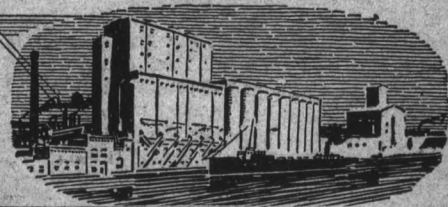


The Michigan
BUSINESS FARMER



An Independent
Farmer's Weekly Owned and
Edited in Michigan



VOL. IX NO. 40

MT. CLEMENS, SATURDAY, JULY 22, 1922

\$1 PER YEAR



Insuring the Crop Against Bugs and Plant Diseases

Current Agricultural News

U. P. FARMERS' WOUND-UP

ANOTHER big time is promised the farmers of the Upper Peninsula by Mr. D. L. McMillan, superintendent of the Experiment Station at Chatham, who has made plans for a Farmers' Round-up at Chatham, on August 11th. Such a round-up has been conducted for several years back with very good success and farmers across the Straits look to it as the one great annual event which they should leave their work to attend.

The Boys' and Girls' Club Department will put on a four day summer camp similar to the one last year only that they expect it will be much larger. The first three days will be devoted to educational work with some of the best men from the College to assist in instructing them. Live stock prizes will be given to the winners in each department. The judging work to take place during the forenoon of the big Round-up day.

On August 10 the County Agents and Extension workers will study the experimental work that is being conducted and will also hold a conference. On August 11 during the forenoon there will be the Club Boys'

and Girls' judging work, poultry, dairy and crops demonstrations.

The poultry demonstration work is in charge of Professor E. C. Foreman. The dairy work in charge of Professor O. E. Reed and the crops demonstration work in charge of Mr. J. W. Weston, State Potato Specialist, J. E. Kotila, assistant Plant Pathologist and Mr. H. R. Pettigrove, crops experimenter.

The picnic dinner in the grove at noon will be followed by the Boys' and Girls' Club parade, immediately after that a speaking program will be held with David Friday, president of the Michigan Agriculture College; R. S. Shaw, Dean of Agriculture and Director of Agricultural Experiment Stations, and Mr. C. J. Brody, secretary and manager of the Michigan Farm Bureau, as speakers.

After the speaking program there will be a general inspection of all lines of Experiment Station work. Dr. G. H. Coons will assist Mr. Kotila in the Plant disease work and Professor J. F. Cox will assist Mr. Pettigrove. Prof. Musselman will give demonstrations on farm buildings, Miss Helen Simonson and the Home Demonstration Agents of the Upper Peninsula will have a com-

plete program for the women for the full day.

The program will be wound up by a stump blasting demonstration.

IOWA MILKMEN MAY UNITE

A STATE-WIDE organization for marketing of milk may soon be formed, according to Carl N. Kennedy, manager of the Co-operative Dairy Marketing association at Des Moines. Shortage in the milk supply in one community and oversupply in another will be equalized, it is reported. In case of a strike of one association for a higher price the transportation of milk could be cut off.

Among the cities which are being considered as charter members are: Des Moines, 1,000 producers; Sioux City, 400; Fort Dodge, 100; Dubuque, 300; Marshalltown, 50, and Ottumwa, 125. If an association of producers is formed at Oskaloosa it would be taken into the state body.

SECOND BIGGEST APPLE CROP IN SIGHT

REPORTS on the coming apple crop from all sections of the country indicate that the total yield this season will be the greatest the country has ever known, with the exception of the banner year of 1920. It is a little early to make an accurate and authentic forecast, but it looks now as though the total yield would exceed 60,000,000 barrels. The

Government forecast for July 1 places the yield at 63,183,000 barrels from the condition on that date. The commercial crop is placed at \$31,413,000 barrels, which is 10,000,000 more than last year and only 5,000,000 less than 1920.

Michigan's production is placed at 3,584,000 barrels; New York's at 9,251,000, and Washington's at 9,000,000, with proportionate increases over last year in Ohio; Illinois, California, Virginia, Pennsylvania and other states.

PEACH CROP DOUBLE 1921

A 54,302,000 bushel peach crop is forecast by the July 1 report of the Bureau of Markets and Crop Estimates compared with a crop of 32,733,000 bushels last season, and a five year average of 43,632,000 bushels. There has been some decrease from a year ago in the crops of Colorado, Texas and Georgia but most other sections show an increase. Many of the states where the crop was virtually a failure in 1921, have a good yield promised for the present season.

In Michigan the estimate is for 1,248,000 bushels as against 358,000 bushels last year.

MICH. GRAPE GROWERS LAUNCH ADVERTISING CAMPAIGN

THE Southern Michigan Fruit Association, the St. Joseph Michigan Fruit Association, the Paw Paw Co-operative Association, and several other of the grape associations in the State of Michigan, who for a number of years have been continuously employing the North American Fruit Exchange as their national sales organization, have recently agreed upon an advertising campaign in newspapers, billboards, trade papers, dealer helps, and the other instrumentalities which usually prove effective in campaigns of this character.

The Michigan grape growers are very enthusiastic about this campaign, which will begin to appear before the eyes of the public along about the first of September and will run through the grape season.

They have contracted among themselves, and with the North American Fruit Exchange to make a per ton assessment on all the grapes sold, and this will yield an ample fund to conduct a successful campaign as outlined.

The announcement of this advertising campaign to the individual growers has been received by them with unanimous approval and has had the effect of stimulating them to improve their already good packing and grading, which they recognize is a fundamental factor of any advertising campaign.

All baskets, including the 2 qt., 4 and 12 qt. sizes will bear labels, and these labels will all carry the copy righted trade mark "MICHICO" under which brand name these grapes will be sold.

The higher grades will bear large labels with the imprint "MICHICO TABLE GRAPES" and grapes of other qualities will be labeled with stickers reading "MICHICO VINEYARD RUN GRAPES." This will be of great advantage to the trade, as indicating clearly the quality and grade of the grapes in each basket purchased.

This is the first time in the history of the grape industry that an advertising campaign has been undertaken, and the eyes of the entire industry will be focused upon it during the coming season. The trade particularly will appreciate the value of having branded grapes certified as to quality.

A FARM WORKSHOP

A GOOD workshop is, without any doubt whatever, a valuable asset to any farm, and in consideration of the slight cost of putting up such a building and equipping it with a few tools, no farmer can profitably do without one. In a great many instances we can convert an old building, otherwise of very little value, into a modern workshop which will hold all necessary tools and equipment and the cost will be comparatively small.

The proper size of such a building, of course, will vary, this depending greatly on the amount of work to be done and the equipment. Our workshop is 16x24 feet and contains

(Continued on page 3)



Does Your Money Work as Hard as You Do?

You're putting in a full day's work. You're making every minute count. Is your money giving you as fair a deal?

Without risk, you can get 7½% on your savings. If you're receiving less, your money is loafing on the job.

You owe it to yourself and your family to get the facts. Your name and address written on the border of this advertisement or a post card inquiry will bring them.

The Standard Mortgage & Investment Company

Detroit
Michigan

Penobscot
Building



The STANDARD
MORTGAGE & INVESTMENT
COMPANY

PENOBSCOT BUILDING DETROIT, MICHIGAN

Michigan Crops Lead All Other Farming States

Condition in June of All Crops Except Spring Wheat Far Above U. S. Average for Same Month and 10-Year Average for State

THE condition of every crop except spring wheat is above the ten-year average in Michigan according to the July report issued by John A. Doelle, Commissioner of Agriculture and Verne H. Church, Statistician, U. S. Bureau of Agricultural Economics. The rainfall during June was very unevenly distributed and some southeastern and southwestern counties were in need of more moisture during the latter half of the month. On the other hand, there was an excess of rainfall in the Saginaw valley and portions of the Upper Peninsula that caused some injury to beans and rotting of seed potatoes in the ground. Cool weather has aided in preventing the ground from drying rapidly in the sections with deficient moisture.

Not only do Michigan crops exceed their own ten-year average, but they are also far ahead of the crops of all other agricultural states, and 12 per cent higher than the average for the United States. If this condition continues throughout the growing season, and it bids fair to do so, Michigan farmers will be at a great advantage over the farmers of other states when it comes to harvesting and marketing the crops, all other things being equal.

The detailed report of Michigan crops is as follows:

Corn—There was a slight increase in the acreage of corn planted this year, the estimate being 1,737,000 acres as compared with 1,703,000 last year. The stands are generally good except in some northern counties where cut-worms have necessitated more or less replanting. A normal growth has been made in most sections although many fields are uneven. The condition is reported as 90 per cent, three per cent lower than last year but seven per cent above the ten-year average.

Wheat—Cutting commenced in southern counties during the closing days of June. The condition figure of 85 per cent is one lower than that of last month, but represents a production of 16,154,000 bushels. Red rust is prevalent in many districts. While the condition of spring wheat is good in the Upper Peninsula, the state average is only 84 per cent or two per cent below the ten-year average.

Beans—There has been a phenomenal increase in the acreage of beans planted. The preliminary estimate is 429,000 acres as compared with 263,000 last year, an increase of 63 per cent. The present outlook is for a crop of 4,773,000 bush-



els, the final outturn being greater or less as affected by future conditions.

Potatoes—The acreage shows a considerable increase in southern counties and portions of the Upper Peninsula, a small increase in the central and some of the northwestern counties and a decrease in portions of the Grand Traverse and Oceana districts. The estimate of 364,000 acres is an increase of seven per cent over last year. As planting is only just completed, the condition is not relatively important at this date. It is 92 per cent, or nine per cent better than one year ago, and represents a production under favorable future conditions of 35,162,000 bushels.

Oats—The crop has improved considerably during June in some sections, and deteriorated in others. The condition is 87 per cent and the prospective crop, 52,897,000 bushels.

Rye—The outlook for the crop is 90 per cent of normal, the same as last month and one point above the ten-year average. The forecasted production is 9,649,000 bushels. Harvesting is under way in the southern and central counties.

Hay—The good crop of hay, estimated at 93 per cent of normal which is 13 per cent better than the ten-year average, promised a production of 4,399,000 tons. This is the second largest crop ever produced in the state.

Truck Crops—Tomatoes, watermelons and

cantaloupes are each reported as 90 per cent of normal. Onions are rated at 90 per cent and cabbage at 93 per cent.

Sugar Beets—The outlook is 88 per cent, one point better than one month ago. Condition for growth, cultivation and weeding have been good. The acreage is somewhat less than during the years of high priced sugar.

Fruits—There has been a considerable June drop in apples but many orchards have an ample crop remaining. Early apples are plentiful, and the only varieties that are light over extended areas are Baldwins and Spies. Scab and fire blight are quite prevalent in some sections. The present condition figure of 75 per cent presages a crop of 10,756,000 bushels.

Peaches have a condition of 78 per cent, representing a production of 1,248,000 bushels; pears, 80 per cent representing a crop of 615,000 bushels; grapes, 92 per cent representing a crop of 111,892,000 pounds. The outlook for plums is 76 per cent of a crop and of blackberries and raspberries, 90 per cent.

Cherries have been seriously injured by shot-hole fungus, and what had developed into nearly a full crop was reduced to an estimated production of 80 per cent.

MICHIGAN CROPS IN THE LEAD

MICHIGAN crops, with a combined condition in June of 109.1 per cent, lead all the other states of the Union with the exception of the two comparatively unimportant agricultural states of New Hampshire and Vermont. The following table tells the story:

Maine	102.8	Missouri	97.3
New Hampshire	110.9	North Dakota	106.0
Vermont	111.6	South Dakota	99.4
Massachusetts	101.4	Nebraska	91.7
Rhode Island	95.3	Kansas	94.3
Connecticut	98.9	Kentucky	106.3
New York	108.3	Tennessee	101.0
New Jersey	108.1	Alabama	92.8
Pennsylvania	107.0	Mississippi	100.7
Delaware	106.4	Louisiana	97.5
Maryland	103.8	Texas	91.8
Virginia	102.3	Oklahoma	92.9
West Virginia	101.6	Arkansas	99.3
N. Carolina	93.4	Montana	107.6
S. Carolina	82.9	Wyoming	103.4
Georgia	80.7	Colorado	96.5
Florida	100.5	New Mexico	80.9
Ohio	101.6	Arizona	96.0
Indiana	98.5	Utah	99.7
Illinois	99.3	Nevada	104.7
MICHIGAN	109.1	Idaho	98.3
Wisconsin	101.1	Washington	87.3
Minnesota	100.2	Oregon	89.8
Iowa	97.8	California	100.4
		UNITED STATES	97.9

State Fair Builds Special Courts For Big Horseshoe Tournament

GEO. W. DICKINSON, secretary-manager of the Michigan State Fair, advises the Business Farmer that the Fair authorities have authorized the construction of four special courts to accommodate the contestants in the Michigan Business Farmers' big horseshoe pitching tournament. These courts will be constructed along the most modern and approved lines and will conform in every respect to the national specifications.

State Association to Participate

At the request of officials of the Michigan State Horseshoe Pitching Ass'n members of the several hundred member clubs will be allowed to participate in the final tournament, and compete for the M. B. F. cup. An entrance fee of \$2 will be charged all contestants residing in Wayne county and of \$1 to those living outside the county. These fees will constitute a prize fund which will total several hundred dollars and will be distributed to the winners as follows: 1st prize, \$50; 2nd, \$40; 3rd, \$30; 4th, \$25; 5th, \$20; 6th, \$15; 7th and 8th, \$10. In addition to these cash prizes sets of silver, nickel and copper-plated horseshoes will be given away.

The participation of the members of the Association Clubs means that the coming tournament will be the biggest horseshoe event ever pulled off in Michigan. The number of contestants will make it necessary to keep all the courts going every day of the Fair. And the winner of the

M. B. F. cup will also be crowned champion horseshoe pitcher of Michigan, and qualified as such to represent the state in the national tournament. In a championship contest no one who is a resident of the state can be excluded if he desires to take part. Therefore, the elimination contests to be played on the State Fair grounds prior to the final tournament will be open to all comers who have been residents of the state for six months.

The Horseshoe Editor is pleased over this outcome of the situation as it means the tournament will be that much more interesting and spirited. He has never yet seen a city feller who could put it over the farmer when it came to throwing horseshoes and is satisfied that the cup and the first prize of \$50 will go to one of the winners in the county tournaments.

The time is getting short and every farmer who makes any pretense of skill in throwing horseshoes should lose no further time in enrolling for the county tournaments, either with his county agent or the Business Farmer. The nickel-plated shoes which are to be given to the winning team in each county are now being made up, and they are beauties. Each shoe is engraved with this lettering, "Tournament Winner—First Prize." What farmer is there who wouldn't be proud to own a set of these regulation shoes as a token of his prowess and skill?

In the following issue a list of the contestants who have entered to date will be published. Be sure that your name is there.

STATE FARM BUREAU STARTS MEMBERSHIP DRIVE

AUGUST 7 the Allegan County Farm Bureau and the Michigan State Farm Bureau will begin a membership campaign in Allegan County to renew Farm Bureau memberships in that county and to enlist new members in the ranks of the organization, according to Clark L. Brody, secretary-manager of the state organization.

President James Nicol of the Allegan County Farm Bureau is in charge of the campaign as county campaign manager. He is also president of the State Farm Bureau. M. L. Noon, prominent Jackson county farmer and vice-president of the State Farm Bureau, will take part in the campaign as state organization director. The membership drive will be preceded August 4th by a big County Farm Bureau picnic at Allegan. The Farm Bureau's second membership campaign will be extended from Allegan to other counties, said Mr. Brody.

Commenting on the Bureau's position today in Michigan agriculture Mr. Brody said that Michigan Farm Bureau members in the past three years have built a broad, (Continued on page 23)

N. Y. Dairymen Make Money In Ice Cream

Surplus Milk Finds Ready Market When Manufactured Into Ice Cream at League's Own Factories

By GILBERT I. STODOLA

THE experience of the Dairymen's League Co-operative Association, Inc., in the ice cream business shows in a striking way why co-operation makes possible not only a better return for the producer, but also a lower price for the consumer.

The association now operates three ice cream plants, located at Auburn, N. Y., Carthage, N. Y. and Milton, Pa. These are good-sized towns, on main railroad lines and so situated that the products of these plants can be delivered to a strip of territory beginning at the Canadian border and extending through northern and central New York and northern Pennsylvania practically down to Harrisburg. The plants are modern in every particular and the ice cream made in them is of the first quality, going beyond the requirements of the law as to purity, butterfat content, etc.

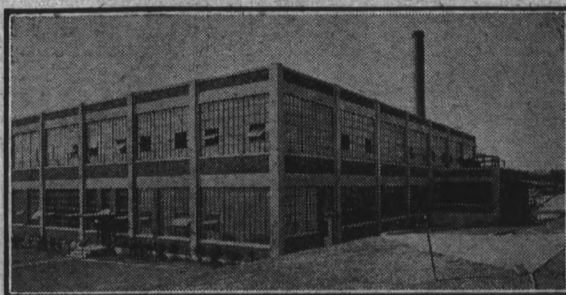
When the officers of the association decided to manufacture ice cream and sell it direct to the dealers, a notice to that effect was inserted in the "Dairymen's League News," the official publication of the association, and members were urged to interest dealers in handling the product. There was an enthusiastic response; in fact in less than a month about three hundred storekeepers in the association's territory had agreed to sell "League" ice cream. The plan worked out something like this:

The members would go to the storekeepers in their respective towns and say:

"Now, look here, Mr. Jones, we'd like to call your attention to the fact that our association is going in for the manufacture of ice cream, beginning in a month or so, and we'd like you to handle it. It's GOOD ice cream, the best that can be made, and we're proud of it. We're going to use it at our grange picnics, at our church sociables and at every other opportunity we can, and of course we'll boost it to the limit. If you'll handle it, we'll buy all we need from you and help in every way we can to increase your sales."

It is easy to understand the effectiveness of such a sales argument when it comes from a membership of something like 70,000. And of course as a large proportion of the dairy producers in the association's territory are members of the organization, and as the prosperity of the community is in many cases tied up with the prosperity of the dairy farmers, the storekeepers feel that it is good business policy to support the Dairymen's League Co-operative Association. On the other hand, if the local storekeeper buys the products of the association, the members are likely to patronize him in return, in preference to some dealer who does not handle the goods of their organization.

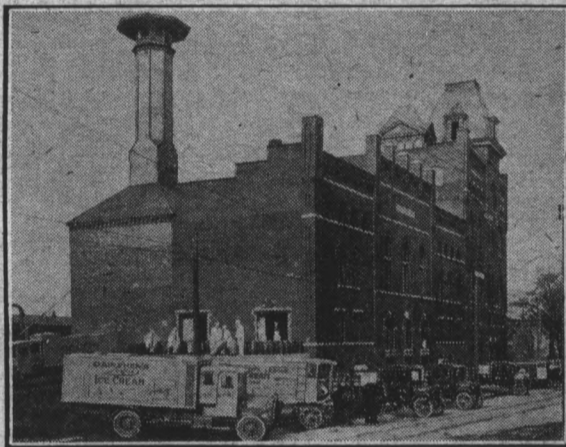
Each member is of course keenly interested



Modern Ice Cream Plant at Milton, Pa., property of N. Y. Dairymen's League Co-operative Ass'n.

personally in boosting the sale of the association's products, for the more business it does, the more powerful it will become, and consequently more helpful to its individual members, not to speak of the fact that every cent of profit means so much more to be added to the pool, in which he will share.

To help matters along, a list of the dealers who have agreed to handle League ice cream is published in the current issues of the "Dairymen's League News," and members are urged to



The fine League Plant at Auburn, N. Y. Since March 15th this modern plant has been manufacturing large quantities of League ice cream. It is equipped to pasteurize and bottle milk, manufacture butter, sweetened and plain condensed milk, ice cream mixes and powdered milk. Between 1000 and 1500 gallons of ice cream can be made here in one day. It has an ice manufacturing capacity of more than 20 tons per day. Its daily receiving capacity is 200,000 lbs. of milk. The plant has been thoroughly modernized under the direction of the League's Engineering Department without interrupting the operations. Geo. Roamer is plant superintendent, with 60 employes reporting to him.

patronize those dealers. At the same time a list of dealers who are prospective customers is also given, and it is suggested that a local farmers' ice cream committee be organized to call on these prospects. Extensive advertising also helps to create and increase the demand.

To show the fairness of attitude of the association in the matter and as indicating that no attempt is made to coerce dealers, the following quotation, taken from the "Dairymen's League News," is of interest. While overzealousness is not desirable, it is a good sign when members are enthusiastic about their organization:

"Reports have come to us that in some localities the enthusiasm of farmers over the League ice cream has led some storekeepers to feel that they might be boycotted if they did not put in the farmers' brand. While we realize that the farmers in most localities are probably very anxious to see their own brand of cream sold there, nevertheless they should realize that they may constitute only a part of the entire community, and that the storekeeper has to be guided at all times by what he thinks will please the largest number of people. We feel sure that no locality has had any intention of boycotting any merchant because he did not put in League ice cream, although it may be that the enthusiasm of some farmer communities has resulted in some such feeling on the part of the merchants.

"Any such effort would, of course, be a fatal mistake and would lead to all kinds of trouble. Let us boost League ice cream and all League products every chance we get, but let us keep constantly on guard against doing anything that might make any merchant feel that he was being forced into handling League products.

"Just a little good-natured, honest boosting from all of us and the high quality of League ice cream will do the rest."

No Sales Expense

Perhaps the most striking fact about this ice cream campaign is that it was conducted at practically no expense to the association. Ordinarily an ice cream manufacturer must send out salesmen to see the dealers, several months in advance of the summer season, especially when he is trying to sell in a territory in which he has not done business before, or where competition is keen. These salesmen must be paid, either in salary or commission and in addition their living and traveling expenses must be taken care of. Think of what a heavy expense this is. And of course it must be added to the price of the ice cream and is paid in the end by the consumer, whether he is a city man or a farmer.

(This is the third of a series of articles on the activities of the N. Y. Dairymen's League Co-operative Ass'n, written exclusively for Business Farmer readers. The fourth will appear in an early issue.—Editor.)

Europe's Crops Below Last Years', Says Department of Commerce

BELIEVING that the European food situation will continue for several years at least to have a marked influence upon the American price for bread-stuffs, it is the aim of the Business Farmer to keep its readers advised so far as possible on European developments.

When the war closed Europe's agriculture was pretty badly shattered and it was evident that for a year or two the countries over there would have to import large quantities of foodstuffs from the United States. But it was supposed that after the second year European agriculture would be on its feet again. However, despite the encouragement that has been given to agricultural enterprise by both government and private agencies, most of the countries are still far from the pinnacle of their pre-war agricultural production.

An examination of export statistics will show how important a factor exports of wheat are. From Aug. 1st, 1919 to July, 1920, the United States and Canada exported 276,693,000 bushels of wheat. For the corresponding period of 1920-1921, these two countries exported 405,255,000 bushels; and for the same period the next year, 381,368,000 bushels. These exports represented from a trifle under one-third to a trifle over one-third of the total production of the two countries. Since last November, the United States has exported 116,177,000 bushels of corn or fifty times as much as was exported in 1919-20 and over twice as much as in 1920-21. Since Aug. 1st the North American continent has exported 40,429,000 bushels of oats, or twice as many as were exported during the same period of the previous year.

The following timely information is furnished by the U. S. Department of Commerce and is gleaned from the consular agents in the various countries referred to:

Smaller Wheat Crops

The month of June provided fair-weather conditions for European crops, with adequate rainfall in England, France, Rumania and northern Italy, cables Alfred P. Dennis, special representative of the Department of Commerce, Rome. In Germany, southern Italy, Austria, Czechoslovakia and Hungary, however, the reports still show insufficient rainfall to meet agricultural needs.

The corn crop in Rumania presents a fine appearance, although the acreage, as officially reported, falls short of expectations. In Italy the acreage of corn is practically the same as last year, with the plants advancing under perfect growing conditions in the north, but in the southern Provinces already seriously injured by the continued drought. Spain has reduced the import duty on corn and is importing larger quantities of this commodity from the United States.

France Will Need One Million Tons of Wheat

Italy's wheat harvest is under way, the yield of the present crop year is estimated at 15 per cent less than that of last year. The Italian Government is preparing to ask for bids on 20,000 metric tons of No. 2 red winter wheat, whereas Manitoba wheat has heretofore been specified. According to official estimates the wheat yield in France this season will show a decline of from 15 to 20 per cent from the yield of last year, which means that in order to meet the country's requirements France will be obliged to import no

less than 1,000,000 tons of wheat. The marked fall in flour consumption in England is thought to be due to the prevailing hot weather and to the abundant amount of vegetables procurable.

German Demand for Bread Grain

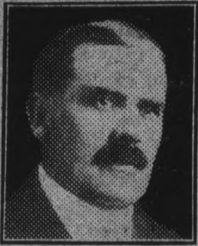
In view of the prospects for a poor harvest, the German Government is already contemplating measures for food provisioning, and a bill is now under discussion whereby 2,500,000 metric tons of grain will be requisitioned from the German farmers, at a cut-rate price, and there will be also a provision in the bill for the purchase from abroad of 2,000,000 metric tons of bread grain. The noticeable drop in the consumption of meat in Germany is undoubtedly traceable to the unorganized strike promulgated by the meat-consuming public as a protest against the prevailing high prices.

The Sugar Crop Situation

The sugar-beet crop of the present season is exceeding last year's production in France, Spain and northern Italy, but so far as the yield is concerned, the situation is unsatisfactory in Hungary, Czechoslovakia, and Germany. The latter country is, at present, importing sugar and will hardly be able to do better than to take care of its domestic requirements with the results of the coming harvest.

It is anticipated that the entire wheat crop of Europe will be smaller than it was last year and that the imports of wheat will consequently be increased. The crops of hay, potatoes and sugar beets are exceeding the production of last year with the exception of the yield in Germany, Hungary and Czechoslovakia.

PICTURES FROM FAR AND NEAR



AMERICA'S LARGEST COLISEUM IN COURSE OF CONSTRUCTION AT MICHIGAN STATE FAIR GROUNDS

WORKMEN are rapidly rushing to completion at the State Fair grounds what is declared will be the largest coliseum in the United States at a cost of nearly a quarter of a million dollars. The Coliseum will not only be a valuable addition to the property of the State Fair, but will serve as an insurance against bad weather, as it is so planned as to house in inclement weather nearly all kinds of entertainment features which are ordinarily put on in front of the grand-stand.

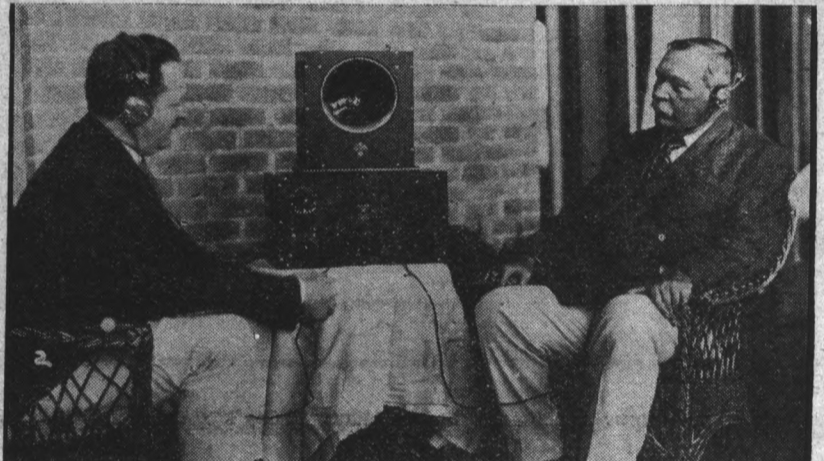
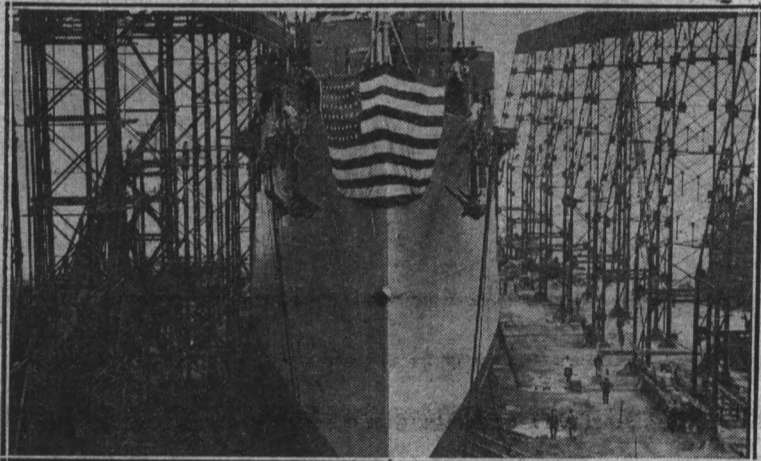
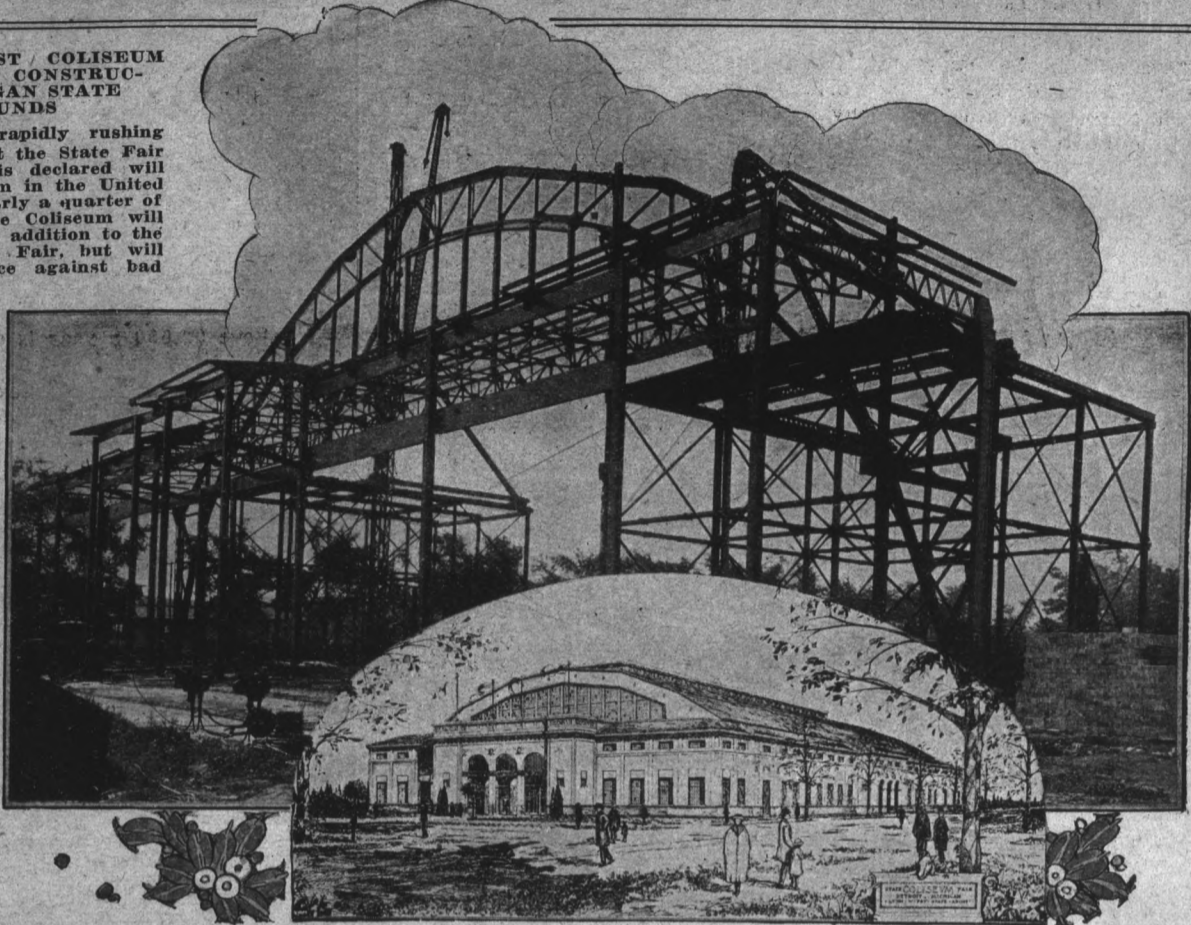
Geo. M. Dickinson, Secy.-Manager Michigan State Fair

Manager Geo. W. Dickinson expects to make the Coliseum entirely self-supporting from the proceeds during the Fair and from other events which will be staged there when the Fair is not in progress.

