, \$42.50;

**SHORTHORNS**

**Richland Shorthorns**

**SPECIAL OFFER:** Two choicely bred cows. One roan—One white—One with bull calf at foot by son of IMP. Rodney. This show stock of real caliber and great foundation material. A bargain at the price.

**C. H. Prescott & Sons.**

Office at Tawas City, Mich. Herd at Tawas City, Mich.

**SHORTHORNS**

Home of Merry Commander, Junior Champion at the recent International. Now in the time to buy. We have several young cows and heifers, bred to this wonderful bull, for sale. Also, several bulls and heifers of breeding age, from our other noted sire, Perfection Heir 3rd. Visit or write us at once.

S. H. PANGBORN and SONS, Bad Axe, Mich.

**RAISE SHORTHORNS WITHOUT HORNS**  
Like Kelley does. U. S. Accredited Herd No. 28945. For description and price write.  
L. C. KELLY & SON, Plymouth, Michigan.

Polled Shorthorn Bulls and Heifers 8 to 12 mo. old. C. W. Glits bred. Boars to use. White and yellow dent seed corn, heavy yielding. Write your wants. Frank Bartlett, Dryden, Mich.

**JERSEYS**

**FINANCIAL KING BULLS OF SERVICEABLE AGE**

Buy a Financial King Jersey bull from register of merit cows. Why not own a real bull that is sure to breed wonderful sons and daughters. Terms to responsible parties. Prices reasonable. Write to Emil Anderson, Coldwater Jersey Farm, Coldwater Mich. Mich. home of Financial Kings.

**REG. JERSEYS, POGIS 99th OF H. F. AND** Majesty breeding. Young stock for sale. Herd fully accredited by State and Federal Government. Write or visit for prices and description.  
GUY C. WILBUR, BELDING, Mich.

**HEREFORDS**

**HEREFORDS**

Young Cows with calves by side consisting of blood from America's foremost herds at prices that enable them under Earle-ripe Hereford Beef Plan to pay for themselves within a year to 15 mos. Bulls including prize winners at the larger shows at practical prices. Herds headed by Straight Edge 1169786, one of two sons of Perfection Fairfax out of a daughter of the famous Disturber.

T. F. B. SOTHAM & SONS  
(Herefords since 1839) Saint Clair, Mich.

**HEREFORDS FOR SALE. SEVEN CHOICE** yearlings and heifer calves and seven yearling bulls sired by Wyoming 9th International Prize winner. Farmers prices. Herd established in 1860 by Gov. H. H. Grapo. Write for information.  
GRAPU FARMS, Swartz Creek, Michigan.

**REPEATER BRED HEREFORDS. YEAR** Bulls, price \$75.00. Good individuals.  
JOSEPH FELDAUSCH, Fowler, Michigan.

**BROWN SWISS**

**FOR SALE: BROWN SWISS BULL, TEN** Months old. Carries the blood of Colage Bravura 2nd. FRANK POET, R. 6, Clare, Michigan.

**FOR SALE—VEL VERDE BROWN SWISS** Cattle, registered. Bull, cows and calves. Write ED. GRISWOLD, R. 1, Bellaire, Michigan.

**RED POLLED**

**RED POLLED CATTLE**—A few choice bulls and heifers for sale.  
ROYSTAN STOCK FARM,  
Will Cottle, R. R. 1, West Branch Michigan

**AYRSHIRES**

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

**SWINE**

**DUROCS**

**Duroc Jersey Bred Sows and Gilts**

Plenty of size bone and quality. April and May farrow, bred to grandson of International Stock Show Champion.

JOS. SCHUELLER, R. 2, Weldman, Michigan.

**HILL CREST DUROCS, PERRINTON, MICH.** We are breeding twenty sows and eighteen gilts to a son of GREAT ORION SENSATION Yearling, spring and fall boars. NEWTON & BLANK, Farm 4 miles straight south of Middleton, Gratiot Co., Mich.

**DUROC JERSEYS** Fall boars and gilts of quality, prices very low. Am booking orders for March pigs to ship in May. \$10, reg., short time. Satisfaction or money back.  
B. E. KIES, Hillsdale, Mich.

**PEACH HILL FARM** offers choice weanling Duroc pigs, either sex. Priced very reasonable. Write us.  
INWOOD BROS., Romeo, Mich.

**O. I. C.**

**O. I. C. BIG TYPE GILTS FAWROED MAY** 15th. 22 weighing 300 lbs. Bred to Leighty Monster, an outstanding boar. We have been breeding and shipping O. I. C.'s for 20 years.  
NEWMAN'S STOCK FARM, Marlette, Michigan.

**REGISTERED O. I. C. SOW, DUE TO FAR-** row in July, weight about 500 lbs.; 2 years old; bred to registered boar. Only \$50.00. Selling out is reason for selling her.  
GILBERT VANDE VOOREN, R. 1, Ada, Mich.

**REGISTERED O. I. C. BRED GILTS FOR** sale. Weighing 250 lbs. A few fall boars.  
J. R. VAN ETEN, Gifford, Mich.

**HAMPSHIRE**

**HAMPSHIRE—SPRING BOARS AND BRED** gilts from 25 sows to select from. Place your order now or you may be late. 10th year.  
JOHN W. SNYDER, R. 4, St. Johns, Mich.

**IS ORGANIZATION HELPING POTATO MEN**

(Continued from Page 6)

severe blizzards, the market underwent a marked raise, from 30c to a dollar in a few days. What was the situation of the organized farmer, selling thru his co-op. and the man who "lets Blinks have 'em because I get the cash right off?"

C. C. Wells, Exchange Manager at Cadillac, has recently made this clear in a letter. He says, "During the first 16 days of March our average net returns to growers for potatoes were 52c a hundred on plain sacks and 60c a hundred on branded sacks. This average is based on the sales of 151 cars.

"During the same period independent buyers in western Michigan paid an average of only 31.5 cents per hundred. In very few cases did dealers' prices reach our lowest figure, and at many small country points they paid as low as 15 to 20c a hundred.

"The jump in prices which occurred March 1st gave our competitors a chance to take unfair advantage of the growers' ignorance of market conditions. The advance was so sudden that many farmers sold at the old prices; and, even a week later, some did not know the real situation. Such persons are "easy picking" for speculating buyers who have an opportunity, under such conditions, to regain some of the money lost in bucking the Co-op. heretofore.

"A farmer at Weidman made \$159.60 by refusing a dealers' offer of 25c and shipping through the local association. Our pool price netted him 63c. He advertised this result in his neighborhood and, as a result, the Weidman warehouse was again plugged full of potatoes.

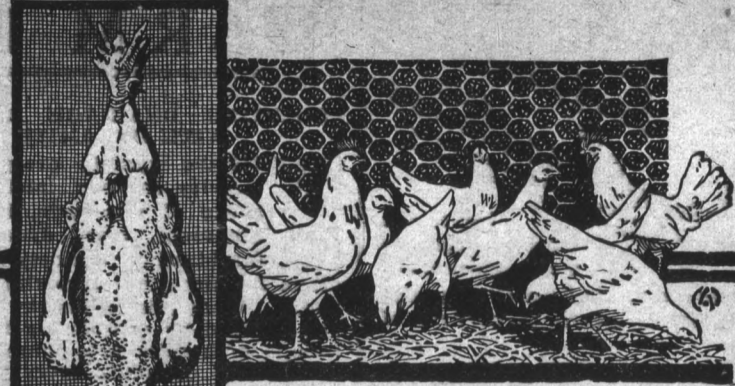
"Ivan M. Nielson, Manager at Gowen, wrote me—"If your prices continue to be as far above local prices as they have been for the past two weeks, we will ship for many new members and will handle more cars than ever before."

California farmers have found prosperity by merchandising their products, not dumping them. The story of the prune, orange, lemon, raisin, and walnut growers is, or should be, an old one to us in Michigan. But "selling to Blinks because I get the cash" is not merchandising. To use plain terms, it is pin-headed short sightedness. It is placing enough of your product in competitive hands to break your own market and bear down your own price. The reports of the Michigan Potato Growers Exchange for the past winters are in your Farm Bureau Office. Run and see them. Learn of the many times when independent dealers in Southern Michigan undersold your Exchange in Pittsburg, in Cleveland, in Chicago—undersold them with the same potatoes you "sold to Blinks for Cash"—and forced the Exchange prices down, thus cutting off your own nose in return.

No, co-operative merchandising is not going to benefit you as long as you let your neighbor do it, and you "sell to Blinks for the cash." Your organization is now set up and working. Give it your support. If any grower has to sell for cash, a method can be found to deal with his own organization that way. New credit laws, passed through organized farm bureau influence by the last Congress, are providing a way to do this. We have got to do it ourselves.

Co-operative marketing will at best be but half-success, a milk and water Michigan reflection of the 180-proof California brand, till we see into this thing far enough to stop competing with ourselves in our own market.

**STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF THE Michigan Business Farmer, published biweekly at Mount Clemens, Michigan for April 1, 1923.**  
1. That the names and addresses of the publisher, editor, managing editor and the business managers are: Publisher, George M. Slocum, Mount Clemens, R. F. D. No. 4, Mich. Managing Editor, Milton Grinnell, Mt. Clemens, Mich. That the owners are: Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock. The Rural Publishing Co., Inc., Geo. M. Slocum, M. H. Slocum, W. W. Slocum, Mt. Clemens; O. Allen, Lake; Aug. & E. Amos, Owosso; E. Ellsworth, Oden; N. Powell, Oden; C. J. Pratt, Charlevoix; J. Bixler, Rogers; F. E. Schick, Chicago; F. A. Lord, Gaylord; W. Schriner, Marine City; A. Voss, Lathrop; B. Wolf, Biggsville; F. Yost, Bridgeport. 3. That the known bondholders, mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none so state.) Citizens Savings Bank, Mt. Clemens; R. R. Olds, Detroit, Mich. George M. Slocum, Publisher, Sworn to and subscribed before me this 14th day of April, 1923. Mae R. Sullivan, My commission expires August 29, 1923.



## EARLY BROILERS November Layers

Make it ten weeks from peeps to broilers—two-pounders.

Do it this way:  
Keep them healthy.  
Keep them hungry.  
Feed the old reliable

**Dr. Hess Poultry PAN-A-CE-A**

Never mind about indigestion, diarrhea, leg weakness and gapes. Pan-a-ce-a takes care of all that. There will be wellness, cheer and good growth.

PAN-A-CE-A your chicks—then put them on the scales at ten weeks, set her at two pounds, and watch that beam come up!

You will see a mighty difference in the feather growth, too, between your flock and a non-Pan-a-ce-a flock.

Pan-a-ce-a will develop your pullets into early henhood—fall and winter layers.


Tell your dealer how many hens you have. There's a right-size package for every flock.

100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail  
60 hens, the 5-lb. pkg. 500 hens, the 100-lb. drum


For fewer hens, there is a smaller package.

**GUARANTEED**

**DR. HESS & CLARK Ashland, O.**



I spent 30 years in perfecting Pan-a-ce-a.  
GILBERT HESS  
M.D., D.V.S.



