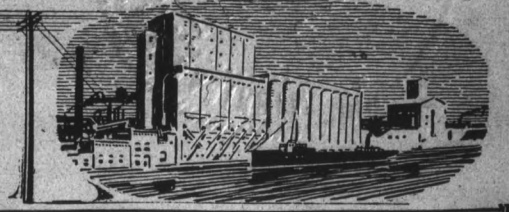


The Michigan BUSINESS FARMER



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\$1 PER YEAR



"Thoroughbreds"

M. A. C. Announces "Fly-Free" Dates for Seeding Winter Wheat—See Page Three

Current Agricultural News

MICHIGAN LIVE STOCK PRODUCERS OPEN COMMISSION HOUSE IN BUFFALO

MICHIGAN, Ohio and Indiana live stock producers are to have a co-operative producers' commission house on the Buffalo live stock market. Organization of the Producers' Co-operative Live Stock Commission Association was completed at Buffalo July 31 by producers' representatives. E. A. Beamer of Blissfield, prominent Michigan live stock man, was elected president.

Producers' co-operative commission houses are making splendid successes on the St. Paul, St. Louis, Indianapolis, Chicago, Omaha and Detroit markets. They have the active support of their respective state farm bureaus. In several instances the producers are handling more cars each week than any other commission houses. They are effecting satisfactory marketing savings for their members. The Detroit co-operative commission house is operated by the Michigan Live Stock Exchange, which represented Michigan at the Buffalo meeting.

Other officers of the Buffalo house are vice-president, W. H. Settle, Petroleum, Ind.; secretary, F. G. Ket-

ner, Columbus, Ohio; treasurer, W. L. Striving, Castile, New York. The Buffalo commission house was incorporated under New York law and has one New York director. Mr. Striving is president of the New York State Farm Bureau.

The executive committee of the board of directors is F. G. Ketner, P. L. O'Mealey, Pittsford, Mich.; Geo. Brown, Angola, Ind.; W. L. Striving, Castile, New York and E. A. Beamer, ex-officio. Other members of the board of directors are P. M. Granger, Charlotte, Mich.; W. E. Perry, Leipsic, Ohio; W. H. Favinger, Albion, Ind.

WEST MICHIGAN FAIR OPENS SEPT. 18th.

A WELL-ROUNDED fair in all departments will be thrown open to the public by the West Michigan State Fair at Grand Rapids on September 18th. The fair will close on September 22nd.

"Visitors will find the exhibits of every department a little fair in itself," says Secretary L. A. Lilly. "The liberal premiums offered for educational displays, totaling several thousand dollars, have aroused such wide interest in the exhibition that

the keenest kind of competition is assured.

"A big show of livestock is certain. Breeders of pure-bred horses, cattle, swine, and sheep are turning out in force to make the livestock exhibit an unusually successful one. The fair is co-operating with the livestock men in an educational campaign to stimulate more interest in the raising of better stock, and heavy sales of surplus breeding stock are expected to result from the work done.

"Women and children will find much to interest them at the fair. Boys and girls enrolled in the club work have entered exhibits good enough to win prizes in many of the open classes in competition with the entries of older exhibitors. Many mothers will find that they will have to hustle to best their daughters when the judges begin their work in the women's department.

"The entertainment program, which is being worked out in detail, for each day of the fair, will present the best professional and amateur talent it has been possible for the fair to engage. The leading features on the amusement bill will be horse racing, music, fireworks and vaudeville. The midway shows will interest everyone."

The fair management is getting buildings and grounds into hurried shape for the big exhibition. The

opening day will find everything in spick-span condition for exhibitors and visitors.

MICHIGAN CROPS IN GOOD CONDITION

ALTHOUGH the combined condition of Michigan crops dropped slightly during July, from 109.1 to 108.2, the state is still far in the lead of most all other important farming states, being exceeded only by North Dakota, New York, New Jersey and Montana. The Michigan condition is 7 per cent above the average for the entire United States.

The total production of important products this year compared with last year is estimated as follows: Corn, 98.0 per cent; wheat 101.3 per cent; oats, 117.9 per cent; barley, 127.2 per cent; rye, 137.5 per cent; buckwheat, 97.9 per cent; white potatoes, 127.2 per cent; sweet potatoes, 113.6 per cent; tobacco, 132.5 per cent; flaxseed, 141.1 per cent; rice, 106.0 per cent; hay (all) 114.0 per cent; sugar beets, 65.3 per cent; cotton, 143.9 per cent; apples 205.6 per cent; peaches, 171.2 per cent; pears, 153.7 per cent; grain sorghums, 98.9 per cent; beans, 140.7 per cent.

The amount of oats remaining on farms August 1, is estimated at 6.9 per cent of last year's crop, or about 73,204,000 bushels, as compared with 161,108,000 bushels on August 1, 1921, and 78,170,000 bushels the average of stocks on August 1 for the five years, 1916-1920.

TO CONDUCT DRAINAGE TOUR IN ST. CLAIR COUNTY

C. M. KIDMAN, agricultural agent of St. Clair county, announces a drainage tour to be conducted on Thursday, August 31st, under the auspices of the County Farm Bureau. The tourists will assemble at eight o'clock at the farm of P. M. Stein on Lapeer avenue road, one-half mile east of Wadhams where they will witness a tile ditching machine in operation. From ten to twelve there will be an inspection of a drainage project on the H. J. Vogt farm in Columbus township where dinner will also be served by the Columbus Ladies' Aid, followed by a short program.

The afternoon itinerary will include inspections of drainage project on Peter Distelrath farm, inspection of model poultry house on Robt. Radtke Poultry Farm, one mile east of Old Belle River Mill, inspection of drainage project on North Westbrook Farm, Town Line road, one and one-half miles northwest of Marine City, to be concluded by a trip through the Diamond Crystal Salt Works.

Speakers at the after-dinner program will include C. L. Brody, secretary-manager Michigan State Farm Bureau; H. H. Musselman, professor of Farm Mechanics of M. A. C., and C. V. Ballard, assistant county agent leader, and several other notables.

All farmers interested in drainage are invited to take part in the tour.

CHINESE SUGAR GROWERS USE FOREIGN SUGAR

FAILING to keep pace with modern developments, China's sugar industry, like the tea industry, has declined to the point where the country depends upon foreign sugar for its supply. Fifty years ago China was an exporter of sugar, says Consul General Edwin S. Cunningham, Shanghai, in a report to the Foodstuffs Division of the Department of Commerce, but modern methods have won China's old markets. In China the juice is still pressed from the cane between granite or hardwood rollers through which the cane is drawn by cog wheels turned by bullocks. A stone basin beneath receives the juice which is boiled without any attempt at clarification in open iron pans. The boiled juice is then poured into earthenware jars which are left open to the air 30 or 40 days, according to the weather, until the contents are thoroughly dry. The sugar obtained is sorted into three grades—the first, or uppermost, in the jar being white; the middle, green; and the lowermost, brown. In some parts of the country, however, the natives are beginning to realize the importance of proper methods and attempts are being made to install modern machinery.



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State Fair Will Be Bigger and Better Than Ever

Over 500,000 are Expected to Attend Seventy-third Annual Exposition at Detroit from September First to Tenth

MORE pronouncedly an appeal for and to the agrarian interests of the state, the Michigan State Fair will open its seventy-third annual exposition at Detroit, September 1. The fair is to run 10 days and G. W. Dickinson, secretary-manager, estimates approximately 500,000 persons will view it.

The fair manager was in the midst of framing the program for each of the 10 days of the approaching exposition recently when a young man entered his office. Quietly introducing himself, "What importance has agriculture to the state fair," the young man spoke up.

Mr Dickinson was taken back a little with the frankness of the stranger but he answered point blank:

"Without agriculture the Michigan State Fair or no other fair could exist. Agriculture is responsible for this fair thriving for 72 years and it is the foundation of the fair which opens now in less than three weeks."

It matters little who Mr. Dickinson's visitor was but his attitude toward the relation of the fair and agriculture is mighty important—to the success of the fair.

Three agencies which have taken up the interests of the farmers and dairymen and promise to do much at the fair for these interests are the U. S. and state departments of agriculture and the Michigan Agricultural college. The U. S. government, of course, is directing the work it will carry on at the Michigan State Fair this year through a series of chart exhibits toward aiding the dairymen in this state while the state department of agriculture is designing an exhibi-

tion to increase the productiveness of the farmer's acres. The college exhibit is similar.

Cow testing associations, the detection and elimination of bad cows, how to replace bad cows with productive cows, breeding associations and correct feeding are some of the important issues which the government strikes at in an educational exhibition. Those who were at the National Dairy show last year will recall an exhibit similar to this which caused much favorable comment.

What interests the farmer most for he is the most important exhibitor and visitor at the fair, is the increase in premiums at this year's fair. More than \$100,000 are being offered compared to \$70,000 paid a year ago. Premiums for the important breeds in many cases have been increased and the less important breeds have been eliminated.