The Coliseum which is being constructed of steel and hollow tile, will be as nearly fire-proof as it is possible to make it and will seat approximately 5,000 people.

The principal use to which it will be put during the Fair will be for judging cattle and horses, from Monday to Friday, Sept. 4-8th. There will be no charge for admission to the Coliseum during the day, but a charge of 50 cents will be made in the evening, at which time an entertainment will be put on with an historical pageant requiring from 1,000 to 1,500 people and closing with a bang-up good horse show.

To Mr. Dickinson, secretary-manager of the Fair, undoubtedly goes much of the credit for this splendid structure. For years Mr. Dickinson has had dreams of a coliseum of this kind and as the Fair prospered he realized that his dreams might some day come true. Last fall he accompanied Mr. H. H. Halladay, then State Commissioner of Agriculture, to Springfield, Mass., to view the then largest Coliseum in the United States on the fair grounds of the Massachusetts Agricultural Society. It was this visit which convinced both Messrs. Dickinson and Halladay of the necessity and value of a Coliseum to the Michigan State Fair if it was to continue in its place of leadership. The view above shows the Coliseum in course of construction and the architect's drawing of what the building will look like when completed.



Pride of Michigan. The new U. S. cruiser, "Detroit", fastest boat ever designed by the U. S. navy, ready for the high seas just after her christening at Foro River, Mass., by Miss Madeline Couzens, daughter of Mayor Couzens of Detroit. The poor old battleship, Michigan, will look like a tin Lizzie alongside this marathon of the seas.

S-sh! Listen to what the spirits have to say. Sir Arthur Conan Doyle (right) "tuning in" for the spirit world. Sir Arthur, devotee of spiritualism, says the wireless may be the "missing link" of communication between the living and the dead. Mebbe so, mebbe so, but then again, mebbe not. Anyway, it's interesting to think about.



Kids Elope without Parent's Consent. Young Jimmy Beach, aged 80 years, returned to the little hamlet of Hanover, N. J., after 60 years of wandering, to find that his old sweetheart, Myra Green, just turned 75, was still waiting for him. So they up and eloped just like foolish young things in love so often do.

Champeen G. O. P. B. (Grand Old Party Buster) of the middle west. Lynn J. Frasier, governor of North Dakota, birth-place of the ne-far-i-ous Non Partisan League, still wearing his fighting face after he had mopped the ground with Sen. Porter J. McCumber in the state's recent senatorial scrap.

Was it brains or good looks or both which won for Mrs. Anna Dickie Oleson the endorsement and nomination of the Democratic party for the United States senatorship from Minnesota? Mrs. Oleson is the first woman in the country to receive the endorsement of a major political party.

E. C. SIMMONS
KEEN KUTTER
CUTLERY TOOLS

"The recollection of QUALITY remains long after the PRICE is forgotten"
—E. C. Simmons
Trade Mark Reg. U. S. Pat. Off.

It doesn't make any difference what kind of a job you've got on hand—whether it's a new corn crib to be built or some tinkering to do on the tractor—you can do it better and easier and quicker with Keen Kutter tools.

They're real honest-to-goodness tools, wonderfully made to turn out honest-to-goodness work. They sure do stand up under service. A well-equipped farm has plenty of good tools. Make yours all Keen Kutter and your farm will be tool-equipped for life.

Sold by leading retailers everywhere.

Simmons Hardware Co.

Our prices on all Keen Kutter tools have been reduced. Ask your Hardware Store about today's values.

KEEN KUTTER

What the Neighbors Say

WANTS TAX REDUCTION
I WAS much interested in the recent article by "Uncle Joe Cannon" and the reply by the editor. The editor things Uncle Joe unduly pessimistic but I think we have much cause for pessimism.

I take issue with the editor when he says taxes haven't increased out of proportion to the increase of wealth. Taxes in Boyne City are 6 1-10 per cent of the assessed valuation and writers in M. B. F. report taxes of 12 and 13 per cent. I believe such rates of taxation were unheard of a few years ago.

I believe \$2,500 a year is enough for a Circuit Court judge and that we could get plenty of capable men for that salary. I can't understand why a farmer should be willing to pay such high salaries when he must be contented with such meager returns for his own efforts.

I believe an income tax would be a just tax and that it should be provided but it won't help us any. It will just furnish more money to be spent. Plans to spend the money will be made long before any money is received from the tax.

One of the greatest causes for high taxes are our public schools which account for half of our expenditures, much of which is worse than wasted. Every little school must have its agricultural instructor, its domestic science department, its manual training department, its athletic department whose only reason for existence is to furnish extra positions at the public expense.

I believe the work our high schools are doing in the common branches isn't as good as the work done by our country schools 40 years ago. The Minnesota high school that offered a selection of 62 courses, 38 academic and 24 vocational, is only an extreme example of the tendency in all our schools.

I believe the movement for consolidated schools, except in a few exceptional cases, is an outrage on the public.

We have turned our educational system over to educators and they are exploiting it for their own benefit. The present attempt to make the office of Superintendent of Public Instruction appointive instead of elective is simply to get it as far away from the control of the public as possible.

A soil survey of the state is a new activity just started. I understand it starts in Charlevoix county and takes the form of experiment on three farms.

When you consider the number of farms in Charlevoix county and that there are 83 counties in the state you can form some idea of the positions it will provide, for the deserving for years to come.

Of course those fellows have spent time and money to get their education, and we are supposed to provide attractive and lucrative positions for them for the rest of their lives. And of course the Agricultural College will go to the legislature and ask for increased appropriations to provide for the extra work.

I believe we have an efficient and business-like state administration but they are doing nothing to reduce taxes, quite the contrary. This is a great opportunity for the democratic party in this state. If they would come before the people with a practical plan to reduce taxation and throw all other issues aside I believe they would stand a chance of carrying the state.—K. S. Wood., Charlevoix County.

I am sorry that you don't agree with my statement that taxes have not increased out of proportion to the increase in wealth. It's true, anyway. They may have increased out of such proportion in Boyne City because Boyne City is a decadent lumbering town and its wealth today is less than it was ten and fifteen years ago. The same may be said of many other towns in Michigan and of thousands of rural centers throughout the United States. But it cannot be said of Detroit, Flint, Grand Rapids, Mount Clemens and other centers of population where the wealth is two to five times as great as ten years ago. Taking the country as a whole taxes have not increased as rapidly as wealth. Your taxes have and so have the taxes of nearly all farmers, but millionaire John Jones of Goldville and Manufacturer Jim Smith of Easytown and Financier Bill Rocks of Capital City are raking in the

shekels ten-fold to what they used to, and paying about the same old rate for the privilege. That's why we need an income tax to distribute the burden of taxation according to the benefits derived. And if the state of Michigan spends that much more money the farmers ought to be kicked all over a 40-acre lot because they have it in their power to prevent it. We shall see from the results of this fall's election whether farmers are just talking a lot of hot air about taxes or whether they really want them to come down.—Editor.

COUNTY GOVERNMENT
I HAVE been expecting to see in your valuable publication discussion of the proposed county commission form of government for counties. We have been discussing it in our Grange here and also the county Grange and it looks to us that it is inspired by politicians. It opens the way to increase the representation of the incorporated cities on the board of supervisors. It would encumber the county with from three to nine additional highly salaried officials. Officials which in counties having large cities would be chosen largely from the cities and officials who would take away from our representative board of supervisors their constitutional powers and any other power that the legislature may vest in the commissioners.

The agricultural organizations are not behind this measure. Who is? I hope this will be thoroughly brought before the voters before election.—Howard Smith, Saginaw County, Mich.

The supporters of this measure failed to secure the necessary number of petitions so that it will not be submitted this fall. There has been much discussion on the subject in the M. B. F., which you have evidently failed to see. The M. B. F. is not sure that the proposal is as vicious as it appears on the surface, but intended to present arguments on both sides, based upon the experiences of counties in other agricultural states, had the measure been submitted.—Editor.

HORSE-SENSE
HAVING read with interest the letters about styles I would like to speak a piece, too.

The adverse comment has not been based on the clothes of the average woman, nor on the majority of women. I think most of us will admit that the girl and man in bathing suits, described some time ago, by H. W., were not behaving properly, but the entire population is not likely to follow their example. Nor are we likely to see beavies of young women roaming the fields and orchards holding pieces of embroidery in front of them. It is decidedly NOT the prevailing fashion. Boys and young men may play in the old swimming hole, clad only in nature's garb, but we are going to stay modestly away. If we happen to see them we are not going to write to the papers and rave about it. We mothers and older sisters have given the lads their bath every Saturday night for several years. We are not interested in their bare flesh.

The New York magazines state that Paris is adopting the ankle length skirt, and show illustrations of this style. It reminds one of a bathrobe. I would hate to pick cucumbers, or go berrying in one of those swishy, long skirts.

The dress worn by the majority of Michigan women has more to recommend it than ever before. We have galoshes to keep our feet dry, woolen stockings in many cases, knickers, which are better than "petticoats." We have the moderately short skirt, usually it covers our knees well, and is made of some opaque material. We have the unrestricted waistline, free neck and arms, bobbed hair if we think it becomes us, tho I don't favor it personally. No wonder the women of other countries envy us!

As a whole I believe the adverse comment is very unjust, for it is based on a few exceptional cases. The neighbor who arose to denounce in thundering tones, but retired behind his initials, is a brave man. Very, very brave! Yours seriously.—Mrs. Julia Copeland, Emmet County, Mich.

We are indebted to you, Mrs. Copeland, for your frank and clean contribution to this discussion. Pardon us for not publishing your letter sooner. There are extremes as you say—always have been—

Before You Buy A Silo Compare Quality and Prices

The first patent ever issued on a silo was awarded Kalamazoo over 30 years ago. Experience has again proved a good teacher.

Kalamazoo Tile and Wood Silos
are the standard of the world today. A Kalamazoo silo is a money-maker for you. A poor silo is an expense. Over 70,000 farmers can testify to Kalamazoo reliability and stability.

Our Glazed Tile Silos are built of absolutely moisture-proof glazed tile—positively weather tight. Blocks have three dead air spaces—resist heat, cold, moisture, vermin. Need no paint or repairs. Will not warp, decay nor blow down.

Our Wood Stave Silos have stood the test of 30 years. Air-tight joints, deeply grooved, tongued and splined. Shipped ready to erect. No nails or screws needed. Both tile and wood silos fitted with our famous continuous door frames of heavy galvanized steel.

Kalamazoo Glazed Building Tile has many uses about the farm. It is permanent, everlasting, economical construction. Reduces fire risk and insurance, beautifies the farm. There's a difference in tile. The book tells you how to judge tile. Write for a copy and our new low prices today.

Kalamazoo Tank & Silo Co.,
Dept. 244 Kalamazoo, Mich.
Ask us about our Ensilage Cutters

WOOD AND TILE SILO GUIDE FREE
Prices are Down Write Today

AGENTS WANTED
To solicit subscriptions for the Business Farmer. Liberal commission or salary and expenses. Write Agency Mgr., The Business Farmer, Mt. Clemens, Mich.

PLEASE MENTION THE MICHIGAN BUSINESS FARMER WHEN WRITING TO ITS ADVERTISERS

but the great rank and file of women are not abusing their new freedom from the slavish customs of old.—Editor.

FAVORS CONSOLIDATION
A WRITER in the M. B. F. discusses the unfitness of the average rural teacher as an argument against consolidated schools. About 90 per cent of the one-room district schools have teachers who are not qualified for their job. And why? Because the school boards of those districts won't pay sufficiently high wages to induce a Normal trained teacher to teach there. With a properly constructed and well equipped consolidated school, the standard of training required of the teachers is sure to be raised. A position in such a school will draw better teachers because there they have much better surroundings and better conditions under which to work. Each teacher can have one or two grades to devote his or her whole time to, while in the district school a teacher must teach all the way from 1 to 45 pupils or more, and all grades from the first to the eighth. The average length of a class period in the district school is from five to twenty minutes, in the consolidated school, from thirty to forty-five minutes or more. These are a few of the reasons why a child can be taught more in a consolidated school.

An \$85,000 bond issue is a large sum. But what will you farmers get for your money? Do you know? Most rural people do not. It is the educators, who have studied the question, who know what the rural consolidated school can and does do for the rural people. It is the business of the educators to know the best ways of educating children as much as it is the farmer's business to know how to raise corn and hay.

No one wants to put his little five-year-old tot in a bus to be bumped around for miles. Surely not. A child at that age should not be in school. Better he should not go until he is seven. Then too, if five year old Johnny must be sent to school to get him out of mamma's way, the consolidated school will take better care of his health and morals than the one-room, one-teacher school ever can. The consolidated school has the aid of trained teachers, a person to oversee and direct the child's play, indoor toilets, and supplies necessary to take care of the health of every individual child. Also it has the proper hygienic surroundings afforded by an up-to-date school building. As far as small children suffering in being transported to and from school, the busses are required to be as comfortable as modern inventive genius can make them. Besides, the children all aren't going to be small always are they?

If farmers would only think open-mindedly with fairness to both sides, if they would obtain literature and data upon the subject from both or all angles, I believe, in fact I am sure, that the great body of the rural people of America would give their hearty approval to the consolidated school. The farmer doesn't use the flail to thresh his grain any more or the cradle to cut his grain; why, then, should he insist upon clinging to an educational system that has been superseded by better and improved methods?

I wonder (come to the root of the matter) if the farmer is thinking more about his school than he is about his school tax. All things considered a tax for a better school will not be a real burden. Where the consolidated plan has been tried the people wouldn't go back to the old one-room school any quicker than they would go back to using scythes to cut all of their hay. Education is an investment; and "an investment in knowledge always pays the best interest." Study it out for yourself.—C. A., Macomb County, Mich.

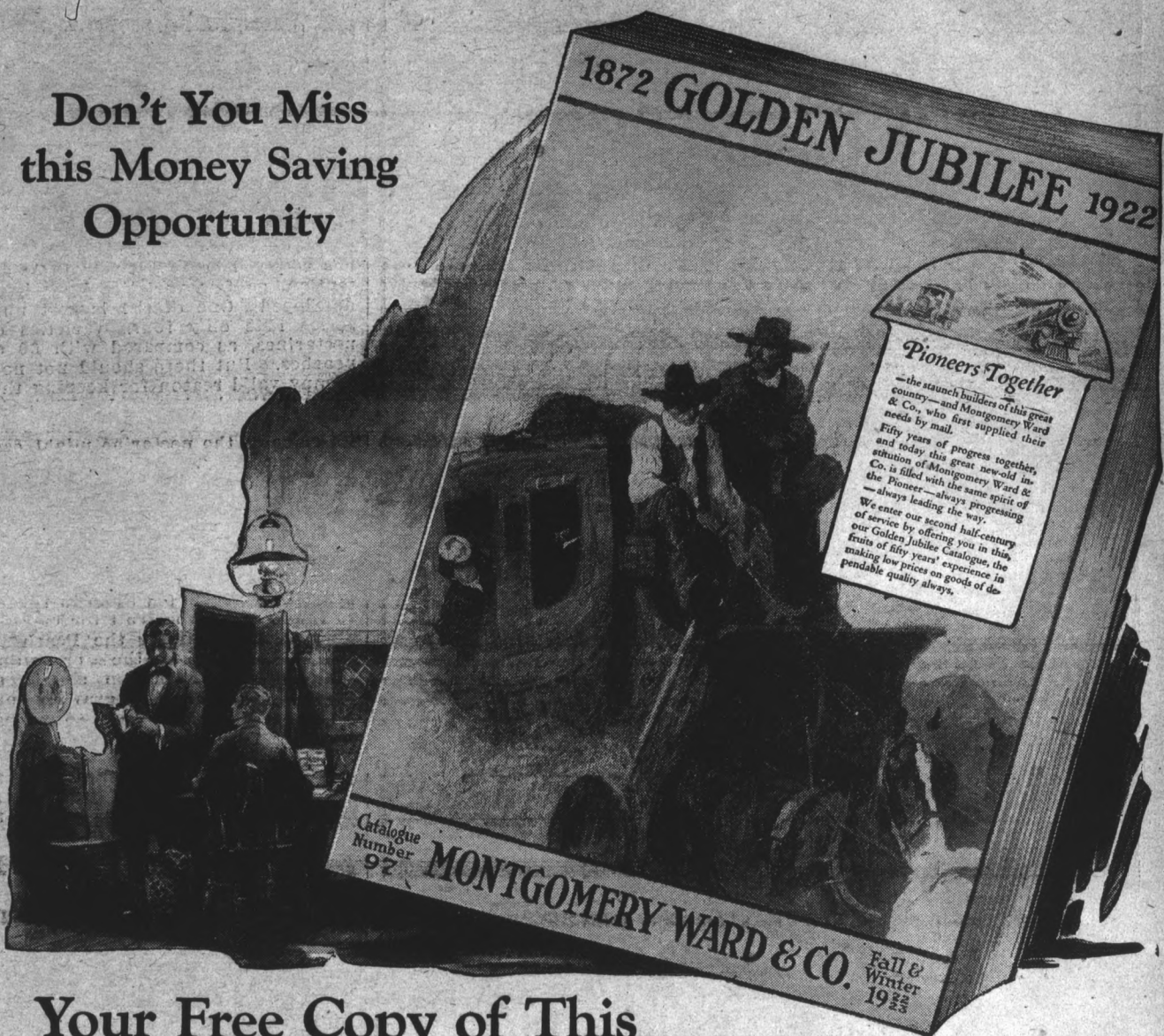
Cow's Nest
 Two town-bred urchins went into the country, and one came across a lot of old condensed milk tins in the corner of a field.
 "Here, Jack," said the discoverer, "come here quick! I've found a cow's nest!"—Exchange.

The class in natural history was reciting. Finally the teacher asked, "Where is the home of the swallow?"
 Long silence and then a hand waved.
 "Robert, you may answer."
 "The home of the swallow," declared Robert seriously, "is in the stumick."

Montgomery Ward & Co.

The Oldest Mail Order House is Today the Most Progressive

Don't You Miss
 this Money Saving
 Opportunity



Your Free Copy of This Golden Jubilee Catalogue Is Now Ready for You

Fifty years' experience in making low prices, in selecting worthy, serviceable goods, and offering them at a saving, has gone into the making of this big complete Golden Jubilee Catalogue.

Your FREE copy is waiting here for you. To write for it today is to learn the lowest price you need to pay for everything you need for the Home, the Farm and the Family.

There is a Cash Saving of at Least \$50 for You

Getting the right price today is a matter of choosing the right place at which to buy. To know the lowest price, to get the actual market price on everything you buy, will mean a saving of at least \$50 on your needs and your family's needs this season.

Montgomery Ward & Co. quote the lowest prices possible on new, fresh merchandise of serviceable quality. We do not sell cheap unreliable merchandise. We do sell good goods at the lowest cash prices of the year. To buy from Montgomery Ward & Co. is complete assurance of Satisfaction and Certain Saving.

Everything for the Home, the Farm and the Family

For the Woman. Are you interested in New York styles, the newest styles? Ward's own fashion experts have selected in New

York everything for you and for your children—coats, suits, dresses, hats and shoes, and all are offered to you at a big saving.

For the Man. Do you want full value for your dollar? All your personal needs, everything from clothing to a good cigar, is offered you at prices that bring you the greatest return for your money.

For the Home. Everything that goes to make the home modern and pleasant, rugs, wall paper, furniture and home furnishings are shown in this catalogue at prices that save many dollars.

For the Farm. Everything the farmer needs—tools, roofing, fencing, paint, hardware, of guaranteed dependable quality—at amazingly low prices.

Every item in this catalogue is guaranteed exactly as pictured and described. Your money back if you are not entirely satisfied with everything you order.

Your Orders Shipped Within 48 Hours

We announce a new perfected service for you.

After a year's work, and study, originating and testing new systems, and employing experts, we have perfected a new system that makes certain a very quick and satisfactory service to you.

Practically every order that comes to Montgomery Ward & Co. this season will actually be shipped and on its way to you in less than 48 hours.

Lower prices, better merchandise, and now a new service. True it is indeed that "Montgomery Ward & Co., the Oldest Mail Order House, is Today the Most Progressive."

Mail this coupon
 to the one of our five houses nearest you

To MONTGOMERY WARD & CO., Dept. 11-H
 Chicago, Kansas City, Saint Paul, Fort Worth,
 Portland, Ore.

(Mail this coupon to the house nearest you.)

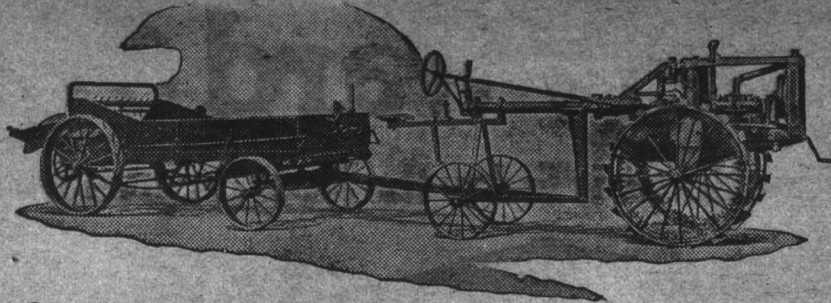
Please mail me my free copy of Montgomery Ward's Golden Jubilee Catalogue.

Name

Address

MONTGOMERY WARD & CO.

Chicago Kansas City St. Paul Fort Worth Portland, Ore.



Given to Mrs. Chas. Lute—Now Almost "Given" to YOU at This Sensational Low Price!

THIS is the genuine Allis-Chalmers 6-12 tractor which was chosen by the Michigan Business Farmer as the grand premium in its subscription contest which closed June 1st. It was given to Mrs. Chas. Lute, R. F. D. No. 2, Farmington, Michigan. Now Allis-Chalmers quotes a \$545 reduction on its 6-12 models—offers these tractors at a figure so low that it is being talked about everywhere as the "give-away" price of the tractor industry.

\$250

Was \$795, now \$250; 68 per cent reduction overnight! Same machine—same quality. Tried, tested and endorsed by scores of farmers over a period of years.

Cheaper than a portable engine of equal power. 12 H. P. on the belt; 6 H. P. at the drawbar. Does work of three horses—pulls sulky plow, hay-loader, binder, manure spreader. Grinds feed, fills silo, saws wood.

No extras to buy—comes complete with lugs, governor, magneto, air cleaner, pulley. Price goes up when present stock is exhausted.

Send \$50 deposit with your order—NOW! Write today for illustrated folder showing the work this tractor will do on your farm.

ALLIS-CHALMERS MFG. CO.

Dept. L-1.

Milwaukee, Wis.

How Can You Afford NOT to Own One?

Insure In a Strong Company!

Total Assets, \$227,776.54

Fourteen stock companies and four mutuals retired from business in 1921. It is therefore important when you insure your automobile to select a company that has stood the test. Our company is now starting its eighth season of success and has paid over nine thousand claims to date, a total of over \$1,100,000.

The regular policy covers fire and theft up to \$1,000 and liability up to \$5,000. Additional fire and theft and collision insurance is furnished at reasonable rates. The months of May and June were the two largest months in the history of the company.

Join this pioneer mutual today. Tomorrow may be too late. See local agent or write to

The Citizens' Mutual Automobile Insurance Company.

Howell, Michigan

JOHN CLAY & COMPANY
LIVE STOCK COMMISSION—AT TEN MARKETS

CHICAGO, ILL.
OMAHA, NEB.
KANSAS CITY, MO.

BUFFALO, N. Y.
SO. ST. JOSEPH, MO.
DENVER, COLO.
SIOUX CITY, IA.

SO. ST. PAUL, MINN.
EL PASO, TEXAS
E. ST. LOUIS, ILL.

FRUIT and ORCHARD

EDITED BY FRANK D. WELLS

NECTARINES

Will you tell us what a nectarine is and whether it can be grown in Michigan?—G. W. S., Oakland County.

The nectarine is nothing more nor less than a smooth-skinned peach. Pits of either may produce the other. Nectarines may be grown in Michigan, though they are rare. Their culture is the same as for the peach. Some of the nurseries grow a small number, while many do not propagate them at all.

The objection to the nectarine has been that the smooth skin made the fruit liable to attack from the curculio and other insects, while the fuzz on the peach was a protection, but by spraying as plums these pests can be controlled. The fruit has received comparatively little attention, so few varieties have been developed. One of the largest nurseries lists only four varieties of nectarines, as compared with 60 of peaches. But there should not now be any valid reason for keeping this fruit in the background. With the present means of protection against its enemies the nectarine might easily become an important fruit. The smooth skin is a decided advantage over the peach for drying and preserving.

Have some of our readers had experience in growing nectarines? If there are any such we shall be pleased to hear from them in regard to the value of the fruit for market.

A Heavy Soil for the Peach

It seems to be the prevailing opinion that the peach should be planted on a sandy or gravelly soil. This has been emphasized so strongly that many who have lands favorably situated for growing this fruit hesitate to grow peaches because the soil is too heavy. Several years of observation, however, have convinced us that this is a mistake.

Peach trees grow rapidly on a sandy or gravelly loam and come into bearing early, but right here is a danger. They are liable to grow more rapidly than is good for them. None of the orchard fruits respond more rapidly to forcing than the peach. The result is too often a late growth that is tender and easily injured by an unfavorable winter. In the warm climates there is less danger from this source, but for the region of the Great Lakes the winters must be reckoned with.

On a clay soil the growth is slower at the beginning and more easily checked than on light lands. The trees may be more tardy in bearing, but usually live longer. It is more expensive to fit the ground and cultivate it, but that is more than balanced by the productivity when the orchard comes into bearing.

But though the soil may be heavy it should not be wet. The peach will not endure wet feet, not even as well as the apple. Unless the soil be

well drained it might better be used for some other crop than the peach. This fruit is profitable under favorable conditions, otherwise the orchard is a poor instrument.

NOTES AND COMMENTS

Now is the time to watch out for the red-humped apple worm. The eggs are laid in clusters and hatch in swarms. They quickly denude a small tree. Arsenate of lead will soon dispose of them. One nest allowed to develop may be multiplied into many thousands of hungry worms next year.

If the early spraying was attended to there should be few wormy apples in the fall. Nevertheless it is advisable to give the fruit at least one spraying of poison after the first of August. While the first brood of moths lays the eggs chiefly on the young fruit, those that come later deposit about three-fourths of their eggs on the leaves, where they hatch, feed and afterwards crawl to the apples, so poison on the foliage disposes of them. The saving of even a small percentage of fruit will pay for this extra spraying.