**Dr. Hess Instant Louse Killer Kills Lice**

# DISSOLUTION SALE!

## Bon Ayre Farm Guernseys

Owned by  
WIGMAN & SURATO, HOLT, MICHIGAN

### May, 9th, 1923

# 65 Head of high class, pure bred GUERNSEYS 65

This great herd of cows, several with fine official records, together with their offspring, make an aggregation that has rarely been placed at the disposition of the buying public through the medium of the auction sale ring.

Included will be 20 daughters of Uplands Monarch of the May, a grandson of No Plus Ultra out of Ellen May Queen of Glenmore with 16369 lbs. milk and 316 lbs. fat. All females of breeding age are bred to May King's Prince of Bon Ayre (1st at Mich. state fair 1921), a son of Uplands Monarch out of Gala of Westen with 13545 lbs. milk and 760 lbs. fat.

For catalogue, address H. W. WIGMAN, Lansing, Michigan.

## Public Sale 34 Registered Holstein Friesian Cattle 6 High Grade Holstein Cows (All Females)

### Sale Pavilion, Fair Grounds, HOWELL, MICHIGAN

### Thursday, May 10, 1923, at 1 o'clock P. M.

Herds under State and Federal Supervision (60 day retest privilege)

Included in the sale is a cow that has twice made a record above 34 lbs. butter in 7 days, a daughter of a 30 lb. cow, two daughters of 25 lb. cows, a cow that has produced over 14000 lbs. milk in one year at 28 months old, a daughter of a cow that has produced over 24000 lbs. milk in one year and others with good records.

Catalogs ready May 1st.

McPHERSON FARMS CO., W. J. Witty, Howell, Michigan.

**FOR SALE: BLACK PERCHERON STALLION** 4 years old. Broken single and double. Sire Count, Dam Platina a ton mare and twice champion of State. Second Dam Pelitte a Big 4 mare of Elwood Stock Farm.  
JUNE ELLIOTT, Rives Junction, Michigan.

**FOR SALE: OUR ENTIRE STABLE EQUIP-** ment. Six horses, harness, wagons, feed grinder, etc., etc. We are motorizing all our routes and have no further need for horses. Look our stable over and make us an offer for anything you may need. **FEDERAL LAUNDRY COMPANY**, Third and Elizabeth Sts., Detroit.

*Write for free booklets on Farm Sanitation*

They contain practical suggestions for the prevention of diseases common to livestock and poultry and describe in detail the many uses of

## Kreso Dip No. 1

(STANDARDIZED)

### Parasiticide and Disinfectant For all Livestock and Poultry

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**FREE BOOKLETS ON FARM SANITATION:**

No. 151—**FARM SANITATION.** Describes and tells how to prevent diseases common to livestock.

No. 157—**DOG BOOKLET.** Tells how to rid the dog of fleas and to help prevent disease.

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No. 185—**HOG WALLOWS.** Gives complete directions for the construction of a concrete hog wallow.

No. 163—**POULTRY.** How to get rid of lice and mites, also to prevent disease.

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Kreso Dip No. 1 is Sold in Original Packages at all Drug Stores.

ANIMAL INDUSTRY DEPARTMENT OF  
**Parke, Davis & Co.**  
DETROIT, MICHIGAN

## If Ruptured Try This Free

Apply it to Any Rupture, Old or Recent, Large or Small and You are on the Road That Has Convinced Thousands

### Sent Free to Prove This

Anyone ruptured, man, woman or child, should write at once to W. S. Rice, 408B Main St., Adams, N. Y., for a free trial of his wonderful stimulating application. Just put it on the rupture and the muscles begin to tighten; they begin to bind together so that the opening closes naturally and the need of a support or truss or appliance is then done away with. Don't neglect to send for this free trial. Even if your rupture doesn't bother you what is the use of wearing supports all your life? Why suffer this nuisance? Why run the risk of gangrene and such dangers from a small and innocent little rupture, the kind that has thrown thousands on the operating table? A host of men and women are daily running such risks just because their ruptures do not hurt nor prevent them from getting around. Write at once for this free trial, as it is certainly a wonderful thing and has aided in the cure of ruptures that were as big as a man's two fists. Try and write at once, using the coupon below.

Free for Rupture

W. S. Rice, Inc.,  
408B Main St., Adams, N. Y.  
You may send me entirely free a Sample Treatment of your stimulating application for Rupture.

Name .....

Address .....

State .....

**SAVED \$30.00** Get Brown's New CUT PRICES

W. T. Greathouse writes: "Fence received yesterday. I saved \$30.00 in buying from you." Our new cut prices are way below others—and Brown Pays Freight

Write for our new 1923 cut price catalog—see the dollars you save. 150 styles. Double galvanized, open heart wire, Roofing and paints. THE BROWN FENCE & WIRE CO. Dept. 3894 Cleveland, Ohio

**3 BIG BARGAINS**

WAIT! Before you buy an Engine, Separator, Spreader or any other machine get Galloway's new low prices, more one-fourth to one-half. Satisfaction guaranteed. Send for new 1923 catalog. Wm. Galloway Co. Box 387 Waterloo, Iowa

# FARM MECHANICS

## BLASTING DRAINAGE DITCHES WITH DYNAMITE

WITH the possible exception of clearing cut-over land in the states of Wisconsin, Michigan and Minnesota, more dynamite is used for blasting drainage ditches than for any other agricultural purpose. What this means can perhaps be realized by considering that one single orchardist uses more than a carload of dynamite every year for planting fruit trees. There are two distinct methods of blasting ditches, known respectively as the propagation method and the electrical method. These names are not entirely satisfactory, for a propagation ditch can be shot electrically, as will be explained. Straight nitroglycerin dynamite of 50 per cent and 60 per cent strength has the property of transmitting the detonation impulse from one cartridge to another, even when these cartridges are buried in the ground, with incredible speed. In soft, mucky, swampy land, dynamite of the type mentioned will propagate an explosion when placed in holes as far apart as twenty inches and some-times farther. Eighteen inches is the standard distance between holes for ditches requiring but one cartridge per hole. The operation is as follows:

A line or string is stretched along the course of the proposed ditch. At every eighteen inches a hole is made in the ground, usually with a pointed crowbar, to the depth desired, and a cartridge of 1 1/4" x 8" 50 per cent straight dynamite is placed in each hole not deeper than thirty inches. It is necessary to prime, or put a cap in, but one of these cartridges and that is the one nearest the center of the line of charges. Either an electrical blasting cap or a blasting cap and a piece of fuse may be used. We usually put an extra dynamite cartridge in this central hole to be sure that the initial detonation is perfect. In ordinary swamp land it is not necessary to tamp the holes at all. The central hole is exploded either by lighting the fuse or by connecting the electric blasting cap wires to a blasting machine by leading wire and operating the blasting machine. The shock is communicated from the center charge to the adjoining charges which pass it on to those next and so on at the rate of about 15,000 feet per second, so that as far as the eye can see the whole line of ditch explodes at once and a regular curtain of mud goes up several hundred feet in the air. The result is a perfectly straight and completed ditch requiring no trimming and leaving no spoil bank. This is the quickest and most effective method of digging a ditch in wet soil.

It is not practical however in dry sand, and care should be taken in attempting such a ditch in wet sand or gravel. In any case it is not wise to attempt to blow the whole ditch at first. Test shots of fifteen or twenty feet along the line of the proposed ditch should be made with different spacings and different charges until the operator is satisfied that the charge and spacing is

correct for his purpose. The principal error that beginners commit in blasting a ditch is placing the charges too deep. While the action of explosives is in the line of the least resistance, they are so quick that the ditch will be excavated several inches below the bottom of the charges.

The propagation method is used extensively to make ditches for draining swamps, meadows and low lands and can be used where any other method would be out of the question, as for instance through a tangle of briars, underbrush and other vegetation. Where stumps, logs, boulders or other obstructions are encountered in the line of the proposed ditch, extra charges of dynamite are placed under such obstructions so that they will be blown out along with the ditch.

The electrical method has one advantage over the propagation method in that it can be used in any kind of soil whatever, although in dry, shifting sand it is not possible to blast a ditch very economically. Holes are made in the ground to the desired depth as before, but are spaced farther apart up to thirty-six inches for ditches requiring only two or three cartridges per hole. Each hole is primed with an electric blasting cap and these electric blasting caps are connected in series, up to the capacity of the blasting machine available; that is, if you have a No. 3 blasting machine you can fire only thirty holes at a time; if you have a No. 5 blasting machine you can shoot one hundred. Another advantage of the electrical method is that any kind of high explosive can be used, although a 40 per cent Red Cross Extra is the grade usually recommended. Where stumps or other obstructions are encountered in the line of the ditch and extra charges are necessary to blow them out, each of these extra charges has to be primed with an electric blasting cap.

While ditches blasted with dynamite are perfectly satisfactory for open drainage, the surrounding material is so loosened and shaken up by the explosion that they do not serve well for placing tile drains. Blasted ditches retain their shape and slope as well as, or better than, dug ditches. Of course, no ditch is a permanent channel. Most ditches will fill up in time, but a blasted ditch does not fill up any sooner than any other kind.

Up to about the first of January, 1923 the agricultural representatives of one manufacturer of dynamite had collectively blasted about one hundred and twenty miles of drainage ditches with dynamite, nearly all of it by the propagation method. How many hundred miles of ditches have been blasted by farmers, road engineers, health officials, and for mosquito and malaria control is not known but is doubtless an impressive mileage. Almost any kind, length, width or depth of a ditch can be blasted by dynamite if enough explosive is used and necessary care and intelligence are exercised.—Arthur La Motte, E. I. du Pont de Nemours & Company.

# CHANGING TIMES

By JOHN T. BARTLETT

FARM taxes have gone up rapidly. Moreover, they are not likely to come down, in most places. That is not such unpleasant news as it first seems, if we look into the situation.

The explanation of higher taxes is partly a higher standard of community living, and partly a higher level of community efficiency. Taxes in the writer's neighborhood, for example, for 1923, are practically double what they were in 1922. The district has put in a new and costly school plant. This fine, large, brick building has running water, electric lights, excellent heating and ventilating systems. There are manual training and domestic science departments. Teachers employed grade with those employed in large cities; they have far better training than the "schoolmams" of our

youth—and they receive far higher salaries.

Though we are "in the country" we have city educational facilities.

Now, this district could have got along with the kind of schoolhouses districts commonly used ten, fifteen and twenty years ago. It wanted something different. The best was not too good for the boys and girls. So the district voted to have the best. And now the district is paying the price—high taxes.

On one side, high taxes are caused everywhere by a higher standard of community living. The community treats itself to a softer deal at the hands of life. And pays the price in taxes.

The second cause of high taxes is a higher level of community efficiency. Good roads are not luxuries. They are community equipment.

Farms are operated at a greater profit: The whole community gets the most from its resources and labor. Taxes are a part of the cost of doing business.

The receipt for low taxes everywhere is the same. As a community, do without things. Do without fine schools, town buildings, good roads, etc. But do you want to? You don't!

## SMALLER FARM FAMILIES

A RECENT survey by competent investigators showed that it costs, under typical farm conditions, \$3,000 to raise a child to the age of 18 years.

The exact figure doesn't matter. What is fundamentally significant is that it costs a great deal to raise a child properly on the farm, and though this figure is unquestionably much less than for the town child, and the farm child in the way of labor contributes considerable to his maintenance, the cost is increasing from decade to decade. Moreover, it is increasing faster through the current period than at any previous time.