Too, of paramount interest to the Michigan farmers is the new coliseum building where will

be staged each evening a thoroughbred horse show. This building will be completed before the fair starts and has a seating capacity of 8,000 persons, providing ample facilities for those interested in watching the judging. The structure of reinforced concrete and steel represents an investment of \$300,000 and is considered the finest fair building in North America.

A recent announcement of Mr. Dickinson's has to do with the decrease in admission to the fair which this year will be 50c compared to 75c a year ago. The fair chief believes this will have a great influence on the ticket sale.

Practically every department in the fair has been widened in scope and several new attractions—a baby parade for one, have been added.

Farmers throughout Michigan touring to the State Fair this year will find in the State Fair tourist camp a place to camp that will be sanitary and accessible at all times. Ample police protection for property will be provided constantly and nothing left undone to make the visitor's stay an enjoyable one.

While the fair fundamentally is an educational institution, there are, of course, a number of attractions designed to relieve the monotony of constant lecture and constructive exhibits—and these will be found on the midway where the Rubin & Cherry shows—artistocrats of the tented world—will be found.

Added to the fair this year are radio exhibits and aere exhibitions. The radio and what it promises for the farmer and a thorough presentation of the plane as a means of transportation will be presented.

BIG NEW SERIAL STORY STARTS NEXT ISSUE!

Watch for the September 2nd. issue in which will appear the opening chapters of the biggest and best serial story that has ever appeared in *The Business Farmer*. It will hold the interest of every member of your family and will appear in generous quantity in every succeeding issue.

M. A. C. Announces "Fly-Free" Dates for Seeding Winter Wheat

ABOUT a year ago the Business Farmer asked the M. A. C. for a list of the dates on which the farmers of the various counties in Michigan should plant their wheat to lessen the danger of Hessian fly. At that time the College was unable to give the information, but since then it has made some investigations and has just issued a compilation of dates which, it believes, will prove a fairly safe guide to follow in the planting of wheat.

We are told by Prof. R. H. Pettit that there comes a time each year, usually in September, after which no eggs are laid, and if we can so time our seeding that the plants will not be suitable for receiving eggs until after the flies are through, then we escape the "fly" altogether. This time is called the "fly-free date" and varies with each season. It is, however, possible to compute the relative time between different parts of the

State and to base the time for sowing on the average time observed during a period of 25 years over the entire United States. This study is based on an investigation made by Dr. A. D. Hopkins of the U. S. Bureau of Entomology.

The calendar on this page shows the dates for the different counties in the Lower Peninsula. It is, of course, imperfect as yet because no one can forecast what the weather is going to be a month or so in advance. Furthermore the table deals with averages based on the weather of years past. It is based on a study of the advance of the season from the South to the North and the dates are determined by the latitude, the longitude, and the altitude. It should, as well, be corrected for character of soil and for the influence of bodies of water. Furthermore, some of our counties vary a good deal in altitude, and a high altitude hastens the date of seeding. No attempt has been made in this calendar to compute for areas smaller than counties, nor to allow for the influence of large bodies of water, although Lake Michigan undoubtedly lengthens out the period during which new seeding may get established and, therefore, makes it safe to delay seeding somewhat beyond the date set. This applies merely to the west coast for a few miles inland.

As already stated the higher the altitude the earlier the planting should be done. In this brief space it is impossible to name the planting date for each 100 feet of altitude. In the calendar shown the highest altitude is given and farmers living in the respective counties should gauge their planting date accordingly. While there is no set rule, the planting date may be safely advanced one day for each 100 feet below the altitude given, or delayed one day for each 100 feet above the given altitude. Example: The highest recorded altitude in Allegan county is 800 feet. The planting date as shown by the calendar should be from Sept. 18th to 28th. A farmer living in a section one hundred feet below that altitude should wait one day later before seeding. If he lives in the lowest section of Allegan county, which is recorded as 600 feet above sea level he should not begin planting until Sept. 20th.

While the M. A. C. does not have facilities for ascertaining the elevation above sea level of all

points in the state, it does have many records and Mr. Pettit says he will be glad to furnish this information for individual locations on application, so far as he has it.

BAKER LEADS IN STRAW BALLOT

THE first returns on Michigan Business Farmer's straw vote on the United States senatorship shows H. F. Baker the choice by a very large majority. Baker's total up to Tuesday noon, August 15th, was 121, or over three times as great as the vote of all his opponents put together. The vote on the other three senatorial candidates is as follows: Emery, 10; Kelley, 14; Townsend, 15.

Ninety-six votes were registered for Groesbeck, 30 for Fletcher and 22 for Joslin.

One hundred and nineteen expressed themselves in favor of the gasoline tax and forty-four against it.

The straw vote will be continued until the primaries. Those who have not yet voted are urged to do so at once.

Clip this coupon and mail to Editor Business Farmer, Mount Clemens, Mich.

STRAW VOTE

(Place cross before name of candidate for whom you desire to vote)

For United States Senator

☐ BAKER

☐ KELLEY

☐ EMERY

☐ TOWNSEND

For Governor

☐ FLETCHER

☐ GROESBECK

☐ JOSLIN

Gasoline Tax

☐ FOR

☐ AGAINST

Co'ty level—feet	Altitude above sea	Dates of seeding as computed	Co'ty level—feet	Altitude above sea	Dates of seeding as computed
Alcona .. 1,000	Sept. 6-16	Lapeer .. 800	Sept. 14-24	Alcona .. 1,000	Sept. 6-16
Allegan .. 800	Sept. 18-28	Leelanau .. 900	Sept. 8-18	Allegan .. 800	Sept. 18-28
Alpena .. 800	Sept. 7-17	Lenawee .. 1,000	Sept. 18-28	Alpena .. 800	Sept. 7-17
Antrim .. 1,200	Sept. 4-14	Livingston .. 1,000	Sept. 15-25	Antrim .. 1,200	Sept. 4-14
Arenac .. 800	Sept. 11-21	Macomb .. 1,000	Sept. 14-24	Arenac .. 800	Sept. 11-21
Barry .. 1,000	Sept. 16-26	Manistee .. 1,000	Sept. 9-19	Barry .. 1,000	Sept. 16-26
Bay .. 700	Sept. 13-23	Mason .. 800	Sept. 13-23	Bay .. 700	Sept. 13-23
Benzie .. 800	Sept. 14-24	Meoseta .. 1,000	Sept. 11-21	Benzie .. 800	Sept. 14-24
Berrien .. 800	Sept. 21-Oct. 1	Midland .. 700	Sept. 14-24	Berrien .. 800	Sept. 21-Oct. 1
Branch .. 1,000	Sept. 18-28	Missaukee .. 1,400	Sept. 5-15	Branch .. 1,000	Sept. 18-28
Calhoun .. 1,000	Sept. 17-27	Monroe .. 700	Sept. 20-30	Calhoun .. 1,000	Sept. 17-27
Cass .. 1,000	Sept. 19-29	Montcalm .. 900	Sept. 14-24	Cass .. 1,000	Sept. 19-29
Charlevoix .. 1,200	Sept. 3-13	M'tmorency .. 1,200	Sept. 8-18	Charlevoix .. 1,200	Sept. 3-13
Cheboygan .. 1,000	Sept. 4-14	Muskegon .. 800	Sept. 16-26	Cheboygan .. 1,000	Sept. 4-14
Clare .. 1,200	Sept. 8-18	Newaygo .. 1,200	Sept. 10-20	Clare .. 1,200	Sept. 8-18
Clinton .. 800	Sept. 16-26	Oakland .. 200	Sept. 12-22	Clinton .. 800	Sept. 16-26
Crawford .. 1,200	Sept. 5-15	Oceana .. 800	Sept. 14-24	Crawford .. 1,200	Sept. 5-15
Eaton .. 900	Sept. 16-26	Ogemaw .. 1,200	Sept. 6-16	Eaton .. 900	Sept. 16-26
Emmet .. 1,000	Sept. 4-14	Oscoda .. 1,200	Sept. 4-14	Emmet .. 1,000	Sept. 4-14
Genesee .. 800	Sept. 15-25	Oshtemo .. 1,200	Sept. 5-15	Genesee .. 800	Sept. 15-25
Gladwin .. 1,000	Sept. 9-19	Otsego .. 1,400	Sept. 2-12	Gladwin .. 1,000	Sept. 9-19
G Traverse .. 1,000	Sept. 8-18	Ottawa .. 800	Sept. 17-27	G Traverse .. 1,000	Sept. 8-18
Gratiot .. 800	Sept. 14-24	Presque Isle .. 800	Sept. 6-16	Gratiot .. 800	Sept. 14-24
Hillsdale .. 1,200	Sept. 16-26	Roscon .. 1,200	Sept. 6-16	Hillsdale .. 1,200	Sept. 16-26
Huron .. 800	Sept. 11-21	Saginaw .. 700	Sept. 15-25	Huron .. 800	Sept. 11-21
Ingham .. 900	Sept. 16-26	Sanilac .. 1,000	Sept. 11-21	Ingham .. 900	Sept. 16-26
Ionia .. 800	Sept. 15-25	St. Clair .. 800	Sept. 14-24	Ionia .. 800	Sept. 15-25
Iosco .. 1,000	Sept. 7-17	St. Joseph .. 800	Sept. 21-Oct. 1	Iosco .. 1,000	Sept. 7-17
Inabella .. 1,000	Sept. 11-21	Shiawassee .. 800	Sept. 15-25	Inabella .. 1,000	Sept. 11-21
Jackson .. 1,000	Sept. 16-26	Tuscola .. 800	Sept. 13-23	Jackson .. 1,000	Sept. 16-26
Kalamazoo .. 1,000	Sept. 17-27	Van Buren .. 800	Sept. 20-30	Kalamazoo .. 1,000	Sept. 17-27
Kalkaska .. 1,200	Sept. 5-15	Washtn'w .. 1,000	Sept. 16-26	Kalkaska .. 1,200	Sept. 5-15
Kent .. 800	Sept. 16-26	Wayne .. 800	Sept. 18-28	Kent .. 800	Sept. 16-26
Lake .. 1,200	Sept. 9-19	Wexford .. 1,400	Sept. 5-15	Lake .. 1,200	Sept. 9-19