The codling moth is one of the immigrants for which America is indebted to Europe. Over there its parasitic enemies keep it in check, but unfortunately they did not come along with it. They have since been imported, but have not become numerous enough to be of importance. It is not impossible that they will some day be able to eliminate the pest, though that time looks far away, at least beyond many generations of spray pumps.

Cherries were free from worms this year. Nothing surprising in that. The frosts in the spring of 1921 wiped out the crop, consequently the adults found no place to lay eggs. The result was more effective than all the spraying that could have been done. It happens that way sometimes. The San Jose scale was hard hit by September freezes several years ago and has not recovered yet. Meanwhile, the parasites have been doing their work. Nature can be trusted to get things balanced after a time.

What variety is a good canning peach? This question is often asked by those who are planting a home orchard. Most persons prefer a peach medium in size, firm of flesh, small of pit. The New Prolific, Fitzgerald, Engel, Billmeyer and Golden Drop, are of this type, while the Crawford's, both early and late, are oldtime favorites. For a white peach, but of superior flavor, there is the Champion. The Elberta, well, fruit growers say that is grown to sell.

"The Story of My Pet Crow"

TELL US ABOUT YOUR PETS

HERE, folks, is a little human interest story about a pet crow. I enjoyed reading it and think you will, too. Crows, they say, are pests. They pull up corn and other plants and make a fearful racket about the premises—But they amply repay the farmer for such trivial annoyance by the amount of insects which they consume. Crows are "wise birds" and the things they do when tamed are amusing and wonderful. Read this story of John Roberts' pet crow and then send us a story of your pet crow, or dog, or horse, or sheep, or whatever it may be.—Editor.

I HAVE read with growing interest the articles written by subscribers about their strange pets so I will try to give an account of the antics of my tame crow.

In the latter part of May, 1920, I took my crow from the nest just before he was ready to hop out and shift for himself. He proved wild for a few days but his ravenous appetite conquered his fear and changed him to a beggar for he continually asked for food. As soon as he could scramble awkwardly about you would find him in front of the back porch stretching wide his cavernous mouth at the approach of anyone, or anything, even the cats.

Blacky, for he now went by that name, soon learned to come at a call. He always flopped down to eat and drink with the cats when they were called. If not hungry he would carry the food away, piece by piece, and hide it.

Blacky and a young kitten became the closest of friends and would frolic and tumble about on the lawn like two kittens. When kitty became tired of playing, Blacky would snatch up a small stick or bring a flower, and lay it down in front of kitty only to snatch it again, which would in a moment, provoke a friendly tussle.

At times I have even seen him lie

flat on his back like his friend the cat and kick wildly when he was pounced upon by his playmate.

I have seen him sit on a post, or behind the barn, and chuckle and sing away blithely for an hour or more. He would sway his head from side to side the while and look solemnly down below him as if he were preaching a sermon or arguing a case in court.

Blacky was always on hand to ride on the shoulder of any of the three men about the farm, when they worked in the field. It mattered not whether they were hoeing or driving a team or mower, rake or binder. He would hop off only long enough to nail a hapless mouse, or to bury some evil-looking bug, or to kill a small toad or snake.

Never a day went by that Blacky failed to ask for a basin of water to bathe in. Even on cold days he would bathe and sit on the sunny side of the house scolding crossly and shaking himself vigorously, or on windy days perch on a post with wings outspread until dry and silky again.

In the middle of August Blacky began picking out loose feathers. In two short weeks friend crow was transformed into one of the biggest, blackest, shiniest birds you ever saw. And loving! You never saw a more loving pet. He tried morning after morning to follow his two young masters to high school and on their returning at night, he would meet them half a mile down the road and ride home on a shoulder, making funny chuckling noises and rubbing his head about their necks and faces.

Blacky searched out and devoured the great worms with which our tomatoes were infested.

When we would drive in the yard with the Studebaker our pet would begin an inspection, tear paper and try to carry parcels away, or stand peering through the windshield, peck at it and try to enter that way.

When making repairs on various farm implements, care had to be taken lest the black rascal carry away nuts, washers and bolts.

Blacky had a peculiar way of greeting strangers. He would swoop down unexpectedly from some point of vantage, very often the porch roof, and emitting a loud squawk, peck the approaching comer on the head whether hatless or otherwise. It very often proved startling to be met in such an unusual manner. Occasionally he tried this trick on the home folks and seemed to derive pleasure from it. He never allowed a stranger to touch him.

Not long before our pet's untimely death, he sprang a new trick by pulling clothes-pins from the wash hanging on the line and had to be shut up until the clothes were dried and taken down.

One morning in early November we found him lying dead behind a horse in the barn. He had been in the habit of roosting on a harness peg and must have been frightened during the night and fluttered down under the horse's feet and was tramped upon. We all missed our pet very much and if possible want to get another soon.

As long as we had the crow, I never saw him pull a stalk of corn, or any food plant.

Father thinks that instead of placing a bounty on the crow, a fine should be imposed for each one killed.—John O. Roberts, Age 17, Gratiot County, Mich.

For Home Brew, Maybe

Pat went to a druggist to get an empty bottle. Selecting one that answered his purpose, he asked:

"How much?"

"Well," said the clerk, "if you want the empty bottle it'll be 5 cents, but if you have something put into it, we won't charge anything for the bottle."

"Sure, that's fair enough," said Pat. "Put in a cork."—The Western Fruit Jobber.

Wake Up—Then Get Called

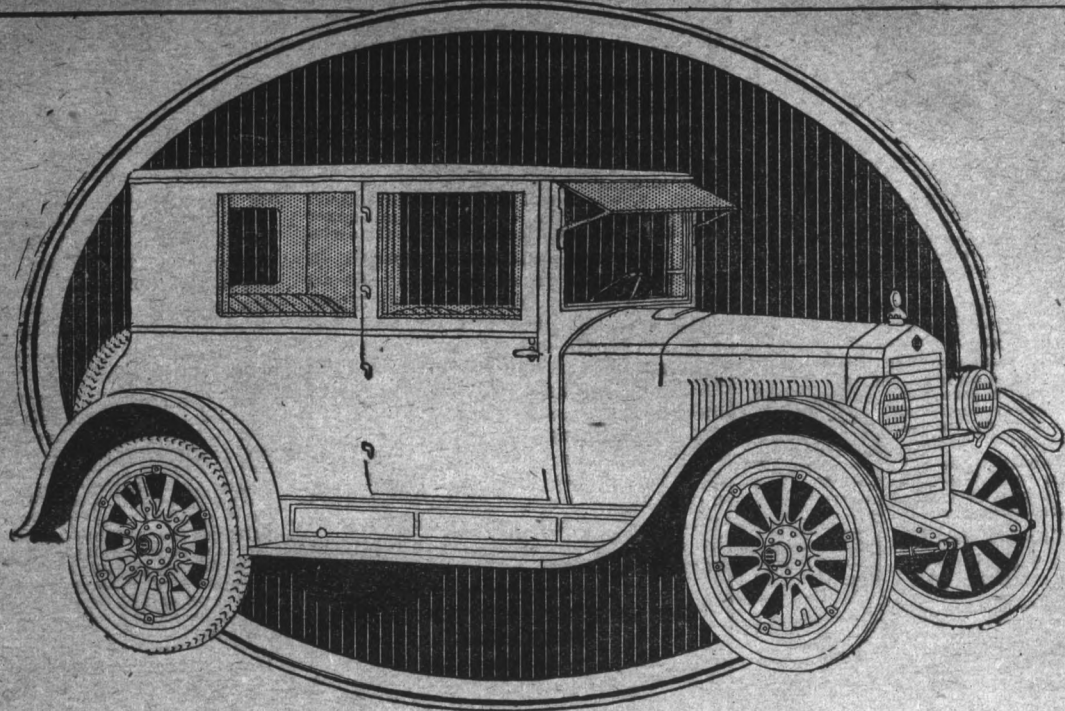
A New Yorker was spending a night at a "hotel" in a southern town, and told the colored porter that he wanted to be called early.

The porter replied: "Say, boss, I reckon yo' ain't familiar with these heah modern inventions. When yo' wants to be called in de mawnin' all yo' has to do is jest to press de button at de head of yo' bed. Den we comes up and calls yo'."

Humph

Henrietta—"What kind of a husband would you advise me to look out for?"
Charlotte—"You let husbands alone, my dear—it's asking for trouble—you get a single man."

ESSEX COACH \$1295



All-year Comfort and Dependable Service

With all the noted qualities of the Essex chassis, the Coach combines closed car utility, comfort and distinction, at an unrivalled price.

Note how little more it costs than the open car. That is made possible by great production. More Essex Coaches are now built than any other fine closed car.

You must see, examine and drive it to realize what is offered at this price.

Built to Endure Hard Service

The type of body construction is the newest. It gives a durable, comfortable type, of appealing distinction. But, perhaps more important, is the far quieter car that results. The Essex Coach construction absorbs and annuls practically all "drumming" noises of the closed compartment.

And the Coach is a product that will endure in good, useful service for

years. Come see, and drive it before you buy any car.

What Owners Say the Real Proof

There is a simple way to get the real truth about any car. Why buy blindly?

You have the all-important advantage of being able to ask owners. Make use of it. Find out how any car you think of buying has served others. What mileage does it give on gasoline and tires? What are upkeep costs? Is the second or third 10,000 miles just as satisfactory as the first? What is the future expectancy of good service after twenty or thirty thousand miles?

Just ask owners of the Coach how solid and quiet and free from rattles the body stays. How comfortable and easy it rides and handles. The satisfaction of owners is the best proof of all. Owners think because we believe their enthusiasm will win you, too.

Touring, \$1095 Cabriolet, \$1195 Coach, \$1295 Freight and Tax Extra

ESSEX MOTORS, DETROIT, MICHIGAN

Superior Construction Rock Bottom Prices



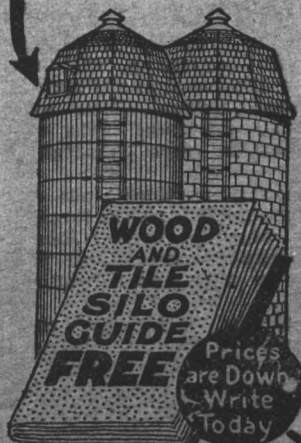
Spoiled ensilage means wasted time and fodder, therefore the first thing to look to in buying a Silo is to see that it is scientifically planned and constructed. Our thirty years' experience in Silo building is your protection.

Kalamazoo Tile and Wood Silos

mean the highest type of construction. Their permanence and reasonable price mean the utmost in economy. Our Glazed Tile Silo is built on the hollow-wall principle, having three air spaces—warm in winter, cool in summer, yet moisture-proof and everlasting. Kalamazoo Wood Stave Silos are the world's standard in wood silos—have stood the test of thirty years. Made of straight-grained, well-seasoned wood, air-tight joints, deeply grooved, tongued and splined; exceptionally resistant to heat, cold and moisture. Shipped ready to set up without nails or screws.

Both types have the famous Kalamazoo Galvanized Angle-Steel door frames, continuous doors and safe, convenient ladder. Send plans or rough sketch for free estimate on Glazed Building Tile for your farm buildings. It means permanence and economy. Investigate the Kalamazoo Ensilage Cutter—None better.

Kalamazoo Tank & Silo Co. Dept. 544 Kalamazoo, Mich.



Prices are Down Write Today

More Silage at Less Cost

THROWS AND BLOWS

YOUR silo will hold 10 to 30 tons more silage—worth \$50 to \$200—if you "own your own" Papec. (see catalog, page 5.) You will cut your filling cost, too.

The Papec is simple—fewer parts, less trouble, less cost, longer life, no chains, one-piece frame. With 6 fans it "throws and blows" to ANY height at 600 R. P. M. guaranteed. 3 h.p. up. Fordson easily operates 16" size. Papec Simplicity, plus quantity output, makes your dollar buy far more in a Papec.

Write today for free catalog. It will make your decision easier.

The Powerful PAPEC Ensilage Cutter



PAPEC MACHINE COMPANY 187 Main St. Shortsville, N. Y.

MICHIGAN BUSINESS FARMER "The Farm Paper of Service" Tell your friends about it

Saginaw Silage Means Better Cattle

Make more money by making your cattle do better—feed them Saginaw Silage. Saginaw Silage is aged next to the wood in Saginaw silos. Feeding Saginaw Silage means improved quality of beef. For the dairyman it means more milk.

Saginaw Silage can only be made in Saginaw Silos—we will tell you how to make it. Saginaw Silos are the largest, most complete line of silos in America. There is one to meet your needs, priced to suit you.

Before you buy a silo get our prices. Full information sent absolutely free.

The McClure Co. Saginaw, Mich. Cairo, Ill.



MR. FORDSON FARMER Be Your Own Thresherman

THE Port Huron "Fordson Special" Threshes: Wheat, Rye, Oats, Barley, Buckwheat, Kaffir Corn, Sorghum, Speltz, Milo, Maize, Rice, Peas, Beans, Timothy, Flax, Alfalfa, Redtop, Clover, etc.—enabling you to take care of all your grain and seed crops with your own equipment.

You can thresh when the grain is ready and you are ready. It will insure you against losses, due to bad weather, etc., of a part or the whole of your yearly harvests for nearly a lifetime.

Write for complete description and specifications—sent free.

Port Huron Engine & Thresher Co., Port Huron, Michigan

Cured Her Rheumatism

Knowing from terrible experience the suffering caused by rheumatism, Mrs. J. E. Hurst, who lives at 508 E. Olive St., B-363, Bloomington, Ill., is so thankful at having cured herself that out of pure gratitude she is anxious to tell all other sufferers just how to get rid of their torture by a simple way at home.

Mrs. Hurst has nothing to sell. Merely cut out this notice, mail it to her with your own name and address, and she will gladly send you this valuable information entirely free. Write her at once before you forget.

Only \$2 DOWN ONE YEAR TO PAY. \$44 Buys the New Butterfly Jr. No. 214. Light running, easy cleaning, close skimming, durable. NEW BUTTERFLY Separators are guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here; sold on and on a plan whereby they earn their own cost and more by what they save. Postals bring Free Catalog Folder. Buy from the manufacturer and save money. ALBAUGH-DOVER CO., 2260 Marshall St., Chicago

FREE BOOK on CONTAGIOUS ABORTION. Describes cause, effects and treatment; tells how farmers in all parts of U. S. are stopping the ravages of this costly malady. Write for free copy today. ABORNO LABORATORY, 42 Jeff Street, Lancaster, Wis.

Take Your Auto With You—To Cleveland or Buffalo. D. & C. Steamers leave daily for Cleveland 11 p. m. For Buffalo 6 p. m. Auto rates reduced 15 to 25 per cent. Day trips to Cleveland Tuesday, Thursday, Saturday, 8:30 a. m. Leave Third St. Wharf, Eastern Time.

MILK BOTTLE CAPS \$1.00. WITH ALL STANDARD MILK BOTTLES. PARAFFINED. PRINTED RED LIKE DESIGN BOX OF 1750 IN CAPS & 2000 WITHOUT LIP. PORTAGE FREIGHT. UNLESS & BOX RATE. 3000 FOR QUANTITY PRICES. A BOX THE AMERICAN MILK CAP CO., 200 WESTERN STATION, DETROIT, MICH.

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.)

CAN TEACHER FROM OTHER STATE TEACH IN MICHIGAN?

Would like to know what the state rule is for teachers outside of the state of Michigan, say from Oklahoma or Minnesota, making application to teach in this state. Where can I get the information? I have asked the county commissioner but she does not know.—E. R., Gladwin.

A teacher's certificate granted in another state is endorsed so as to qualify for the schools of Michigan only when the basis of such certificate is equivalent to the requirements for Michigan State Certificate. In each case the applicant is required to file with the State Board of Education of Michigan a transcript of the credits on which his certificate is based. The applicant must also meet the legal requirements of Michigan as to age and citizenship.—T. E. Johnson, Supt. of Public Instruction, Lansing.

NO LICENSE REQUIRED TO MAKE CIDER

I wish to press cider for the public this coming fall. Do I have to procure a license? If so, where do I get it? What kind of a building is necessary, or advisable?—J. L., Melvin, Mich.

The operator of a customs mill is not required to file bond and secure a permit provided he manufactures sweet cider only and does not retain possession of same at or after the time it contains 1-2 of 1 per cent or more of alcohol by volume.

He may manufacture and sell preserved sweet cider or cider placed in sterile closed containers without bond or permit. The responsibility of keeping the alcoholic content below 1-2 of 1 per cent volume rests upon the manufacturer, and in any case where cider is found upon the market containing alcohol in excess of the allowed percentage, the manufacturer will be presumed to have manufactured and sold an intoxicating liquor.

He may manufacture and sell vinegar stock or vinegar provided he files bond and secures permit so to do. A sale of vinegar stock by a manufacturer to a vinegar manufacturer must be upon Form 1410 (Revised) duly approved by this office. Sale of cider stock can be made in the manner mentioned above only to a vinegar manufacturer who has duly qualified as such by filing bond and securing permit from this office.

The owner of apples may manufacture cider and sell same provided said cider contains less than 1-2 of 1 per cent of alcohol by volume. He may also retain such cider in his home and allow it to become vinegar. No bond or permit is necessary. Person purchasing cider is not allowed possession or use of same after it contains 1-2 of 1 per cent or more of alcohol by volume.

The owner of apples may manufacture and sell preserved sweet cider or cider placed in sterile closed containers without bond or permit.

The manufacturer of vinegar other than a farmer must file bond and obtain permit to so operate. The sale of vinegar stock to such manufacturer must be on form 1410 duly approved by this office. The operator of a customs mill may qualify as a vinegar manufacturer by filing a bond in the sum of \$2,000 and securing a permit from this office.—Jas. R. Davis, Director Internal Revenue Service, Detroit.

REPLACING TILE DRAIN

Some time ago the Highway Commissioner tore the tile drain from our driveway. Do we have to put the tile back if he furnished them?—C. F. Conklin, Mich.

This question is somewhat indefinite in itself and I do not know under what circumstances the tile was torn from the driveway or whether the Highway Commissioner was acting within the scope of his authority in the matter of constructing highways and making the necessary gutters therefore, but if when the tile were taken from the driveway it was necessary that they be taken for the purpose of properly improving the road at that particular point, then the Highway Commissioner would not be obliged to replace the tile or other tile nor would he be

obliged to furnish tile for making the driveway as there is no provision in the law which compels municipalities to furnish tile for driveways for people living adjacent to improved roads.

If the commissioner is willing to furnish the tile in question and no one objects to his buying it for you, certainly you ought to be willing to place them for your own convenience as they are in no way a benefit to the traveling public.—State Highway Department.

FIRST AND SECOND MORTGAGES

A purchased a farm and stock and equipment of B and at the time of sale there was a mortgage against the real estate and another against the personal property and A gave B a second mortgage against the personal property as part of the purchase price, same to run for two years. Now the man holding the first mortgage, or chattel has given an extension of time and B's mortgage is due, and owing to the deflation of farm products A cannot pay B and B insists that A pay or he will foreclose. Can B foreclose with the other chattel in force? B's mortgage was due May 2nd. Wouldn't he have had to either file a renewal within 30 days or start foreclosure proceedings in that time? And if he filed a renewal wouldn't that prevent him foreclosing for another year?—F. M., Cheboygan County, Mich.

He may foreclose the second mortgage, subject to the first, as soon as the second mortgage becomes due. He is not obliged to renew it; and if he does renew it, it does not extend the time of payment of it for one year; but he may continue his foreclosure. Filing of the renewal is to prevent subsequent purchasers or encumbrances from gaining any lien ahead of his mortgage and make the mortgage good for another year, but does not prevent foreclosure at the time the mortgage is due. The foreclosure must be subject to the first mortgage; and, if his step to foreclosure endangers the security of the first mortgagor then the first may seize the property under the mortgage and proceed with his own foreclosure.—Legal Editor.

TO DESTROY POISON IVY

Will you please advise me how to destroy poison ivy?—Subscriber, Oakland County, Mich.

The only entirely satisfactory method is to have someone who is not susceptible to the poison dig out the plants and tear the vines down from the trees. These should be piled where they will not be easily run against and when dry may be burned when the wind is such that the smoke will not go toward any dwelling. The smoke is poisonous and must not be inhaled. A susceptible person should be careful not to touch the clothes or tools of the man who has been handling the poison ivy.

If a person suspects that he has come in contact with poison ivy, he should wash the part touched with strong soap suds repeatedly, rinsing off the soap and applying more. Even after the first signs of inflammation appear this washing with soap will reduce the injury by removing much of the poisonous oil. When once the inflammation has set in severely it is best to consult a physician.—E. A. Bessey, Professor of Botany, M. A. C.

PROPERTY EXEMPT FROM MORTGAGE FORECLOSURE

When a chattel mortgage is foreclosed, not signed by wife, can holder take all stock and machinery, or are there exemptions? Please answer this.—J. R. Sebewing, Mich.

The following property, if included in a chattel mortgage, will not be covered by the mortgage if signed by the husband alone. The wife must sign the mortgage with the husband to make such mortgage valid:

1. All sewing machines, not exceeding one machine for each family, all spinning wheels, weaving looms with the apparatus and stoves put up and kept for use in any dwelling house.
2. A seat, pew, or slip, occupied by such person or family, in any house or place of public worship.
3. All cemeteries, tombs and rights of burial, while in use as repositories of the dead.
4. All arms and accoutrements

Make \$13 More Per Cow

Free Book for Dairy Farmers Tells How to Cut Out Waste; Gives Valuable Building Hints

Do you know that the manure produced by one cow in twelve months contains fertilizing elements valued at \$39? And do you know that one-third, or \$13 of this amount is lost in the course of a year through improper handling? By providing a simple easy-to-build pit outside the barn, this loss can be prevented.



Write for this Free Book, "Concrete on the Dairy Farm" and see the many money-saving suggestions it gives on the use of concrete in making permanent improvements. Properly housed dairy cattle return greatest profit on the investment. This free book is recognized as a simple guide to 100% efficiency and economy in building on the dairy farm.

Fully illustrated with diagrams and pictures. Shows how to build barns, milk-houses, silos, icehouses, cooling tanks, paved barnyards, manure pits, water supply systems, etc.

PORTLAND CEMENT ASSOCIATION

Dime Bank Building DETROIT, MICH. A National Organization to Improve and Extend the Uses of Concrete Offices in 23 Other Cities

WANTED!

"Co-op" Manager

Large Co-operative Association in center of rich orchard and general farming section seeks immediate services of capable man as Manager. Write, wire, or make personal application at once. State fully experience in handling apples, potatoes, grain, etc., salary expected to start, and give references, two of which are bankers. Address

R. B. EMENS, Sec'y Holton, Michigan



FOR PERMANENT BUILDING

Make this year's improvements permanent with HOOSIER TILE. The strongest and best material for all types of buildings. No repairs, no painting, no up-keep. Beautiful and economical. Better conditions for livestock mean increased profits. Write for illustrated literature. Prices at pre-war level. Estimates furnished free. Get our special agent's proposition.

HOOSIER GLAZED TILE SILO

Saves a late corn crop. Cans your corn crop just like your wife cans beans or peas. Increases milk production, promotes growth of young livestock, saves high-priced mill feeds. Pays for itself in one season. Proof against fire, frost vermin and moisture. Purchase now saves money. Get our prices.

HOOSIER SILO COMPANY Dept. MB-56 Albany, Ind.

RADIO SUPPLIES

Aerial wire, magnet wire, insulators, receiving sets. Barker Fowler Electric Co. 117 E. MICH. AVE., LANSING, MICH.

required by law to be kept by any person, all wearing apparel of every person or family.

5. The library and school books of every individual and family not exceeding \$150, and all family pictures.

6. To each householder, ten sheep, with their fleeces, and the yarn or cloth manufactured from the same; two cows, five swine, and provisions and fuel for comfortable subsistence of such householder or family for six months.

7. To each householder, all household goods, furniture and utensils, not exceeding in value \$250.

9. A sufficient quantity of hay, grain, feed and roots, whether growing or otherwise, for properly keeping for six months the animals in the several subdivisions of this section exempted from execution, and any chattel mortgage, bill of sale, or other lien created on any part of property above described except such as is mentioned in the 8th subdivision of this section shall be void unless such mortgage, bill of sale or lien be signed by the wife (if he have any) of the party making such mortgage or lien.

The eighth subdivision mentioned is the list of property the husband, if he owns it, may sell, mortgage or otherwise dispose of without the wife's signature thereto and is as follows:

"8. The tools, implements, material stock, apparatus, team, vehicle, horses, harness or other things, to enable any person to carry on the profession, trade, occupation or business in which he is wholly or principally engaged, not exceeding in value \$250. The word team in this subdivision shall be construed to mean, either one yoke of oxen, a horse, or a pair of horses, as the case may be."—Legal Editor.

LAND IN NEWAYGO COUNTY

I want to know what I can raise on some land that is located 2 1-2 miles north and 1 mile east of Hesperia, Newaygo county, Mich. The soil is rather sandy. The clay sticks thru the sand at some places and at times is down to four or five feet. I imagine there may be no clay bottom on some fields.

Both White and Norway pine stumps and trees are present. Also other trees such as beech, maple, ash, hemlock. This land is offered very cheap and if you know of any serious drawback please tell me. I am told that you can not get a seeding, etc. Could I grow vetch and rye and later alfalfa? It is quite hilly.—W. B. Morrice, Mich.

The land in the location described is somewhat light but I believe by building up with the use of legumes and green manure can be made productive for the growing of beans and general farm crops although I think it especially adapted to alfalfa. If you can give me the exact description of the place you are interested in I will investigate it for you and give you a more detailed report. Of course there is some of this land in that section which is still covered with stumps and would necessitate some labor to get it in proper shape for production.—Clair Taylor, Newaygo County Agricultural Agent.

CANNOT COLLECT FOR ILLEGAL SERVICES

If a man who is not a licensed veterinarian treats a farmer's animals and charges an outrageous fee and threatens to sue for the fee, can he collect?—R. S. Fremont, Mich.

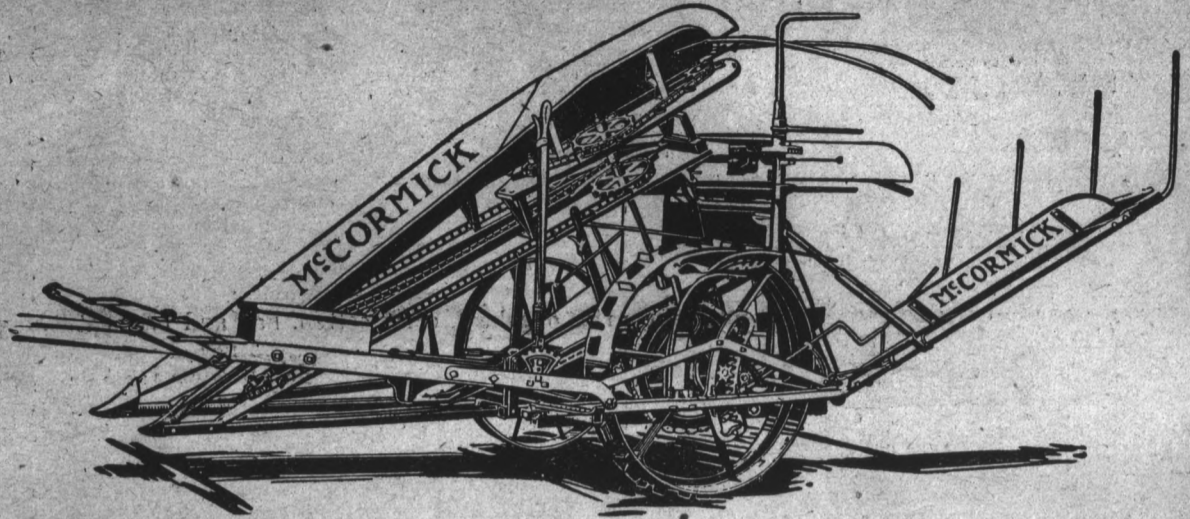
Sec. 6813 provides that it shall be unlawful to engage in or attempt to engage in the practice of veterinary medicine, dentistry or surgery without a license; and section 6824 provides a penalty for the violation of the statute. I am of the opinion that he would not be entitled to practice; if he does practice contrary to law that he could not use the courts to attempt to collect for such service.—Legal Editor.

STUCCO

I would like some information in reference to stucco. What the composition is? How to prepare it? How to apply it, etc?—M. E. P., Holt, Mich.

Stuccos are of two general types, cement and painted or stuccos which are principally magnesite. Magnesite stuccos are sold ready to apply and are usually applied by men designated by the manufacturers as being skillful in this work. Cement stucco is made up of cement, sand and lime in the proportion of 1 part of cement, 2 parts of sand and about 1-3 as much lime by volume as ce-
(Continued on page 19)

McCormick-Deering Corn Machines

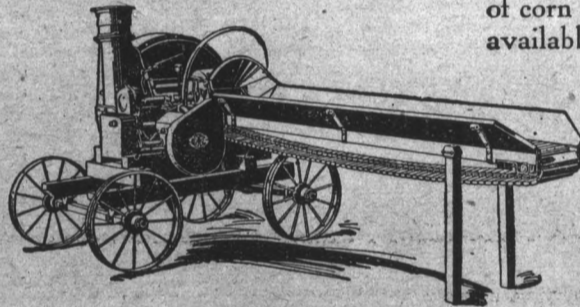


McCormick, Deering, and Milwaukee Corn Binders

McCormick, Deering, and Milwaukee corn binders cut and bind 5 to 7 acres per day. Wide-range gathering points save short, crooked, tangled and fallen stalks. Bundle carrier regular. Elevator to load bundles on wagon, or special conveyor bundle carrier provided on special order.