The average family is small, not through fear of childbirth, or a shirking of family responsibilities, but a moving desire of parents to do all for such children as are born as they merit. Back before the Civil war, before the age of machinery, a growing child's labor matched, sometimes exceeded, his or her keep. There was no economic obstacle to doing for one's children all that others did, and to having a large family. Then there were large families.

There began to be smaller families as children began not to pay their way—as machine methods came in with which human labor could not compete. As they paid their way less on the average farm, the size of families continually decreased. The number of children kept considerably higher than with town families because it was far less expensive to raise a farm child than a city child.

The gulf between a farm child's economic return and the expense he entails steadily widens, and as it widens the number of children decreases.

We can expect smaller and still smaller farm families. One result absolutely assured is that, simultaneously, more and more operations on the farm will be performed by machines. Tractor farming is an eventual certainty. Investment in farm equipment will constantly increase. Farm population, in relation to city population, will grow less.—John T. Bartlett.

## HORSESHOE PITCHING

### FIFTEEN-YEAR-OLD BOY IS WORLD'S CHAMPION

A 15-YEAR-OLD lad in knickerbockers now holds the national horseshoe pitching championship, Harold Falor, of Akron, Ohio, having tucked away first honors under his belt at St. Petersburg, Fla., where the mid-winter national tournament was held.

In taking the championship young Falor dethroned Lundin, of New London, Ia., who finished second in the tournament. Lundin won his laurels at Des Moines, Ia., last Summer. C. C. Davis, Columbus, Ohio, carried off third prize and Frank Jackson, Kellerton, Iowa, who held the championship for several years, finished fourth. Michigan's champion, L. M. Wilkes, of Battle Creek, won seventh place. There were 30 men and 6 women entered in the tourney.

Mrs. J. F. Francisco, of Muskegon, Mich., now holds the women's national championship, taking first place at the St. Petersburg tourney. Mrs. C. A. Lanham, of Bloomington, Ill., forfeited her title, failing to compete in the mid-winter event.

In addition to winning the national honors, Falor was bestowed with a diamond studded gold medal and was handed a check for \$500. Lundin won second and was given \$300, while Davis got third money, amounting to \$200. Frank Jackson, fourth, was awarded \$175. Many other splendid prizes including a number of horseshoes, were awarded winners. The women also were given cash prizes. Mrs. Francisco carrying off a check for \$75, in addition to other prizes.—R. B. Howard, Editor Horseshoe World.



# N- Y. Dairy League Sets Pace for Michigan

(Continued from Page 4)

themselves became boosters and were of constant assistance to the salesmen.

This year many new dealers have been taken on and the old dealers have all requested new contracts.

The ice cream activities of the association had a wonderful effect upon its farmer members everywhere and why not? They saw these outdoor signs and painted walls offering to the public a product of their own farms and factories. They couldn't go into town but what they would see in the stores, their city friends enjoying this delicious ice cream. Frequently along the state roads they met the great yellow League trucks equipped with every modern contrivance for refrigeration and delivery. They saw at the railroad stations groups of the League ice cream freezers on their way to and from the market.

What could make a stronger appeal to their pride and interest? What could better boost the moral of the membership? Many farmers offered space on their barns or silos for the outdoor advertising bulletins of the League ice cream. Not only do the farmers of the association read these advertising signs that are so prominent a feature of the Empire State landscape but they impress themselves upon the senses of of the tourist from cities and from other states. And there is another thing that the tourist sees as he rides over New York State highways. At the front gate or conspicuously posted on the front of the dairy barn or house he will see the Dairymen's League membership sign setting forth the fact that the owner of the farm is a member of the Dairymen's League Cooperative Association, Inc. and is proud of it. These signs are ten by twenty-seven inches and are made of metal and painted in the conspicuous blue and white colors which are used in all of the League advertising.

### These Farmers Bank on Quality

Just a word as to the quality of League products and there is only one word—the "best." Not only popular approval but by actual analysis, League ice cream and League evaporated milk and condensed milk contain a higher percentage of butter fat, that is, of real cream, than any other similar product on the market. This has had a tendency to stimulate other manufacturers to raise the quality of their products but the farmers are still one jump ahead of them.

It is quality that these business farmers are banking on. They believe in advertising and advertising in a big way but more than this they believe in making good on their advertising by delivering the quality. This is beginning to bring results with the consuming public wherever the League products are sold.

### The Plan of Operation

The association operates on what is generally called the pooling plan. No matter in what form the milk of these farmers finally reaches the market, so far as returns are concerned, it is all blended in one pool. That is, the money received for all this milk in one form or another is blended into one amount, expenses of administration and certificates of indebtedness deducted, and an average or base price ascertained. The price which each farmer receives for his milk varies to the freight zone and the butterfat of his milk of like quality in like amounts is always paid for at the same base rate.

The association, on April 1, was operating one hundred and fourteen plants, seventy of which it actually owned. These operations are all controlled from the central office of the association and require about sixteen hundred employees.

These farmers now own one of the biggest and best distributing plants in New York City, formerly the Levy Dairy Company plant. This plant is capable of handling six thousand cans of milk per day and a large quantity of pooled milk is now being distributed to wholesalers and retailers in New York City through the League's metropolitan plant. The trucks which are connected with this plant are also used in transferring the League evaporated milk

from railroad stations to distributing centers throughout the city. This plant was purchased by the association because the farmers felt that they needed to have their own outlet for at least a part of their pooled milk reaching the New York market.

At the present time about four hundred people are employed for the clerical work in the offices of the association at Utica and New York City. There are nine hundred and fifty-four membership units called local associations, each one being incorporated under the laws of the State. The League territory is divided into twenty-four directors' districts with a director elected for a term of three years from each district. Each year eight directors are elected. The locals elect delegates to attend what are called district meetings where directors are nominated and elected. Elections are by ballot and the result is announced at the annual meeting of the association held on the third Thursday in June each year. Only actual dairymen who are producing milk for the market may become members of the association.

As organized at present the highest departmental executive of the association is the sales and advertising director. The recent growth in sales and the increasing importance of the marketing activities of the association have made it necessary to move the sales and advertising offices from Utica to New York City.

During the cancellation period in February last there were something like ten thousand withdrawals. A large proportion of these were withdrawals that did not in any way affect the pooling operations of the association. During the year over nine thousand new contracts were signed up which much more than offset any reductions brought up by cancellations. In short, the past year has seen the Dairymen's League solidify its membership. Criticism and rumors and propaganda have served to strengthen the loyalty of these pooling dairymen. They have come to understand and believe in their association and in its leadership.

They are now entering upon a period where the emphasis will be upon the merchandising of their products. In other words, the Dairymen's League Cooperative Association, Inc. has passed through its period of organization and is now rapidly developing into a business organization capable of successfully merchandising in the face of the keenest competition in the world, every one of the products it is producing and manufacturing.

### RABBIT HIDE TANNING

(Continued from Page 9)

thick. The above quantity is only enough for two or three batches. Let it remain three or four days where moderately warm, say at least 50 degrees, then remove the skins and gently work the skins between the hands until soft. The more skins are handled and worked the softer they will be. Rabbit hides, however, are tender and must be handled carefully.—Fur Editor.


### TIME TO PLOW CLOVER UNDER

I would like to know when would be the best time to plow sweet clover down? I want to plow the first crop down, when would it do the most good, when it is green or when dry? —B. C., Traverse City, Michigan.

—The first crop of sweet clover should be plowed down during the early fall after the plants have practically finished their growth for that season. It is advisable to plow crop under at the time it has reached its maximum growth and before the plant has lost too much of its moisture. If it is still green it will stay decaying much more readily and become more thoroughly incorporated into the soil.—C. R. Megee, Asso. Prof. Farm Crops Dept., M. A. C.

### HELPFUL WIND

While on his recent visit to this country Marshal Eoch made a witty reply to a man, who, when one of the guests at a dinner party in Denver, given by a party of Americans, took exception to French politeness. "There is nothing in it but wind," he said with questionable taste. "Neither is there anything but wind in a pneumatic tire," retorted the gallant Marshal, "yet it carries the jolts along life's highway wonderfully."—The Argosy.



## PETOSKEY Potatoes

**"Rural Russets"**  
King of the Late Potatoes!  
Resists heat, drought and disease.

### Inside the Russet Coat

is a wealth of mealy whiteness of excellent flavor. Baked piping hot PETOSKEYS served with butter is a dish fit for a king.

Grow them for your table—greatest yielder known.

If your Local Cooperative Association or County Agent cannot take your order write to

Michigan Potato Growers' Exchange  
Cadillac, Michigan or

Michigan State Farm Bureau  
SEED DEPARTMENT  
Lansing, Michigan



### PLAN for Greater Profits

Let us show you a better way of building—a way that means permanence, fire protection, appearance and more profit.

#### Kalamazoo GLAZED TILE BUILDINGS

Make more profit out of your herd. Save repair and paint bills; reduce fire hazard; keep stock comfortable and healthy; warm in winter, cool in summer; decay, storm and vermin-proof; will not burn. Kalamazoo Tile is made from selected quality fire clay in our own plant located in the center of the finest fire clay district. Let our Building Plan Department help you. Write for descriptive literature. Free estimates on receipt of your rough plans.

Choice of Wood Stave or Glazed Tile construction. Product of thirty years' experience in silo building. A Kalamazoo Silo gives you greater production at less cost—more profit—an investment that will yield a handsome dividend year after year. Write for Free Silo Book. Kalamazoo Tank & Silo Co., Dept. 444 Kalamazoo, Mich.

PATENTS Write today for free instruction book and "Evidence of Conception" blank. Send sketch of model for personal opinion. CLARENCE O'BRIEN, Reg.

HOISTS FOR FORD TRUCKS \$27 Fully Guaranteed—We pay the Freight. Circular Fred. Dependable Mfg. Co., Streator, Ill.

## NEW SUBSCRIPTION RATES

The Michigan BUSINESS FARMER  
(Effective April 2nd, 1923)

- ONE YEAR ..... .60
- TWO YEARS ..... \$1
- FIVE YEARS ..... \$2

EVERY subscriber at the above rates is entitled to ALL the Departments of Service which have made The Business Farmer famous, so long as the term of subscription lasts.

You know The Business Farmer is the most practical, and fearless because it is the only independent farm paper published in Michigan.

The Michigan Business Farmer,  
Mt. Clemens, Mich.

I enclose \$..... for a ..... years subscription, this entitles me to every department of Business Farmer Service, without further cost for the full period of my subscription.

M..... RFD No.....

P. O..... STATE.....

(If it is a Renewal, mark X here  and if possible send the address label from this or any recent issue to avoid mistakes.)