How N. Y. State Dairymen Purchase Supplies

Dairymen's League Co-operate with Grange in Wholesale Buying at Considerable Saving

By GILBERT I. STODOLA

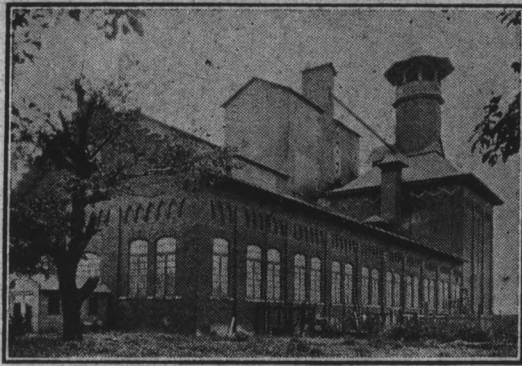
THE Dairymen's League Co-operative Association Inc., like other co-operative marketing organizations, seeks to obtain for its members the best current prices and a stable market for their products. But that is only part of the problem. For if the best price obtainable does not cover the cost of production, the dairy farmer will be in a hole; he will be pretty much in the position of a man who is trying to fill a bucket which has a hole in the bottom; the water will run out faster than he can pour it in.

Now while a group of dairymen can undoubtedly get a better price for their product through an organization like the Dairymen's League Co-operative Association Inc., than they could through their own individual efforts, yet that price may still fall short of the cost of production. The obvious way to get around this difficulty is to reduce the cost of production by buying raw materials at the lowest possible figure. This can be done through a successful co-operative purchasing organization. Such a plan not only eliminates the middlemen's profit, to the benefit of the purchaser, but it effects an additional saving through quantity buying.

The New York State Dairymen and the farmers of the state generally are enabled to enjoy the advantages of co-operative buying through the Co-operative Grange League Federation Exchange Inc. This association was organized in June, 1920, by three farmer groups: The old Dairymen's League, the New York State Grange and the Federation of County Farm Bureau Associations.

The Exchange, or G. L. F., as it is called, has a board of directors of nine members, three from each of the three founding organizations, three directors being elected annually. The organization is incorporated under the business corporation laws of the state, under which it is qualified both to buy and to sell.

The capital stock of the G. L. F. is \$1,000,000, of which more than \$750,000 has been subscribed for by the dairymen and farmers of the state, there being more than 40,000 stockholders. The stock is non-assessable and pays a maximum dividend of six per cent. After this stock dividend has been paid and the reserve fund taken



View of Huge Mixing Plant owned by the Co-operative Grange League Federation at Buffalo, N. Y.

care of, the surplus profits are divided among those who have bought from the organization, the amount of the purchases made by each customer. However, stock-holder customers are entitled to refund rates double those paid to non-stockholders.

There are several methods followed by which the farmer-customer get their supplies from the G. L. F. In some cases they pool their orders and have a purchasing agent handle the transaction, this man receiving a commission for his services. The goods are then shipped by freight in one or more cars and distributed to the poolers right from the car door. In some communities co-operative buying associations have been formed and a manager is employed to supervise the work. Many local organizations have a warehouse and mill of their own, although some entrust to the local miller the work of grinding feed. The central organization of the Dairymen's League Co-operative Association Inc., does not undertake to buy supplies for co-operative distribution, as the local branches of the association are incorporated in such a way that they are permitted both to buy and to sell and thus the members of the association can purchase farm supplies from the G. L. F. without difficulty.

When the Exchange was organized, it was planned not only to cut down the cost of hand-

ling farm supplies from the sources of supply to the ultimate consumer, which has formed so large a part of the amount involved in the usual commercial transaction, but it was decided to furnish goods only of the highest quality. This principle has been adhered to and in fact in some instances goods of equal quality cannot be obtained elsewhere at any price. For example, the feeds sold by the Exchange are prepared according to a public formula, that is to say the exact ingredients in pounds per ton are stated. The seed sold is of known origin and of strongest vitality, being especially selected because of its being thoroughly adapted to New York State conditions. Imported grass seed is not handled. Particular pains are taken with fertilizers, to make certain that their mechanical condition is perfect, so that when they reach destination they will be just right for drilling. This is accomplished by regrinding and carefully screening the ingredients before mixing. The formulas used are based on those approved by the New York State College of Agriculture at Ithaca.

The G. L. F. handles feeds and grains, including dairy rations and poultry feeds; grass and field seeds; standard commercial fertilizer mixtures as well as fertilizer chemicals for home mixing; ground limestone; hard and soft coal; binder twine; house and barn paints, and motor oils. The various departments are in charge of specialists in the particular lines. Incidentally, it is of interest to mention that the head of the seed department is a former Michigan man—A. L. Bibbins.

During the year 1921 the Exchange did about \$4,000,000 worth of business and hopes to reach the \$5,000,000 mark the coming year and go beyond it. To do this would of course really mean a very large increase in business, in view of lowered market prices. Already fertilizer and seed sales this season indicate an increase of about 100 per cent over last year's sales and the balance sheet for the first quarter of 1922 shows a surplus of nearly \$30,000.

(The above is the fifth and last article in Mr. Stodola's series on the New York Dairymen's League Co-operative Association.)

Soil Fertility is After All the Big Factor in the Making of a Crop

By H. R. SMALLEY

MICHIGAN is not one of the great wheat producing states and yet wheat is grown on over 100,000 farms and on more than 1,000,000 acres. Only three crops, hay, corn and oats, are more important from the acreage standpoint.

The Experiment Station at East Lansing assisted by hundreds of farmers all over the state has succeeded in breeding and widely disseminating a high yielding wheat of excellent quality which makes raising in Michigan much more prof-

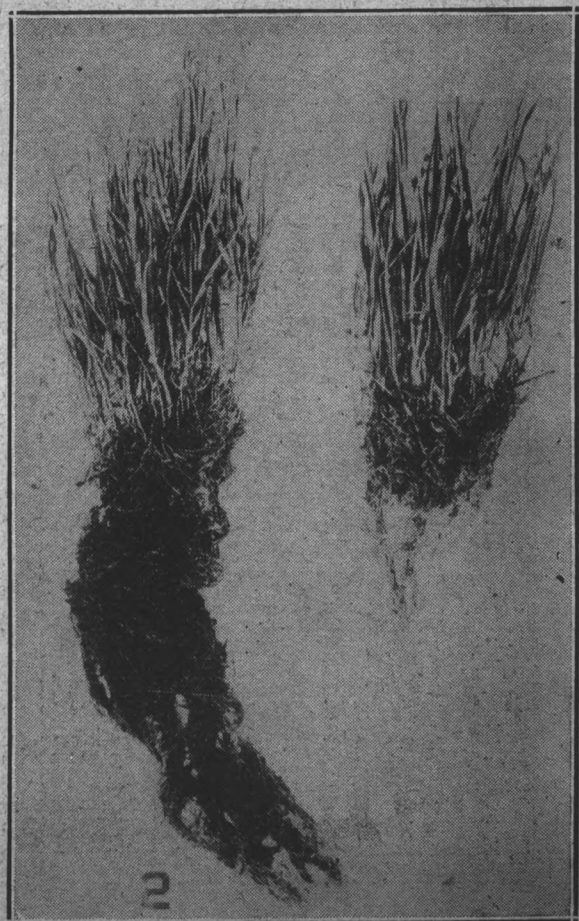
itable. However, better seed, higher yielding varieties, and more thorough preparation of the seed bed, results in a more rapid depletion of the available plantfood in the soil which is directly proportional to the increased yield obtained. The above statement is not made to discourage the use of good seed, better varieties or thorough preparation of the seed bed but only to call attention to a fact that is too often overlooked. Every bushel of wheat requires a certain amount of plantfood in different amounts. It is also true that crops vary considerably in their plantfood requirements. For these reasons fertilizers that are especially prepared for wheat, tobacco, cotton and for a great variety of crops and groups of crops grown under different soil and climatic conditions are on the market.