McCormick-Deering Ensilage Cutters

McCormick-Deering ensilage cutters are made in five sizes. Cut 3 to 25 tons per hour; 6 to 25 h. p. required. All working parts carefully housed. Force feed, large throat. Strong flywheels built of boiler-plate steel. Cutting and elevating done in one operation, saving power.



IN the coming autumn it will be necessary to take from the fields some three billion bushels of American corn. Corn harvesting machines must be put in order. This year, as in all years, profit will be determined largely by the efficiency of your equipment for handling this crop.

Veteran corn growers for years have made corn yields greater with the expert help of McCormick, Deering, and Milwaukee Corn Binders, McCormick-Deering Ensilage Cutters and other McCormick-Deering equipment. At the start of the corn harvest they are fortified by these machines and by dependence on the alert co-operation and service of this Company, its branch houses, and dealers close at every hand.

Thirty years ago began the pioneer work in the making of corn machines. Today, most efficient equipment is available for every operation. The careful corn grower will realize that the steady accumulation of Harvester experience is important for him. Whatever the need—for corn binder, picker, ensilage cutter, husker and shredder, sheller—McCormick-Deering dealers the nation over may be depended on for machines whose practical utility is everywhere acknowledged.

INTERNATIONAL HARVESTER COMPANY

CHICAGO

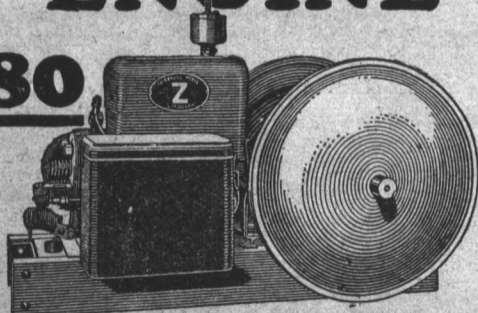
OF AMERICA
(INCORPORATED)

USA

92 Branch Houses and 15,000 Dealers in the United States

Remarkable Demand Greeted This "Z" ENGINE

\$44⁸⁰



F. O. B. FACTORY
1 1/2 H. P. Battery Equipt

The enthusiastic welcome accorded this "Z" Engine proves it meets the popular demand as regards both dependability and price. It delivers more than rated horsepower, has simple high-tension battery ignition, control lever gives six speed changes. Over 300,000 "Z" Engines in use. See your dealer or write us.

FAIRBANKS, MORSE & CO.
Manufacturers Chicago

New low prices on other "Z" Engines
With high-tension magneto and throttling governor
1 1/2 H. P. \$ 67.00
3 H. P. 100.00
6 H. P. 160.00
All f. o. b. factory—add freight to your town. (58)



Kalamazoo
ENSILAGE CUTTERS

are known from coast to coast as the standard. Strong, reliable, speedy, trouble-proof, easy-running, with a successful record dating back over a quarter of a century. Backed by a Guarantee that means absolute satisfaction and protection.

Ten Superior Features
Unbreakable knife wheel, center-shear cut, triple feed rollers, no vibration, "lifetime" channel steel frame, reversible shear bar, and other features are explained in the book. Send your name today.

Kalamazoo Tank & Silo Co.
Dept. 144 Kalamazoo, Mich.

Daylight Trips to Cleveland—D. & C. Steamers between Detroit and Cleveland Tuesday, Thursday, Saturday, 8:30 a. m. Arrive 4 p. m. Leave Third St. Wharf on Eastern Time. Steamers to Buffalo daily 6 p. m. Two night steamers Cleveland 11 p. m.

WANT TO SELL LIVE STOCK?
AN AD IN THE M. B. F. WILL DO IT

MICHIGAN BUSINESS FARMER
"The Farm Paper of Service"
TELL YOUR FRIENDS ABOUT IT

The Michigan BUSINESS FARMER

An Independent Farmer's Weekly Owned and Edited in Michigan

SATURDAY, JULY 22, 1922

Published every Saturday by THE RURAL PUBLISHING COMPANY, Inc. Mt. Clemens, Michigan

Represented in New York, Chicago, St. Louis and Minneapolis by the Associated Farm Papers, Incorporated Member Audit Bureau of Circulations.

GEORGE M. SLOCUM PUBLISHER
FORREST A. LORD EDITOR

ASSOCIATES:

m. W. Slocum, Jr. Business Manager
Henry F. Hopkins Plant Superintendent
Milton Grinnell Managing Editor
Grace Nellis Jenney Farm Home Editor
Frank D. Wells Fruit Editor
J. Herbert Ferris Radio Editor
William E. Brown Legal Editor

ONE YEAR (52 Issues) \$1; TWO YRS (104 Issues) \$1.50
THREE YRS. (156 Issues) \$2; FIVE YRS. (260 Issues) \$3.00

The date following your name on the address label shows when your subscription expires. In renewing kindly send this label to avoid mistakes. Remit by check, draft, money-order or registered letter; stamps and currency are at your risk. We acknowledge by first-class mail every dollar received.

Advertising Rates: 40c per agate line, 14 lines to the column inch, 772 lines to the page. Flat rates. Live Stock and Auction Sale Advertising: We offer special low rates to reputable breeders of live stock and poultry; write us.

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.

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

"The Farm Paper of Service"

Strike!

THE coal miners have struck. The railway men have struck. One more strike like either of them and poor old Uncle Sam will be out!

It strikes us that now is the time to put an end to strikes. Threats have been tried without results. Arbitration has brought us nowhere. 'Twixt the bull-headedness of the employers and the stubbornness of the union leaders and the impotency of the labor board the poor innocent bystander is as helpless as a worm in water.

There is one agency in the United States that can put an end to strikes. That is the government of the United States. But its hands are tied so long as the natural resources and the transportation facilities are owned by private individuals whose sole concern in their operation is profits and more profits.

We are faced with an emergency. Shall we swallow our objections to government ownership and proceed at once to a solution of the problem, or shall we freeze next winter and invite the wolf to the door by vainly beating about the bush for a solution which is not there?

As sole owner and proprietor of the mines and the railways the United States could settle the strike in short order. A national board of arbitration clothed with power to make investigations and enforce its decisions could soon arrive at an equitable basis of adjusting the demands of the strikers. If the strikers refused to accept the decisions of the board, there would be but one alternative. Put the standing army to work. Then coal would be mined; trains would be run; and the army would learn some useful trades.

The iron is hot. Better strike, Uncle Sam!

The Patient is Better

WHEN you're feeling fit as a fiddle and enjoying life to the uttermost, isn't it awful to meet with an accident that sends you weak and wobbly to bed and makes you feel like a last year's dish-rag, and shuts out all the joys of life? But, oh boy, ain't it a grand and glorious feeling when your wounds begin to heal, the fever cools, and at last you stand on your pins once more and breathe again the ozone of health and happiness?

That's what happened to every farmer in this country. Remember when wheat was \$3 a bushel; beans, \$10; potatoes, \$4; hogs, \$20? Gee-whillikens, wasn't we having a good time? Not as good a time, mebbe, as some other folks but still it wasn't to be sneezed at. But right at the zenith of our joy something happened. Agriculture received a sickening blow that sent it tottering to its knees. For nearly two

years Mr. American Farmer has been a verra, verra sick man.

A few statistics recently compiled by the Chemical National Bank of New York shows that the plight of the farmer has not been over-exaggerated.

Only once in the last fifty-six years was the farmer's condition worse than it was in 1921. In 1866 the farmer's purchasing power in pre-war dollars was \$8.05 per acre. From that time it gradually rose with occasional recessions to \$18.20 in 1917, but quickly descended to \$9.30 the latter part of 1920 and stayed there throughout 1921. The average value per acre of the leading crops in 1921 was \$14.52, the lowest since 1906. In 1919 it was \$35.74.

But the patient is improving. The April price of wheat, corn, cotton, hay and beef cattle averaged between 20 and 25 per cent higher than the low for 1921, and all down the line there has been a gradual improvement in prices on nearly all commodities since April.

The clacking of the binder is in the air and the maw of the threshing machine is hungry for the ripened grain. Across the way the bill-boards proclaim the approach of the county fairs. The crops are good and the exhibits will be wonderful to see. Within sixty or mebbe ninety days the frost will be on the pumpkins and the rest of the crops will be garnered into the fold. The nights will lengthen. There will be merry evenings again about the fire, with dough-nuts, apples, popcorn, cider, hickory nuts, 'an everything.

All this cheer and plenty will have a powerfully stimulating effect upon the sick man. And if prices only hold up we may expect to witness his complete recovery by Christmas.

Friday on International Politics

RUNNING through the masterly inaugural address of Pres. David Friday of the M. A. C., one finds many brilliant gems of thought on twentieth century economics and politics. Take this for instance:

"In international matters we are still mouching over the old shibboleths; we are still keeping alive the old prejudices. It is high time that someone was formulating a new international policy for this country which comported in dignity with our economic power. I fear that this task awaits a younger generation. Thus far we have produced little except a flow of congressional bombast compounded out of precedent and prejudice."

Here is a ringing challenge to those who through ignorance or prejudice would isolate America from the affairs of the rest of the universe. Here is a defy to those who in the blindness of partisan bigotry and the darkness of their illiteracy renounced the vows of America and turned traitor to the rest of mankind, and who still, in the embrace of a pride too arrogant to admit of error, impede the work of reconstructing the world's shattered political and economic structures upon which only a permanent peace can be built.

As citizens of a great republic we have the right to express our individual notions about the duty of our nation to other countries. But unless we talk with a full knowledge of the world's history and correctly interpret the lessons which it teaches, we shall wander into grievous errors of judgment and conduct.

We are wont to scoff at the internationalistic preachings of our men of letters, forgetting that they are the result of a thorough knowledge of the world's history and needs. If we as a people would pay more attention to our educators and less attention to our politicians we should be very much better off.

The State Fair

THE State Fair this year should be of larger interest to farmers than any fair of recent years. While this fair will retain all of its important industrial and entertainment features additional features of an agricultural nature will be established which should attract the largest crowd of farmers to the exposition in its entire history.

Of special interest to farmers is the tourist camp which will afford every farmer an op-

portunity to bring along the family and camp for as long as he pleases in comfort and security. A common objection offered by farmers who live at a distance to attending the fair has been to driving through the heart of the city and seeking lodging down town. With this objection removed and the assurance given that camping quarters will be available right on the fair ground, it is expected that many farm families will make State Fair week their vacation week and come down to the big show and exposition.

Of course, the Business Farmer's horseshoe pitching tournament will also be a big feature of this year's fair, and scores of farmers will come if for no other purpose than to watch the champions throw the shoes.

Those who have never attended the State Fair will find it well worth their time to do so this year, and those who have come before will miss the best fair in years if they do not come again. Take your vacation during State Fair week, pile the kids and the chicken and the pumpkin pie into the flivver or Packard and follow the arrows to the State Fair grounds.

Good News for the Bean Grower

BARRING a crop failure American farmers will produce the fourth largest crop of beans this year in their history. Under the conditions which have prevailed the last three years so great a crop of beans would spell a large financial loss to the farmers. But we have the best of reasons for believing that these conditions are no more and that even so great a crop as is now in prospect can be harvested at a profit to the producers. A U. S. Department of Commerce report dated July 15th, says:

"We are now eating more beans than we raise. For months American buyers abroad have been scouring the world's markets for beans. For the first time in several years bean shipments have been resumed from Mexico, and now Consul Wesley Frost at Marseille, France, advises the Department that American buyers have been demanding such heavy quantities of Roumanian beans in that market that local stocks have been exhausted. During April and May 100,000 bushels of the bean made famous by the historical New England port were shipped to the United States. In 1921 only 11,000 bushels and in 1920 less than 6,000 bushels came into this country from Marseille."

Here is certainly encouragement for the Michigan bean grower. It simply means that the bean supplies of the entire world are nearly exhausted and that it will require an unusually large crop this year to meet current needs and provide an average carry-over. The Orient is not growing as many beans as formerly and the permanent tariff of \$1.20 per bushel just approved by the Senate effectually removes the menace of Asiatic competition. All things considered we believe the Michigan bean grower may look forward with confidence to an active market and profitable prices on his 1922 crop.

The Barberry Menace

IF you saw an army of locusts approaching your wheat field and knew that within another hour the field would be laid waste to the ground if they were not halted, wouldn't you act as fast as you could to stop them?

The march of black stem rust is no less certain and deadly than the march of insects. It gives no warning of its approach. One day your fields of grain may be waving green and thrifty, but another day the enemy may be among them and all the power of human effort cannot save your fields from ruin.

The common barberry bush is the parent of black stem rust, and under certain weather conditions that rust will develop and spread for miles into grain fields. Destruction of barberry bushes have without exception stopped the rust and a great campaign is on throughout the entire country to destroy every barberry and put an end for all time to this menace. Barberry bushes are beginning to rust and everyone destroyed now will mean the saving of thousands of dollars later on. Every farmer should examine his fields and highways for the presence of this plant and dig it out root and branch. If in doubt of the identity of barberry your county agent can enlighten you.

Uncle Rube Spinach Says

JEST SO AN' MORE

EVERY once in a while or more often, I get a letter from some reader of M. B. F. Most of 'em mighty interestin' letters an' I'd like to answer 'em all—some through the M. B. F., some in a personal letter, but unless I heve name an' address I can't write personal letters, so please when writin' to Uncle Rube, give your address.

All this leads up to a letter from a friend, a reader of M. B. F., who differs with me a little regardin' the equality of the sexes—a man who thinks the male is jest a little mite superior to the female an' cites the deer—the big buck deer fightin' for the female. He cites a good many things like that, the male always in the lead, always fightin'—an' for what? Why, ain't he fightin' for somethin' jest a little bit better'n he is? Seems like a man who could write a letter like Mr. F. S. wrote to me could and would know that the very reason the male, animal or man, fights for the female, is because he knows the female is a superior being, a something he wants to possess; the only thing in human existence 'at can make a man happy or miserable, as the case may be.

An' so we go on, in the case of the deer, as Mr. F. J. has spoken—'bout the only thing cited by him that makes the male deer so much superior is the fact that he has horns with which to fight.

Why nature put horns on the male deer and forgot to put 'em on the female is beyond me—I have to confess I don't know. But jest because he has horns, jest 'cause the male of the human species has a little mite more muscle, is no sign he is more brave an' not a darn bit of a sign he is better'n the female of the species—not any day nor any place.

Now, to speak plainly, an' to show you that I am unbiased in my opinion, I want to impress this fact onto your mind—I DON'T LIKE WOMEN! As a gen'ral thing they're in the way, they're fussy an' arg'ifyin' an' everything. They always want their own way an' gen'rally have it. They rule the earth! Men may not admit this, maybe Mr. F. J. don't believe it an' yet I jest bet a bran' new dollar bill, when I git one, that his wife tells him what pants he'll wear on Sunday an' the way to comb his hair an' to eat with a fork 'stead of a knife, an' not to pour his coffee or tea in the saucer 'fore he drinks it.

Oh, yes, F. J., man, or the male of the species, is a superior bein' in his own mind an' in no other way. When we talk 'bout bravery, the brave men that we have and I want to say to you that we have brave men! We heve lots of 'em an' we're proud of 'em too! But jest one of the bravest of these men face motherhood—the pangs an' pains of it—face it jest once an' see where their bravery'd go. There'd be no second child in any home an' it's doubtful if there'd be a first one.

An' in case of sickness an' even when death comes into the home, who is so brave an' strong as the woman? Who faces life's troubles like a woman? I don't like 'em myself but I know their goodness an' I take my hat off to 'em an' admit they know more'n I know an are superior to me in a thousand ways an' hatin' 'em as I do, I'd marry one of 'em tomorrow, only fer the fact 'at they are too smart to be led into such a trap, they know men an' their weaknesses an' are shy, so I'm single—so far anyway.

But Mr. F. J., I still claim that women, much as I dislike to say it, hatin' 'em as I do, are our superiors; yes, in every way. The male deer has horns, in season—does the horns add brains? Does the horns give him more strength? If I put feathers on my hat am I any more of a man? Think these things over F. J. an' then write me a nice little letter as you did before, an' tell me jest what you think after you do your thinkin'.

Without women there could be no home. Without women there would be no love! The bravery of women in time of danger, real danger, when it comes right into the home, surpasses anything a man ever knew.

The woman, she may be little, she may be large, no matter, she is right on the job an' she knows jest what to do. Mr. F. J. she's our superior then an' she is all the time an' what do you say to that? Cordially yours.—UNCLE RUBE.

WHY MICHIGAN SHOULD ENLIST IN BARBERRY FIGHT

IT often is said that Michigan has no purely selfish interest in the present movement to combat the spread of black stem rust for the reason that this state no longer is regarded as an important grain producer. A recent report of the United States department of agriculture, however, shows that the damage to the cereal crops in Michigan, due to black stem rust in the period 1917-20 inclusive, amounted to seven million bushels. In 1919-20 the loss in wheat alone amounted to over three million bushels.

In fact the scourge of black stem rust is the main reason for Michigan's failure in recent years to attempt a greater production of grain. The same is true in Wisconsin and now in Minnesota the farmers are decreasing their grain acreage and substituting other crops. It is only a question of time, experts declare, when the Dakotas also will go out of the business of growing spring wheat and other small grains unless stem rust epidemics are prevented.

Michigan may help in saving the grain crops of the North Central states and again make it profitable to grow cereals within her own borders by taking a vigorous hand in the present campaign to eradicate the common barberry bush, according to agricultural scientists. They hold the common barberry to be the most important, if not the sole source of black stem rust and have warned farmers that they may grow barberries or they may grow grain but they can't grow both.

Even if no grain were planted in Michigan the existing barberry bushes here would constitute a menace to the cereal crops in other states, experts declare. Black stem rust is a parasitic plant. Its spores or seeds require a certain sort of "soil" for development. This "soil" happens to be the leaves of the common barberry bush. From the barberry the spores are blown on the stems of cereals and are spread through the fields by the winds.

Accordingly it is possible for rust to develop on barberry plants in Michigan and damage the crops in Wisconsin, or even in the Dakotas. There are known to be a large number of bushes in Michigan and furthermore the grain crops are larger than is popularly supposed. For that reason the government is making an intensive drive in this state this year. Nine teams of federal workers, headed by Walter F. Reddy of the Agricultural College at East Lansing, will make a farm to farm survey for the next three months. Every barberry bush encountered will be marked for destruction.

The Michigan campaign is being duplicated with more or less work in twelve other states in the spring wheat area, under a congressional appropriation of \$350,000. Of this sum \$21,750 will be spent here in the fiscal year ending next July 1. Ohio, Indiana, Illinois and Nebraska each will get the same amount. In Wisconsin, Iowa, Minnesota and the Dakotas, where the situation is more serious the government will spend \$30,750. Colorado, Wyoming and Montana each will get \$4,500.

LARGE INCREASE IN CABBAGE ACREAGE

FORECAST of 54,770 acres planted to late commercial cabbage in seven prominent states is made by the United States Department of Agriculture for July 1. Acreage harvested last year was 44,563 acres. The states covered are New York, 25,580 acres; Wisconsin, 12,500 acres; Colorado, 5,800 acres, the southwestern section of Virginia, 3,800 acres; Pennsylvania, 3,190 acres; Minnesota, 2,840 acres, and Oregon, 1,090 acres. Reports from Indiana, Michigan and Ohio are not sufficiently complete to warrant a forecast of acreage at this time. In 1921, these three states had 4,618 acres of late commercial cabbage.

SAVE

\$17.50

Get This Leakproof Iron Drum With Easy Flowing Faucet **FREE**



50 GALLON IRON DRUM

ONE GALLON

It takes us fifty times longer to fill and handle 50 gallon cans of EN-AR-CO Motor Oil than it does one 50-gallon iron drum. The difference is \$17.50. This Difference Is Yours.

En-ar-co

SCIENTIFIC REFINING MOTOR OIL

The Oil of a Million Tests

Think of it! You can now buy this high grade, scientifically refined En-ar-co Motor Oil—the oil that is known to, and used by thousands of farmers everywhere, and endorsed and recommended by prominent tractor, automobile and motor manufacturers, at the big cash saving of 35 cents per gallon, or \$17.50 when you buy it by the iron drum.

This big saving is made possible only by getting En-ar-co to you in quantity lots at the lowest possible expense. You know it costs less to handle fifty gallons of En-ar-co Motor Oil in one iron drum than fifty single gallons in fifty different packages. The difference in cost is 35c per gallon or \$17.50 per iron drum—and this

big cash saving is yours if you order En-ar-co Motor Oil by the iron drum.

You know the National Refining Company. It has been serving the public for forty years and has the reputation among everyone of making the highest quality Petroleum Products on the market. Nobody has ever made any better, and your farm paper or your neighbor will tell you of the high standing of the Company, and the scientifically refined quality of the goods that we sell.

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

If your dealer can't supply you, fill out the order blank below and mail it direct to us at Cleveland, O., or to any of the following 93 branches:

- | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------------------------|--|--|---|---|------------------------------|------------------------------|-----------------------------|--|-------------------------------|---|---|--|---|--|-----------------------------|------------------------------|
| Arkansas
Little Rock, Ark. | Colorado
Lamar, Colo. | Illinois
Aurora, Ill.
Chicago, Ill.
Decatur, Ill.
East St. Louis, Ill.
Joliet, Ill.
Marseilles, Ill.
Monmouth, Ill.
Peoria, Ill.
Pekin, Ill.
Quincy, Ill.
Springfield, Ill. | Indiana
Attica, Ind.
Evansville, Ind.
Franklin, Ind.
Frankfort, Ind.
Indianapolis, Ind. | Iowa
Clinton, Iowa
Council Bluffs, Iowa
Dubuque, Iowa
Elkader, Iowa
Grundy Center, Iowa
Iowa City, Iowa
Iowa Falls, Iowa
Keokuk, Iowa
Malvern, Iowa
Red Oak, Iowa
Shenandoah, Iowa
Sioux City, Iowa | Kansas
Coffeyville, Kan.
Great Bend, Kan.
Holt, Kan.
Hutchinson, Kan. | Kentucky
Cincinnati, Ohio | Michigan
Kalamazoo, Mich. | Minnesota
Mankato, Minn. | Missouri
Hannibal, Mo.
Hayti, Missouri
Jefferson City, Mo.
Kansas City, Mo.
Moberly, Mo.
Poplar Bluff, Mo.
Sedalia, Mo. | Mississippi
Jackson, Miss. | Nebraska
Aurora, Neb.
Beatrice, Neb.
Falls City, Neb.
Florence, Neb.
Fremont, Neb.
Geneva, Neb.
Hastings, Neb.
Kimball, Neb.
North Platte, Neb.
Omaha, Neb.
Stromsburg, Neb. | Nebraska
Sidney, Neb.
Wahoo, Neb.
York, Neb. | Ohio
Ashland, Ohio
Bowling Green, Ohio
Canton, Ohio
Cleveland, Ohio
Columbus, Ohio
Findlay, Ohio
Fostoria, Ohio
Marietta, Ohio
Mansfield, Ohio
Marion, Ohio
Painesville, Ohio | Oklahoma
Bartlesville, Okla.
Blackwell, Okla.
Clinton, Okla.
Drumright, Okla.
Enid, Okla.
Haskell, Okla.
Okla. City, Okla.
Tulsa, Okla. | South Dakota
Aberdeen, S. Dak.
Huron, S. Dak.
Mitchell, S. Dak.
Yankton, S. Dak. | Tennessee
Memphis, Tenn. | Wisconsin
La Crosse, Wis. |
|-------------------------------|--------------------------|--|--|---|---|------------------------------|------------------------------|-----------------------------|--|-------------------------------|---|---|--|---|--|-----------------------------|------------------------------|

EN-AR-CO MOTOR OIL

Light—Medium—Heavy—Extra Heavy
Iron Drums (50 Gal.) \$0.80
Iron Half-Drums (30 Gal.)85
10-Gallon Cans95
5-Gallon Cans 1.00
1-Gallon Cans 1.15

THE NATIONAL REFINING CO., Q-704, National Bldg., Cleveland, Ohio
NATIONAL HEADQUARTERS
4 Modern Refineries—93 Branch Offices

Use this Order Blank

The National Refining Co., Q-704, National Building, Cleveland, Ohio.

Ship me at once by freight from your nearest distributing center.....Iron drum of En-ar-co Motor Oil. I want it to lubricate.....(Name of Tractor).....(Name of Car).....(Name of House Lighting Plant).....

for which you are to charge me 30 cents per gallon, f. o. b. your nearest shipping station.

En-ar-co Motor Oil is shipped in iron drums containing fifty gallons, so that the invoice price at 80c per gallon will be \$40.00 per iron drum, package free.

My name is.....St. or R. F. D. No.....

Postoffice.....County.....State.....

We are the originators and the scientific refiners of White Rose Gasoline, clear, uniform, powerful; National Light Oil (kerosene), for lamps, tractors, for your stoves and incubators; also En-ar-co Gear Compound, twenty-five pound packages, for differentials, transmissions, etc., also shipped in barrel lots.

CONVENIENCES IN OUR FARM HOME

WE have electric lights, power washer, gasoline iron, bath room and furnace. In the kitchen we have a bread mixer, fireless cooker, vapor oil stove, built-in cupboard, linoleum and lastly a magic mitt.

The electric lights mean the best light possible. They mean a saving of work; no lamps or lanterns to clean, fill and trim. This work usually takes from 15 minutes to an hour each day. The house, barn and yard are now lighted by pressing a button. The light in the yard can be turned on at the house or barn. Coming home from an evening's visit we press the button at the door and the room is lighted. There is no hunting for lamp or matches in the dark and no danger of children overturning the lamp. We wouldn't like to part with our electric lights. The lights are generated by a gasoline engine running the dynamo. The electricity is stored in batteries in the cellar. At the same time the engine runs the washing machine and the wringer.

In washing I follow a method described in the Ladies' Home Journal a few months ago. Sort the clothes, fill the washer with luke warm suds, put in first batch and let the machine run 15 minutes. Wring into an empty tub. Run the second batch 15 minutes and so on until all the clothes are washed. Then empty the washer and refill with boiling water. Put the clothes in the washer of boiling water. Let each batch be run thru for three times. This will rinse, bleach and scald the clothes, doing the same work otherwise done by boiling in the boiler and then rinsing. After each batch is rinsed I hang up all the clothes at once. This means washing, rinsing and hanging up separately without confusing the three. I like this way and if you will try it and perhaps modify a little, I'm sure you will like it too. The power washer takes away all the hard rubbing and being at work over the tub for a long stretch. Washing is now only a matter of managing and handling the clothes.

During the time the clothes are being washed in the machine I do up the other work. There is no rush, no confusion, no hard work. Of course I rub out a spot here or there. In all machine work you must add a finishing touch but that isn't anything like rubbing every piece in the wash.

Then I use a gasoline iron. I start the iron, place the clothes as I wish to iron them, put a high stool in front of the board, a clothes bars at the right and then begin. I can sit comfortably and work steadily, wasting no seconds changing irons or finding a place to put the ironed clothes. Once in a while I get up to put a garment around the board. The weight and heat of the iron is enough to press the clothes without more than a guiding effort on my part. The iron costs very little to use and certainly is easier than flat irons. An electric iron would be less work in getting started, but with our plant we would have to run the engine as ironing takes considerable electricity. So for a while I'll just keep my gasoline iron.

Our bath room is not yet furnished with hot and cold water. We have to carry the water in but can let it out by pulling up the plug. We hope to put in a pneumatic pressure tank and then have the water piped to any part of the house. Also have it heated. But we need something that is proof against freezing.

In the kitchen we have a bread mixer. It mixes the dough more quickly and is easier for me than kneading. A final kneading by hand will make lighter bread.

Right now the fireless cooker contains oatmeal for tomorrow's breakfast. It is in daily use. When I have a large meal to get as at threshing, I start the vegetables on the range then put them in the cooker until time to serve. They finish cooking, remain hot and do not take up any room on the range. In the summer time I heat the cooker irons on the oil stove and then put in the cooker with anything I may have to bake. It keeps the kitchen cool and cannot scorch, altho' I have had



cream pudding boil over when the iron was too hot. I've tried everything in the cooker. Roasted chicken turns out delicious. The bread could have been better. The cooker requires no constant attention or replenishing of the fire, and it is a saving of fuel while it keeps the kitchen cool.

The vapor oil stove has no wicks or asbestos rings. It is the simplest of oil stoves.

A cupboard built in the kitchen wall is a common thing but who of us would part with it. It is like a cabinet only larger. Ours is built to the ceiling and the highest part is used for storage of dried vegetables, etc. We have a broom closet at one end for the broom, brushes, dust pan, dust cloths and a shelf for soaps and irons.

Do you consider linoleum a convenience? I didn't know, but I started out with a hardwood floor which took an hour to scrub. Since we have the linoleum I can mop it in 20 minutes. My mop pail has a wringer attached so I need not stoop at all.

Get a magic mitt at the 10c store and it will speak for itself.

It is not a matter of having the money to pay for conveniences as much as a matter of mind. You need a friendly attitude toward conveniences and then acquire the habit of using them. The habit and attitude will mean more than the price and it does make the housework so easy and pleasant. It is interesting if you go at it right.—Mrs. J. E. S.

RED CEDAR CHESTS

SINCE it is the odor of red cedar which is effective against moths it is recommended that in using cedar chests for the protection of clothing, fabrics and furs, special care should be taken to prevent undue escape of the aroma from the chests. The chests should remain tightly closed except when clothing is being removed or placed in them,

and this procedure should be accomplished as rapidly as possible. Aside from their value in killing moths, cedar chests are so tightly constructed that adult moths can not gain access to them except when they are open.