# FARM MECHANICS

## BLASTING DRAINAGE DITCHES WITH DYNAMITE

WITH the possible exception of clearing cut-over land in the states of Wisconsin, Michigan and Minnesota, more dynamite is used for blasting drainage ditches than for any other agricultural purpose. What this means can perhaps be realized by considering that one single orchardist uses more than a carload of dynamite every year for planting fruit trees. There are two distinct methods of blasting ditches, known respectively as the propagation method and the electrical method. These names are not entirely satisfactory, for a propagation ditch can be shot electrically, as will be explained. Straight nitroglycerin dynamite of 50 per cent and 60 per cent strength has the property of transmitting the detonation impulse from one cartridge to another, even when these cartridges are buried in the ground, with incredible speed. In soft, mucky, swampy land, dynamite of the type mentioned will propagate an explosion when placed in holes as far apart as twenty inches and some-times farther. Eighteen inches is the standard distance between holes for ditches requiring but one cartridge per hole. The operation is as follows:

A line or string is stretched along the course of the proposed ditch. At every eighteen inches a hole is made in the ground, usually with a pointed crowbar, to the depth desired, and a cartridge of 1 1/4" x 8" 50 per cent straight dynamite is placed in each hole not deeper than thirty inches. It is necessary to prime, or put a cap in, but one of these cartridges and that is the one nearest the center of the line of charges. Either an electrical blasting cap or a blasting cap and a piece of fuse may be used. We usually put an extra dynamite cartridge in this central hole to be sure that the initial detonation is perfect. In ordinary swamp land it is not necessary to tamp the holes at all. The central hole is exploded either by lighting the fuse or by connecting the electric blasting cap wires to a blasting machine by leading wire and operating the blasting machine. The shock is communicated from the center charge to the adjoining charges which pass it on to those next and so on at the rate of about 15,000 feet per second, so that as far as the eye can see the whole line of ditch explodes at once and a regular curtain of mud goes up several hundred feet in the air. The result is a perfectly straight and completed ditch requiring no trimming and leaving no spoil bank. This is the quickest and most effective method of digging a ditch in wet soil.

It is not practical however in dry sand, and care should be taken in attempting such a ditch in wet sand or gravel. In any case it is not wise to attempt to blow the whole ditch at first. Test shots of fifteen or twenty feet along the line of the proposed ditch should be made with different spacings and different charges until the operator is satisfied that the charge and spacing is

correct for his purpose. The principal error that beginners commit in blasting a ditch is placing the charges too deep. While the action of explosives is in the line of the least resistance, they are so quick that the ditch will be excavated several inches below the bottom of the charges.

The propagation method is used extensively to make ditches for draining swamps, meadows and low lands and can be used where any other method would be out of the question, as for instance through a tangle of briars, underbrush and other vegetation. Where stumps, logs, boulders or other obstructions are encountered in the line of the proposed ditch, extra charges of dynamite are placed under such obstructions so that they will be blown out along with the ditch.

The electrical method has one advantage over the propagation method in that it can be used in any kind of soil whatever, although in dry, shifting sand it is not possible to blast a ditch very economically. Holes are made in the ground to the desired depth as before, but are spaced farther apart up to thirty-six inches for ditches requiring only two or three cartridges per hole. Each hole is primed with an electric blasting cap and these electric blasting caps are connected in series, up to the capacity of the blasting machine available; that is, if you have a No. 3 blasting machine you can fire only thirty holes at a time; if you have a No. 5 blasting machine you can shoot one hundred. Another advantage of the electrical method is that any kind of high explosive can be used, although a 40 per cent Red Cross Extra is the grade usually recommended. Where stumps or other obstructions are encountered in the line of the ditch and extra charges are necessary to blow them out, each of these extra charges has to be primed with an electric blasting cap.

While ditches blasted with dynamite are perfectly satisfactory for open drainage, the surrounding material is so loosened and shaken up by the explosion that they do not serve well for placing tile drains. Blasted ditches retain their shape and slope as well as, or better than, dug ditches. Of course, no ditch is a permanent channel. Most ditches will fill up in time, but a blasted ditch does not fill up any sooner than any other kind.

Up to about the first of January, 1923 the agricultural representatives of one manufacturer of dynamite had collectively blasted about one hundred and twenty miles of drainage ditches with dynamite, nearly all of it by the propagation method. How many hundred miles of ditches have been blasted by farmers, road engineers, health officials, and for mosquito and malaria control is not known but is doubtless an impressive mileage. Almost any kind, length, width or depth of a ditch can be blasted by dynamite if enough explosive is used and necessary care and intelligence are exercised.—Arthur La Motte, E. I. du Pont de Nemours & Company.

Farms are operated at a greater profit: The whole community gets the most from its resources and labor. Taxes are a part of the cost of doing business.

The receipt for low axes everywhere is the same. As a community, do without things. Do without fine schools, town buildings, good roads, etc. But do you want to? You don't!

## SMALLER FARM FAMILIES

A RECENT survey by competent investigators showed that it costs, under typical farm conditions, \$3,000 to raise a child to the age of 18 years.

The exact figure doesn't matter. What is fundamentally significant is that it costs a great deal to raise a child properly on the farm, and though this figure is unquestionably much less than for the town child, and the farm child in the way of labor contributes considerable to his maintenance, the cost is increasing from decade to decade. Moreover, it is increasing faster through the current period than at any previous time.

The average family is small, not through fear of childbirth, or a shirking of family responsibilities, but a moving desire of parents to do all for such children as are born as they merit. Back before the Civil war, before the age of machinery, a growing child's labor matched, sometimes exceeded, his or her keep. There was no economic obstacle to doing for one's children all that others did, and to having a large family. Then there were large families.

There began to be smaller families as children began not to pay their way—as machine methods came in with which human labor could not compete. As they paid their way less on the average farm, the size of families continually decreased. The number of children kept considerably higher than with town families because it was far less expensive to raise a farm child than a city child.

The gulf between a farm child's economic return and the expense he entails steadily widens, and as it widens the number of children decreases.

We can expect smaller and still smaller farm families. One result absolutely assured is that, simultaneously, more and more operations on the farm will be performed by machines. Tractor farming is an eventual certainty. Investment in farm equipment will constantly increase. Farm population, in relation to city population, will grow less.—John T. Bartlett.

## HORSESHOE PITCHING

### FIFTEEN-YEAR-OLD BOY IS WORLD'S CHAMPION

A 15-YEAR-OLD lad in knickerbockers now holds the national horseshoe pitching championship, Harold Falor, of Akron, Ohio, having tucked away first honors under his belt at St. Petersburg, Fla., where the mid-winter national tournament was held.

In taking the championship young Falor dethroned Lundin, of New London, Ia., who finished second in the tournament. Lundin won his laurels at Des Moines, Ia., last Summer. C. C. Davis, Columbus, Ohio, carried off third prize and Frank Jackson, Kellerton, Iowa, who held the championship for several years, finished fourth. Michigan's champion, L. M. Wilkes, of Battle Creek, won seventh place. There were 30 men and 6 women entered in the tourney.

Mrs. J. F. Francisco, of Muskegon, Mich., now holds the women's national championship, taking first place at the St. Petersburg tourney. Mrs. C. A. Lanham, of Bloomington, Ill., forfeited her title, failing to compete in the mid-winter event.

In addition to winning the national honors, Falor was bestowed with a diamond studded gold medal and was handed a check for \$500. Lundin won second and was given \$300, while Davis got third money, amounting to \$200. Frank Jackson, fourth, was awarded \$175. Many other splendid prizes including a number of horseshoes, were awarded winners. The women also were given cash prizes, Mrs. Francisco carrying off a check for \$75, in addition to other prizes.—R. B. Howard, Editor Horseshoe World.

# CHANGING TIMES

By JOHN T. BARTLETT

FARM taxes have gone up rapidly. Moreover, they are not likely to come down, in most places. That is not such unpleasant news as it first seems, if we look into the situation.

The explanation of higher taxes is partly a higher standard of community living, and partly a higher level of community efficiency. Taxes in the writer's neighborhood, for example, for 1923, are practically double what they were in 1922. The district has put in a new and costly school plant. This fine, large, brick building has running water, electric lights, excellent heating and ventilating systems. There are manual training and domestic science departments. Teachers employed grade with those employed in large cities; they have far better training than the "schoolmams" of our

youth—and they receive far higher salaries.

Though we are "in the country" we have city educational facilities.

Now, this district could have got along with the kind of schoolhouses districts commonly used ten, fifteen and twenty years ago. It wanted something different. The best was not too good for the boys and girls. So the district voted to have the best. And now the district is paying the price—high taxes.

On one side, high taxes are caused everywhere by a higher standard of community living. The community treats itself to a softer deal at the hands of life. And pays the price in taxes.

The second cause of high taxes is a higher level of community efficiency. Good roads are not luxuries. They are community equipment.

Write for free booklets on Farm Sanitation

They contain practical suggestions for the prevention of diseases common to livestock and poultry and describe in detail the many uses of

## Kreso Dip No. 1

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Parasiticide and Disinfectant For all Livestock and Poultry

### FREE BOOKLETS ON FARM SANITATION:

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Kreso Dip No. 1 is Sold in Original Packages at all Drug Stores.

ANIMAL INDUSTRY DEPARTMENT OF Parke, Davis & Co. DETROIT, MICHIGAN

## If Ruptured Try This Free

Apply it to Any Rupture, Old or Recent, Large or Small and You are on the Road That Has Convinced Thousands

### Sent Free to Prove This

Anyone ruptured, man, woman or child, should write at once to W. S. Rice, 408B Main St., Adams, N. Y., for a free trial of his wonderful stimulating application. Just put it on the rupture and the muscles begin to tighten; they begin to bind together so that the opening closes naturally and the need of a support or truss or appliance is then done away with. Don't neglect to send for this free trial. Even if your rupture doesn't bother you what is the use of wearing supports all your life? Why suffer this nuisance? Why run the risk of gangrene and such dangers from a small and innocent little rupture, the kind that has thrown thousands on the operating table? A host of men and women are daily running such risks just because their ruptures do not hurt nor prevent them from getting around. Write at once for this free trial, as it is certainly a wonderful thing and has aided in the cure of ruptures that were as big as a man's two fists. Try and write at once, using the coupon below.

Free for Rupture  
W. S. Rice, Inc.,  
408B Main St., Adams, N. Y.  
You may send me entirely free a Sample Treatment of your stimulating application for Rupture.  
Name .....  
Address .....  
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SAVED \$30.00 Get Brown's New CUT PRICES

W. T. Greathouse writes: "Fence received yesterday. I saved \$30.00 in buying from you." Our new cut prices are way below others—and Brown Pays Freight

Write for our new 1923 cut price catalog—see the dollars you save. 150 styles. Double galvanized, open hearth wire. Roofing and paints. THE BROWN FENCE & WIRE CO. 5904

3 BIG BARGAINS

WAIT! Before you buy an Engine, Separator, Spreader or any other machine get Galloway's new low prices, save one fourth to one-half. 300,000 pleased customers testify to faithful designs, best materials. Satisfaction guaranteed. Send for new 1923 catalog. Wm. Galloway Co. Box 377 Waterloo, Iowa

# N- Y. Dairy League Sets Pace for Michigan

(Continued from Page 4)

themselves became boosters and were of constant assistance to the salesmen.

This year many new dealers have been taken on and the old dealers have all requested new contracts.

The ice cream activities of the association had a wonderful effect upon its farmer members everywhere and why not? They saw these outdoor signs and painted walls offering to the public a product of their own farms and factories. They couldn't go into town but what they would see in the stores, their city friends enjoying this delicious ice cream. Frequently along the state roads they met the great yellow League trucks equipped with every modern contrivance for refrigeration and delivery. They saw at the railroad stations groups of the League ice cream freezers on their way to and from the market.