In wheat fertilizers the percent of phosphoric acid is considerably higher than the percents of ammonia and potash. They usually contain from 2 to 4 per cent of ammonia (nitrogen), from 8 to 16 per cent of phosphoric acid and from 2 to 4 per cent of potash. Clay and silt loam soils ordinarily need less ammonia and potash than the sandy loams and where manure has been used heavily the ammonia and potash in the fertilizer can be cut down accordingly.

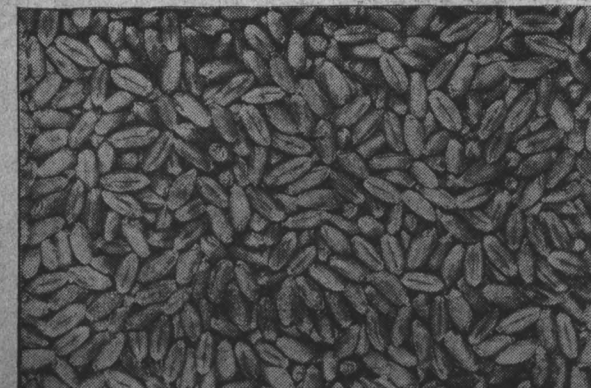
The use of fertilizers on wheat is very profitable in Michigan, often meaning the difference between a bumper crop of excellent quality and a 5 to 10 bushel yield of inferior wheat. A test conducted in Kalamazoo County illustrates this point very well. Without fertilizer the yield was 2.7 bushels of shrivelled almost worthless grain while with fertilizer the yield was 19.4 bushels of good quality wheat.

A study of the State Chemist's reports shows that the quality of the fertilizer sold in Michigan has improved somewhat during the past few years but there are still entirely too many low analyses sold. Fertilizer manufacturers, however, must sell what farmers want to buy. It is possible to buy fertilizer at a very low price per ton and yet pay a high price for the plant food and it's plantfood you want, not just so many tons of fertilizer. There is just as much plantfood in one ton of

2-16-2 fertilizer as in two tons of 1-8-1 and there is only half as much material to handle. Besides the more concentrated mixture will go twice as far, ton for ton, and there is a big saving in the cost of the plantfood. Don't fail to look into this question before buying fertilizer for wheat.

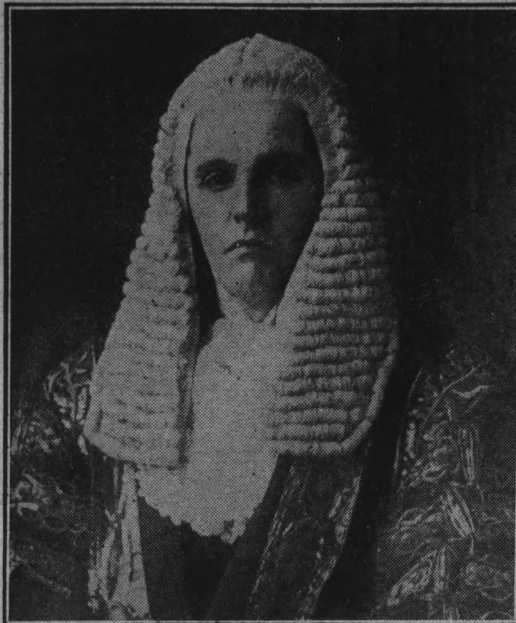


Effect of Fertilizer on Root Growth of Young Wheat. Plants on left were fertilized. Courtesy of Michigan Experiment Station



Effect of Fertilizing Wheat in Kalamazoo County. Top—Not fertilized, yield 2.7 bushels. Shrivelled grain. Bottom—Fertilized, yield 19.4 bushels. Plump grain. Courtesy of Michigan Experiment Station

PICTURES FROM FAR AND NEAR



They still wear the plush in England. Viscount Birkenhead, Lord Chancellor of Great Britain, arrayed in his royal court robes. When the M. B. F. editor was in Edinburgh he was received with many others by the Lord Chancellors of the city who presented a most imposing spectacle garbed in their silks, plushes, laces and insignias. Dressed in their street clothes, however, they looked just like ordinary folks. Lord Birkenhead is to pay a visit soon to America, to get even with former president Taft who has been partaking of the English hospitality for some weeks.



Some folks think that Gulliver stretched his imagination a little when he wrote of the giants and pygmies he encountered on his travels, but here's an actual photograph of a California giant which might indicate that Mr. Gulliver was a man of veracity after all. Jack Earl is only 15 years old, but he already stands 7 feet 4 inches in his stocking feet and tips the scales at 237 pounds—and he is still growing! He's already out-grown his toy locomotive which carries pleasure seekers along the beech, and his pa'll soon have to buy him a bigger one.



"A peck of dirt a day." The old saying is almost literally true in China where frequent dust storms sweep the country coating all exposed foodstuffs with a greyish covering. This street vendor didn't have imagination enough to build containers for his wares, but not to be outdone he has improved a feather duster with which he dusts his fruits and cakes whenever they become unrecognizable as such. And what cute little feet he (or maybe it's a she) has. One abominable custom the people of China are doing away with is the torturing of children's feet.



"Oh, Skinnay, come on in, the water's great." Street urchins of New York City enjoying the cooling waters of a huge tank which the New York City Fire Department has thoughtfully erected in front of one of the fire houses. It isn't much like the old swimming hole, with the soft grass bordering its banks, the diving board, the warm oozy bottom in which all youngsters love to wriggle their toes, and the occasional blood-sucker which is the terror of the girls,—but it's the only swimming hole which thousands of New York kiddies have, so they don't know the difference. Thank God for the country!

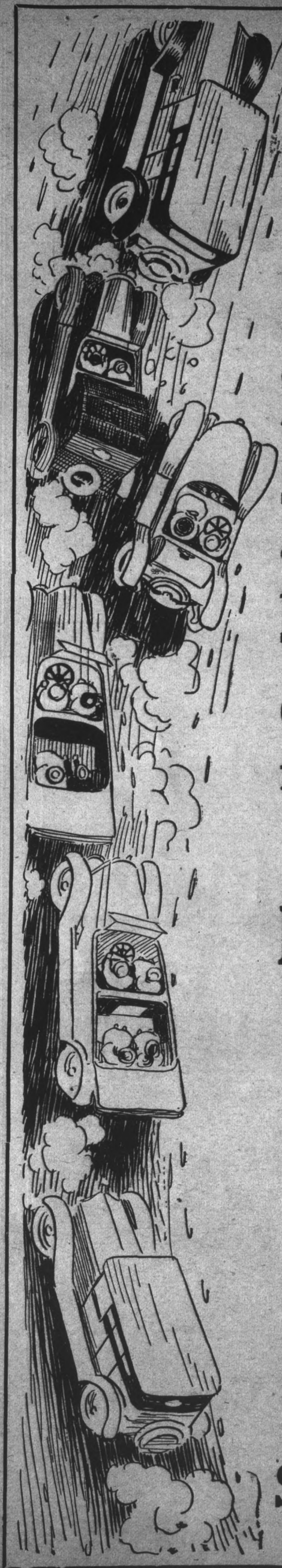


And to think we all once wanted to be President! Here is a delegation waiting outside the White House to present Mr. Harding with a little slip of paper containing a plea for political amnesty. The slip is wound around the drum, and bears the names of 1,500,000 people who think that men and women shut up in prison for wartime political offenses should be released. The presentation of this huge petition was the culmination of a great demonstration, the second one to be held in Washington in behalf of political prisoners. These women look as if they meant business all right and will stick to the fight until their object has been accomplished.



Club Champions in Great Gathering at M. A. C. Scene at the Michigan Agricultural College when over two hundred boys and girls state club champions gathered recently for their fourth annual get-together and participated in various club projects. The honor which has come to these youngsters has been earned by hard work and perseverance and a desire to excel. The Business Farmer is proud to hail these enterprising farm lads and lassies as the future farm leaders of Michigan, for in their club projects they are learning the fundamental principles of successful agriculture and of leadership. Under the guidance of Mr. Ray Turner, State Club leader, who may be seen at the extreme left of the front row, club work in Michigan is expanding very rapidly and the foundations of many successful farming and farm house-wife careers are being laid.