Cedar chests exert no noticeable effect upon the adult moth or miller, the parent insect, which does no damage to clothing but which may lay eggs from which hatch the destructive larvae, or worms. Moths that run or fly into chests, when open, may live as long as two weeks or even a month, and lay many fertile eggs.

Further, cedar chests are not effective against eggs, no matter whether the eggs are laid outside of the chest and accidentally introduced with the clothing, or whether they are laid in the chest itself. This is true regardless of the age of the eggs when they are subjected to the action of the chest. Imprisonment of adult moths and eggs in a cedar chest, however, is not an important consideration since the young larvae promptly succumb to the effect of the chest and neither the moth nor the eggs eats.

Cedar chests do kill young larvae—Larvae hatching from eggs within the chests die in most instances within two or three days, and practically all die within two weeks. Larvae hatching from eggs outside the chests and introduced into them in clothing do not die so quickly as larvae hatching inside the chests because they are older, but the majority of such larvae which soon show a tendency not to feed, die during the first and second weeks, although some may live longer. Two larvae, 2 days old when placed in a chest, lived for about 35 days; such resistance, however, is the exception rather than the rule.

It is important that articles intended for storage in cedar chests should be most painstakingly

cleaned, beaten, brushed and sunned whenever practicable to remove or kill as many of the moth eggs and larvae as possible. Special attention should be given to brushing all seams, creases and pockets.

Although cedar chests may be regarded as protectors against clothes moths, attention is called to the fact that a chest of ordinary wood, if as tightly constructed, would be just as effective, provided the clothing were as thoroughly cleaned, brushed, and sunned, and from 1 to 2 pounds of good grade naphthalene were packed within.

Woolen garments freshly cleaned and thoroughly brushed will be well protected if tightly wrapped with naphthalene in several thicknesses of ordinary paper. Many persons protect their clothing by carefully cleaning and brushing just before wrapping in paper. In wrapping with paper special attention should be given to turning back the paper at the ends of the bundle that no opportunity to gain access be left for the moths.

CAUTIONS FOR CANNING

1. CLEANLINESS is the watch word in successful canning—clean hands, clean utensils, clean, pure water, clean, sound products.
2. Follow one set of directions. Do not mix methods. If the directions say boiling water, use boiling water.
3. All products must be fresh, crisp and free from decay.
4. All vegetables should be canned the same day they are taken from the garden. This is especially necessary for peas, corn, beans and asparagus.
5. Avoid jars with defective points, springs and caps.
6. Blanch leaf and green vegetables in steam, all other products in boiling water. Do not count time until water jumps.
7. Blanch only small quantities of a product at one time. Pack this and get the jars into the canner at once. If vegetables, especially peas, corn and asparagus, are allowed to remain long at room temperature after having been blanched, flat sour may develop.
8. Do not pack peas, corn, shelled beans, or greens too tightly.
9. Have water in canner boiling when jars are put in. Do not count time until water is again boiling vigorously.
10. Be sure the rack will raise jars at least one inch from bottom of canner. Have water in canner at least one inch over tops of jars.
11. Remove jars from canner as soon as time is up. Cool rapidly, avoiding drafts with glass jars.
12. Test for leaks. Do not remove top and rubber unless leakage occurs. In that case, remove defective top or rubber, replace immediately with new one while product is hot, and return at once to canner. Process fruits ten minutes longer, vegetables thirty minutes longer.
13. Sometimes after processing large air spaces will be found in the jar. This will not occur if the canning is properly done.
14. Do not wrap and store until cold.

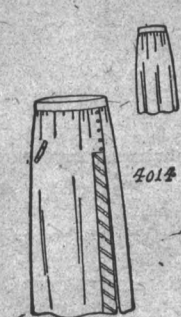
AIDS TO GOOD DRESSING

For Simplicity, Service and Style

Address Mrs. Jenney, Pattern Dept., M. B. F.

To settle this much-discussed question of clothes just use the patterns this department has to offer then no one can justly criticize your dress. For while following the fashion you will still be prettily and modestly clothed.

CATALOGUE NOTICE—Send 15c in silver or stamps for our UP-TO-DATE SPRING and SUMMER 1922 CATALOGUE, showing color plates, and containing 500 designs of Ladies', Misses' and Children's Patterns, a CONCISE AND COMPREHENSIVE ARTICLE ON DRESSMAKING, ALSO SOME POINTS FOR THE NEEDLE (illustrating 30 of the various, simple stitches) all valuable hints to the home dressmaker.



A Stylish Separate Skirt
4014. A straight line model, with just enough fullness and the smart touch that plaits always provide. This style is good for tweed, serge or covert cloth. It is also nice for linen and taffeta. As portrayed, sports woolen was used with a trimming of braid.

The pattern is cut in 7 sizes: 25, 27, 29, 31, 33, 35 and 37 in waist measure. A 29 inch size requires 2 5-8 yards of 40 inch material. The width at the foot is about 2 1-4 yards.

Pattern mailed to any address on receipt of 12c in silver or stamps.



A Becoming Dress for School Days

4037. A frock with long lines, plait panels, and a vest, so like a "grown up's," this will surely please the growing girl. As here shown, white linen and blue and white plaid gingham are combined.

The pattern is cut in 4 sizes: 6, 8, 10 and 12 years. A 10 year size will require 3 5-8 yards of 36 inch material.

Pattern mailed to any address on receipt of 12c in silver or stamps.

A Charming Frock
4035. The front closing makes this model very practical. The sleeve may be in wrist or elbow length. English prints, crepe or gingham could be used for this style.

The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. A 6 year size requires 3 1-2 yards of 27 inch material.

Pattern mailed to any address on receipt of 12c in silver or stamps.



A Good School Dress

4036. Plaid gingham and chambray in a matched shade or "contrasting" may be used for this style. The sleeve may be in "wrist" or shorter length.

The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. A 12 year size requires 5 yards of 36 inch material.

Pattern mailed to any address on receipt of 12c in silver or stamps.



Elderberry Jam

3 1-4 level cups crushed berries, 7 leveled cups (3 lbs.) sugar, 1-4 cup water, 1-2 bottle (scant 1-2 cup) Certo. Use about 2 quarts, or 2 pounds, unstemmed berries. Stem and crush well. Measure crushed berries into large kettle and add water; stir until boiling, cover kettle and simmer 15 minutes. Proceed as directed below.

Add sugar, mix well, stir hard and constantly, and bring to a vigorous boil over hottest fire. Boil hard 1 minute with continual stirring; except rhubarb, which should be boiled 3 minutes. Take from fire, add Certo, and stir it in well. Skim and pour quickly.

Blueberry or Huckleberry Jam

4 level cups crushed fruit and lemon, 8 leveled cups (3 1-2 lbs.) sugar, 2 lemons, 1 bottle (scant cup) Certo. Crush well about 1 1-3 quarts, or 2 pounds, berries. Add juice 2 lemons and grated rind of 1-2 lemon. Measure 4 level cups of this mixture into large kettle. Proceed as directed below.

Add sugar, mix well, stir hard and constantly, and bring to a vigorous boil over hottest fire. Boil hard 1 minute with continual stirring; except rhubarb, which should be boiled 3 minutes. Take from fire, add Certo, and stir it in well. Skim and pour quickly.



DEAR Nieces and Nephews: I have been very busy and having the time of my life during the past three weeks with our story contest. Over 125 girls and boys sent in stories and each and every story had to be read over very carefully and compared with others. Many of them were read several times before the winners were finally chosen. But the winners have been decided at last and they may expect their prizes within a few days if they have not already received them. The names and addresses of the lucky ones are:

Margaret Cook, Elsie; LaVendee Adolph, Union City; Algird Baravyx, Branch, R. 2; James Dunham, Lawrence; Deane Miller, Shepherd; Evelyn Eldridge, R. 2, Caro; Howard Henry, R. 3, Jackson; Laura R. Lake, R. 4, Homer; Edith Howard, White Cloud; Wm. C. Wismer, R. 6, Bad Axe, Mich.

It was very difficult to choose the winners as nearly all of the stories were very interesting. I wish I had the space to publish them all. However, we printed three columns of them last issue, this week we have more and we will publish still more of them the following issue. Also in that issue I hope to announce a new contest with more prizes. Good-bye 'till next time.—UNCLE NED.

OUR BOYS AND GIRLS

Doing a Good Turn

"Oh, what nice berries these are!" exclaimed Jimmy Patch to his brother as they came into the garden.

"Yes, they are nice," was the answer. "I wish Hilda was here, she could have all she wanted to eat, couldn't she, Billy?"

"Yes, Jimmy, if she was here but I am afraid poor Hilda won't get any strawberries this year."

"I have an idea!" cried Jimmy suddenly.

"What is it?" asked Billy.

"I think it would be nice to pick a large bowl of berries and take them to Hilda."

"No," said Billy slowly shaking his head, "that would never do, you know Hilda eats hardly anything."

"That's just the reason we should take them to her. She only gets broth to eat and I'm sure she must get tired of one thing all the time. Perhaps these berries will give her an appetite."

"I suppose we can take them to her anyway; if she can't eat them her grandma can," said Billy.

It was soon decided that they should be taken that noon so they began at once to pick the berries.

James and William Patch were commonly known as Jimmy and Billy. Jimmy was ten years old and Billy was eight. Their parents had given them two rows of strawberries in the garden. And in this patch they spent all their spare minutes.

A little girl about their own ages whose name was Hilda Phair often came to play with them. She was an orphan and lived with her grandmother, a poor widow who lived about half a mile from Patches. She was very kind to Hilda and did all for her that her scanty means would allow her. Hilda helped the boys with their strawberry patch. When she saw the berries turning she cried out happily: "Oh, see, the berries are turning red, they make me hungry for them now."

"You shall have all you care to eat when they are ripe," Jimmy promised her. But he was wrong about this for scarcely a week later Hilda was taken seriously ill.

For a long time she ate hardly anything. Later she began to take broth, she ate very little of this, however, and she soon grew tired of it. Many times she thought of the boy's berry patch and sometimes she believed she could eat a few berries if she had them.

"Who is going to carry them?" asked Billy.

"You may," was the reply. "You're the youngest."

When they arrived at Widow Barton's home Billy timidly knocked and soon the kind widow appeared in the doorway.

She was a kind old lady with snow-white hair and smiling blue eyes. She was always kind to the boys and they loved her very much.

"We have brought a few berries for Hilda, Jimmy thinks they will give her an appetite," said Billy handing her the bowl of berries.

"Bless your dear little hearts," she cried, a smile lighting up her face. "It was just a few minutes ago that Hilda was speaking about your berries and wondering if she couldn't eat some."

The boys' faces brightened up with happy smiles.

"We hope she can eat them," said Jimmy.

"Well, thank you very much boys, I'm sure Hilda will enjoy them."

"If she can eat them and they don't do her any harm we will bring her some more tomorrow," said Billy.

Widow Barton laughingly told the boys that it would take longer than tomorrow for Hilda to eat all those berries. Then she thanked them again and they ran happily down the road towards home.

A few days later they again went to widow Barton's home with another bowl of strawberries.

"I have good news for you, boys"

said the widow, Hilda is improving wonderfully, the doctor says she will soon be able to play with you again. She says it was the strawberries that did it."

"It pays to do a good turn, doesn't it?" said Billy to Jimmy a little later.

"Yes, and it makes you happier too," was the reply.

"Let's be like the Boy Scouts and do at least one good turn daily."—Laura R. Lake, Homer, R. 4, Mich.

Robert's Early Potatoes

Robert was twelve years old, he lived with his parents on a large farm. He loved all the animals, and above all he loved to work in the garden and watch things grow.

One day he heard his father tell a neighbor he would like to plant some early potatoes, but he was so busy he did not have time.

That set Robert to thinking. That evening he said to his father, "Father may I have an acre of ground to plant to early potatoes. I'll do all the cultivating and all the work if you will plow the ground."

His father said, "All right, Robert."

Robert worked early and late in his potato patch.

Robert's father took the M. B. F. and his mother kept them all and made one large book with them and Robert spent his evenings reading all the good advice he could find in them about early potatoes. At last Robert's potatoes were ready to dig.

One day he received a letter from his grandmother, she said she would visit them in a few days.

Grandma always helped his mother with the work, so she said, "I'll help get dinner. Robert, will you please bring me a pan of potatoes, and I'll pare them."

Robert ran to his potato patch and soon had a pan of potatoes, and brought them to his grandmother. When he told her all about them she praised him for being so industrious and said they were the best potatoes she had ever eaten.

Robert sold his potatoes and put the money in the bank to go towards his college education at the M. A. C.—Howard Henry, R. 3, Jackson, Mich.

Happiness

On a cool autumn day, when a few white snowflakes, together with some brown withered leaves were flying around, Arthur and Robert Williams were storing some of the vegetables in the cellar, to use in the winter, when instead of the grass and leaves, there would be a deep blanket of snow covering the ground, and it would be very cold, and people would depend on what they had stored away.

Arthur was large and quite "grown up" while Robert was almost too small for his age. He was eleven years but looked nine. Arthur had dark hair and grey eyes, while Robert had light curly hair and brown eyes.

When they put in the last of the vegetables from the wagon load, Robert said, "Say, but we have a lot. Why, I think we could use them all winter and have some left."

"I think so too, but let's not gloat over these, we have some more to dig out and haul here," Arthur answered.

They hurried off with their forks over their shoulders. On their way to the field they had to pass a little house which stood among great pines. In this house lived a very poor widow, whose name was Mrs. Dean. When the boys passed the house they saw the old woman sitting on the door step, they heard her sigh and then say, "Everyone is storing away things for the winter, but what will I do? Oh, I wish—" She covered her face with her hands and wept.

Tears filled both boys' eyes, they did not speak for a while. When they were quite far away Arthur said, in a shaky voice, "Bob, I think we should help Mrs. Dean, shouldn't we?"

Robert said, "Yes, I do think we should. When we go home in the evening, we can fill a pan of vegetables for her supper and then when we have all of them stored we can take over several bushels to her."

"You are right," said Arthur. "That is just as I thought."

"They went to the field and worked hard until they were very warm although the air about them was cool."

When they had dug out all of the vegetables, they piled crates full and then a large pan was filled to the top. When they were going home they stopped at the little house, and seeing the woman walking in her tiny yard, they went in and when they came to Mrs. Dean, Arthur lifted his hat and said "How do you do, Mrs. Dean."

"We thought you would like some vegetables for supper, so we brought some," said Robert.

"Oh, thank you," cried Mrs. Dean, putting out her hands to take the pan. "How can I repay you?"

The boys went home with happy hearts and the next morning when Mrs. Dean had gone to a town a half mile off they came with a wagon-load of vegetables, fruits and other things and filled the cellar full. So that, that afternoon when Mrs. Dean went into her cellar, to put something there, she almost cried with delight when she saw the things.

"Oh, oh, it's those dear boys again. Why, I'll have enough for all winter. How I wish I could do something good for them," she said, then she got an idea and ran up the steps, like a young woman. There she took up her yarn and knitting needles and began to knit.

When winter came, Arthur and Robert were seen many times wading thru the snow to do their chores, and going skating or coasting with sleds and they wore heavy woolen stockings, the gifts of Mrs. Dean.

In the little house among the pines, there sat a happy old lady beside the fire, and though the wind howled and the pines sighed and snowdrifts were piled all over, she had a cellar full of food and what more could a poor woman ask?—Algird Baravyx, Branch, R. 2, Mich.

Instructor—"My boy, do you think you can handle the English language?"

Student—"My knowledge of the English language always has been my greatest asset."

"Good; take this dictionary down stairs."

"Who will volunteer to use the word 'gruesome' in a sentence?"

"The man stopped shaving and grew some whiskers."

New Sure Process That Makes Perfect Jam and Jelly

One Minute's Boiling Gives One-Half More Product

By Ann Proctor

Increasing thousands of housewives all over the country are making perfect jams and jellies by the new Certo Process and passing on the good news to their friends. Certo (Surejell) is what you have always needed—a concentrated, pure fruit pectin, put up in 8 oz. bottles for home use. Certo never fails; it is economical, not alone because it saves your time and anxiety, but because the short boiling period (one minute) saves your fruit juice and gives you at least one-half more product from the same amount of fruit.

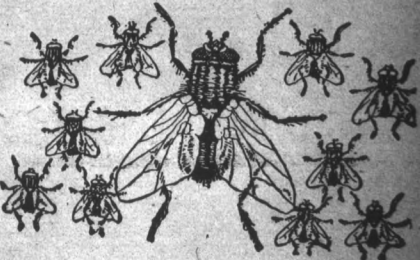
With Certo you can make perfect jam and jelly from all fruits, even from those we have always supposed "would not jell." Please use the fully ripened fruits and take advantage of their superior color and rich flavor. There is no long boiling time to boil this away. With Certo the ripe fruits "jell" perfectly. No matter what fruit you use—blackberries, gooseberries, pears, peaches, grapes, rhubarb, or oranges—you will get better and more economical results with Certo than by the uncertain, long boiling, old-time way. Certo-made jams and jellies have perfect keeping qualities.

Certo has been on the market only a little more than a year, yet it has been endorsed by such authorities as Good Housekeeping Institute, Boston Cooking School, Today's Housewife's Testing Laboratory, American Cookery and by Domestic Science writers, teachers and lecturers all over the country. You can now get Certo with the Book of Recipes containing nearly 100 recipes for jams, jellies and marmalades from most grocers or druggists. Or we will send it parcel post prepaid for 35c. Be sure to include grocer's name and address and we will see that he carries it for convenience of yourself and friends. Just try one bottle of Certo; find out for yourself the value and usefulness of this highly endorsed, easy, sure, better method of making jam and jelly. You will never go back to the old way. PECTIN SALES CO., Inc., 618 East Ave., Rochester, N. Y.

EASY NOW TO RID YOUR PLACE OF FLIES

Widely Known Scientist Discovers Wonderful Chemical That Is Fatal to Flies, Not a Poison—Harmless to Stock.

Flies are one of the most dangerous and annoying things with which the farmer has to contend. Now through the discovery of E. R. Alexander, widely known scientist, you can rid your house and barns and livestock of these pests almost instantly, and with no trouble at all. This discovery is in the form of an organic chemical that is fatal to flies, and similar pests such as chiggers, mosquitoes and moths.



This new discovery, which is called Alexander's Rid-O-Fly, is not a poison. Though it kills flies like magic, farm animals and human beings are not affected by it at all. In addition to killing these insects, Rid-O-Fly is a strong repellent. Flies will not come near stock or buildings where Rid-O-Fly has been used. Rid-O-Fly is particularly valuable for cows and horses, as it is known fact that flies do untold harm to these animals.

So confident is Dr. Alexander that his discovery will rid your house, barns and live stock of these pests that he offers to send a \$2.00 supply for only \$1.00 on the guarantee that if Rid-O-Fly does not solve your fly problems it will cost you nothing. Two big Kansas City banks guarantee the reliability of this offer.

SEND NO MONEY—just your name and address to the Alexander Laboratories, 1548 Gateway Station, Kansas City, Mo., and this introductory offer will be mailed at once.

Complete Stock of Dishes in Seconds

Oil Cloth Luncheon Sets, \$1.00 and \$1.50. New line Rubber Corsets, \$1.00, \$1.50 and \$2.00. Corsetette in all sizes, 50c, \$1.00 and \$2.00. Dark Percale Bungalow Aprons, sizes up to 50, \$1.00. Super Silk Yarn for sweaters, all shades. Straw Hats for all the family, 10c. All kind of needles and supplies for sewing machines.

Hoffmann's Bazaar, Mt. Clemens, Mich.

BUSINESS FARMERS' EXCHANGE

50 A WORD PER ISSUE—\$ insertions for 10c per word. Farm for sale ads. not accepted for less than 2 times. Twenty words is the minimum accepted for any ad. in this department. Cash should accompany all orders. Count as one word each initial and each group of figures, both in body of ad and in address. Copy must be in our hands before Saturday for issue dated following week. The Business Farmer Adv. Dept., Mt. Clemens, Michigan.

FARMS & LANDS

160-ACRE MICHIGAN FARM, HORSES, 10 cattle, crops, poultry, wagons, tools, machinery thrown in if taken soon; on improved road, motor bus service; handy thriving RR town; fertile machine-worked fields, suited alfalfa, clover, wheat, oats, peas, etc.; good pasturage; about 1,000 cords wood; apple orchard, strawberries, comfortable 6-room house, fine shade, delightful view; barn, poultry house, granary, delightful forest sale. Ask \$4,950. Less than half cash. Details page 87 illus. Catalog, 1,200 Bargains FREE. STROUT FARM AGENCY, 814 B-E Ford Bldg., Detroit, Mich.

140 ACRES, 120 ACRES CLEARED, 20 acres wood and pasture lot, sufficient beech and maple wood for life time. Good woven wire fences, good stone basement barn 36x56. Well and windmill, good 8-room cement house with full basement. Buildings alone worth what I am asking for place. 2 miles from county seat, on state award gravel road, modern improvements. Price \$6,000, half down and will accept mortgage back on farm for 10 years for remainder. Write W. F. UMPHREY Evert, Michigan.

\$1,000 SECURES 120-ACRE FARM WITH 4 horses, 6 cattle and poultry, vehicles, full modern implements, tools included if taken now; near live RR town; in midst of rich farming district; good profits dairy, potatoes, corn, beans, hay; 53 acres lousy tillage, 10-cow lake-watered pasture; lots of apples, plums, peaches, cherries; about 1,500 cords wood; 5-room house; 42-ft. barn, poultry house, etc. Owner must sell at once, \$4,700 takes all only \$1,000 cash. RAY CHAFFEE, RFD No. 2, Byron, Mich.

\$1,000 SECURES FARM WITH HORSE, cow, chickens, crops, brood sow, harness, etc. included if you come now; 35 acres with 20 acres plow land, cutting 2 tons hay per acre, woodlot; 10 acres pasture watered by stream; 15 apple trees, plums, cherries; 2-story, 3-room house, small barn, chicken house. Circumstances force quick sale, low price \$2,500 with \$1,000 down, balance easy. Quick action necessary. Write or wire FRED W. HAMLIN, Chelsea, Mich.

FOR SALE 4 FARMS. ONE OF 160 ACRES, fenced. Nice lake front 20 acres cleared. 80 acres, fair buildings, 70 acres plowed land. 80 acres, 40 cleared, new cottage. 40 acres, good house and out building, all cleared, big young orchard. All bargains. Good action. CHARLES T. PIERCE, West Branch, Mich., R. 2

40-ACRE FARM AND CROPS, CONSISTING of hay oats, potatoes, good garden, cream separator 4 cows, calves, poultry. Good soil, excellent water. On M10 road, close to Iowa ad school. All for \$1,250. Terms. Write owner, JOHN BARBER, Lincoln, Mich.

FOR SALE—ONE OF THE BEST 80-ACRE farms in Northern Michigan, extra good buildings, silo, wind mill, large orchard close to Petoskey. Cheap for quick sale, easy terms. RURAL LETTER CARRIER No. 3, OWNER, Petoskey, Mich.

FOR SALE—80 ACRES LEVEL CLAY LOAM soil, good buildings, silo and windmill; near Greenville on trunk line. Must be sold to settle estate. Write the Administrator, GEORGE NELSON, Route No. 2, Greenville, Michigan.

CALIFORNIA. FREE INFORMATION regarding agricultural and living conditions in any section of the state. Write Publicity Dept., CALIFORNIA FARM LANDS BUREAU, K Street Bldg., Los Angeles.

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

30-ACRE POULTRY, BERRY AND FRUIT farm. 4 acres in berries. Will sell cheap if sold soon. Crops, stock and tools. Owner O. FREDERICK, Appleton, Michigan.

FOR SALE OR TRADE FARMS OF ALL sizes and at bargain prices in the rich, fertile and adjoining counties. H. C. KLOSS, Lake Odessa, Michigan.

IF YOUR FARM OR COUNTRY HOME IS for sale. Write us. No commission charged. CLOVELAND FARM AGENCY, Powers, Mich.

GOOD FARMS ARE WANTED: SEND PRICE and description. ORDEN OECHSLI, Windsor, Mo.

FOR SALE—GOOD 80-ACRE FARM 10-12 miles from Alpena on M-10 highway. For particulars write I. J. FERGUSON, Herron, Mich.

WILL SELL HALF INTEREST IN STOCK, crops, and tools, in 500-acre dairy farm. Write FRANK GRUBB, Otter Lake, Michigan.

WANTED—TO HEAR FROM OWNER FARM for sale. Give price and description. H. BUSBY, Washington, Iowa.

MISCELLANEOUS

GENERAL

FEEDING CULL BEANS, \$15.00 PER TON. A. L. CHAMBERLAIN, Port Huron, Mich.

THE AUTO-OILED AERMOTOR

A Real Self-Oiling Windmill

Oil an Aermotor once a year and it is always oiled. Every moving part is completely and fully oiled. A constant stream of oil flows on every bearing. The shafts run in oil. The double gears run in oil in a tightly enclosed gear case. Friction and wear are practically eliminated.

Any windmill which does not have the gears running in oil is only half oiled. A modern windmill, like a modern automobile, must have its gears enclosed and run in oil. Dry gears, exposed to dust, wear rapidly. Dry bearings and dry gears cause friction and loss of power. The Aermotor pumps in the lightest breeze because it is correctly designed and well oiled. To get everlasting windmill satisfaction, buy the Aermotor.

Write today for Circular. **AERMOTOR CO.** Chicago, Des Moines, Kansas City, Minneapolis, Oakland

Save in Traveling East—Take D. & C. Steamers to Buffalo and Cleveland. Leave Third Street Wharf Eastern time; for Buffalo 6 p. m. For Cleveland 11 p. m. (2 steamers) Daylight trips to Cleveland Tuesday, Thursday, Saturday, 8:30 a. m. Autos carried.

FOR SALE—ONE HUBER PEA AND BEAN Thresher 32x42, complete and in good condition. BESSIE LEE, admx., Route No. 3, Sheridan Michigan.

FOR SALE—4,800-EGG SIZE WISHBONE Incubator. Perfect condition. Bargain for quick sale. Has been used two seasons. COLONIAL POULTRY FARMS, Zeeland, Mich.

FARM PICNICS AND FAIRS OFFERS exceptional opportunities to make money soliciting subscriptions for farm papers. Liberal commissions offered to responsible and experienced solicitors. For particulars address P. O. BOX 110, Harrisburg, Pa.

REAL ESTATE—WHEN WANTING TO BUY or sell in City of Detroit consult us before doing so. HALL-DOYLE CO., 217 Majestic Bldg., Detroit, Mich.

SIDE LINE SALESMAN WANTED TO SELL coal to your trade in carload lots. Earn a week's pay in an hour. For particulars write, WASHINGTON COAL CO., 5355 So. Racine, Chicago.

BARREL LOTS SLIGHTLY DAMAGED crockery, hotel chinaware, cookingware, aluminumware, etc. Shipped direct from factory to customer. Write for particulars. B. SWASEY & CO., Portland, Maine.

LET US TAN YOUR HIDE—COW AND Horse hides for fur coats and Robes. Cow and Steer hides into Harness or Sole Leather. Catalog on request. We repair and remodel worn furs; estimates furnished. THE CROSBY FRISIAN FUR CO., Rochester, N. Y.

SEND US YOUR HIDES AND WE WILL allow you the amount of oak harness or sole leather they will make at 35c per pound. Full market price paid for Hides. Buy your leather direct from the tanner. We sell any amount you want. COCHRAN TANNING CO., Greenville, Michigan.

PRINTED STATIONERY, 200 SHEETS, 100 envelopes with your name and address on both, \$1.00. THE BENTE PRINT SHOP, Kalamazoo, Michigan.

USED AUTO PARTS. SAVE ON GUARANTEED used parts. We have used parts for Buick, Briscoe, Chevrolet, Crow-Elkhart, Dort, Elanders, E. M. F., Ford, Kri, Maxwell, Monroe, Overland, Oakland, Patterson, Studebaker, Saxon, and most makes of cars. We can supply tops, cushions, windshields, windshield glasses, springs, wheels, tires, reliners, magnetos, generators, starters, coils, motor parts, gears, bearings, transmission parts, rear axle parts, ignition parts, accessories and supplies. If its auto parts you need, write us today. B. BERMAN & SONS, Ithaca, Michigan.

SALESMEN—FOR LARGE OIL REFINING Co. From well to consumer direct. Liberal commission. Prompt settlements. No delivering. No collecting. Experience not necessary. YELLOW CREEK REFINING WORKS, 1172 Mellers Bldg., Chicago.

SILVERHULL BUCKWHEAT, HUNGARIAN Millet. Express orders for late seeding. A. L. CHAMBERLAIN, Port Huron, Michigan

CORN HARVESTER CUTS AND PILES ON harvester or winnows. Man and horse cuts and shocks equal Corn Binder sold in every State; only \$25 with fodder feeder attachment. Testimonials and Catalog FREE showing picture of harvester. PROCESS HARVESTER CO., Salina, Kansas.

BEEES AND HONEY

BEE HIVES, SECTIONS, COMB Foundation smokers, etc. Complete outfits for beginners with or without bees. Agents for A. T. Root Co. goods in Michigan. Send for catalog. Beeswax wanted. M. H. HENT & SON, 508 N. Cedar St., Lansing, Mich.

TOBACCO

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

HOMESPUN SMOKING OR CHEWING tobacco. Collect on delivery. 5 lbs. \$1.50; 10 lbs. \$2.50; 20 lbs. \$4.00. FARMERS ASSOCIATION, Paducah, Kentucky. (P)

NATURAL LEAF TOBACCO—CHEWING, 5 lbs. \$1.50; 10 lbs. \$2.50. Smoking, 5 lbs. \$1.25; 10 lbs. \$2. Send no money. Pay when received. TOBACCO GROWERS' UNION, Paducah, Ky.