What could make a stronger appeal to their pride and interest? What could better boost the moral of the membership? Many farmers offered space on their barns or silos for the outdoor advertising bulletins of the League ice cream. Not only do the farmers of the association read these advertising signs that are so prominent a feature of the Empire State landscape but they impress themselves upon the senses of the tourist from cities and from other states. And there is another thing that the tourist sees as he rides over New York State highways. At the front gate or conspicuously posted on the front of the dairy barn or house he will see the Dairyman's League membership sign setting forth the fact that the owner of the farm is a member of the Dairyman's League Cooperative Association, Inc. and is proud of it. These signs are ten by twenty-seven inches and are made of metal and painted in the conspicuous blue and white colors which are used in all of the League advertising.

### These Farmers Bank on Quality

Just a word as to the quality of League products and there is only one word—the "best." Not only popular approval but by actual analysis, League ice cream and League evaporated milk and condensed milk contain a higher percentage of butter fat, that is, of real cream, than any other similar product on the market. This has had a tendency to stimulate other manufacturers to raise the quality of their products but the farmers are still one jump ahead of them.

It is quality that these business farmers are banking on. They believe in advertising and advertising in a big way but more than this they believe in making good on their advertising by delivering the quality. This is beginning to bring results with the consuming public wherever the League products are sold.

### The Plan of Operation

The association operates on what is generally called the pooling plan. No matter in what form the milk of these farmers finally reaches the market, so far as returns are concerned, it is all blended in one pool. That is, the money received for all this milk in one form or another is blended into one amount, expenses of administration and certificates of indebtedness deducted, and an average or base price ascertained. The price which each farmer receives for his milk varies to the freight zone and the butterfat of his milk of like quality in like amounts is always paid for at the same base rate.

The association, on April 1, was operating one hundred and fourteen plants, seventy of which it actually owned. These operations are all controlled from the central office of the association and require about sixteen hundred employees.

These farmers now own one of the biggest and best distributing plants in New York City, formerly the Levy Dairy Company plant. This plant is capable of handling six thousand cans of milk per day and a large quantity of pooled milk is now being distributed to wholesalers and retailers in New York City through the League's metropolitan plant. The trucks which are connected with this plant are also used in transferring the League evaporated milk

from railroad stations to distributing centers throughout the city. This plant was purchased by the association because the farmers felt that they needed to have their own outlet for at least a part of their pooled milk reaching the New York market.

At the present time about four hundred people are employed for the clerical work in the offices of the association at Utica and New York City. There are nine hundred and fifty-four membership units called local associations, each one being incorporated under the laws of the State. The League territory is divided into twenty-four directors' districts with a director elected for a term of three years from each district. Each year eight directors are elected. The locals elect delegates to attend what are called district meetings where directors are nominated and elected. Elections are by ballot and the result is announced at the annual meeting of the association held on the third Thursday in June each year. Only actual dairymen who are producing milk for the market may become members of the association.

As organized at present the highest departmental executive of the association is the sales and advertising director. The recent growth in sales and the increasing importance of the marketing activities of the association have made it necessary to move the sales and advertising offices from Utica to New York City.

During the cancellation period in February last there were something like ten thousand withdrawals. A large proportion of these were withdrawals that did not in any way effect the pooling operations of the association. During the year over nine thousand new contracts were signed up which much more than offset any reductions brought up by cancellations. In short, the past year has seen the Dairyman's League solidify its membership. Criticism and rumors and propaganda have served to strengthen the loyalty of these pooling dairymen. They have come to understand and believe in their association and in its leadership.

They are now entering upon a period where the emphasis will be upon the merchandising of their products. In other words, the Dairyman's League Cooperative Association, Inc. has passed through its period of organization and is now rapidly developing into a business organization capable of successfully merchandising in the face of the keenest competition in the world, every one of the products it is producing and manufacturing.

### RABBIT HIDE TANNING

(Continued from Page 9)

thick. The above quantity is only enough for two or three pelts. Let it remain three or four days, where moderately warm, say at least 50 degrees, then remove the salt and gently work the skins between the hands until soft. The more skins are handled and worked, the softer they will be. Rabbit hides, however, are tender and must be handled carefully.—Fur Editor.

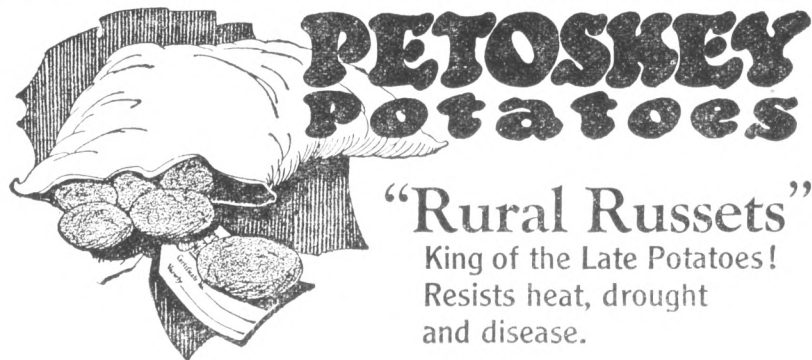
### TIME TO PLOW CLOVER UNDER

I would like to know when would be the best time to plow sweet clover down? I want to plow the first crop down, when would it do the most good, when it is green or when dry?—B. C., Traverse City, Michigan.

—The first crop of sweet clover should be plowed down during the early fall after the plants have practically finished their growth for that season. It is advisable to plow crop under at the time it has reached its maximum growth and before the plant has lost too much of its moisture. If it is still green it will stay decaying much more readily and become more thoroughly incorporated into the soil.—C. R. Megee, Asso. Prof. Farm Crops Dept., M. A. C.

### HELPFUL WIND

While on his recent visit to this country Marshal Koch made a witty reply to a man, who, when one of the guests at a dinner party in Denver, given by a party of Americans, took exception to French politeness. "There is nothing in it but wind," he said with questionable taste. "Neither is there anything but wind in a pneumatic tire," retorted the gallant Marshal, "yet it eases the joits along life's highway wonderfully."—The Argonaut.



**"Rural Russets"**  
King of the Late Potatoes!  
Resists heat, drought and disease.

### Inside the Russet Coat

is a wealth of mealy whiteness of excellent flavor. Baked piping hot PETOSKEYS served with butter is a dish fit for a king.

Grow them for your table—greatest yielder known.

If your Local Cooperative Association or County Agent cannot take your order write to

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**PLAN for Greater Profits**

Let us show you a better way of building—a way that means permanence, fire protection, appearance and more profit.

**Kalamazoo GLAZED TILE BUILDINGS**

Make more profit out of your herd. Save repair and paint bills; reduce fire hazard; keep stock comfortable and healthy; warm in winter, cool in summer; decay, storm and vermin-proof; will not burn. Kalamazoo Tile is made from selected quality fire clay in our own plant located in the center of the finest fire clay district. Let our Building Plan Department help you. Write for descriptive literature. Free estimates on receipt of your rough plans.

**Kalamazoo Silos** Choice of Wood Stave or Glazed Tile construction. Product of thirty years' experience in silo building. A Kalamazoo Silo gives you greater production at less cost—more profit—an investment that will yield a handsome dividend year after year. Write for literature. Kalamazoo Tank & Silo Co., Dept. 444 Kalamazoo, Mich.

### PATENTS

Write today for the best method of book and "Lawrence of Concealment" blank. Send sketch of model for personal opinion. CLARENCE O'BRIEN, Reg.

### HOISTS FOR FORD TRUCKS \$27

Hoists for Ford Trucks \$27. Hoists for Ford Trucks \$27. Hoists for Ford Trucks \$27.

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FROM HOGAN TESTED, FREE RANGE HEAVY LAYING FLOCKS. ALL VARIETIES.  
 WHITE and BROWN LEGHORNS \$12.00  
 BUFF LEGHORNS and ANCONAS \$13.00  
 BARRED ROCKS and R. I. REDS \$14.00  
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 BLACK MINORCAS, BUFF ORPINGTONS \$16.00  
 All lots of 500 or more discounted.

EXTRA SELECTED FLOCKS \$2.00 per 100 higher.  
 Large Price List for return mail.  
 Postpaid full live delivery guaranteed. Hatched by the most modern method of incubation from good, vigorous, pure-bred varieties carefully selected and safely packed. No catalogue. Order right from this ad and save time and disappointment. Reference Chesaning State Bank or any business in Chesaning. Address BABION'S FRUIT AND POULTRY FARM, Guy L. Babion, Prop., Chesaning, Mich.

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that will lay and pay. The famous BARRON STRAIN ENGLISH WHITE LEGHORNS, ANCONAS AND BROWN LEGHORNS QUALITY BABY CHICKS CAN NOW BE PURCHASED AT PRICES UNHEARD OF BEFORE. SEND FOR CATALOG IT TELLS HOW AND WHAT TO FEED YOUR POULTRY FOR PROFIT. REMEMBER WE SHIP DIRECT FROM THE KARSTEN'S FARM, Zeeland, Michigan, Box 102.

## CHICKS, \$10 per 100 and up Postpaid to your door and full live count guaranteed

Varieties	Prices on 50	100	300	500	1,000
WHITE, BROWN and BUFF LEGHORNS	\$7.00	\$12.00	\$38.00	\$62.00	\$120.00
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BUFF MINORCAS, 50, \$13; 100, \$25. MIXED CHICKS FOR BROILERS, 50, \$6; 100, \$11; 500, \$50.					

Postpaid. Full live delivery guaranteed. Hatched in the best possible manner from good, vigorous, pure-bred, heavy laying flocks on free ranges. Carefully selected and packed to go safely. No catalog. Order right from this ad. and save time. Reference, Citizen's Saving Bank. You take no chances.  
 THE EAGLE NEST HATCHERY, Box K, Upper Sandusky, Ohio  
 Only 7 hours from Grand Rapids. Can reach any point in Michigan in 24 hours.

### BRED TO LAY CHICKS

DIRECT from large Modern 65 acre Poultry Farm. Result of ten years of careful breeding for heavy egg production. Winners at leading shows. M. A. C. Bank reference. Order at once at these prices or write for Catalog. BARRON ENGLISH WHITE LEGHORNS, BROWN LEGHORNS and S. C. ANCONAS. EXTRA SELECT, 50, \$7.50; 100, \$14.00; 500, \$55.00; 1,000, \$125.00. SELECT, 50, \$6.50; 100, \$12.50; 500, \$60.00; 1,000, \$115.00.  
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PROFIT-MAKING CHICKS  
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Hardy, healthy Chicks from selected, heavy-laying flocks. Carefully packed and shipped. Post paid to your door, and Full Live Count guaranteed. Send for our new Free Catalog TODAY.

QUALITY CHICKS AT REASONABLE PRICES. Bank reference.  
 TIMMER'S HATCHERY, Route 3A, Holland Michigan.