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and enjoy
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Camp
free!**

**Michigan
State
Fair**

**10 Days
10 Nights**

DETROIT

Sept. 1-10



What the Neighbors Say



THE WAIL OF THE "STUMP" FARMER

I HAVE just been reading an article in your paper regarding the states land clearing project which I read they have been conducting in the upper peninsula and I understand below the straits. Beg to say I am deeply interested in these land clearing projects as I have 480 acres of stump land 4 miles from Fife Lake, Traverse county. This is my first year of farming. The land seems to be productive as my crops look fine but oh, those big pine stumps. The question is, how am I to remove them, as my means are very limited at present.

I saw an article in the M. B. F. a year ago regarding picnic acid. I sent an order in at once for 500 pounds but was promptly informed that the allotment for Michigan had been all spoken for. I recently heard there would be another but of course the big corporations will gobble it all up same as before. It is a noticeable fact if our government has anything good to offer the large smiling fellows with the pull get it. While the fellows without much means, struggling along trying to make good, go without it.

The writer of that article speaks about stump pullers, horse and one man power. Beg to say have done considerable corresponding with regard to the one-man puller. I have never seen them at work but those that have say the latter is impracticable as it is too slow. Would be glad to get the experience of those using it as I have been on the point of ordering one several times. Any information you can give me to help me in the clearing of my land or otherwise will be appreciated.—B. O. C., Kingsley, Mich.

Will some of you boys who have tussled with the big pine stumps tell our discouraged friend how you get rid of them? A little discussion of land clearing methods may help a lot of puzzled farmers. Let's hear from you with a story of your experiences.—Editor.

SOME SENSIBLE SUGGESTIONS

WITH pleasure we read your comment on taxation and reference to the platform of the several candidates for governor of Michigan. How can any elector reconcile the attitude of at least two in the past with their present vague utterances in ambiguous language? Why don't someone hire space in the M. B. F. and put in something like this:

"I am in favor of laws taking the arbitrary powers away from boards and commissions as to determining the necessity for costly works which make for mortgaging the future such as roads, drains, condemnation sites, etc., and give said determination to electors who are liable to pay for same and subject to a vote of interest all around as determined by a review to be held before instead of after final determination is made."

This would challenge the views of Judge Covert, but no matter as the welfare of the property owners who have their places mortgaged "Willie Nillie" (by electors without property and high salaried commissioners) is of greater moment than any ex-legislator's views or wishes.

Also why not have one class of electors in Michigan. Not one franchise for general elections and another for school electors with both of too short a residence to become acquainted with the community needs?

Why do not our would-be law makers in talking higher education for the masses, present a plan for public examination of the pupils of all our schools that it would be next to impossible to grow up without a fair knowledge of the three R's. A resolution to congress along the same line would be worth considering with a national primary school fund available to any state so complying. This would do what is sadly needed, spread knowledge broadcast like radio and "red" doctrine so called would vanish.

There is a growing feeling among taxpayers that the standard of eighth grade work in school be raised in English and beyond the eighth grade education should not be bourne entirely at the expense of the state along lines leading to the

following degrees: Literary M. A., B. A., B. L., L. D., D. D., etc. Always making provision for a liberal training for those who are of service to health and sanitary work including engineering lines, along with police training, the state always retaining some claim to services such a measure would raise a storm of protest in our educational centers I am aware, but there is also a strong protest to further increase in taxes during the period of deflation so called for with our farmers "our young-married farmers" loaded down with real property acquired when there was \$60 per capita and under "death grip" to pay when there is but \$39 per capita with taxes increased meanwhile 280 per cent it is time to take cognizance that it is farm labor that is to be deflated to the undoing of our boasted civilization with no party to benefit except the bondholder probably living where taxes are lower.

This is too long but the "devil" might shorten it by destroying its meaning. With best wishes.—Ernest Richardson, Huron County.

You aren't the only one, friend Richardson, who are thinking along these lines, and I am sure your suggestions will find a response in thousands of other minds. Just the other day I was discussing the double franchise rights you speak of with a prominent farm leader. He took the position that all citizens whether taxpayers or not should vote on school matters as they do in the general elections. His position being that all men are taxpayers in a sense of the word. If they do not pay taxes direct they do in the form of rents. But whether you increase the voting rights in school elections or decrease them in general elections, we are mostly agreed that the qualifications should be the same in all cases. What do other readers think about this and other points raised by Mr. Richardson?—Editor.

THE CHICAGO FIRE

BEING a reader of your paper I saw the question about the date of the great Chicago fire. The answer was that the fire began in the evening of Oct. 8, 1871, and was not extinguished until late the following night. If you care to print the following here it is as a matter of history:

The fire began as stated Oct. 8, 1871, and burned all of the 9th, 10th and 11th, four days, destroying 17,450 buildings in the city of Chicago. 250 people lost their lives, and \$290,000,000 worth of property was destroyed. The fire covered 11 square miles. Nearly 100,000 people were left homeless. Property was insured for \$96,500,000, but only \$38,000,000 of this sum was paid. Contributions were sent in amounting to \$7,100,000. This is worth knowing for our children.—L. J. B., White Cloud, Mich.

Thank you for the additional facts. Our information as to the length of the fire was taken from the American Encyclopedia.—Editor.

STRIKES

THE present great loss, to the public, occasioned by the striking railroad employees and the coal miners, gives ground for earnest inquiry as to the cause thereof and the effective remedy thereof.

The right of a citizen to labor, on terms that are lawful and satisfactory to his employer and to himself, is guaranteed to every one by the constitution of our state and if he is deprived of this right, by the combination of strikers, has not the general government a duty to do? The national constitution requiring that it guarantee to each and every state a republican form of government, under which each citizen shall be protected in his individual rights?

The writer is a farmer and his sympathies are with the laboring class but the disregard for law, by strikers, cannot be condoned and the effective remedy must be applied for the welfare of the majority is paramount to the interests of the minority, this being a well-established principle, in a republic.

Indeed, the present general disregard for law—the will of the majority—bodes serious danger to our republic and it is no less than the sacred duty of every citizen, to aid by all lawful means within his or

(Continued on page 13)



Add Years of Life to Your Tractor

Chart of Recommendations

Trade Name	Motor Oil	Trade Name	Motor Oil
Alkon	H.	Magnet B.	H.
Allis-Chalmers—All Models	H.	Mark VI Once Over	H.
Allied	H.	Midwest	E. H.
All Work—Both Models	H.	Minneapolis, 12-25 and 17-30	H.
Andrews-Kinkade	E. H.	Minneapolis, 22-44 and 35-70	E. H.
Appleton	H.	Mogul	H.
Armington	H.	Mohawk	H.
Aultman-Taylor, 22-45	E. H.	Monarch-Industrial	H.
Aultman-Taylor, 30-60	E. H.	Nilson Junior & Senior	H.
Ayltman-Taylor, 15-30	E. H.	Ohio	H.
Automotive	H.	Oil Gas, 20-42	E. H.
Avery Model C	H.	Oil Gas, 25-50	E. H.
Avery, 8-16, 12-25, 25-50	E. H.	Parrett	H.
14-28, 18-36, 40-65	E. H.	Peoria	E. H.
Avery Track Runner	H.	Pioneer, 18-36 and 30-60	E. H.
Bates	E. H.	Flow Man	H.
Bates Steel Mule—All Models	H.	Porter	H.
Bear	H.	Port Huron	H.
Best Tractor, 30	E. H.	Prairie Dog, 10-18 and 15-30	H.
Best Tractor, 60	E. H.	Quadpull	H.
Big Farmer	E. H.	Reed	H.
Big Four, E-B	E. H.	Reliable	E. H.
Billwell	H.	Rex	H.
Boring	H.	Rumely Oil Pull, 12-20	E. H.
Burnoil	E. H.	Rumely Oil Pull, 16-30	E. H.
Capitol—All Models	E. H.	Rumely Oil Pull, 20-40	E. H.
Case, 10-18 and 15-27	H.	Rumely Oil Pull, 30-60	E. H.
Case, 22-40	E. H.	Russell "Big Boss," 20-35	E. H.
Case, 20-40	E. H.	Russell "Giant," 30-60	E. H.
Cletrac, 9-16 and 12-20	H.	Russell "Little Boss," 15-30	H.
Coleman	E. H.	Russell "Junior," 12-24	H.
Common Sense	H.	Samson Model M	H.
Dakota	H.	Savage A	E. H.
Dart Blue "J"	H.	Shawnee, 6-12 and 9-18	H.
Depue	H.	Shelby Model C	H.
Dill Harvesting	M. H.	Shelby Model D	E. H.
Eagle, 12-22 and 16-30	E. H.	Square Turn	E. H.
E-B, 9-16 and 12-20	H.	Stinson Heavy Duty	H.
E-B, 16-32	H.	Titan	H.
Farm Horse	E. H.	Topp-Stewart	H.
Farquhar, 15-25	H.	Toro	H.
Farquhar, 18-35 and 25-50	H.	Townsend—All Models	E. H.
Fordson	H.	Traylor	H.
Flour City Junior, 20-35	H.	Triumph	E. H.
Flour City, 30-50 and 40-70	E. H.	Trundar	H.
Fox	E. H.	Twin City, 12-20 and 20-35	H.
Four Wheel Drive Fitch	E. H.	Twin City, 40-65	E. H.
Frick, 12-20	E. H.	Twin City, 60-90	E. H.
Frick, 15-28	H.	Uncle Sam—All Models	H.
Good Field	H.	Vim	H.
Grain Belt	H.	Wallis	H.
Gray	H.	Wallis Cub	H.
Great Western	H.	Waterloo Boy N	H.
Hart-Parr—All Models	E. H.	Wellington, 12-22 and 16-30	E. H.
Heider—Model "C"	H.	Westmore	H.
Heider—Model "D"	H.	Weston	E. H.
Holt Caterpillar, T-35	H.	Wheat	E. H.
Holt Caterpillar (5 Ton)	H.	Whitney	E. H.
Holt Caterpillar (10 Ton)	E. H.	Wichita	H.
Holt Caterpillar (15 Ton)	E. H.	Wilson	H.
Huber Light & Super Four	H.	Wisconsin, 16-30 and 22-40	E. H.
Illinois Super Drive, 18-30 and 22-40	E. H.	Yuba Ball Tread—All Models	H.
Indiana, 5-10	H.		
International, 8-16	H.		
International, 15-30	H.		
J. T.	E. H.		
Keek Gonnerman	E. H.		
Kinnard	H.		
La Cross	H.		
Lawson, 12-25 and 15-30	H.		
Leader, 18-36	H.		
Leader, 12-18 and 16-32	E. H.		
Leader, 18-35	E. H.		
Leonard Four Wheel Drive	H.		
Liberty	E. H.		
Little Giant A & B	H.		
London Models, 12-25	H.		