TOBACCO—HOMESPUN SMOKING, 10 lbs., \$2.50; 20 lbs. \$4.00. Fine chewing, 10 lbs. \$3.00. FARMERS CLUB, Mayfield, Ky.

IS YOUR FARM FOR SALE? AN AD IN M. B. F. WILL SELL IT.

Making and Preserving Apple Juice

IN an effort to make apple cider, the great American beverage, a wholesome, all-year drink that conforms to the requirements of the law, the United States Department of Agriculture has just issued Farmers' Bulletin 1264, Farm Manufacture of Unfermented Apple Juice, by Joseph S. Caldwell, in which are discussed all of the problems from the selection of the fruit to the bottling and marketing of the finished product. Particular attention is given to methods of clarification and preservation that do not require excessive amounts of time and labor.

According to the bulletin, the quality of the cider produced depends to a large extent upon the varieties of apples used and whether they are early or late varieties. Early apples are usually lower in sugar content than those that ripen later in the season and frequently contain more acid and tannin. Cider made at any time is better if the juice of a number of selected varieties is blended so that certain of them correct deficiencies of others. As a guide in blending, the more widely-grown varieties of apples are classified as subacid, tart, astringent, sweet or aromatic, and the reader is told how to make such combinations as will give a juice having a well-balanced sugar, acid and tannin content.

Apple juice and other fruit juices can be preserved successfully by proper pasteurization in well-sealed containers, hence the use of any chemical preservative is unnecessary and inadvisable.

Under the prohibition law there are certain regulations that apply to the manufacture and sale of apple and other fruit juices. The bulletin contains extracts from the regulations that are of interest to persons who make cider or other fruit juices for home use or for sale for beverage purposes or for making vinegar.

At the present time cider is a seasonal product, made only during the period immediately following the apple harvest and largely consumed within a short time. As a consequence there is a large consumption of commercial grape juice and of synthetic soft drinks in apple-growing districts and even in the families of apple growers. Very few small orchardists have learned to pasteurize their cider so as to make it available for use in a sweet condition at any season. As a result large quantities of apples that might be converted into a healthful and refreshing beverage are allowed to go to waste. The process is as simple as canning fruits and requires no more special equipment.

Use Only Sound Fruit

Only fully-matured, tree-ripe, perfectly sound fruit should be used if a first-class beverage is desired. An apple is "cider ripe" when about midway between "market ripe" and "dessert ripe," having attained full size and color and developed the flavor and odor characteristic of the variety. Such fruit has begun to soften slightly, but is still too firm for eating out of hand. As the making of cider is usually incident to the primary business of growing apples for the market, and the material used is obtained by the grading out of the small, superficially blemished or otherwise unmarketable fruit, the product can be greatly improved by holding the apples under proper conditions for two or three weeks, until they become "cider ripe." Working up poor fruit poorly handled into cider can result in nothing but a product of indifferent quality. Partly grown, odorless, flavorless, early windfalls in which the starch has not yet been converted into sugar are worthless for cider making.

None of the summer varieties of apples used alone will yield juice which comes up in palatability and flavor to the standards set by discriminating users. By mixing a few properly selected varieties, however, the cider maker may improve his product. The Winesap is about the only apple having its constituents in such proportions as to make a cider that can not be improved by blending with other varieties.

All the details of cider making are presented along with information

concerning the necessary equipment, but most farmers and orchardists will be especially interested in the handling of the juice so as to produce a clear cider that will keep well without the use of a preservative. The Department has developed a method of preservation that is considered an improvement over others in that it eliminates much of the labor of preparation without sacrificing the quality or palatability of the cider.

Some Suggestions

- (1) Select sound, well-matured, properly ripened fruit.
- (2) If different varieties are available at the same time, blend them in proper quantity, according to their sugar, acid, and tannin contents so as to give a well-balanced cider of good flavor.
- (3) Wash and sort the fruit, trimming or discarding all specked or partly decayed apples.
- (4) Grind and press, subsequently repressing the pomace.
- (5) Place the juice in deep containers in a cool room over night, to allow settling out of the pomace.
- (6) Siphon off the juice from the sediment.
- (7) Transfer the juice to a suitable vessel or tank, slowly add properly prepared diatomaceous earth (kieselguhr or infusorial earth) at the rate of 6 to 8 pounds per 100 gallons, and stir very thoroughly. If the juice is very cold, heat it to 130 degrees F. to aid in filtering.
- (8) Prepare the filter by passing a suspension of diatomaceous earth, previously purified by heating to redness, in water through a filter press or bag filter so as to form a thin layer on the filter cloths.
- (9) Filter the juice, stirring the supply tank occasionally in order to prevent the sliming and clogging of the filter.
- (10) Place the juice as filtered in previously sterilized final containers, seal and submerge the containers in cold water in the pasteurizing tank.
- (11) Pasteurize for the prescribed period at 170 degrees F.
- (12) Remove from the pasteurizer and store in a cool room for 10 days or more.

A copy of the bulletin may be obtained free by addressing the Department of Agriculture, Washington, D. C.

PLANT HAZELNUTS IN FALL

Will you please let me know through your paper at what time of the year to plant hazel nut pits and how to plant them and will they grow in this part of the state and what other nut trees will bare and how to plant and care for them if I am not asking too much of you? I am as ever, a friend of the farmer paper and get much good of it.—P. C., Minden City, Mich.

Hazel nut pits may be planted in the fall or simply stratified in the fall keeping them moist and fresh and in the spring just as soon as planting conditions are favorable the shells may be broken and the pits planted in the nursery row. Hazel nuts are entirely hardy and will grow under favorable conditions in Michigan.

Black walnuts, hickory nuts and the Paragon chestnut are the other kinds of nuts most adapted to our conditions.—C. P. Halligan, Prof. of Landscape Gardening, M. A. C.

GOVERNMENT BULLETINS OF INTEREST IN AUGUST

The following Farmers' Bulletins and Circulars are of general interest during August. 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 636, Chalcis-Fly in Alfalfa Seed; 857, Potato Storage and Storage Houses; 872, The Bollworm or Corn Earworm; 900, Homemade Fruit Butters; 903, Evaporation and Drying of Fruits; 984, Farm and Home Drying of Fruits and Vegetables; 991, Efficient Operation of Threshing Machines; 1006, The Wheat Jointworm and Its Control; 1080, Preparation of Barreled Apples for Market; 1120, Control of Apple Powdery Mildew; 1167, Essentials in Animal Breeding; 1175, Better Seed Corn.

Department Circular 74, Points for Egg Breakers; How to Break Eggs for Freezing; 98, The Installation of Dust-Collecting Fans on Threshing Machines for Prevention of Explosions and Fires and Grain Cleaning.

A FARM WORKSHOP

(Continued from page 2)

overhead storage room where we keep lumber and other necessary supplies. By this arrangement much valuable space is saved and gives us plenty of room to do our work on the lower floor where we have a workbench, forge, and other necessary equipment.

The walls are constructed of hollow tile which we have found to be ideal for the purpose. It possesses distinct advantages such as permanence, fire-resistance, non-conducting cellular walls, and immunity from the deteriorating influences of decay. The cost was about the same as if lumber were used.

It is not necessary to have a full equipment of tools in a farm workshop, but we must have the following at least: a good hatchet, hand saw, rip saw, steel square, a good plane or two, set of chisels, a good brace and set of bits, set of taps and dies, a good ax, some tongs, and a good blacksmith's hammer. The above will do to start with and other tools can be bought from time to time as the need arises.

A great many farmers have special talent along this line. Some have been mechanics at some time or another, while others are quite handy with tools, and in this way a great many dollars can be saved in the course of a year which otherwise would be paid out of the farm profits for the different repairs arising from the constant use of the farming equipment. A farm workshop is a good investment because, on the average farm, it will pay back to the owner the price of its construction and equipment in the course of a year.

We keep on hand a stock of bolts of different sizes and lengths, as they are sure to come in handy at some time of the year. In our shop we are able to mend harness, sharpen harrow teeth, mattocks, replace mower knives and broken parts, make singletrees, fix horseshoes, and many other small jobs that often run up in many dollars in the course of a year. This work is usually done on rainy days or during the winter when our work is not rushing. However, it is in the busy season that the workshop is appreciated, especially when something breaks. In a few hours time we generally have the broken part mended and often times are at work before we could make a trip to the village blacksmithshop. Aside from this we perhaps save a day's wages, which is just that much more earned, to say nothing of saving a lot of hay or some other valuable farm crop which otherwise would suffer if not attended to when conditions were favorable.

Our workshop, while not large, is a great saving in time and labor and is a good investment as it has already saved many times its cost during the past few years.—Harley M. Ward, Illinois.

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.

NEXT to the commission merchants the mail order houses furnish the greatest number of cases for the Collection Box. These cases very seldom arise as a result of dishonesty but are usually due to confusion and misunderstanding in the exchanging of goods and the refunding of money. Where mail order houses handle tens of thousands of orders a year it is only natural that mistakes should occur in filling orders and that there should be delays in making adjustments.

The Collection Box has found the mail order concerns almost without

exception to be courteous and prompt in adjusting all claims referred to them in behalf of subscribers. Frequently our subscribers receive remittance in full within one week from the time the matter is called to the attention of the firm. Collections from this source amount to several hundred dollars a month.

A Few Examples

Mrs. E., of Chief, Mich., sent a check of \$5.48 to a Chicago concern for shoes and rubbers. The shoes came after considerable delay, but there were no rubbers, or no word of explanation regarding them. After some fruitless correspondence with the firm Mrs. E., placed the matter in the hands of the Collection Box. We wrote the firm on June 16th, and on June 26th the company sent Mrs. E. a check for the amount due her.

On April 26th, Mrs. H. of Scotts, Mich., returned a dress which did not fit to a garment house in New York City. The value was \$14.95. After waiting a reasonable length of time for a refund of her money according to the firm's printed guarantee, she wrote them, but received no reply. Three more letters were written without results. On June 19th, despairing of ever hearing from the firm she placed the claim in the hands of the Collection Box. A letter was dispatched at once to the firm and a reply received July 7th stating that check had been mailed to Mrs. H. On July 16th we received the following letter from our subscriber:

"I take pleasure in writing you that the garment company were very prompt in forwarding me the money due on the receipt of a letter from your paper. This is what I call quick service and I am very much pleased with results. I thank you very much and shall be glad to boost for your paper at all opportunities."

Mrs. M., of Tustin, Mich., had about the same experience with a Chicago firm. The amount of her claim was only \$3.79 but she needed the money and didn't want to lose it. Within just a few days after the Collection Box presented her claim to the firm in question she received remittance and at once wrote us the following grateful letter:

"Received check for \$3.79 today. Thanks to you for your prompt service. Have been waiting and writing back and forth to them since April 22nd, and no doubt but that I'd be writing until next year at this time if I hadn't written you about it. You certainly are the farmers' friend, and I'll not forget the service you rendered me."

These instances could be multiplied many times over as scarcely a day goes by that the Collection Box does not effect a collection of this nature. This service is rendered freely and without charge to all subscribers.

In this connection a word of caution is advisable. A few cases have come to our attention in which the subscriber did not give the firm ample time in which to fill an order or to make the exchange of goods. It is well at all times to be very sure that the concern has been given every opportunity to make the adjustment, before calling on the Collection Box. In several instances subscribers have written to us just a day or two before receiving refund on their purchases, and have thereby caused themselves, the firms in question and the Collection Box needless correspondence.

WOOL MARKETS

Wool trade in the midwest continues on a steady to firm basis, with prices established several weeks ago well maintained and activity increasing somewhat, the demand from worsted manufacturers especially being improved.

The market is still in a relatively quiet condition, as compared to the great activity of the late spring, but the undertone is excellent and holders seem to be confident that the present price levels are justified.

Quotations on mid-western or so-called "native" wools in large lots—such prices as are obtained by the farmers' pools—are as follows: Fine and medium staple, 47@48c; 1-2 blood staple, 45@46c; 1-2 blood clothing, 42@44c; 3-8 blood wools, 38@40c; 1-4 blood, 37@38c; low 1-4 blood, 30@32c; braid, 26@28c. Western territory wools sell at prices which range from these levels to 4c lower, for the corresponding grades.



Every Prosperous Community Started With a Good Lumber Yard

IT is a popular mistake to under-estimate the value of a good lumber yard as a factor of growth and development of every community.

Do you appreciate what your lumber dealer does for you? He makes it possible for you to get the building material you need when you need it—without delay. He saves you time in selecting the material best suited for your needs.

He warehouses immense stocks, affords wide selection of grades and kinds and extends liberal credits, and, at all times, is ready to offer you suggestions, building plans and advice which will help you save money.

Of Course, you want the utmost in wear from the roofing you buy. That roofing is MULE-HIDE. If you don't know a MULE-HIDE dealer, write us and we will send you the name of a dealer who will give you the service you want.

Every MULE-HIDE dealer expresses his interest in his customer's welfare by offering him the best in building material that it is possible to buy.

Patronize the MULE-HIDE dealer because he deserves your patronage.

THE LEHON COMPANY of CHICAGO

Offices and Factory:

44th to 45th Street on Oakley Avenue

"NOT A KICK IN A MILLION FEET"

What Can You Do?

Three in the morning—a frightened gasp from your wife—a threatening figure outside the window. What can you do? A pistol is your best protector—safe, sure and always ready. Thieves have no conscience—take no chances. Protect you—buy a standard, well-made gun—an automatic or revolver at the bargain prices shown below. All guns guaranteed.

\$8.50
25 Calibre Same Ctg. as **COLT**

A safe, sure, accurate gun. Fits easily in any pocket. Easy to operate for you or your wife—safety catch eliminates accidental firing. Fires seven quick shots. Best material and workmanship—beautifully finished and polished. Specially imported. Two sizes—25 calibre (7 shots) \$8.50—32 calibre (10 shots) \$11.65.

\$16.50

Blue steel six shooter. Swing cylinder—Smith & Wesson style—Western grip. Very accurate for target practice. Double action—automatic ejector. A real gun—price, 38 cal. (6 shots) \$16.50. Shoots standard cartridges.

\$9.50

A medium weight gun for protection in the home. Accurate and exceptionally made. Double action—automatic ejector. Beautifully finished. Compact and reliable. 32 calibre (5 shots) \$9.50. Hammerless \$10.75.

Special Offer—Order Today
Send one dollar deposit and we will ship your order immediately. Pay the balance when you receive the gun. **SPECIAL OFFER:** If you wish to send cash with order—you may deduct five per cent discount on these prices. Order today.

NORTH AMERICAN SALES CORP. Dept. 278
2612 South Wabash Avenue - Chicago, Ill.

Discounting the Count

A COUNT used to be a man in charge of a count of 500 persons to whom he was a sort of overlord. This is not true today because of altered political conditions. We still have Counts, but the Count business has changed somewhat.

Business, of all kinds, has undergone something of a revolution. It was not so many years ago that pack peddlers were the sole distributors and transports of many of the household articles of the day. Their legs set the limits for most distribution problems in those days.

Modern transportation, progressive sales methods—and advertising—have broken the shackles of time. They make a speedy job of what used to take years. Through advertising many an article has been introduced simultaneously in stores all over the country.

Advertising today is the method used by business to tell you why you should have certain goods and how to identify those goods. The advertisements you find here are a truthful catalog of needed merchandise.

Articles of all kinds and for all purposes are presented in a pleasant way through the medium of type and picture. The outstanding requirements of every member of the family are met by offers of good merchandise of proved value.

Use the advertisements for guidance and you will be a constant gainer.

WANT TO SELL LIVE STOCK?
AN AD IN THE M. B. F. WILL DO IT

PLEASE MENTION THE MICHIGAN BUSINESS FARMER WHEN WRITING TO ITS ADVERTISERS

BREEDERS DIRECTORY

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

CLAIM YOUR SALE DATE

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

LIVE STOCK AUCTIONEERS

- Andy Adams, Litchfield, Mich. Ed. Bowers, South Whitley, Ind. R. L. Benjamin, Waukesha, Wisconsin Porter Colestock, Eaton Rapids, Mich. Harry A. Eckhardt, Dallas City, Ill. C. S. Forney, Mt. Pleasant, Mich. John Hoffman, Hudson, Mich. John P. Hutton, Lansing, Mich. I. E. Love, Waukesha, Wisconsin L. W. Lovewell, So. Lyons, Mich. J. E. Mack, Ft. Atkinson, Wisconsin D. L. Perry, Columbus, Ohio J. I. Post, Hillsdale, Mich. O. A. Ramussen, Greenville, Mich. J. E. Ruppert, Perry, Mich. Guy C. Rutherford, Decatur, Mich. Harry Robinson, Plymouth, Mich. Wm. Waffle, Coldwater, Mich. S. T. Wood, Liverpool, N. Y.

PURE BRED LIVE STOCK AUCTIONEERS

WM. WAFFLE, J. T. HOFFMAN, Coldwater, Mich. Hudson, Mich. on the block. In the ring. We make a specialty of selling pure bred big type Poland Chinas, Spotted Poland Chinas and Duroc Jerseys. We are experienced. We sell 'em and we get the money. We are expert hog judges. We are booking dates right now for 1922 sales. We would like to sell for you. We have one price for both of us and it's right. Select your date; don't put it off; write today. Address either of us.

U-Need-A Practical Competent Auctioneer to insure your next sale being a success. Employ the one Auctioneer who can fill the bill at a price in keeping with prevailing conditions. Satisfaction GUARANTEED or NO CHARGES MADE. Terms \$50.00 and actual expenses per sale. The same price and service to everyone. I specialize in selling Polands, Durocs, and Chesters. Let me reserve a 1922 date for you. Write or wire, HARRY A. ECKHARDT, Dallas City, Illinois

JOHN P. HUTTON, LIVE STOCK AUCTIONEER, ADVANCE DATES SOLICITED, ADDRESS 113 W. LAPEER ST., LANSING, MICH.

CATTLE

HOLSTEIN-FRIESIAN

SHOW BULL

Sired by a Pontiac Aaggie Korndyke-Hengerveld DeKol bull from a nearly 19 lb. show cow. First prize junior calf, Jackson Fair, 1920. Light in color and good individual. Seven months old. Price \$125 to make room. Hurry! Herd under Federal Supervision.

BOARDMAN FARMS, JACKSON, MICH. Holstein Breeders Since 1906

TUEBOR STOCK FARM

Breeders of Registered Holstein cattle and Berkshire Hogs.

Everything guaranteed, write me your wants or come and see them.

ROY F. FICKIES, Chesaning, Mich.

Choice of Herd of Registered Holstein Cows FOR SALE

Warner Dairy Co., Farmington, Mich.

FOR SALE!

Fully Accredited Holstein Herd

where type individuality and production have been our aim. A fine foundation herd. For particulars, HOWARD T. EVANS, Eau Claire, Mich.

SOLD AGAIN

Bull calf last advertised sold but have 2 more that are mostly white. They are nice straight fellows, sired by a son of King Ona. One is from a 17 lb. 2 yr. old dam and the other is from a 20 lb. Jr. 3 yr. old dam, she is by a son of Friend Hengerveld De Kol Butter Boy, one of the great bulls. JAMES HOPSON JR., Owosso, Mich., R. 2.

HOLSTEIN BULL BARGAINS

Sired by Segis Korndyke De Nijlander, a 32 lb. son of a twice Michigan ribbon winner, her dam, 29 1-2 lbs. Dams are daughters of King Segis Pontiac, a 37 lb. son of King Segis. Records up to 39 lbs. Priced at \$100 up. Federally tested. Write for list.

ALBERT G. WADE, White Pigeon, Mich. SOME GOOD YOUNG REGISTERED HOLSTEIN cows. Fair size, good color, bred to good bulls and due from July to December. Mostly from A. R. O. stock, prices reasonable and every one guaranteed to be exactly as represented. M. J. ROCHE, Pinckney, Mich.

HOLSTEIN FRIESIAN PURE-BRED BULL calves; tuberculin tested herd. Prices are right. LARRO RESEARCH FARM, Box A North End, Detroit, Michigan.

FOR SALE—TWO BULL CALVES, A HOLSTEIN and Durham about 3 months old. Both have heavy milking dams. Not registered. \$50 each if taken at once. CHASE STOCK FARM, Marlette, Mich.

FOR QUICK SALE WE ARE OFFERING your choice of nearly 50 purebred Holsteins. Nearly all cows and heifers. Bred well, yearly records, free from t. b. Priced right. Breeder since 1913. Write us your wants. WOLVERINE DAIRY FARM, Gladwin, Mich.

WILSONVALE HOLSTEIN FARM, 6 PURE-BRED Holstein cows for sale, all young. Will freshen this fall. 2 purebred bulls, one ready for service. All priced to sell. Write for particulars. JOHN F. WILSON, Elwell, Mich., R. 1.

WHY PAY MORE? PUREBRED REGISTERED Holstein heifer calves, fifty dollars. Circulars free. CONDON'S HOLSTEIN CREST, West Chester, Ohio.

SHORTHORNS

Richland Shorthorns

We have two splendid white yearling bulls by Imp. Newton Champion, also some young cows and heifers that we are offering for sale. Write for particulars to

C. H. Prescott & Sons

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

FRANCISCO FARM SHORTHORNS

FEDERAL ACCREDITED HERD One red Scotch bull ready for service. Two bull calves ten months old. Poland-China weaning pigs ready to ship.

P. P. POPE, Mt. Pleasant, Mich.

INHERITED SHORTHORN QUALITY

Our pedigrees show a judicious mixture of the best blood lines known to the breed. Write to JOHN LESSITER'S SONS, Clarkston, Mich.

MILKING STRAIN SHORTHORNS

Registered stock of all ages and both sex. Herd headed by the imported bull, Keimscott Viscount 25th, 648,563. Prices reasonable. LUNDY BROS., R. 4, Davison, Mich.

FOR POLLED SHORTHORNS

Shropshire, Southdown and Cheviot rams write to L. C. KELLY & SON, Plymouth, Mich.

SHORTHORNS and POLAND CHINAS. We are now offering two ten-months-old bulls, one bred heifer, and two ten-months-old heifers. SONLEY BROS., St. Louis, Mich.

SHORTHORN CATTLE and OXFORD DOWN sheep. Both sex for sale. J. A. DeGARMO, Muir, Mich.

FOR POLLED SHORTHORNS. FEDERAL Accredited Herd. Paul Quirk, St. Ste. Marie, Mich.

RED POLLED

FOR SALE—OUR RED POLLED HERD BULL, Cozy Ellis Laddie, and a few heifer calves. PIERCE BROS., Eaton Rapids, Mich. R. 1.

GUERNSEYS

GUERNSEYS

OF MAY ROSE and GLENWOOD BREEDING. No abortion, clean feedling inspected. Their sire's dam made 19,400.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk 778.80 fat. Can spare 3 cows, 2 heifers and a beautiful lot of young bulls. T. V. HICKS, R. 1, Battle Creek, Mich.

FOR SALE GUERNSEY BULLS READY FOR service and bull calves carrying 1/2 of blood of my heifer Norman's Missaukee Red Rose, World Champion G. G. Sired by her sire. Dams finishing splendid A. R. Records. A. M. SMITH, Lake City, Mich.

ANGUS

DODDIE FARMS ANGUS of both sex for sale. Herd headed by Bardell 31910. 1920 International Jr. Champion. Dr. G. R. Martin & Son, North Street, Mich.

REGISTERED ABERDEEN-ANGUS-BULLS, Heifers and cows for sale. Priced to move. Inspection invited. RUSSELL BROS., Merrill, Michigan

AYRSHIRES

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

VETERINARY DEPARTMENT

HOG HAS LUNG TROUBLE

I have a male pig born last September. About five weeks ago I noticed he didn't act right and didn't eat good. He didn't breathe right. After a few days he seemed all right and I sold him, but told the party how he had been and he agreed to keep him by himself. We thought he had taken cold. The man didn't keep him by himself but put him in with 14 others as large again as he. Yesterday he brought him back and said he did not want him. He has grown very poor and does not eat much. I have him in a pen alone and he roots and rolls in ashes I gave him. He coughs and every little while he shakes all over as though he was choked. Can you tell me what is the matter and what to give him? All the other hogs are healthy and doing fine.—F. L. P., Stockbridge, Mich.

In all probability the trouble is in connection with the lungs or air passages and I doubt very much if anything can be done for your hog. Try the following:

Quaiacoli (Merck) one ounce, add sufficient raw oil to make twenty ounces and give one tablespoonful every four hours. Keep animal in clean, dry quarters.

HEAVES

I have a valuable mare that shows symptoms of the heaves. Please advise me.—A. B., Harrisville, Mich.

Common as this condition is, it is doubtful whether there is a condition which is treated in a more careless and empirical manner. In the first place it is customary with most practitioners to treat all cases of a chronic nature referable to the lung cavity as heaves. It is chiefly for this reason that the various treatments in vogue for the relief of this condition are so uncertain in results. Unless the affected animal is under observation for a long time, or, unless an intelligent history of the case can be obtained, heaves can be diagnosed only by careful auscultation, (listening) and sounding over the lungs, proceeding to which most practitioners resort but rarely. True heaves is, of course, incurable. Intelligent treatment, however, can do much towards enhancing the value of the patient as a serviceable animal, and in this lies the point of value in careful examination. Knowing that in a case of true heaves we can give our client little or no encouragement of cure, it is little short of criminal from a professional standpoint to err, through fault of a superficial examination, to the extent of confounding a possible curable condition with this one. After this complete explanation on the subject of heaves, you will realize it is nothing short of impossible to say whether your animal has true heaves or not, without being able to examine her. I believe the most valuable drug in this disease, and one that has not come much into use, is grindelia. The fluid extract is the most convenient form and the effect is usually very gratifying. It is always well to begin with a small dose which should be increased until the desired effect is obtained.

LUMPY JAW

My renter advises me that one of my 1 1-2 year old steers has a large hard lump on his under jaw. What would you advise for treatment?—W. E. H., Chicago, Ill.

This is undoubtedly Actinomyces or Lumpy Jaw. If this bunch is confined to the jaw bone I would recommend you have your veterinarian make an incision of the tumor. That this may be safely and thoroughly done it is necessary to cast the patient. It is almost impossible to so confine a cow in the standing position that the necessary steps in the treatment can be satisfactorily and safely performed. Having cast the patient, the veterinarian incises the tumor near the most dependent part, using an abscess knife and making the incision not more than one inch well into the center of the tumor and the interior is then thoroughly curetted. This is a painful operation and is best performed under anesthesia, when this has been done a gauze or cotton wad which has been saturated in a ten per cent solution of chromium trioxid, is packed firmly into the cavity and the animal is allowed to get up. In most cases this completes the local treatment in this form of the disease. After

a week or ten days the entire mass of diseased tissue drops out and leaves but little scar. The internal treatment of this as all other forms of this disease consists of the administration of potassium iodide. The dose is from one to two drams three times daily and is to be persisted in until all symptoms of the disease have disappeared.

MAMMITIS

I am writing you in regard to my cow. My cow's right hind quarter is swollen and caked. This cow is four years old and never was sick before. I live on a small place and pasture her by tying along the road with a long hay rope. She had good grass. When she would get enough she would lie down on the ground. My work being away from home she was put out early in the morning and taken in late at night. A week ago yesterday when I went to milk her I found this quarter all swollen and caked, very hot and feverish and gave water instead of milk from this one quarter. The first two or three days she did not eat very good. I am asking what might be the trouble and what is the best thing to do. Might she loose that quarter?—O. N., Mancelona, Mich.

Your cow has Mammitis. The acute manifestations of this disease are no doubt pretty well passed off and the treatment probably should be along the lines used on a sub-acute case. First give a good cathartic consisting of magnesium sulfate two pounds, powdered nuxvomica one dram, powdered ginger, and gentian of each one ounce, dissolve the entire amount in two quarts of hot water, let cool and give slowly at one dose. Follow this by giving two ounces of powdered or granulated potassium nitrate dissolved in a little warm water every four hours. Phytolacca ointment should be applied to affected quarter and rubbed well in morning and night. It is not rare to meet with cases of this disease which are exceptionally stubborn and it may be a difficult matter to so conduct the treatment that the gland may escape permanent impairment of function.

BLEEDING AT NAVEL

Would you please advise at earliest date how to stop bleeding of navel in sucking colt three days old?—P. C., Fillon, Mich.

Perhaps the best way would be to disinfect the navel thoroughly with a two per cent solution of Pearson's Creolin and apply ligature.—John P. Keelton, Assoc. Prof. of Surg. and Med., M. A. C.

MICHIGAN FAIR DATES, 1922

Table with columns: Fair, Place, Date. Lists various fairs across Michigan with their dates, such as Allegan (Aug. 29-Sept. 1), Alpena (Sept. 13-15), and others.

STUCCO

(Continued from page 11)

ment. The sand should be fine and clean and preferably not larger than about 1-8 inch in size. These materials are mixed to a consistency which will permit them to be spread on the surface with a steel trowel. The lime is added to this mixture to make the mortar work more smoothly under the trowel.

Hair or fiber is sometimes used to assist the material in clinging together and to the wall. The first coat is usually roughed over so that the second coat will adhere to it. Where only two coats are given the second coat may be floated with a wooden float to give an even surface or other surface coat such as splatterdash or pebbledash finish may be used. It is possible to use coloring matter in mortar of this kind provided it is of mineral composition so that it does not fade after being applied. Materials used for coloring matter are the following:

Red—Iron oxide, 6 lbs. for each bag of cement.