### 300,000 Chicks Guaranteed Michigan Bred and Hatched

ENGLISH WHITE and BROWN LEGHORNS, 50, \$7; 100, \$13; 500, \$60. BARRED ROCKS, R. and S. C. REDS, 50, \$8.50; 100, \$16; 500, \$75. 1,000 orders at 50¢ rate. Postpaid, full live delivery guaranteed. Strong, vigorous Chicks from heavy laying flocks. Order right from this ad. WE SATISFY OUR CUSTOMERS. Catalog free. Reference: Holland City State Bank.  
 KNOLL'S HATCHERY, Box L, Holland, Michigan



### GUARANTEED RURAL CHICKS

EXCEPTIONAL VALUES IN HIGHEST QUALITY, proven layers. Pure-bred S. C. Barron White Leghorns, Heavy Laying Brown Leghorns, Select Anconas. Heavy Winter Layers. Result of constant breeding for high flock averages. Buy direct from large modern hatching and breeding institution. All stock scientifically culled and approved and headed by large, vigorous males. New low prices. Sent postpaid. 100% live delivery guaranteed. Write for fine 1923 catalogue. Its free. Reference: Two Banks.  
 RURAL POULTRY FARM, DEPT. B. R. 1, ZEELAND, MICH.



### CHICKS for June 5 and 12 Delivery

Improved S. C. English type White and Brown Leghorns, \$10.00 per 100; \$50.00 per 500. Extra selected \$12.00 per 100; \$57.50 per 500. From all good profitable layers, and our selected are from our very best layers.  
 This is our 12th year breeding, hatching and shipping chicks, and we are offering you chicks from the best layers at a very reasonable price.  
 We pay the postage up to your door and guarantee you 100% safe arrival.  
 Order direct from this ad to save time, for it pays to be a little ahead of time, or write for our free 32 page catalogue. Wolverine Hatchery, Zeeland, Mich.

### CHICKS THAT GROW, LAY AND PAY

Barron English White Leghorns, Brown Leghorns and Anconas.  
 PURCHASE THIS YEAR'S CROP OF CHICKS from tested layers, headed by large vigorous 260 to 285 Pedigreed Males.  
 CUSTOMERS REPORT BIG PROFITS with these wonderful layers. Write today for our large illustrated catalogue. It tells all about them, it's free.  
 WYNGARDEN HATCHERY  
 Box B, Zeeland, Mich.

### chicks

From select vigorous, heavy laying breeding stock. White, Brown Leghorns, Anconas, Barred Rocks. Our prices is 12 cents and up. Guarantee 100% live delivery by prepaid post. Get your order in now will ship when you want. Customers report "Big Profits" with these wonderful layers. Write today for Illustrated Catalogue. It's free. Reference: State Commercial Savings Bank, Member M. B. C. A. Queen Hatchery & Poultry Farm, Zeeland, Michigan

### Star Hatchery BABY CHICKS

From Select, Vigorous, Heavy Laying Breeding Stock  
**Prices Reduced**  
 Hatched by modern methods in best machines under our personal supervision. Carefully packed and sent postpaid and 100% live delivery guaranteed. Bank Reference. You take no chances in ordering STAR BABY CHICKS. Place your order now and get them when you want them.  
 STAR HATCHERY, Box X, Holland, Michigan




### BABY CHICKS

You can now order Chicks in 11 breeds of the Pure Breed Practical Poultry that is making egg records on our customer's own farms. If you want stock that will make real money, send for our description and price list. All stock guaranteed 100% post paid. We want you to try our stock this year. It is the best practical stock you can buy.  
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STRAIN BARRED ROCKS. THE WORLD FAMOUS PRIZE WINNING AND HEAVY LAYING STRAIN.  
 Barron White Leghorns Splendid, big, heavy weight, heavy laying hens.  
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 From all these great strains. Postpaid and full live delivery guaranteed. Also EGGS FOR HATCHING and Breeding Stock. Reference 2 Banks. Member M. B. C. A. Fairview Poultry Farm, Route 2 K, Zeeland, Mich.



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FROM SPECIAL MATINGS  
 A specialist breeder can furnish better baby chicks. Our ANCONAS are Michigan's leading strain today—both in exhibition and in egg production. WHITE LEGHORNS from a select special egg will flock having blood lines of world's greatest layers. We specialize in quality—not quantity. Lowest prices. Write for illustrated catalogue.  
 PROGRESSIVE POULTRY FARM  
 Box 1 Holland, Mich.



### BABY CHICKS 12c AND UP

Member Mid-West Baby Chick Association.  
 THOS. G. CALLAGHAN, Fenton, Michigan

### BABY CHICKS—FROM SELECTED FLOCKS

Six leading varieties. Popular prices and guaranteed delivery. Write for catalog and price list.  
 H. H. PIERCE, Jerome, Mich.



### POULTRY DOES PAY

A COMPARATIVELY small portion of the people who keep chickens have any definite figures to know just exactly how profitable their hens have been. There is a general notion in the minds of poultry keepers who are giving their birds a fair chance by feeding them properly and providing comfortable houses that the time and attention which the chickens require are well paid by the returns. However, it is very difficult to secure figures which can be used as a definite basis for stating whether or not the poultry enterprise, as commonly carried on among farmers, is profitable or otherwise. Indeed, there are many economists who assert that if the poultry flock were properly charged with all the feed eaten and allowance were made for the hours of labor actually spent, it would be found that poultry keeping was a poorly paid occupation.

The numerous instances of specialty poultry keepers who are making satisfactory incomes from devoting their entire time to poultry raising rather disprove the assertion that intelligent application of time and energy to the problems of poultry keeping cannot be made to yield a satisfactory recompense. However, the fact that here and there a farm, where exclusive attention is given to poultry raising is successful does not necessarily prove that a poultry flock as a side line on a general farm which receives only such care as can be furnished in the time left after attending to the various other farm duties is an enterprise that justifies its existence by the financial rewards.

For the reason that such figures are relatively scarce, the reports from the demonstration farm flocks in Indiana and Missouri ought to be of particular interest to farm poultry keepers in general.

A poultry news letter from the Division of Poultry Husbandry of Purdue University, located at Lafayette, Indiana, shows that the demonstration flocks scattered throughout Indiana managed by practical farmers on their own farms returned a labor income for 1922 of \$2.45 per hen. This report shows that the average demonstration farm 234 hens. These hens laid an average of 128 eggs each and these eggs brought an average of 30 cents per dozen. The records show that it cost \$1.53 to supply the feed for each individual hen on these demonstration farms. This feed cost, however, includes the feed fed to roosters and growing stock and is somewhat higher than the amount required for feeding hens for egg production where no young stock is being raised. However, since the typical farm poultry enterprise includes the raising of chicks each year to replace the layers which may die or be culled out, the feed cost per hen on the basis of the total amount of feed used by the flock, ought to be of practical value to poultry keepers.

Reports from the University of Missouri, Agricultural Extension Service, released a few weeks ago show that the records from 289 demonstration flocks, conducted by farmers scattered throughout the state of Missouri, show an average of 154 hens kept on each farm which laid 128 eggs per hen during the year ending November 1, 1922. The feed cost for each hen on these farms was \$1.31 and the net labor income over feed cost was \$2.51 per hen. The average demonstration farm in Indiana kept 234 hens, which produced a labor income per farm of \$572.81, while the Missouri demonstration flock averaged only 154 hens per farm and produced a labor income of \$385.24 per farm.

In either case the labor income would go a long way toward paying ordinary farm wages to one person, and anyone familiar with poultry feeding methods on the average farm knows that the average farm flock does not by any means require full time and attention of any member of the family nor require enough

attention from all members of the family to justify paying straight time to anyone for taking care of the poultry.

### THE "CHICKEN FEVER"

WHEN the chicken fever gets a good hold on anyone it seldom or never lets go. Our "Cullud brudders" are attacked by it in early life and there are other night marauders which have an appetite for a bit of chicken to the great vexation of the poultry raiser.

There are some who raise chickens who term themselves fanciers and they are; there are some who wish to be fanciers and will become so. There are others who fail to class and they are apt to join the ranks of utility breeders. The man who is breeding fancy poultry depends upon sales of stock and hatching eggs for his income, the utility man from eggs alone.

### To Keep Up Prices

If he is a real fancier he never sells a male bird for within around two dollars of what such a one would bring as market poultry, which is right. No male should ever go into a breeding pen that is not worth \$5, and \$10 would be rather more appropriate and the fanciers from that price up—or as far as one likes.

Sell the market poultry, keep up prices and raise the standard of the flocks. The sale of five hens, winners in a laying contest, is reported at \$400 each or \$2,000 for the quintette. For a world's record Buff Orpington hen \$5,000 is said to have been reported. The \$400 hens were bought by a commercial poultryman, one who sells baby chicks and is no novice at the game.

### Fifty Dollar Pullets

We never get quite that bad down here in Maine, yet the fever has run fairly high at times. Even at the recent Maine State Poultry Show \$25 females were frequently quoted and the author seemed to take it quite as a matter of course and the writer heard of cockerels there which had cost as high as \$40 and that would be rather low in real high-class chicken society.

Prices depend much upon how badly the owner wants the money and how badly the other fellow wants the bird. There is one Maine man who frequently gets a chance to ship choice pullets at \$50 and perhaps even more. There are few early layers among the birds of the ultra fancy. A pullet doesn't lay many eggs before she is "off bloom."

### Time of Hatching

The commercial poultry foods warranted to make hens lay, find no place in the pens of the fancier. Foodstuffs are sought that discourage egg production and methods like walking the pullets in the snow have been employed for the same purpose.

The object is to insure egg production around March 15th to May 1st. A lot of hatching is done between May 1st and June 1st but not by them who are looking for pullets commencing to lay by October 15th and in a month from then they should be going strong.

### Hens or Pullets?

There are many who believe the year-old hens are fully as profitable as pullets, even more so. It seems probable some one will be hatching chickens in August for the next year layers. Such chickens would get a good start before winter and could be held back a bit to begin laying in September of next year. The few who have tried this speaks highly of the laying qualities of the birds hatched at that time.

There is a lot of good money in the poultry business. A couple of ladies of our acquaintance report about \$1.25 each above cost of feed for 100 cockerels sold at market prices. Their accounts were accurately kept. Now this would give them their pullets free of cost and sufficient to pay for time in caring for the flock. Besides this there is a fascination in poultry and a good profit in a well-kept flock.

## How Many of Your Chicks Should Die?

ANYONE planning the poultry operations for the season who did not figure on a part of the chicks dying would be indeed an optimist if he did not deserve to be designated by some harsher term. It is entirely in the nature of things that some chicks out of every flock will be lost by accident, disease, or the attacks of vermin and varmints.

Since the percentage of the chicks which die before reaching marketable age is a very important factor in determining profits, it should be of interest to every poultry keeper to have some definite figures on the rate of mortality which may be reasonably expected in trying to grow chicks. In the hazards of life which are coverable by insurance, particularly as applied to humans, the probabilities of death for a given age has been worked out to a mathematical certainty which places the business of life insurance on a scientific basis.

Possibly due to the fact that each individual chick represents such a small economic quantity but few figures are available to show the reasonable rate of mortality in attempting to grow chickens out of baby chicks. For the reason that such figures are relatively scarce, reports from a large number of demonstration farms in Indiana which show that an average of only 63 chicks are raised out of each 100 hatched, ought to be of interest. These same figures show that for each 100 eggs set only 57 chicks were hatched and since 37 percent of these chicks died before reaching marketable age, only 36 chicks were raised out of each 100 eggs set. Since at least half of these chicks are likely to be roosters, approximately six eggs had to be set on these Indiana farms for each pullet raised.