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

KEY

M. L.—Polarine Medium Light.
M. H.—Polarine Medium Heavy.
H.—Polarine Heavy.
E. H.—Polarine Extra Heavy.

THE heart of your tractor is the engine. The life blood of the engine is the oil which lubricates it. When you give your tractor correct lubrication, you are adding years of life to the machine. There is no such thing as a second best lubricating oil or grease. There is only the right kind and the wrong kind. The right kind not only prolongs the life of the tractor, but gets more power out of it, and substantially reduces your fuel and repair bills. The wrong kind means "scored" cylinders, "burned" bearings, and a host of other expensive damages. Repair bills for such damages are simply inexcusable in the light of present scientific knowledge.

Use Polarine

THE PERFECT MOTOR OIL

Made in Four Grades

Seals Pistons Against Loss of Power

The correct grade for your tractor is indicated in the chart. Expert chemists working in the modern laboratories of the Standard Oil Company of Indiana have perfected these grades of Polarine after studying the design of the tractor, the type of lubricating system used, and the behavior of the engine both in the shop and on the farm.

There is nothing theoretical about Polarine Oils. They are scientifically correct and practically efficient. They take into account all the mechanical factors; for instance, clearance between the piston and the cylinder wall, method of cooling, lubricating system used, etc.

Polarine flows freely between the bearing surfaces, seals pistons against loss of power, leaving no dry spots which would rub together and score the cylinders.

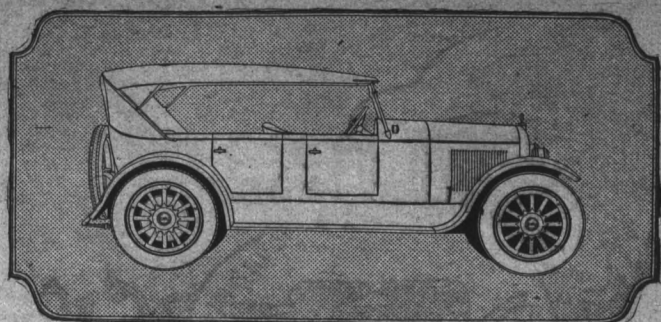
Avail yourself of tested, scientific lubricants recommended by the staff of lubricating engineers of the Standard Oil Company (Indiana) bearing the name Polarine, The Perfect Motor Oil. Consult the chart to the left.

Standard Oil Company

(Indiana)

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A great increase in Earl sales in the smaller cities is the most striking fact in recent Earl history. Earl dealers in these cities report that a large number of the cars already delivered or now on order have been sold to discriminating farm owners, after exacting road tests and comparisons with other cars—many much higher in price.

To the makers of Earl cars this is great and significant news. Any good car can meet the requirements of the average city dweller, with brick and asphalt under his tires and only occasional runs into the country to tax his machine.

To satisfy the men who live and produce in the country, however, a motor car must be able to stand up under all kinds of weather and road conditions. It must be comfortable and safe and easy on the roughest highways. It must have power to spare in the deepest mud and on the longest hills. And to earn its keep, it must be economical.

The Earl is built to meet just these requirements. Its powerful, long-stroke motor and balanced chassis deliver greater mileage per gallon of gasoline than any other car of its size or price. It is easy to drive, easy to keep in order, easy on your pocketbook at all times.

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EARL Motor Cars

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Brougham \$1795
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All prices f. o. b. Jackson

EARL MOTORS, INC., JACKSON, MICHIGAN

MICHIGAN CROPS

ALFALFA ON "SAND" LAND

UNDER separate cover I am mailing you photos of a fine stand of alfalfa in its fifth year, on the Nicholson farm near Millersburg. The soil in this particular field happens to be sand clear through to China, or the clay is so far down that it is a mining proposition. The type of land that excites unusual pity for the unfortunate owner, and contempt for the real estate dealer.

This is no brief in my behalf, by the way, nor is Mr. Nicholson an object of pity.

After futile efforts to harvest crops from the surface of this sand lot other than vegetables Mr. Nicholson abandoned the darned field, but later on, with a half hope that a deep rooted plant might rustle its living in the bowels of the earth, seeded the

place to Turkistan alfalfa. As you will note, this field is no longer an eyesore to Mr. Nicholson or his neighbors.

I could load you up with photos of fine alfalfa crops growing on land of first quality, but they would not carry a hopeful message to their owners of land such as I have described herein.

In alfalfa Michigan has one of the most valuable grass plants in existence, so wonderfully rich in bone and muscle food. The one grass that should find a preferred place on every farm adapted for this plant, but for pessimistic reasons it is only admitted on the premises as a very last resort to keep the red flag from the door in so many cases.—John G. Krauth, Presque Isle County, Mich.

MELON VINES ARE DYING

My melon and cucumber vines are dying up. First the leaves dry and then the vines. I have put poison on them but this does not seem to help them any. I cannot see any insects on them. I would be very thankful to you if you would tell me what this is caused by and advise me what to do for it.—S. M. G., Eagle, Mich.

The melon and cucumber vines which are found wilted at this time are affected with the Bacterial disease, called "Wilt." It attacks muskmelon, cucumber and squash vines and may ruin the entire crop. The bacteria which are responsible for the disease are carried from diseased to healthy plants by insects such as the striped cucumber beetle, and in order to control the disease successfully it is necessary to watch very carefully for the first signs of wilted plants and remove and burn them immediately. Wilted vines should not be left in the vicinity of the field. They should be burned in order to destroy the infectious material which they contain and in addition it is necessary to adopt some measure in control of the insects and keep the plants thoroughly covered with arsenate of lead, which is probably the most satisfactory thing to do.—Ray Nelson, Research Assistant in Plant Pathology, M. A. C.

MICHIGAN FIELD REPORTS

REPORTS from the field service of the United States Department of Agriculture for July 25, concerning commercial cabbage, celery, and onions in Michigan, contain the following information:

Cabbage—Five counties in southern Michigan have about 1,285 acres of commercial cabbage compared with last year's area of 590 acres. This is an increase of 118 per cent over 1921. The counties and their respective acreages are: Ingham, 160 acres; Eaton, 225 acres; Jackson, 67 acres; Hillsdale, 233 acres; Branch, 600 acres. The principal increases over 1921 are in Hillsdale and Branch counties. The crop is generally in excellent condition.

In Hillsdale county, Jonesville has 200 acres, of which 130 acres are under contract, Mosherville has 13 acres for kraut, and Litchfield has 20 acres. In Branch county, Quincy has

approximately 250 acres of commercial cabbage, of which 60 per cent is under contract. The kraut plant at Coldwater will be in operation this year. Baroda, in Berrien County, has 60 acres of cabbage, and Niles in the same county 40 acres for kraut.

In northern Michigan, Saginaw County has 1,400 acres of commercial cabbage, 300 acres of which are under contract.

Celery—The combined area of commercial celery in Lenawee, Cass, Allegan, and Kent counties is 1,005 acres, an increase of 450 acres over 1921. Lenawee has 117 acres, Cass 118 acres, Allegan 170 acres, and Kent 600 acres. The crop is in excellent condition.