Brown—Roasted iron oxide or brown ochre, 6 lbs. per bag of cement.

Buff—Yellow ochre, 6 lbs. per bag of cement.

Black—Manganese dioxide, 12 lbs. per bag of cement.

Heavy or light tints can be secured by adding more or less of the coloring material. It is especially important in black stuccos that they be kept moist for a few days until the cement sets. Sometimes when applied to wooden lath or board, cement stucco may crack or break off from swelling of the wood. Steel lath or wire mesh are usually considered more satisfactory for this kind of work.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

MADSTONE HAS NO CURATIVE POWERS

I killed a critter and in it I found a madstone. Could you tell me if it is of any value. My neighbor told me it was very valuable if found in deer.—F. C., Midland, Mich.

Of the Madstone the Americana Encyclopedia says:

"The Madstone is a vegetable substance or stone which when applied to a wound caused by the bite of a mad dog is said to prevent hydrophobia. The most famous one in the United States is owned by the descendants of a family named Fred in Virginia. This stone was brought over from Scotland in 1776. It is said to be the one spoken of by Sir Walter Scott in 'The Talesman' and has been religiously preserved as one of the most valuable relics of the age. It is about two inches long by one inch broad, and about a half inch thick, and is of a chocolate color. When applied to the wound it adheres till all the poison is absorbed when it drops off. It is then soaked in warm milk or water for a time and when removed the liquid is found to be full of a greenish-yellow scum. It is said that of the 130 cases in which it has been applied for the bite of a mad dog, none ever suffered from hydrophobia. There are said to be three authenticated madstones in the United States."

Authorities of the University of Michigan hold different and probably more modern and reliable views on the supposed curative properties of the madstone. Answering specifically the question submitted above, Prof. Emerson, of the Pasteur Institute, U. of M., says:

"I am sorry to have to say that the madstone is of no value whatsoever. The virus causing Rabies or Hydrophobia is a specific virus transmitted from one infected animal to another, usually by the bite of the animal suffering from the disease. The virus thus implanted travels along the nerves to the central nervous system and then the symptoms of the disease become manifest. The time interval from receiving the bite until symptoms characteristic of the disease become apparent varies depending upon the character and location of the bite and, the virulence of the virus implanted for the animal concerned, but for bites on the extremities there is an average interval of 50 days.

"One exposed to Rabies as the result of having been bitten by a dog or other animal having Rabies should

have the wound cauterized and then take the Pasteur treatment. When the bite is located upon the extremities and one is in doubt as to whether the dog concerned has rabies or not, it is safe to securely tie the animal up and observe him for ten days, and if the dog is apparently normal at the end of this period the individual need have no concern as far as rabies is concerned. There is a general impression which I find to be quite prevalent in rural communities that if a person is bitten by a dog that they will develop rabies if the dog ever goes mad at any time afterwards. This is not true. The dog cannot transmit the disease unless the animal is suffering from the disease at the time he bites the individual."

LIABILITY FOR ACCIDENT CAUSED BY UNLIGHTED TRUCK

A's truck standing on extreme right side of road with no lights as spring in commutator was broken and lights not on when engine isn't running. He has not left car and is putting on new commutator. B comes from rear, does not see truck until quite close, turns, striking side of his car against rear end of truck. Can he collect for damages to his car?

Third car was backing up to stand in front of truck so A could use his lights to work by. Front end was about even with front end of truck when B's car struck from rear.—F. M., Lapeer, Mich.

Act 305, P. A., 1915, provides that "every motor vehicle * * * when on the highways of this state at night shall have on the rear thereof one lamp capable of displaying a light which shall * * * be red * * * and visible for a distance of at least one hundred feet behind such vehicle."

Act 236, P. A., 1919, provides "In any action, in any court in this state, when it is shown by competent evidence, that a vehicle traveling in a certain direction, overtook and struck the rear end of another vehicle proceeding in the same direction, or lawfully standing upon any highway within this state, the driver or operator of such first mentioned vehicle shall be deemed prima facie guilty of negligence. This act shall apply * * * to the owner of such first mentioned vehicle and to the employer of its driver or operator.

"Sec. 8. This act may not be invoked by the owner of any vehicle, the rear of which was struck under the circumstances above mentioned, if the accident occurred between one hour after sunset and one hour before sunrise and the vehicle so struck did not, at the time, have a lighted lamp or lantern reasonably visible to the drivers of vehicles approaching from the rear."

According to the strict interpretation of the laws upon the subject A would be liable for damages to B's car, if B could show that the light from third car was insufficient to give him a clear vision of A's truck in time to avoid the accident. However, it is doubtful if any jury would return damages if A could show that it was physically impossible for him to have provided a light at the rear of his truck while the repairs were going on, and that his truck was as far removed from the center of the highway as possible.—Editor.

PENSION RIGHTS OF SOLDIER'S SECOND WIFE

May a soldier's second wife draw soldier's pension after his death, soldier having a divorce from his first wife? Second wife married soldier about 12 years ago, waited on and took care of him for the 12 years, took care of him in his last illness. He was drawing something like \$70 per month. Soldier belonged to Ninth Cavalry, Company A, served from '62 until '65. Now this soldier died last August and if wife cannot draw his pension please give reasons.—Mrs. A. S., Lake, Mich.

A soldier's second wife is entitled to receive any accrued pension due her husband at the time of his death. Also she can receive pension as his widow if she was married to the soldier prior to 1915. If she makes application for pension as his widow, any accrued pension due is paid to her automatically when her widow's pension is allowed. If, on account of the lateness of her marriage to the soldier, she is not entitled to pension as his widow, she must make application for the accrued pension due.

"What relation is a child to its own father who is not its own father's son?"
"I give up."
"A daughter."

Wheat and Clover



Some farmers continue to raise wheat at little or no profit, because a stand of clover can be secured in it if it is rightly fertilized. No crop responds better to POTASH FERTILIZATION than clover. For wheat to be seeded to clover insist on having a fertilizer containing

6 to 8% POTASH

and you will have a profitable clover crop, as well as a better wheat crop. In this as well as in other ways

Potash Pays

SOIL AND CROP SERVICE, POTASH SYNDICATE, H. A. HUSTON, Mgr.
42 Broadway New York

HEREFORDS

BEEF PRODUCERS
Michigan Produces the World's Best Beef at the Lowest Cost. Raise far better feeding Cattle than you can buy. Grow Baby Beef when gains cost least in feed and labor. Avoid costly rail hauls with their shrink, bruises and loss.

SOTHAM'S EARLRIPE BEEF CONTACT

Solves your problem—insures your success. A fair intelligent, satisfying system evolved from 37 years conscientious service to American Cattle Industry by three generations of Sothams. GET THE FACTS. Write now or wire. Address T. F. B. SOTHAM & SONS Phone 250 SAINT CLAIR, MICHIGAN

GLADWIN COUNTY PURE BRED LIVESTOCK ASSOCIATION. Hereford, Shorthorn, Jersey and Holstein cattle; Duroc-Jersey, Poland China and Hampshire hogs; Oxford, Shropshire and Hampshire sheep. A place to buy good breeding stock at reasonable prices. FRED B. SWINEHART President Gladwin, Mich. O. E. ATWATER Secretary

FOR SALE, Choice Hereford Bulls, bargain prices. A. L. SMITH, Bekford, Mich. Farm eight miles south of Marshall, Mich. (P)

SWINE

POLAND CHINA

FOR SALE, LARGE TYPE POLAND CHINA
boar pigs. Sired by E's Clansman 301211, Michigan's 1920 Gr. Champion boar, and by Smooth Buster 395823, Michigan's 1920 1st Jr. Yearling Boar. Immune by double treatment. Priced to sell. Write or see them. Free livery to visitors. A. A. FELDKAMP Manchester, R. R. No. 2 Mich.

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

Spring pigs at above prices. Top fall gilts bred for summer farrow, priced right. HART & CLINE Address F. T. Hart, St. Louis, Mich

Big Type P. C. Boar Pigs, they can't be beat in Michigan. Sired by Big Bob Mastoden and Peter A. Pan a son 1,075 Peter Pan. C. E. GARNANT, Eaton Rapids, Mich.

DUROCS

AM SELLING A GREAT OFFERING OF Duroc Bred Sows and Gilts March 4th, mostly mated to Orion Giant Col, a son of Ohio Grand Champion. Get on mailing list for catalog. W. C. TAYLOR, Milan, Mich.

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

85 FINE SPRING BOARS

all sired by Schalros Top Col, a grandson of the famous Walt's Top Col. We want the room, send \$15.00 and get first selecting of these fine boars. SCHAFFER BROS., Oxford, Mich., R. 4.

PURE BRED Duroc-Jersey Boar
Pigs of April and May farrow, sired by Brookwater Sensation and Model of Orion's Masterpieces. Place your order now, prices right. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

FOR SALE OR EXCHANGE No. 182429, Masterpiece Orion King 4th. Also some May pigs at reasonable prices. Write W. H. CRANE, Lupton, Mich.

REG. Duroc Jersey Spring Pigs, either sex, Can furnish pairs unrelated. Also bred gilts. Priced to sell. VICTOR G. LADUKE, R. 1, Merrill, Mich.

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

BOAR PIGS BY FANNIE'S JOE ORION and Pathfinder Orion. Priced to sell. Satisfaction guaranteed. Write, H. E. LIVERMORE & SON, Romeo, Mich.

FOR SALE—SEPTEMBER GILTS—OPEN OR bred, sired by A. Model Orion King. Call or write. CHAS. F. RICHARDSON, Blanchard, Mich.

HILL CREST DUROCS—BRED SOWS ALL sold. A fine line of boars, weighing from 150 pounds up. Farm 4 miles south of Middleton, Gratiot Co. NEWTON & BLANK, Ferrinton, Mich.

HERE WE ARE AGAIN WITH A BUNCH of nice Duroc Pigs the big boned kind; \$10.00 each with Pedigree. F. A. LAMB, Cassopolis, Mich.

REGISTERED, Duroc Jersey Pigs FAR-rowed April 12 for sale, \$12.50 each. Papers furnished. JASPER CONKLIN, Battle Creek, R. 5, Box 149, Mich.

LUROC JERSEYS—Bred Sows and Gilts Bred for Aug. and Sept. farrow. A few choice ready for service boars. Shipped on approval. Satisfaction guaranteed. F. J. Drott, Monroe, Mich. R1

DUROCS—POPULAR BLOOD LINES—SEND your wets to OCEANA CO. Duroc Jersey Hog Ass'n. V. Lidgard Sec., Hesperia, Michigan.

HAMPSHIRE

A CHANCE TO GET SOME REAL HAMP-shires. Boar pigs, sired by Gen. Pershing Again, Gilt Edge Tipton, Messenger All Over 10th. Gen. Pershing 2nd., and other great boars. Write for list and prices. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

HAMPSHIRE SPRING PIGS BY 4 DIFFER-ent boars. Tried sows to farrow in Sept. We bred the 1921 champion Berkshire gilt of Mich., also her sire, E. E. CRIBBS Three Rivers, Mich.

Hampshires—A few choice Bred Gilts with boar pig no kin to gilts. John W. Snyder, St. Johns, Mich.

O. I. C.

O. I. C. & CHESTER WHITE SWINE Choice boars of Feb., March and April farrow. Advance Type and Busters Giant Bloodlines. Priced to sell. Clara V. Dorman, Snover, Mich.

O. I. C. SWINE—MY HERD CONTAINS THE blood lines of the most noted herd. Can furnish you stock at "live and let live" prices. A. J. GORDEN, Dorr, Mich., R. 3.

REGISTERED O. I. C. SPRING BOARS Sired by R. O. Big Prince. Write for prices. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

BIG TYPE O I C PIGS 8 WEEKS OLD Guaranteed. E. V. BILYEU, Powhatan, Ohio

CHESTER WHITES FOR SALE AT REASON-able prices. Apr. pigs registered in buyers name. Will ship C. O. D. if preferred. RALPH COS-SENS, Levering, Michigan.

BERKSHIRES

WE HAVE A FINE LOT OF BERKSHIRE spring boars for sale, sired by Longfellow's Double, Bob and Duke of Manchester. DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.

SHEEP

HAMPSHIRE SHEEP

A few good yearling rams and some ram lambs left to offer. 25 ewes all ages for sale for fall delivery. Everything guaranteed as represented.

CLARKE U. HAIRE, West Branch, Mich.

PET STOCK

FOR SALE—THOROUGHbred COLLIE pups females. Natural heelers. E. J. MAURER, Marshall, Mich., R. 5.

BREEDERS ATTENTION

If you are planning on a sale this year, write us now and Claim The Date! This service is free to the live stock industry in Michigan to avoid conflicting sale dates. LET "THE BUSINESS FARMER" CLAIM YOUR DATE!

POULTRY BREEDERS DIRECTORY

Advertisements inserted under this heading at 25 cents per line per issue. Write out what you have to offer and send it in we will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Advertising Department, Mt. Clemens, Michigan.



POULTRY

CLASSES OF POULTRY

I understand that poultry is divided into two classes, the meat producing class and the egg producing class, and I have been told that Plymouth Rocks will produce more eggs than Leghorns. Will you please tell me where the Plymouth Rock stands in egg producing ability? Will this meat breed produce as many eggs as the Leghorns?

I would also like to know how many years a chicken is profitable as an egg producer. How many eggs will a pullet produce? How many eggs will a yearling produce? And how many eggs will a hen two years old produce?—F. G. B., Albion, Mich.

There is a common classification of poultry known as the Mediterranean or egg type breeds which includes the Leghorns, Anconas, Minorcas, etc. The American or general purpose breeds which include the Rocks, Reds and Wyandottes and the meat breeds or Asiatics, include Brahmas, Cochins, etc. In recent years this classification, however, has received a new meaning. At present, Barred Rocks are leading the Canadian National Laying Contest at Ottawa and by-the-way these are owned by a Michigan breeder, Mr. H. E. Dennison, of East Lansing. White Wyandottes are leading the Storrs, Connecticut Contest with Barred Rocks at close second and White Leghorns are leading Missouri contest. In cooler climates, the so-called general purpose breeds have the edge on production, whereas, in a warmer climate, the Leghorns make an excellent showing. If the broody character can be eliminated from our heavier breeds they would have no difficulty in setting the pace of the so-called egg breeds. After all it is a matter of strain, rather than breeds, there being high and low productive strains in all recognized breeds. It is of interest to note that our heaviest producing Rocks have a different conformation than the low producers. This shows that production has a tendency to alter the type of your bird showing how impossible it is for the fowl to produce both a maximum amount of eggs and meat in the one individual.

It is rather hard to state how long it is profitable to keep hens because the individual breeds vary so greatly. However, two years is long enough. The better commercial flocks average 150 eggs a year in the pullet year with a decrease of three dozen eggs each year thereafter.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

INCUBATING GEESE EGGS

Can geese eggs be successfully incubated?—J. M., Kendall, Mich.

While geese eggs can be successfully incubated it is not a common practice. The point of paramount importance is the moisture control. It requires an abundance of moisture for the successful incubation of geese eggs. The incubator should be placed in a damp cool cellar and moisture used during the process of hatching towards the latter part of the incubation period. A moist flannel cloth may be placed over the eggs to supply additional moisture.—E. C. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

CULLING IMPROVES PROGENY

HENS that are born loafers usually begin by July to quit their job of egg laying and start moulting, taking most of the summer and fall to finish the replacement of old feathers with a new coat of plumage. This is one of the outstanding characteristics of the unprofitable hen, and the poultryman who keeps close watch of his flock may use it to his advantage in culling out the undesirable birds. But this is not the only dependable indication of what may be expected of

Down Go the Prices!

of Superior

Baby Chicks --- 8 Week Pullets

Tom Barron English White Leghorns, Brown Leghorns, Anconas

The World's Greatest Layers

Read This—

Mrs Geo. Sawyer, of Dansville Mich. says: "I received my chicks the 24th and they came in fine condition. All alive and doing fine. I can say for your hatchery, that they are the nicest chicks I have ever bought. I thank you for your great pains in selecting the chicks and for the extra ones."



Read This—

Mr. W. P. Miller of Morris, Minn., says: "Our baby chicks arrived all alive. I have never seen such nice chicks before. They are all healthy. I would like 200 more June 1st, and another 200 June 15th."

Now is your chance to buy superior baby chicks and pullets at these bargain prices. Order direct from this ad and save time. We will write you at once when you can get your chicks or pullets.

BABY CHICK PRICES

JULY AND AUGUST

	Per 50	Per 100	Per 500	Per 1000
American S. C. White Leghorns	\$5.00	\$10.00	\$50.00	\$100.00
S. C. Brown Leghorns	5.00	10.00	50.00	100.00
S. C. Mottled Anconas	6.00	12.00	57.50	110.00
Tom Barron English White Leghorns				
Extra Selected Stock	6.00	12.00	57.50	110.00
Tom Barron Ex. Spec. Pen Star Mating Ped.	8.00	16.00	75.00	
Pen Star mixed c. l.	4.50	8.50	40.00	\$0.00

Remember these are not ordinary chicks, but selected stock. The best that money can buy. Shipped prepaid to your door. We guarantee live arrival and complete satisfaction.

EIGHT-WEEKS-OLD PULLETS AT BARGAIN PRICES

Write for free bargain list today.

Superior Poultry Farms and Hatchery

Box 2052

Zeeland, Mich.



Baby Chicks

BEST LAYING BREEDS ON EARTH

25,000 large, strong, super hatched chicks every week from Hogan tested flocks culled out semi-annually by our Poultry experts.

PRICES FOR JULY

	Per 50	Per 100	Per 500	Per 1000
S. C. WHITE LEGHORNS				
ENGLISH WHITE LEGHORNS				
S. C. BROWN LEGHORNS	\$5.25	\$10.00	\$47.50	\$95.00
S. C. MOTTLED ANCONAS				
BROILERS (Odds and Ends)	\$4.00	\$7.00	\$35.00	

EXTRA SELECTED STOCK AT \$2.00 PER 100 HIGHER

Thousands of Satisfied Customers Make Big Money

Mr. F. L. Hess, Chicago, Ill., writes: "I averaged 112 eggs a day from 140 of your pullets and sold \$158.00 worth of eggs in February."

Mrs. Wyttenbach, Amherst, Ohio, writes: "I sold \$357.30 of eggs in two months from 200 pullets of your stock."

Raise Good Stock and Reap a Golden Harvest

Intelligent chick buyers of today do not take chances with ordinary stock. Our enormous output enables us to sell these money makers at a price that positively cannot be equalled.

We Ship Thousands of Chicks Each Year

Every shipment is sent by Prepaid Parcel Post and we guarantee 100% live delivery. Order direct from ad. or send for illustrated catalogue.

Wyngarden Hatchery, Box B, Zeeland, Mich.

BABY CHIX

The Old Reliable Breeds

S. B. White Leghorns

English and American Strains

Barred Rocks Anconas

S. C. Brown Leghorns

Here we are, just a few hours from your door, with baby chicks from the best breeds. Our growth from one small incubator to 22,000 egg capacity has been steady, and denotes honest dealing. Get our prices on chicks from our healthy, free range, heavy laying stock. Send today for handsome catalog in colors. CITY LIMITS HATCHERY & POULTRY YARD, Route 5, Box 11, Holland, Mich.

CHICKS! CHICKS!



It will pay you to look over these low prices for June and July delivery. Better chicks at real bargain prices. Pure S. C. W. Leghorns, \$6.25 for 50; \$10 for 100; \$47.50 for 500. Pure Barron Eng. Leghorns, \$5.75 for 50; \$11 for 100; \$52.50 for 500. Pure S. C. Anconas, \$5.75 for 50 Hatch every Tuesday in June direct from ad. Prompt shipment by insured Parcel Post prepaid to your door. Full count strong lively chicks on arrival. For quick service and an entirely satisfactory deal send us your order. Fourteen years reliable dealing. Fine instructive catalog free.

HOLLAND HATCHERY

R. 7, Holland, Mich.

Egg Bred Chicks



Selected thoroughbreds. Prize winners at National Egg Laying Contest, Mo. 1922. June and July chicks make November layers. Now is the time to buy. S. C. Anconas: \$13.10; \$7.50. S. C. White Leghorns: \$12.10; \$6.50. Extra Star mating. Sheppard Anconas: \$16.10; \$8.50. Barron Eng. White Leghorns, \$14.10; \$7.50. Thousands ready for shipment every Tuesday. Parcel Post Prepaid. Guaranteed alive and healthy at your door. Catalog free.

FRANK A. VAN BREE

Box B, Zeeland, Mich

The 'Old Reliable' OHIO HATCHERY



S. C. White Leghorns, S. C. Brown Leghorns, and S. C. Buff Leghorns \$3.50 per 25; \$6.50 per 50; \$12.00 per 100; \$110 per 1000. Barred Rocks, Mottled Anconas, and S. C. Black Minorcas, \$4.00 per 25; \$7.50 per 50; \$14.00 per 100; \$130 per 1000. White Rocks, White Wyandottes, and Buff Orpingtons, \$4.50 per 25; \$8.50 per 50; \$16.00 per 100. R. C. H. I. Reds, \$5.25 per 25; \$10 per 50; \$18 per 100; Light Brahmas \$7.00 per 25; \$13 per 50; \$24 per 100. Broilers, odds and ends \$3.00 per 25; \$5 per 50; \$10 per 100; THE UHL HATCHERY Box 502, New Washington, Ohio.

Baby Chicks

Build up your flock with pure bred chicks that lay early and often, best quality. Leghorns, Rocks, Reds, Wyandottes, Anconas, Minorcas, Orpingtons, Silver Spangled, Hamburg Eggs \$2.00 per setting. We deliver at your door. Get our price list and free catalog.

J. G. PHILPOTT

R. 1, Box 74 Port Huron, Mich.



CHICKS WITH PEP

BIG JUNE AND JULY PRICE REDUCTION

Try some of our full blooded DON'T STOP LAYING KIND of chicks for June and July. They will pay you big. Rocks, Reds, Anconas, Minorcas, W. Wyandottes, 13c; Leghorns, 10c; Orpingtons, Sil. Wyandottes, 15c; broilers, 10c. Safe delivery. Prepaid. Free Catalog.

HOLGATE CHICK HATCHERY

Box B, Holgate, Ohio

CHICKS

THREE LEADING BREEDS

TOM BARRON ENGLISH WHITE LEGHORNS, PARK'S BARRED ROCKS, S. C. R. I. REDS

PRICES FOR JULY AND AUGUST

	25	50	100	500	1000
White Leghorns	\$2.50	\$5.00	\$10.00	\$47.50	\$95.00
Barred Rocks and R. I. Reds	3.00	6.00	12.00	57.50	115.00

Broiler chicks \$7.00 per 100, \$35.00 for 500. Selected Pens \$1.00 Extra. 100 per cent live delivery prepaid to your door. These chicks are from the best layers obtainable on free range and we guarantee satisfaction or refund your money. Give us a trial and be convinced. Catalogue free. Imposter.

BRUMMER'S POULTRY FARM, Holland, Mich., Box 28

ERROR IN AD
There was a typographical error in the advertisement of Brummer's Poultry Farm last week. The price of broiler chicks was given "\$7.00 per 100, \$25.00 for 500." It should have read "\$7.00 per 100, \$35.00 for 500."

BABY CHICKS

NABOB JUST-RITE
Baby Chicks

Get our low July prices. July chicks for January layers.

Postage PAID. 95 per cent arrival guaranteed. MONTH'S FEED FREE with each order. A hatch every week all year. 40 Breeds Chicks. 4 Breeds Ducklings. Select and Exhibition Grades. Catalogue Free.

NABOB HATCHERIES, Dept. 30, Gambler, O.

BABY CHICKS

200,000 for 1922. Shepards Anconas, English type White Leghorns and Brown Leghorns and Barred Rocks. Why pay two prices when you can buy direct? Our chicks are from strong vigorous flocks of fine quality and excellent layers. Chicks are sent prepaid with 100 per cent live arrival guaranteed. Order now or send for free catalogue.

KNOLLS HATCHERY, Holland Mich R12

EXTRA GOOD CHICKS

Plan now on more eggs next winter. Order chicks from pure bred record layers. Tom Barron White Leghorns, Brown Leghorns, and Anconas. Postpaid anywhere. Catalog free.

QUEEN HATCHERY
ZECLAND, MICHIGAN

JULY, AUGUST AND SEPTEMBER CHIX—Order now. Barred or White Plymouth Rocks, R. I. Reds, Black Minorcas, White Leghorns or Anconas \$14.00 per 100, prepaid. 16c each in 25 or 50 lots. 100 percent live delivery guaranteed. Order our 12 year producing chix this please. Order direct from this ad. **GREEN LAWN POULTRY FARM, R. 3, Fenton, Mich.**

BABY CHICKS

S. C. Buff Leghorns, one of the largest flocks in Michigan. My price is in reach of all, only \$15.00 per hundred. Detroit winners, none better.

LAPHAM FARMS, Pinckney, Mich

Day Old Chicks. Standard Varieties. Make your selections. Catalogue and price list now ready.

H. H. PIERCE, Jerome, Mich.

POULTRY

THREE MONTHS OLD PULLETS
WHITE LEGHORN

We have 1,000 of the Pullets that we can ship right now. They will be ready to lay in September and will give you money-making eggs all thru the fall. Send for a description of these Pullets; also we will tell you of the other varieties of stock we have; 18 breeds. Yearling Hens in White and Brown Leghorns and Anconas.

STATE FARMS ASSOCIATION
202 Chase Block Kalamazoo, Mich.

PLYMOUTH ROCK

BUFF ROCKS—Bronze Turkeys—For 20 years, by J. C. Clipp & Sons, Bx. M, Sattilo, Ind.

LEGHORNS

POUND PULLETS (S. C. W. L.) HATCHED
MARCH 20th. \$1.20 for May 15th delivery. Finest lot we ever raised. No sickness. No crowding. Satisfaction or money back. Will lay in August and all through the fall season when eggs are the highest.

MORSE LEGHORN FARM, Beiding, Michigan

LEGHORNS

Single Comb Buff Leghorns, 1000 Chicks for April first delivery. It will cost you just 2 cents to find out my plan how to get 10 Baby Chicks FREE.

LAPHAM FARMS, Pinckney, Mich.

BUFF LEGHORNS—SINGLE COMB. Early Hatched Cockerels.

J. W. WEBSTER, Bath, Michigan

WYANDOTTE

HEIMBACH'S WHITE WYANDOTTES. Exhibition and utility—Rhode Island Reds. Chicks all sold for the season. Hatching eggs half price.

C. W. HEIMBACH, Big Rapids, Michigan. R. 2

RHODE ISLAND REDS

RHODE ISLAND REDS, TOMPKINS STRAIN. Hatching eggs and baby chicks. Eggs per hundred, July \$8. Chicks twice the price of eggs. Both combs. **WM. H. FROHM, New Baltimore, Mich. R. 1.**

WHITTAKER'S RED CHICKS Both Combs. Blood tested for white diarrhoea. Michigan's greatest color and egg strain. Catalog free. Interlakes Farm, Box 4, Lawrence, Mich.

ROSE COMB RHODE ISLAND REDS. Hatching Eggs reduced to \$1 per setting. **MRS. ALBERT HARWOOD, R. 4, Charlevoix, Mich. (P)**

ORPINGTONS

ORPINGTONS BUFF, WHITE, BLACK Hatching eggs in season.

AUGUST GRABOWSKA
Merrill, Mich., Route 4, Box 41.

HATCHING EGGS

EGGS \$1 SETTING, Parcel Post Paid. Thoroughebreeds, Barred Rocks, White Rocks, Buff Rocks, White Wyandottes, Anconas, Buff Minorcas, White Leghorns, Brown Leghorns, Rhode Island Reds, Buff Orpingtons. **PHILIP CONDON, West Chester, Ohio.**

WHITE ROCK EGGS FOR HATCHING
Blue Ribbon winners. Write for prices and information. **Mrs. Roy Oakes, Hartford, Mich.**

Please Mention the M. B. F. When writing to Advertisers

the hens in a flock, says the United States Department of Agriculture.

There are several things that the wide-awake poultryman looks for at this season. The low producer, having small demand for the yellow coloring matter manufactured by her body, puts it into her legs and beak, making them a rich yellow. The busy hen uses the color in touching up the yolks of eggs and her legs and beak become pale. These birds with pale legs and beaks may not look so well or so healthy as the others, but they are the ones it pays to keep. In fact, the hen that is most beautiful in summer and fall should always be under suspicion.

Other Marks of the Loafer

On closer examination it will be found that the loafer has a scaly and shrunken comb, while the busy hen will have a plump comb of a bright red color. The hen that has stopped laying will have her pelvic bones considerably contracted and the distance between the bones of the pelvic arch and the lower end of the keel will be materially reduced. She should be an early candidate for the kettle.

The heavy layer will show no signs of moulting at this season, although she may have been producing since last fall, but will stick to business until late fall, sometimes rounding out a full year of continuous egg production. This year-round laying not only means more eggs, but also that a higher price is received for them as a large proportion of them are laid in winter, late summer and fall when prices are up. The early moult lays most of her eggs during the flush season. The hen that can keep up production under the comparatively unfavorable conditions that obtain outside of the natural breeding season has outstanding vigor and stamina.