### Possible to Raise 75 Percent

While definite figures covering any large number of poultry plants are relatively scarce, showing the percent of chickens raised, the Indiana average is somewhat lower than is generally considered satisfactory. On well-managed poultry plants where the chicks are given the benefit of satisfactory brooding equipment and scientific feeding methods, it is usually possible to raise at least 75 chicks out of each 100 chicks hatched and the commonly accepted figure for a well-managed plant is that one pullet may be expected to reach maturity from each five eggs set.

It has been frequently stated by observers as well as by great numbers of poultry keepers that brooding the chicks is the most difficult part of the poultry keeping project on the farm. The Indiana report laid much of the blame for low percentage of chicks raised there to poor equipment for brooding, lack of experience on the part of the poultry keeper, and disease among chicks. Probably the most important of these items is poor brooding equipment. For some reasons the development of brooding devices did not keep pace with the discoveries and inventions in methods of hatching chicks, and it is only in recent years that really satisfactory brooding equipment has been devised for the use of poultrymen who hatch chicks by artificial heat or who handle them in large numbers.

### Not Ideal for Small Flocks

At the present time the stove brooder, operated in a movable colony house, provides almost the ideal brooding conditions for the flock owner who can hatch his chicks in units of from 200 to 500, but not many farms are supplied with this kind of brooding equipment. Not so much attention has been paid to the development of brooders for small flocks and even today there is no well-recognized, satisfactory method of brooding chicks in flocks of 50 to 200. The development in electrical brooders offers much promise for poultry keepers who have access to electric current as relatively inexpensive electric hovers can be constructed or purchased for brooding the small flocks of chicks. However, the majority of farm flocks do not and will not have access soon to electric current, so the development of these brooders are of secondary interest to farm poultry keepers.

While the hen is by no means an ideal brooder, a well-behaved hen in a well-constructed coop is probably

the safest brooder for small flocks of chicks. As many as 25 chicks can be safely intrusted to one good-sized hen providing she has a good, roomy coop so she can handle her flock. For best results in using hen brooders, however, the hen should be confined and the coop be arranged so the chicks can go in and out as desired during fair weather.

### POULTRY AS A SIDE LINE

THERE are few side lines open to dairy or mixed farming that offer the same certainty of satisfactory profit as does poultry. Small flocks of poultry are almost an integral part of all farms. We refer particularly to poultry as a worthwhile side line looked after with the same intelligent interest that a good dairy farmer bestows on his cows. On many such farms in the Pacific northwest, flocks of 100 and 200 hens are adding many dollars to the incomes of their owners. The farmer who is acquainted with the best and modern poultry knowledge receives satisfactory returns from his poultry. The fundamentals of profitable poultry keeping may be briefly summarized as follows: A breed to lay a strain of pullets hatched out early in the spring and well grown on free range; all culls removed from the flock; liberal feeding and correct housing. These are requirements that are simple and easy to understand. However, the personal equation counts for much as it does with high producing cows, for poultry, to be successful, demands regular attention.

### FEATHER PULLING

We have a flock of white Wyandotte hens and they pull the feathers out of one another and eat the feathers. Do you know anything that will stop them? R. T. M., Ulby, Michigan.

—Feather pulling is a cannibalistic habit frequently caused by close confinement or faulty nutrition. Very often one or two individuals in the flock are specializing in this practice although it may become quite general if the ring leaders are not segregated once this trouble is in evidence.

This practice usually stops after the birds are out on free range and therefore we would suggest inducing as much out door exercise as possible. The ration should contain at least ten per cent meat scrap or tankage, or some other form of animal protein. Skim milk is a common source of protein for laying stock but frequently we find it necessary to supplement it with additional protein in the dry mash which should be before the birds at all times.

In order to break the birds of this habit I would suggest providing a mash of 30 per cent bran, and 20 per cent middlings, corn meal, and ground oats, and 10 per cent meat scrap plus about 1 per cent salt. Very satisfactory results have been obtained by hanging a beef liver suspended off the floor so that the birds may all pick at it. Glandular organs of this kind, usually contain a dietary essential known as Fat Soluble A that is frequently lacking in the ration. In addition, the liver is extremely palatable and should cause the birds to forget the practice of feather pulling.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

### RAISING GEESE

How should geese be mated? Should goose eggs be treated differently than hen eggs? What is a good feed for goslings?—M. G. Berrien County, Mich.

—A gander may be mated with from one to four geese, but pair or trio matings usually give the best results. Wherever possible provide free range for the geese. Collect the eggs daily and keep in a cool place. If kept for some time they may be stored in loose bran. Usually the first eggs are set under hens, while the last ones that the goose lays may be hatched either under hens or under the goose if the latter becomes too broody. Removing the eggs from the nest from which the goose is laying is advised. If not removed she usually stops laying sooner than when taken away. Dust the hens that are hatching the goose

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Add 35c if less than 100 lots wanted. Circular.  
LAWRENCE POULTRY FARM  
Dept. 8 Good Reference R. 7, Grand Rapids, Mich.

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CHICKS Barron Strain Selected under my personal care. Strong, vigorous chicks carefully packed to go safely. Postpaid, full live delivery guaranteed. 50 chicks, \$6.50; 100, \$12.50; 500, \$60. Get your order in early. Elgin Hatchery, Box 317A, Zeeland, Mich.

## Hatching Eggs & Baby Chicks

Tompkins strain. For April and May chicks, per hundred, \$18.00. Eggs per hundred, \$8.00. Quality breeder of Rhode Island Reds, both combs. WM. H. FROMM, New Baltimore, R. 1, Mich.

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Heavy Laying, pure bred, English strain. Flocks culled and tested for laying ability. Strong, healthy chicks. 100 per cent live delivery guaranteed. Postage paid. Catalog, low price list free. Write quick. Catalpa Grove Hatchery, Box 4, R. 2, Holland, Mich.

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# MARKET FLASHES

## FOOTE'S MARKET LETTER

By W. W. Foote

FARMERS are in better condition than a year ago, especially those who are out of debt, and not many Michigan farmers care to sell their farms. Aside from the fact that commodities which the farmer buys have advanced in value more than what he sells, one of the worst features he is up against is the scarcity of farm labor, while wages and helpers demand are higher than many farmers feel able to pay. This results in many farmers doing without extra work except in the harvest time, and the tendency is to cultivate fewer acres and put more land into meadows and pastures. The labor shortage extends to manufacturing cities, and there is talk of coming legislation opening the way for larger immigration from European countries. Our foreign trade is growing highly satisfactorily, strange to say, in spite of the turmoil over there, and during the last nine months our exports ran \$193,818,895 ahead of the corresponding period a year ago. Foreigners are largely paying for what they import with merchandise, and our gold imports for March were only \$5,559,257, comparing with \$23,524,848 in March, 1922. Farmers are buying tractors more extensively because of the lack of farm workers.

### Why Wheat Sold Higher

Contrary to predictions of leaders in the wheat market, who for weeks past were bearish on wheat, prices scored substantial advances, these being based upon the old-fashioned law of supply and demand and bad crop reports from the southwestern wheat states, as well as late cold weather in the spring wheat regions of the United States and Canada. While predictions are not always easy to make, it looks now more encouraging for the bulls than the bears, and one of the most surprising factors is the revival in recent weeks of the foreign purchases of United States and Canadian wheat, exports running week after week far ahead of corresponding weeks last year. On the other hand, our exports of corn, oats and rye have undergone a big falling off recently, but the large consumption of corn on farms is a highly important bull factor. The visible wheat supply in this country is larger than a year ago and that of rye is far greater, but corn and oats are in much smaller supply than at that time. May wheat sold the other day on the Chicago Board of Trade at \$1.26½, comparing with \$1.10½ a year ago. May corn at 80 cents, comparing with 61½ cents last year; May oats at 46 cents, comparing with 38 cents last year; and May rye at 86½ cents, compared with \$1.10½ a year ago. Sugar prices have boomed because of wild speculation, while butter prices are off under expectations of larger receipts.

### The Cattle Industry

The main strength of the cattle market today lies in the general employment throughout the country of labor at unusually high wages. Still, the profits of stock feeders for the year to date have not been very large as a rule, and this causes many farmers to pause when considering next summer's operations. The spread in beef cattle prices is now very wide, with comparatively few sales around top figures and the bulk of the steers selling on the Chicago market for \$8.25 to \$10. Common steers have sold at \$6.75 and over, good kinds being salable at \$9 and upward and the best lots at \$9.75 to \$10.35, but a few go above \$10, with the best yearlings salable at \$9.50 to \$10.10. In discussing the cattle situation, a leading Chicago live stock commission firm tells its patrons: "It is not a question of available funds for buying, for money may be had; it is the initial cost that hurts. The logical outcome will be less beef later, and with the northwest undoubtedly short of beef cattle, it looks like a rather good time in our opinion to keep in the

## MARKET SUMMARY

Wheat steady. Other grains quiet with prices firm. Beans easy. Potatoes in fair demand. Receipts of butter and eggs small, demand good and prices steady. Poultry shows no change. Some grades of dressed calves moving while others not wanted. Cattle market is steady and trade active. Certain grades of hogs active, others slow. Sheep quiet.

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

game." Most of the time fat cows and heifers are having a good sale at \$4.50 to \$9.25 but not many sell above \$8.25. Cattle were largely around 25 cents higher in the Chicago market last week, the best excepted, although there were good receipts. The best steers sold at \$10.35, comparing with \$9.25 a year ago. Stockers and feeders were slow and lower at \$6 to \$8 for the general run, no good lots going below \$7.25 and the best at \$8.25.

### Cattle Feeding Propositions

The approaching grazing season warns farmers who are in the habit of preparing beef cattle for the market that it is time to be looking about for thin cattle for feeding; but thus far sales of stockers and feeders in the Chicago market have fallen short of expectations, many stockmen regarding the prices demanded as too high compared with those paid for finished cattle. The general run of stockers and feeders have been bringing \$8 and under for good lots, although inferior descriptions have sold as low as \$5.50 to \$6.50, with many sales of middle kinds at \$6.75 to \$7. The best feeders are taken at \$8.25 to \$8.75, these steers being really killers, but they are sent to Mineral Point, Wisconsin, for a short finish. There were around 13 per cent more cattle in feeding districts in the eleven corn belt states on April 1 than a year ago, according to the Department of Agriculture.

### Plenty of Hogs

The corn belt states have been bountifully supplied with hogs the past winter and spring, and they have gone to market in vastly increased numbers compared with recent years, Chicago's share being especially large. Fat droves predominate, and recent receipts averaged 241 pounds, the heaviest since last October. Chicago packers receive large supplies of hogs consigned direct from western markets, while eastern packers receive many from Chicago, eastern holdings being moderate in number. Naturally, hogs have sold at lower prices, but the decline has not been as great as might have been expected. Reasonable prices for fresh and cured meats and lard encourage domestic consumption, while exports are running far ahead of a year earlier. For the second week of April exports from North America included 23,712,000 pounds of lard, comparing with 32,193,000 pounds a week earlier and only 6,557,000 pounds a year ago; as well as 18,054,000 pounds of cured hog meats comparing with 21,393,000 pounds a week earlier and 6,557,000 pounds for the corresponding week of 1922. It is a startling fact that during the period from the first of last November to the close of March exports ran 126,396,000 pounds ahead of the corresponding time a year earlier. According to the government reports, the number of brood sows on farms on April 1 was 6.7 per cent more than a year earlier. Unfortunately, large numbers of pigs died because of the cold, wet spring, and this will greatly lower the pig population. Hogs have been selling at \$6.50 to \$8.40, mainly at \$7.60 to \$8.30, light lots going highest. Pigs sell at \$5.75 to \$7.75.