Onions—Allegan county has about 603 acres of commercial onions, or

88 per cent more than in 1921. The Gull Swamp section (Martin, Gull Plain, Shelbyville, Cooper) has approximately 550

acres. Other acreages are: Wayland 8 acres, Door 25 acres and Herps 20 acres. The condition of the crop in Allegan county is above the average. Kent county has an onion acreage about the same as last year's.

SWEET CLOVER, MILLET AND SUDAN GRASS FOR SILAGE

Can I put sweet clover, millet or Sudan grass in the silo, with corn or without and will it make ensilage and keep all right? Is it better than to cure it for hay and feed it dry?—O. R. D., Mancelona, Mich.

Sweet clover, millet and Sudan grass may be successfully made into ensilage. However, it is better to make these crops into hay and feed dry. When making ensilage it is very important that sufficient moisture be present so that the ensilage may be well compacted and the air excluded. If sweet clover is cut quite green, it is advisable to allow it to wilt before being put into the silo. If put in before wilting it is likely to contain an excess of moisture. This will cause the ensilage to be too juicy.—C. R. Megee, Associate in Farm Crops, M. A. C.

BORDEAUX MIXTURE

I have heard a lot about bordeaux mixture for potatoes but have never used it. Please tell me how it is made and all about applying it.—C. D., Oakland County, Mich.

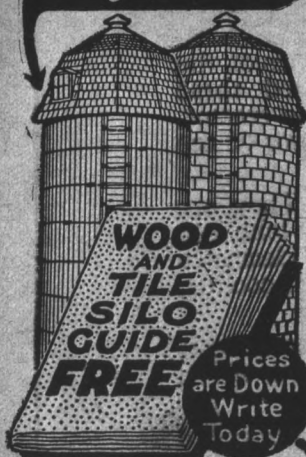
The formula for bordeaux mixture is 4 pounds blue stone, 4 pounds stone lime or 5 to 6 pounds hydrated lime and 50 gallons of water. The bordeaux mixture is made by dissolving 4 pounds of copper sulphate crystals in 25 gallons of water and in a separate vessel slaking 4 pounds of stone lime or 5 to 6 pounds of the hydrated lime and then adding water to make 25 gallons. The dilute lime and the copper sulphate solutions are poured together into the spray tank.

The bordeaux mixture should be applied to the potatoes immediately after it is made. Most growers find it more satisfactory to make up stock solutions of the copper sulphate and lime. The stock solutions are made in the following manner:

Arsenate of lead or calcium arsenate should be added in the bordeaux for the control of potato bugs. Arsenical poisons are more effective when combined with bordeaux mixture than when they are mixed in water alone. The bordeaux mixture tends to make the poison stick to the leaves and it also acts as a spreader. Furthermore the lime that is in the bordeaux mixture prevents serious burning of the vines from such poisons as paris green.

Growers should make at least 5 applications of the bordeaux mixture during the growing season. The first application should be made when the plants are about 4 to 6 inches high and other applications should be made at intervals of 10 days or two weeks.—H. C. Moore, Extension Specialist, M. A. C.

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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. Airtight 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.

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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.

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PLEASE MENTION THE MICHIGAN BUSINESS FARMER WHEN WRITING TO ITS ADVERTISERS

HORSESHOE TOURNAMENT

TOURNAMENTS HUGE SUCCESSES

ALL reports from counties which have already conducted horse-shoe pitching tournaments in connection with their farm bureau picnics are to the effect that the horsehoe contests have proved to be the biggest drawing cards of the occasions.

A. J. Hutchins, agricultural agent of St. Joseph county, reports that "the event that drew the largest crowds was the horsehoe-pitching contest." Ten contestants competed. Lyle Scott, a young man living on a farm in Lockport township, was declared the winner, and he will represent St. Joseph county at the State Horsehoe Pitching Contest at the State Fair. Scott threw ten ringers in a game of fifty points. A fine speaking program was given in connection with the picnic, the speakers being Clark Brody and Hon. J. C. Ketcham.

Winners in the Berrien county contest, as reported by County Agent Emerson were: Ben Seel, Watervliet, first; E. C. Virkus, Benton Harbor, second; A. Elgas, Watervliet, third. Mr. Seel will represent the county at the state meet.

John Sims, agricultural agent of Hillsdale county, writes, "Our horsehoe pitching tournament was very fine and the people of the county showed a great deal of interest in it. We had sixteen teams from various parts of the county. These teams played by the group rotation method. It was pretty hard to keep the crowd back during the finals. The three high teams tied in the first trial, but we picked the winners in the second.

The winning team was Milton Fisher and Jesse Fenstermaker of Cambria township, Mr. Fenstermaker being the high point man. Our winning team will be on deck at the State Contest and demonstrate that Hillsdale county is on the map in horsehoe pitching as well as other ways."

C. P. Milham, agricultural agent of Ottawa county, says great interest was shown thruout their contest which proved very exciting. There were 22 entrants. The winners were Wm. Lowing and C. Van-Covering of Jenison who will represent the county at the state tournament.

Most of the farm bureau picnics are in progress or were held the middle of this week. Detailed reports of their tournaments will be published in a later issue.

EUROPE FOODSTUFFS SITUATION

COOL, rainy weather prevailed during the greater part of July in the western, northern and central parts of Europe, retarding the cereal harvests but benefiting the root and forage crops, according to cable advices received by the Foodstuffs Division of the Department of Commerce from special representative Dennis, Berlin. Earlier estimates of the coming sugar yields must be revised upwards, although the beet crop in Italy is not so promising as it was a month ago, on account of the drought, and in Germany, despite a better outlook, there will be no exportable surplus.

The outlook for the potato crop has improved, and the increase in the yield will serve to reduce the consumption in bread in France, Germany, Austria and Poland. In view of the reduced wheat crop and the high prices of foreign grain, France is re-introducing compulsory long milling, beginning September 1, and cheaper grains, such as rye, corn and rice may be used to dilute the wheat flour. In Germany this system of long milling, while not compulsory, now averages about 85 per cent extraction as compared with 75 per cent extraction in the pre-war period. The German government will purchase 2,000,000 tons of foreign wheat and rye during the next cereal year, beginning August 15, but owing to the progressive depreciation of the mark, and the difficulty of financing private imports, the purchases of foreign grain will be less than those of 1921. Private importation of grain are allowed but cannot be heavy, as the loaf of bread rationed by the government now sells

at 17.50 marks per loaf of 4.2 pounds, while the free market bread sells for 60 marks per loaf. The Italian per capita consumption of bread is 11 per cent higher than before the war.

The British cereal year ending July 31, shows considerable increase in the grain imports over the previous years. This is principally accounted for by the heavier re-exports to Germany and Russia. The amount of wheat entering into British consumption is slightly greater than before the war.

Official figures for grain imports into Germany in 1921, not published hitherto, are as follows: wheat, 2,280,918 metric tons; rye, 375,904 tons; barley, 307,690 tons; oats, 85,654 tons; corn, 1,870,524 tons. Imports for the first six months of the present year are: wheat, 618,555 metric tons; rye, 44,246 tons; barley,

85,240 tons; oats, 13,455 tons, and corn, 624,591 tons. Increased amounts of foreign corn are required for feeding hogs, and for the alcohol industry, and much of this corn and barley is expected to come from Rumania as these grains may now be exported from that country without export requirements. Wheat and rye are still under government control. Heavy export taxes on grain tend to raise the price of Rumanian cereals to the level of the world markets, and so will reduce the competitive power of this grain in foreign markets.

SENSE AND NONSENSE

Was It Instinct

IN the early years of our married life we were one day visiting my uncle who lived seven miles from our home. We mentioned the fact that we had no cat and my uncle said he would give us a mother cat and her kitten, then a few weeks old. We accepted his offer. The cat and kitten were put in a grain sack

and placed under the buggy seat and so carried home.

On arriving home it was chore time and nearly dark. Our newly acquired felines were brought in the house and released. They stayed in the kitchen until the milking was done and were given a generous dish of warm milk. My husband then carried them both to the barn where they might find a nest in the hay.

Next morning the mother cat was gone and on the eighth day from the time we brought her home my uncle opened the door of his kitchen early in the morning and there she sat on the doorstep. She was so poor and hungry and tired but so happy to be in her old home. My uncle said he never would give her away again for she thought too much of home for that.

How did she know what direction to take?—B. R., Breckenridge, Mich.

A young sailor was on shore leave and went to see a girl he knew slightly. They were sitting on the piazza, and finding it hard to keep up the conversation, she finally asked:

"You have been on the water so long I suppose you are accustomed to sea legs." "Honest, ma'am" he stammered. "I wasn't even looking at 'em."



Steadfast as the Oak Tree—Time's Judgment on the Colt "Gas Well"

THE oak tree is a living symbol of solidity, sturdiness and durability.

Only after an amazingly long and sturdy existence does it bow to the will of Time.