If the only result were to get rid of the poor birds in the present flock, it would pay to study these distinctive characteristics, but it pays even more in the improvement of the flock from year to year that is made possible by the selection of birds having the combination of prolificacy and vigor. A convincing demonstration of the improvement that may be obtained in this way was made at the United States Experiment Farm, Beltsville, Maryland in recent investigations. The late moulters, selected from a flock of 100 Rhode Island Reds in the fall of 1920, laid several more eggs per bird during their second year than the original flock as pullets. They were used as breeders the following spring, and the first Red pullets to begin laying in the fall of 1921 were found to be the offspring of these late-moulting hens. Their pullets, in a period of seven months, have already averaged about two dozen eggs per bird more than the original flock. The value of their product would be about \$1.04 per bird more than the value of the eggs from the original flock during the same time. It is probable that this large margin will be increased even more in the next five months. In the original flock the bulk of the production was in March and April.

The wise poultryman will lose no time in culling out these poor producers of cheap eggs. He will start this summer building the foundation for a flock of long-distance layers. The birds can be selected now and next spring, after a short rest in the winter, their eggs will produce a high percentage of strong, healthy chicks that are almost certain to make better records in flock production. If good sires are selected the improvement will be surprisingly rapid.

RADIO DEPARTMENT
EDITED BY J. HERBERT FERRIS

DETECTOR RESULTS

In the last issue there was described a vacuum tube detector and how to make it, and in describing this detector and results obtainable it was necessary to make one just as described and test it out. This was done right here in Elberta, Mich., and the results obtained are actual results.

In describing the different parts of a receiving set and how to make them, we are first making them and then describing them, and if instructions are followed closely and your joints are soldered (except where they fit under screws) and the aerial is properly insulated (that is properly protected from electrical leakage) and your ground connection is good you will get the same results and maybe better. Be patient and do not expect too much until you have learned how to operate your particular set.

To get the best results with a vacuum tube detector it is necessary to use a regenerative tuning set, which will be the subject of our next article, and so the results that I obtained must be remembered were with a regenerative tuning set.

With the detector described, during June the following stations were heard distinctly using two sets of telephones so that two people were listening: K. Y. W. the Westinghouse station at Chicago; KDKA, the Westinghouse station at Pittsburgh, Pa.; WCX, the Detroit Free Press; WWJ, the Detroit News, also a station in Indianapolis and one in Denver, Colorado, were heard but I did not understand the call letters.

We have been advising the use of one or two steps of amplification to get stations 300 or more miles away, but here you see that stations over that distance have been heard clearly here in Elberta.

But here comes the rub! These results were only obtained on certain nights, and these nights were nights that followed at least two days of uniform temperatures, that is, when we had been having two days with the thermometer standing between 65 and 75 degrees signals were good, but if a hot day came in between or a much cooler one (of which we have had plenty this June) then it was impossible to hear

any wireless telephone or it was very poor. When a one step amplifier was used on the poor nights the telephone came in quite clear, and on nights that no sounds could be heard with a detector alone a two step amplifier was used and again the music came in strong. In the winter the changeable temperatures will not cause so much trouble, but my experience has shown that for uniformly good results a two step amplifier is necessary.

NOTES

The State Police of Michigan are securing some wireless sets from the Signal Corps of the army. We may soon be listening in to news about prospective raids on bootleggers!

Why should we stop with "listening in" to wireless telephone, why not be thinking about a wireless sending set so that we can talk or telegraph to our neighbors many miles away. A sending set for wireless telegraph is cheap compared to one for wireless telephony.

Talking with "mush" in your mouth is not considered polite, but when you first tune in your set it sounds very much as if all the singers had been eating mush for supper and still were eating it while they sing. Music from instruments does not sound this way, and the "distortion" of received signals is not so noticeable but until you have learned to tune your set you may wonder if English is spoken or some foreign language.

Storage batteries used for detector sets must be kept fully charged at all times, as it is rather disappointing to have the signals fade away because your battery is "going dead" on you. This usually happens when you least want it to.

The time that a receiving set never works is just when you call in your friend to hear a good concert and you end up by saying "Sorry, folks, but something is wrong with it tonight," and they go away thinking that you are a little bit "off."

These free booklets on Farm Sanitation

tell you how to prevent disease among livestock and poultry and describe in detail the many uses of

KRESO DIP No. 1

(STANDARDIZED)

Parasiticide and Disinfectant

- 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.
- No. 160—**HOG BOOKLET.** Covers the common hog diseases.
- No. 185—**HOG WALLOW.** 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.

Write for these booklets.

Animal Industry Department

PARKE, DAVIS & CO.
DETROIT, MICHIGAN

KRESO DIP No. 1 IS SOLD IN ORIGINAL PACKAGES AT ALL DRUG STORES

MORRISON HOTEL

1000 Rooms
Each With Bath

Rates

- 44 rooms at \$2.50
- 174 rooms at \$3.00
- 292 rooms at \$3.50
- 295 rooms at \$4.00
- 249 rooms at \$5.00

and up

Enjoy Your Stay in **CHICAGO**
in the Heart of the Loop

Convenient to all theaters, railway stations, the retail and wholesale districts, by living at the

MORRISON HOTEL
THE HOTEL OF PERFECT SERVICE
Clark and Madison Sts.
The Home of the **Terrace Garden**
CHICAGO'S WONDER RESTAURANT

\$24.95 American
Upward **CREAM**
SEPARATOR

On trial. Easy running, easily cleaned. Skims warm or cold milk. Different from picture which shows larger capacity machines. Get our plan of easy **MONTHLY PAYMENTS** and handsome free catalog. Whether dairy is large or small, write today.

AMERICAN SEPARATOR CO.
Box 7067
Bainbridge, N. Y.



MARKET FLASHES



TRADE AND MARKET REVIEW

THE outstanding features of the industrial situation are the coal and railway strikes which threaten to reach such proportions as to paralyze coal mining and transportation and all industries dependent upon them. The public at large has failed to appreciate the temper of the strikers and has gone serenely about its business in the fond hope that the differences would be settled in ample time to cause them no special inconvenience. The coal strike is no greater proportions today than it has been at any time but the approach of winter adds seriousness to the situation. The rail strike has reached proportions far greater than anyone imagined it could in so short a time and as the Business Farmer goes to press the horizon is ominous with signs of a complete tie-up.

The average citizen is very much at sea as to the causes of these two strikes. In the majority of cases the blame is laid at the door of the striker without any investigation of the root of the trouble. The employers tell one story and the employees another and the public does not know which one to believe. The employers give out of the idea that railway men and miners are still receiving wages far in excess of what is paid in other industries, while the strikers aver that their wages are far below the prevailing level and also below what it is possible to live on.

The Brotherhood of Locomotive Engineers which is in sympathy with the striking element but which will respect to contracts they have with the railroads and remain on duty, declare in a recent statement that the decision of the U. S. Railroad Labor Board which the strikers have refused to accept would reduce the wages of 100,000 railway men to 23 cents an hour, and the statement adds:

"The employees whom the Labor Board has condemned to work for 23 cents an hour or \$1.84 a day are entrusted with the responsibility of making safe for public travel the tracks, roadbeds and rights of way of the carriers. The present wage slash is not only driving them below the level of any possible decent human existence, but is also setting a basic scale for the pay of unskilled workers so low that it will pull after it the already insufficient wages of the more skilled employees, whose compensation is reckoned upon the basic unskilled rate."

If the decision of the board actually means the paying of 23 cents an hour to men who have families to support, it is hard to believe that the great American public or the government will refuse their sympathy and aid to the cause of the strikers.

Excepting for the disturbing elements described above business continues slowly on the upgrade, and unemployment is rapidly dwindling. An early settlement of the strikes would insure a period of substantial prosperity throughout the fall and winter. With a continuance of the strikes, however, it is hard to predict what may happen within the next sixty days.

On the agricultural side the prospect is exceedingly bright as compared with what the farmer has gone through within the last two years. Contrary to rule and expectations the approach of a new and bountiful harvest has not had a very depressing effect upon prices. New wheat is selling readily in the southwest at \$1 per bushel, and here in Michigan the price will open slightly higher. Europe's needs and the ever present menace of black stem rust keeps the market in a strong and healthy condition.

Money is easier today than it has been in nearly three years time and with the liquidation of millions in loans from the proceeds of the new crops we shall see a much better condition in the local banking circles. Many banks in agricultural

MARKET SUMMARY

Wheat and oats quiet. Corn steady. Rye dull and lower. Beans inactive. Butter and eggs in demand. Poultry easy and receipts large. Supply of dressed calves small but enough to take care of demand. Cattle steady to lower. Hogs strong. Sheep decline. Provisions higher.

(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.)

communities which found it impossible to make loans six months ago are now looking for borrowers. This means that farmers will be amply provided with funds the coming fall, winter and spring.

WHEAT

Wheat is easier after a week of considerable strength. Fear that the rail strike would cut off supplies from the southwest and prevent dealers from filling their contracts caused them to do some fairly active bidding the last of the week which was reflected in a firmer feeling. But belief that the strike is near a settlement, reports of threshing progress and a temporary slackening of buying for European account has put the market down a little. At the same time the black stem rust is causing no end of havoc in the northwest, and along the Canadian border line come stories of the damage it has wrought.

A particularly bearish factor at this time is the eagerness of farmers to sell their grain from the machine, and if the railroads can transport the grain as fast as it is offered for sale, it is believed that terminal points will soon be congested which will mean a much easier market.

Agricultural statistics are very bullish. The Department of Commerce's report on the European situation shows that Europe will require more grain than last year. Mr. Foster, the M. B. F.'s weather forecaster, who also occasionally takes a fling at market forecasting, is quite free with a prediction that wheat will go to \$2 before the first of the year. He bases his opinion

upon the great drought in Europe which he predicted some time ago.

If the farmers rush their wheat to market as soon as harvested we may, of course, expect lower prices, and were the European situation different we would have no hesitancy in predicting 75 cent wheat. We think Mr Foster has his figures high, and his date for the high mark set a little early. The writer does not expect to see \$2 wheat before next March or April if at all. But he does expect to see much higher values by the first of the year if general business conditions do not get any worse.

Prices

Detroit—No. 2 red, \$1.16; No. 2 white and No. 2 mixed, \$1.14.
Chicago—No. 2 red, \$1.15 1-2 @ 1.18.
New York—No. 2 red, \$1.28 1-2; No. 2 mixed durum, \$1.29.
Prices one year ago—Detroit, No. 2 red, \$1.29; No. 2 white and No. 2 mixed, \$1.24.

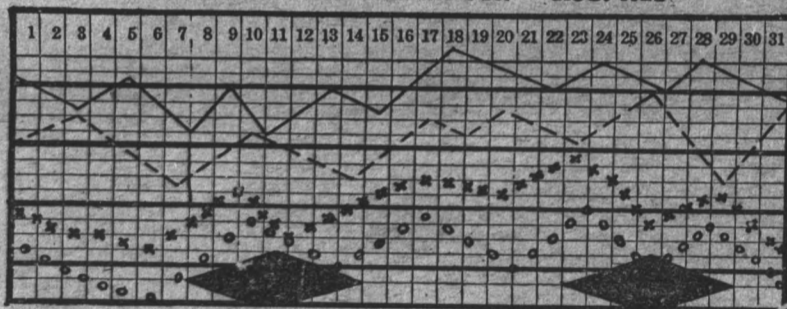
CORN

July 18—The corn market shows a steady to strong tone and prices on all of the large markets are higher than they were a fortnight ago; in some cases these advances have amounted to a fraction over 3 cents. Demand was fair during the week ending July 15. It took around 4,400,000 bushels to supply the shipping demand, both domestic and export, at Chicago last week. Receipts at that point amounted to nearly 3,000,000 bushels. The condition of the growing crop in general is good. Many of the corn growing sections report benefiting rains while others say the crop is suffering for the want

THE WEATHER FOR NEXT WEEK

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

FOSTER'S WEATHER CHART FOR AUG. 1922



Straight, heavy horizontal line is for normal temperatures; crooked lines, temperature forecasts; where they go above normal line means warmer, below means cooler; diamonds are for severe storms and rain increase; solid, crooked line for all north of latitude 36 between meridian 90 and Rockies crest; broken line for south of 36, between meridian 90 and Rockies crest, also Louisiana and Mississippi; X line, east of meridian 90, north of 36; O . . . line, north of 36 and west of Rockies crest.

WASHINGTON, D. C., July 20—For last ten days of July about the average rain of the past three months is expected. August cropweather will be near the average of May, June and July this year. That will end the 1922 cropweather season and begin the cropweather that will control the 1923 crops. The sowing of winter grain is of vast importance, more so because a great failure of crops will occur over a large part of North America between Sept. 1, 1922 and Sept. 1, 1923.

Not every one is interested in sowing winter grain and therefore I ask for inquiries from those who are. However a large number of people are interested in grain, besides the farmers. I have proven, in my past five years of world cropweather, that my drought and rain shortage forecasts are valuable. But there are some things I cannot continue to publish about future cropweather because the big speculators take advantage of it. However, I must again tell the farmers not to sell grain now. Before the end of 1922 wheat will go to \$2.00 and other grain in proportion. The now well known world shortage of grain should prove to all that this is not the time to sell. Bankers have an interest in their patrons and should extend credit to farmers to enable them to hold grain.

Wheat crop in southern Europe is short of last years crop 120 million bushels; Russia, where last year's drought destroyed crops, now has another shortage; Australia and New Zealand crops are in bad condition because of rain shortage; Japan 30 million short; government of Roumania has taken charge of grain on account of the great drought; American winter wheat is a poor crop and August dry weather is expected to damage corn in several large corn producing states. A moderately severe storm period will center on July 24, producing some rain but less than usual.

Great Lakes region—Normal temperatures near 22, balance of month cooler than usual and about normal rain; severity of storms only moderate; cropweather about normal except not good for harvesting and threshing; good cropweather for sowing winter grain which will make good pasture this fall.

of moisture. On the opening day of the present week the Detroit market remained steady while the market at Chicago exhibited some weakness.

Prices

Detroit—No. 2 yellow, 71c; No. 3, 69 1-2c; No. 4, 68c.
Chicago—No. 2 yellow, 64 3-4 @ 65 3-4c.
New York—No. 2 yellow, 82 1-2c.
Prices one year ago—Detroit, No. 2 yellow, 69c; No. 3 yellow, 68c; No. 4 yellow, 65c.

OATS

The oat crop is in a very much better condition than a year ago, but the total anticipated yield will be small in comparison with previous years. The market is easy and the prices not attractive. In the continued absence of an active export demand a more active market is not in sight. We can conceive of no set of circumstances which would send oats to better than the 50 cent mark and we believe prices on the new crop will rule somewhat below that figure.

Prices

Detroit—No. 2 white, 41 1-2c; No. 3 white, 39 1-2c; No. 4 white, 35 1-2 @ 37 1-2c.
Chicago—No. 2 white, 37 1-2 @ 38 1-2c; No. 3 white, 35 @ 38 1-2c.
New York—No. 2 white, 47 @ 47 1-2c.
Prices one year ago—Detroit, No. 2 white, 44 1-2c; No. 3 white, 43c; No. 4 white, 40c.

RYE

July 18.—A quiet tone has ruled in the rye market the greater part of the time during the past two weeks and as a result prices are lower at nearly all points. Receipts are small but sufficient to take care of the demand. No sale reports coming from Chicago.

Prices

Detroit—Cash No. 2, 85c.
Chicago—No. 4, 82 1-2c.
Price one year ago—Detroit, No. 2, \$1.26.

BARLEY

July 18—The barley market enjoys a steady tone with receipts fair, also demand is somewhat better. Feeding at Chicago is worth 61c per bushel.

BEANS

The bean market is weaker and prices have taken a slight drop. This is probably due to two things. One of them is a falling off in consumption as a result of the high prices and warm weather, and the other is the bearish influence of the big acreage and fine condition of the new crop. There will be very little doing in the bean market for the next sixty days as practically the whole of last year's crop has been sold and consumed. But we imagine that within a week or two of threshing advance quotations, based upon many different guesses as to what the opening price will be may cause wide fluctuations in the market for some time. It is too early to venture an opinion as to what the opening price will be. It is quite safe to say that it will not be as high as the present market price, nor will it be as low as the opening price a year ago. The promise is for a very large crop, but at that crop will not be equal to the demand.

Prices

Detroit—C. H. P., \$8.80 per cwt.
Chicago—C. H. P., \$9.50 @ 10 per cwt.; red kidney, up to \$9 per cwt.
Price one year ago—Detroit, C. H. P., \$3.35 per cwt.

POTATOES

Can the United States consume at a profit to farmers 80,000,000 bushels more potatoes than last year? This is the all-important question with which potato producers are faced with their 1922 crop. The July estimate places the production at 426,607,000 bushels, as against 346,823,000 bushels last year. Of

course, many things can happen to the crop between now and harvest, but nothing short of a calamity in several of the important states can cut the estimated production to a point at which it would be safe to bank on a price equal to the average on the 1921 crop. Maine and New York potato fields have suffered severely from the heavy rains which have prevailed in those states for nearly a month. In Maine the loss has been very heavy. Michigan and some of the other mid-western states are battling the worst epidemic of bugs in many years. Otherwise the crop is in good condition.

The estimate is for the third largest crop in the history of the country and is exceeded only by the huge crops of 1917 and 1920, both of which went over the 430,000,000 bushel mark. Farmers well remember the prices they got for potatoes in the spring of 1921.

The market on new stock is holding up well despite the fact that about 6,000 more cars have moved this year than during the same period a year ago. Just as soon as Ohio and southern Michigan potatoes come on to the market we shall see very much lower prices, and it is highly improbable that the opening prices on the late crop can exceed \$1 per bushel.

Potato growers should watch developments on the new crop very carefully and gauge their digging and marketing operations accordingly.

Prices

Detroit—New, \$2.50 per cwt.
Chicago—New, \$2.25 per cwt.
New York—New, \$2.05; old, Maine, \$1.67 per cwt.

HAY

July 13—The Detroit market is easy while at Chicago the tone is strong. Chicago reports demand excellent and other large markets are receiving little demand. Receipts seem to be on the increase.

Prices

Detroit—Standard timothy, \$19@20; No. 2 timothy, \$18@19; light mixed, \$19@20; No. 1 clover, \$15@16 per ton.

Chicago—No. 2 timothy and No. 1 light clover mixed, \$24@25; No. 1 clover, \$15@19 per ton.

New York—No. 2 timothy, \$25@30; No. 1 light clover mixed, \$27@30 per ton.

Prices one year ago—Detroit, Standard timothy, \$20@21; No. 2 timothy, \$19@20; No. 1 light clover mixed, \$20@21; No. 1 clover, \$14@15 per ton.

MISCELLANEOUS MARKET QUOTATIONS

Detroit, Tuesday, July 18.

Blackberries—\$5.50@6 per bu.
Raspberries—Black, \$7@7.50 per bu.; red, \$9@10 per bu.

Red Currants—Common, \$3.50@3.75; \$4@4.25 per 24-quart case.

Huckleberries—\$3.75@4 per 16-quart case.

Cherries—Home grown, sour, \$4.50@5 per 24-quart case; sweet, \$2.75@3 per 16-quart case.

Peaches—Southern, white, \$3.25@3.50 per bu.; Elbertas, \$3.75@4 per bu.

Apples—New, \$2.25@2.50 per bu.
Dressed Calves—Choice, 15@16c; medium, 12@13c; large coarse, 10@11c per lb.

Live Poultry—Best springs, 2-lb. and up, 30@33c; medium springs, 30c; leghorns, 25@26c; large fat hens, 26@27c; medium hens, 26@27c; small hens, 20@22c; old roosters, 15c; geese, 13c; ducks, 22@23c; turkeys, 30c per lb.

EAST BUFFALO LIVE STOCK MARKET

The receipts of cattle on the opening day of the present week were 145 cars, including five cars left from last week's trade. Our market opened steady on medium weight and weighty steer cattle, which were in moderate supply; dry fed butcher steers and handy weight steers were in good supply, sold steady; all grades of grass cattle were in heavy supply, sold 25c lower; bulls were in light supply, sold strong; all grades of cows were in good supply, sold steady; stockers and feeders were in light supply, sold steady; yearlings were in light supply, sold steady. Top on heavy cattle was \$10.50 for five loads averaging 1326

pounds. Top on yearlings was \$10.25 averaging 942 pounds.

The receipts of sheep and lambs on Monday, July 17 were called 1600 head. Choice lambs sold at the opening of the market from \$14 to \$14.25; with a few choice ewes and wether lambs selling up to \$14.40 but after the first round it was hard to dispose of lambs at \$14; cull lambs, \$9@11; yearlings, \$9@11; wethers, \$7@8; ewes, \$6@7.

The receipts of calves on Monday of the current week were 1800 head. Choice calves sold 50c higher than Saturday, best selling from \$11@11.50; throwouts, 120 to 140 lbs., \$8.50@9; heavy throwouts, 160 to 190 lbs., \$6.50@7.50; heavy fat veal calves, \$7.50@8.50, as to weight and quality.

The receipts of hogs on July 17 totaled 6400 head. The market opened slow and barely steady on hogs that had weight and steady to 15c higher on the light mixed and 15 to 25c higher on pigs and yorkers, with the heavy hogs selling at \$11; medium and heavy mixed, \$11.25, with a few scattered sales up to \$11.40; light yorkers and pigs, \$11.85 to \$12. There was a large supply of roughs on our market Monday, with bulk going at \$8.50.

WEEKLY MARKETGRAM

For the week ending July 14, 1922.

Dairy Products—Butter market firm most of week; but easy at the close; fancy grades have been in heaviest demand. Receipts continue heavy, storage stocks steadily increasing. Closing prices 92 score butter: New York, 37 1-2; Boston, 37 1-2; Philadelphia, 38c; Chicago, 35 1-2 cents. Cheese prices slightly lower on Wisconsin cheese board, market easier. Board market easier. Movement into storage continues as production is decreasing. Effect of hot weather on quality is increasing. Prices at Wisconsin Primary cheese markets July 13: Twins, 19 1-2; Daisies, 20c; Double Daisies, 19 3-4c; Young Americas, 20c; Longhorns, 20 1-2c; Square Prints, 21c.

Live Stock and Meats—Chicago hog prices dropped 20@30 cents during the week. Beef steers prices advanced 15 to 45 cents; butcher cows and heifers from 25c higher; veal calves 25 cents net higher and feeder steers unchanged. Fat lamb prices steady to 10 cents higher; feeding lambs 50 to 65 cents higher; yearlings steady and fat ewes 55 cents to \$1 higher per 100 pounds. On July 14 Chicago hog market opened fairly active on lights and light butchers, mostly 15 to 25 cents lower, closed mostly 25c lower on better grades of lights and light butchers. 30 to 35c lower on others. Beef steers mostly steady; butcher cows and heifers uneven; bulls steady, calves steady to 25 cents lower. Fat sheep and lambs strong to 25 cents higher July 14 Chicago prices: Hogs, top \$10.80; bulk of sales, \$8.55@10.65; medium and good beef steers, \$8.40@10; butcher cows and heifers, \$4@9; feeder steers, \$5.65@7.75. Light and medium weight veal calves, \$8.25@10; fat lambs, \$12.85@14; feeding lambs, \$12@13.25; yearlings, \$9@12; fat ewes, \$5.50@8.15; stocker and feeder shipments from 12 important markets during the week ending July 7 were: Cattle and calves 27,430; hogs, 2,447; sheep, 29,196. In eastern wholesale fresh meat markets lamb prices continued to show marked advances over those of a week ago, an advance of \$1@7 being quoted; mutton and pork loins advanced, \$1@2; veal, \$1@4, with beef firm to 50 cents higher per 100 pounds. July 14 prices good grade meats: Beef, \$15@17; veal, \$16@19; lambs, \$25@28; mutton, \$16@20; light pork loins, \$20@24; heavy loins, \$14@19.

STATE FARM BUREAU STARTS MEMBERSHIP DRIVE

(Continued from page 3)

powerful, representative organization. It has co-operated with other Michigan farm organizations so successfully that the four great commodity exchanges—the Potato Growers' Exchange, The Milk Producers' Association, The Live Stock Exchange and the Michigan Elevator Exchange—have affiliated with the State Farm Bureau on the basis of their common service interests.

The Farm Bureau has stimulated greatly the co-operative marketing movement in Michigan and has built lasting co-operative marketing, seed purchasing and sales and supplies purchasing organizations, Mr. Brody said. The Bureau's co-operative seed handling department is the greatest institution of its kind in the nation, an agency that is a pioneer in guaranteeing all its seed. The Bureau has built in the Michigan Elevator Exchange one of the largest and most successful state elevator exchanges in the United States. One hundred and one local elevators market their crops through their central office at Lansing.

The Bureau is credited with being the first state co-operative marketing institution to work out a state-wide farmers' seed and supplies purchasing service and put it on a successful basis.



Agriculture

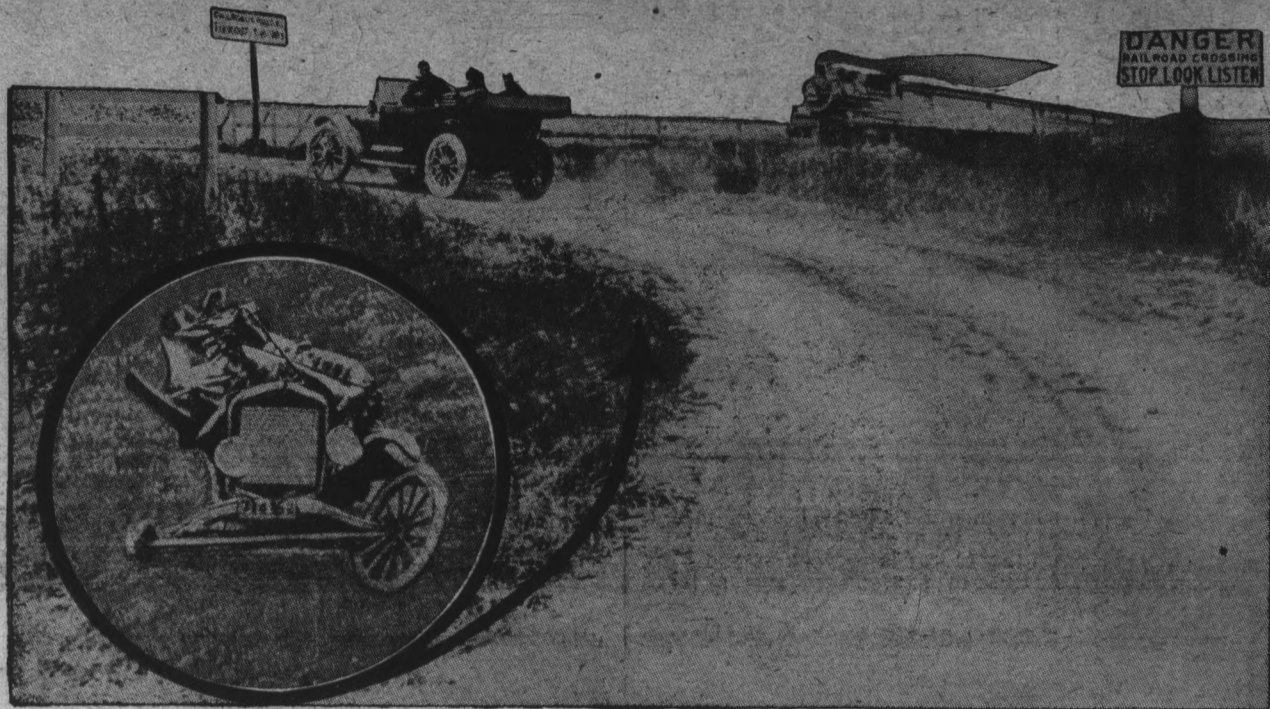
The Foundation of Michigan's Wealth is the backbone of the

Michigan State Fair

10 Days 10 Nights

Detroit, Sept. 1-10

TOO LATE!



Accidents Will Happen—You Must Be Prepared!

YOU cannot always be the lucky one! Some day, as sure as fate, you are going to wish you had Citizens insurance. Every day you read of accidents like this in the newspapers, but you only pity the other fellow and forget the lesson. Sometimes accidents happen to the best intentioned people—often to those who have never had an accident before. We cannot prevent your having an accident, much as we would like to! But we can prevent the sickening aftermath of having your automobile or truck uninsured when the accident comes!

Citizens Mutual Automobile Insurance covers Fire, Theft, Liability and Collision at rates so low that no man or woman in Michigan can afford to own an automobile or truck without carrying it.

The rates covering fire, theft and liability in the country districts are as follows:

Ford	-	-	-	-	\$ 9.60	Buick Light Six	-	-	\$11.10
Dodge	-	-	-	-	10.50	Other cars in proportion			

Collision Insurance, \$2 per hundred

Remarkable Increase First Six Months of 1922

ASSETS, JUNE 30, 1922

Cash in Banks	-	-	-	-	\$164,441.54
Cash in Office	-	-	-	-	4,027.32
Capital	-	-	-	-	27,727.44
Furniture and Equipment	-	-	-	-	16,700.22
Salvage Department	-	-	-	-	7,625.00
Accounts Receivable	-	-	-	-	5,776.50
Total,					<u>\$226,298.02</u>

\$84,458.57 added to Our Surplus in Six Months

CLAIMS AND LOSSES PAID

254 Fire and Theft	-	-	-	-	\$42,669.65
344 Property Damage and Personal Injury					43,637.21
819 Collisions	-	-	-	-	48,076.03
Total 1168 Claims and Losses amounting to					<u>\$134,382.89</u>

9,146 Claims and Losses Paid to Date amount to over \$1,100,000

W. E. Robb
Secretary

**CITIZENS MUTUAL AUTOMOBILE
INSURANCE COMPANY**

Howell,
Mich.

Auto Insurance At Cost Plus Safety!