### WHEAT

There has been considerable bullish news afloat in the wheat market the past two weeks and during the first week and the forepart of the last week the market was steady to strong but after that it weakened

and prices declined. At Detroit the decline for last week amounted to 2½¢ making the market ½¢ lower than at the opening two weeks previous. Domestic demand shows some improvement while export business is reported good at some points and slow at others. In general, demand for export seems to show that foreigners are buying only to supply immediate needs. Reports from the country show the fall sown grain is coming along nicely but spring seeding is several weeks behind and in some sections farmers have been unable to get on their ground so far this spring to do any preparing. As a result the 1923 wheat acreage will show a decline over 1922.

### Prices

Detroit—Cash No. 2 red, \$1.36; No. 2 white, \$1.36; No. 2 mixed, \$1.36.  
Chicago—Cash No. 2 red, \$1.32½; No. 2 hard, \$1.25 @ \$1.26.  
Prices one year ago—Detroit, No. 2 red, \$1.41; No. 2 white, \$1.38.

### CORN

Predictions of a large acreage this year is weakening the corn market, also the declines in wheat prices affected the trend of this coarse grain. Receipts are of good volume amounting to 1,246,000 bu. while shipments were only 540,000 bu. The grain closed steadier last week at Chicago owing to better demand and a decrease in offerings. Should this condition continue the market will undoubtedly take on a better appearance all over the country. There are many friends of this market who believe higher prices are coming.

### Prices

Detroit—Cash No. 2 yellow, 88½¢; No. 3, 86½¢; No. 4, 84½¢.  
Chicago—Cash No. 2 yellow, 80¼ @ 82¢; No. 2 mixed, 80 @ 80¼¢.  
New York—Cash No. 2 yellow and No. 2 white, \$1.00; No. 2 mixed, 99½¢.  
Prices one year ago—Detroit, No. 2 yellow, 67½¢; No. 2, 66¢.

### OATS

Oats were weak along with other grains and prices declined. Demand is dull while country offerings to arrive are small. Predictions are that the acreage planted to oats this year will be somewhat larger than last year. Oats will be planted in the place of spring wheat on many farms.

### Prices

Detroit—Cash No. 2 white, 51½¢; No. 3, 50¢; No. 4, 48½¢.  
Chicago—Cash No. 2 white, 46 @ 46½¢; No. 3, 43¼ @ 45¼¢.  
New York—Cash No. 2 white, 56½¢.  
Prices one year ago—Detroit, Cash No. 2 white, 43½¢; No. 3, 41½¢.

### RYE

There is little to say about the rye market at the present time as it is unchanged, however, men who make it their business to study the markets anticipate higher prices.

### Prices

Detroit—Cash No. 2, 85¢.  
Chicago—Cash No. 2, 85½ @ 85¾.  
Prices one year ago—Detroit, Cash No. 2, \$1.09.

### BEANS

Without question the Bean and Pea Journal is an authority on the bean market and conditions governing it. The following is taken from the latest issue of that publication. You will note that in the last paragraph that they advocate the same thing we have for some time.

"Talking with two Michigan jobbers, it was found one was distinctly

bearish, the other just as distinctly bullish, on the future bean market. A third was inclined to be about half way between, and here's about what he had to say:

"Trade has been dull for three weeks. It should be better very soon now, and we look for a decided increase in buying. Foreign beans have hurt somewhat, but there are not any more beans in Michigan than will be needed, when you consider the amount needed for seed. We do not expect the price to fall below what it now is, and it should improve a little before new crop—not much but some."

"Estimates of stocks on hand in Michigan at this time vary greatly. There are probably more beans here than there were a year ago. But with any normal buying on the part of wholesalers, together with the increased quantity that will be needed for seed, the stocks should not be in excess of requirements."

"California and Michigan control the bean situation this year; other producing states are nearly cleaned out. Imported beans have been coming in and are being bought to some extent, but we do not believe them to be of the quality to establish a real continued demand for them."

"The big need seems to be some organized effort to increase bean consumption. Advertising will do this. Spasmodic attempts of the part of various organizations and firms have invariably resulted in an increased consumption in the territory where it was tried, and there is no reason why, on a national scale, advertising will not bring into being a steady and an increasing demand for beans of the quality kind. We'd like to see this development, and will do all in our power to assist such a movement."

### Prices

Detroit—C. H. P., \$7.00 per cwt.  
Chicago—C. H. P., \$7.25 @ \$7.75 per cwt.  
Prices one year ago—Detroit, C. H. P., \$6.90 per cwt.

### POTATOES

The receipts at Detroit continue to be small and prices are firm at higher levels. Chicago has a quiet to dull market with prices unchanged. Reports from the potato growing sections of the country show that the 1923 acreage will be considerable under the acreage of last year. The Maine potato crop in 1922 brought less than one-third of what the crop of 1921 did and the 1923 acreage in that great potato growing state will be smaller, it is stated. However, to what extent the acreage will be cut, it is hard to determine at this time as prices at eastern markets have advanced during the past fortnight which may influence growers to plant more than originally planned.

### Prices

Detroit—Michigan, \$1.83 per cwt.  
Chicago—Wisconsin sacked round white, \$1.25 per cwt.; Michigan sacked round white, \$1.25 @ \$1.55.  
Prices one year ago—Detroit, Michigan, \$1.97.

### HAY

Bad roads and urgent farm work are restricting the movement of hay and markets generally continue firm under light receipts. Central west offerings are slowing up and southern demand is less active. Lower grades show some tendency to weakness but good grades are firm and steady.

### Prices

Detroit—No. 1 timothy, \$17.50 @ \$18; standard, \$16.50 @ \$17; light mixed, \$16.50 @ \$17; No. 2 timothy, \$15.50 @ \$16.50; No. 1 clover, mixed, \$14 @ \$15; No. 1 clover, \$13 @ \$14.  
Chicago—No. 1 timothy, \$21 @ \$22; light mixed, \$19 @ \$21; No. 2 timothy, \$18 @ \$20; No. 1 clover, \$15 @ \$16.  
New York—No. 1 timothy, \$26; standard, \$14 @ \$17; No. 2 timothy, \$24 @ \$25; No. 2 light clover mixed, \$24.  
Prices one year ago—Detroit, No. 1 timothy, \$21 @ \$22; standard, \$20 @ \$21; No. 2 timothy, \$19 @ \$20; No. 1 light mixed, \$20 @ \$21; No.



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**Valuable Ensilage Cutter Facts**

1 clover mixed, \$17@18; No. 1 clover, \$17@18. Alfalfa—Chicago, \$16@23; Detroit, \$13@17.

**WOOL**

The midwestern wool trade remains on about a steady basis, with trading rather light on account of smallness of stocks. Reports from the east continue favorable and western dispatches indicate that while buying has been slowed up by the fact that growers are determined to get top or even higher prices, the tone of trade there is still good, with prospects that the growers may succeed, according to the Chicago Daily Drivers' Journal.

Some dealers are less optimistic as to the future trend, but the market as a whole presents a firm appearance. Quotations on midwestern or so-called "native" wools in large lots—such prices as are obtained by the farmers' pools—are as follows (f. o. b. Chicago): Fine and medium staple, 53@54c; 1/2 blood staple, 52@54c; 1/2 blood clothing, 49@50c; 3/8 blood wools, 52@53c; 1/4 blood, 50@51c; low 1/4 blood, 40@42c; braid, 30@32c. Western ("territory") wools sell, Chicago basis, at about these same prices for corresponding grades.

Monday cheese markets continued more or less week and unsettled. Trading shows slight increase in some quarters but on the whole buyers have kept off the market except for necessary requirements. Prices at Wisconsin primary cheese markets April 19: twins 19 3/4 c; Daisies 20 1/2 c; double daisies 20 1/4 c; long-horns 20c; sq. prints 20 3/4 c.



**Week of April 29**

**DURING** the early part of the week beginning April 29th we expect Michigan temperatures to average cool. About the first of May, however, temperatures will be rising and will continue above normal for the balance of the week.

We are expecting the rainfall to be plentiful during Tuesday and Wednesday with high winds general and gales on the Great Lakes.

While there may be indications of storminess or even a storm itself about Friday of this week we believe the average conditions from the 2nd to the 6th will be fair and cool. No decided fall in the temperature in Michigan is expected this week but colder conditions will manifest themselves next week.

**Week of May 6**

With the average weather conditions for the week of May 6th promising to be cold and dry we believe germination and growing vegetation will be retarded. The week offers splendid opportunities for the farmer to rush his field work such as planting early potatoes and seeding his barley and oats. The farmer of the southern counties of Michigan can get his corn fields in shape. If the winds do not destroy the blossoms, pollination should be good among cherry and plum trees since the bees are expected to be active during this period.

Temperatures will be rising at beginning of the week with showers and high winds during middle days. Following the storm the winds will shift to west and north and wax strong at the same time inducing fair weather for the last days of the week with cold temperatures.

**MICHIGAN AYRSHIRE BREEDERS PLAN BIG PICNIC**

Michigan Ayrshire men are planning the biggest meeting in the breed's history in the state for May fifth. On that date they are the guests of Mr. William H. Murphy at his farm at Birmingham. Features of the day's program are the inspection of Mr. Murphy's dairy buildings and his prize winning herd of Red and Whites and an address by Paul O. Reymann of Wheeling, West Virginia, president of the National Ayrshire Breeders' Association. Breeders from all sections of Michigan will attend and take part in the plans being made for the Ayrshire's further advancement in the state. President W. T. Shuttleworth, Ypsilanti, and Secretary Edward C. W. Roberts, of Fennville, officers of the Michigan Ayrshire Club will have charge of the day's program.

Ayrshires have made notable progress in Michigan during the past eighteen months, particularly since the organization of the State Association in January 1921. The rapidly increasing popularity of the Scottish dairy breed is resulting in the founding of many new herds. One of these is at the Michigan Agricultural College. Professor O. E. Reed last summer selected five animals which average as high in quality as any college herd in America. He bought these animals in the rough at a moderate price and has developed and fitted them so that their milk flow is proving them to be among the leading producers of the breed. There are now one hundred Ayrshire men in the state. That they are doing worth while things is well shown by the interest being taken by the National Association and that the president is coming from West Virginia to take part in the May fifth meeting.

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30 days' free trial—then, if satisfied, only \$7.50 and a few easy payments—AND—the wonderful Belgium Melotte Separator is **YOURS**.

**No Money Down!**  
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**Caution!** U. S. Bulletin 201 shows that vibration of the bowl causes cream waste! The Melotte bowl is self-balancing. Positively cannot get out of balance therefore cannot vibrate. Can't remove cream with milk. The Melotte has won 24 Grand and International Prizes.

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Runs so easily, bowl spins 25 minutes after you stop cranking unless you apply brakes. No other separator has or needs a brake. Bowl chamber is porcelain lined.

**New Big Ball Binder Twine**

More than a mile of twine in one ball and occupies same space as old style.

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Guaranteed to work on any binder because of more strength and no uneven places to cause breaks. Will work to the very end as there is no loose cover.

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