Having read about the marvelous COLT Lighting and Cooking Plant, you doubtless have wondered how permanent it is. How long it will continue to shed its incomparably beautiful white light. How long your wife will have that delightful city convenience of cooking, ironing and heating water by Carbide Gas. How simple will be its operation. How economical. How much attention will be required. How often you will have to call for service, replace parts and units, mend and repair. In a word, how will the COLT weather the Test of Time.

Let COLT users speak. They know. They speak from experience—long experience. And there are legions of them. Altogether close to a half million farmers and others in rural communities light and cook with this wonderful, non-poisonous Carbide Gas. Here are three letters out of scores that testify to the oak-like durability and sustained perfection of the COLT.

Twenty-four years' Service, practically no repairs

April 28, 1919.

J. B. Colt Co., New York City.

Gentlemen:—Answering your letter of recent date, will say: We have used your Colt Generator for about twenty-four years. It is a 200-light machine and we have 200 lights hanging on it. The Generator has given us the best of

service in all this time. The machine has been doing its work at practically no cost to us for repairs of any kind. Very truly yours, (Signed) P. R. JOHNSON.

There is the test of time.

Another letter from Bradford Norman, 5 West Marlborough Street, Newport, R. I., reads:

"J. B. Colt Co., New York, N. Y. "Dear Sirs:

"Will you please send me one felt filter for my machine? This machine was installed over twenty years ago and has given perfect satisfaction during that time and the above order is the first expense outside operating (an occasional drum of carbide) that I have had to make."

The test of economy—less than one dollar in twenty years for part replacement!

After Ten Years, Works Like New

Cheapest and Best Farm Light

Shiloh, Ohio, May 22, 1920.

To whom it may concern:—

Ten years ago I had a J. B. Colt lighting system installed in my former home at Lexington, O., for which we used continuously during that time for both lights and cooking, and never cost one penny for repairs, to-day my younger brother lives there and it works as well as the day it was installed.

One year ago I purchased the farm where I now live, and one of the first things I did was to buy another J. B. Colt light plant and have it installed. I have my house and barns both lighted with it and wouldn't do without it for several times the cost, after ten years use

I figure it the cheapest and best light for the farmer.

Very Respectfully Yours,

C. K. INK, Shiloh, Ohio

The Final Test

The Government needs for its beacon lights at the entrance of harbors and along rocky ocean shores the most dependable and economical lighting system it can procure. What light is used? CARBIDE LIGHTING! What generators? MOSTLY COLTS!

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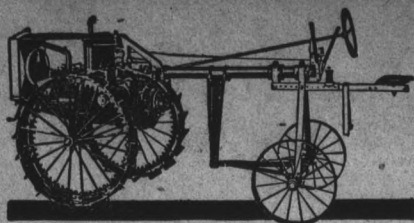
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ASSESSING LAND FOR ROAD BENEFITS

If a piece of land is assessed in one road district for special benefits, can the Board of County Road Commissioners assess it in another road district for special benefits at the same time?—R. S., Sanilac County, Mich.

There is nothing in the law to prevent the board of county road commissioners assessing a certain parcel of land any number of times according to the number of roads which benefit the property in question, the statute specifically providing that lands shall be assessed according to benefits received, hence if there are benefits received on your land from six different roads you are subject to assessment for the benefits to that many roads or in that many different districts.—State Highway Department.

WIS. EXPERIMENT STATION

Please send me the name and address of the Wisconsin Experiment station or Agricultural College. What is the address of the "National Provisioner" paper?—C. C. D., Wheeler, Mich.

The Wisconsin Experiment Station is affiliated with the College of Agriculture, University of Wisconsin, Madison. The National Provisioner is published at New York City.

CANNOT CLOSE ROAD ACROSS GAME RESERVE

In order to gain access to a government lake it is necessary to cross a game reserve which is traversed by an open road that has been in use for forty years. Would it be lawful for a person to go through this reserve on the road carrying a gun? Have the owners of this reserve the right to close the road to the public?—G. S., Traverse City, Mich.

If the road is a public highway and has been used as such for 40 years one has the right to use it as a highway including the carrying of his personal effects but he would not have a right to have a gun in his possession for the purpose of shooting game. If it is a public highway it can not be closed except by taking the steps required by law for the closing of highways.—Legal Editor.

THE INHERITANCE TAX

Is the tax on money which one inherits considered a direct or indirect tax? Two different books in school do not agree.—A. M. M., Gaylord, Mich.

The tax on an inheritance is a direct tax.—Legal Editor.

FALLEN TELEPHONE POLES

Has a telephone company the right, after their poles and lines have fallen on the roadside, to leave them strewn along the highway, such company having removed boxes along the line? If not, what can farmers do to have them removed?—M. J. S., Mt. Pleasant, Mich.

There appears to be no specific statute on this point, but the general laws prohibiting obstruction of the highways or improper use of the highways would cover such matters. However, the enforcement of those laws might be slow and complicated, perhaps the best method to pursue in such cases would be for citizens who are endangered or inconvenienced by these poles and lines to report the condition to this Commission and an effort will be made to have the lines removed promptly, or if they are to be re-constructed, repaired promptly.—Michigan Public Utilities Commission.

OLD MORTGAGE IS GOOD

If a mortgage becomes due, and the borrower is unable to pay the principal, but pays interest, is it necessary to have a new mortgage or is the old one all right?—L. M., Stockbridge, Mich.

The mortgage is just as good as ever upon payment of the interest and may continue as long as the mortgagee is willing to let it run. He may foreclose at any time after it is due if he does not agree to extend the time. A chattel mortgage must be renewed within 30 days next preceeding one year after it was filed.

DIVISION OF PROCEEDS

I am about to rent my farm. I furnish nothing but the farm, have no stock of any kind, the other man furnishes the cows. What share ought I to have out of the proceeds of the cows for pasturing the cows through the summer?—E. W., Dunston, Mich.

It will probably be difficult to arrange for a satisfactory share of the

proceeds of the cows to pay for the pasture for the summer. A good method possibly would be to charge rent for land used for pasture and nothing else. A further consideration comes from the fact that each cow may be credited with 8 tons of manure, valued at least at \$2.00 a ton. This of course will be left on the place for the next year. The landlord will, therefore, be sharing in the returns from the cows indirectly through the manure for crops of which he will get a share and through the better maintenance of the fertility of the land. The landlord, therefore, can well afford to make certain concessions in case of livestock.—H. M. E., M. A. C.

CANNOT COLLECT NOTES IF CASE OF FRAUD

In 1918 some parties from Chicago came to Six Lakes, Mich., and sold stock at \$105.00 per share to the farmers to establish a chain stores known as the "Universal Stores Corporation." W. F. Vedder was president of the corporation. I gave my note for two shares, but never received my certificate of stock. This was to be delivered to me when I paid for stock. The stock holders were to receive 8% interest on their money also a percent of all surplus over expenses. They were to buy and ship cattle and as soon as fully organized ship all produce for the farmer. Were to purchase goods in carload lots and retail to the consumer. None of these were done. Finally they went into the receiver's hands. I did not pay my note, never received any dividends. Now the receiver threatens to sue me if I do not pay the note. Can they collect this from me?—A. J., Trufant, Mich.

If this concern was for the purpose of fraud and notes were given for which they received no value I would be of the opinion that they could not be enforced if proper defence was made to an action upon the note if it had not been transferred to an innocent purchaser, for value before it became due. It is possible that the regulations of the statute had not been complied with allowing the sale of the stock and sales of stock might have been in violation of law. I would advise all who are concerned in the matter furnishing the prosecuting attorney with all the information they have. If I was sued on one of these notes, as it appears now by the receiver, I would defend against the same.—Legal Editor.

OAK IS "HARD" WOOD

A agreed to furnish the school district with wood. Now a controversy arises over whether oak is hard or soft wood. Would like to know what kind of wood oak is, and the kinds of hard wood.—D. W., Washington, Mich.

Most assuredly oak is hardwood. In fact, it is one of the hardest of hardwoods. Other well-known hardwoods are mahogany, birch, beech, maple and elm.—Editor.

EXAMINATION FOR RAILWAY MAIL CLERKS

Will you please tell me where I can obtain information as to where and when examinations for railway mail clerks are held and where I could obtain the so-called "schemes" to study on before writing the examinations?—G. H., Merrill, Mich.

No examination is now pending for the position of railway mail clerk, and the Commission is unable to say at this time when another such examination will be necessary. Railway mail clerk examinations are not held with regularity, but only when the needs of the service require them.

The Commission is unable to give you any information regarding the merits of correspondence courses in preparation for civil service examinations, except to say that a large percentage of such so-called civil service schools mislead the public and obtain money under false pretenses. A favorite method of advertising of such schools is to say that the government is in need of railway mail clerks, notwithstanding the fact that no such examination is pending or is contemplated at an early date. Of course the government is at all times in need of railway mail clerks to fill vacancies, but it can do so from established registers of eligibles.

The Commission does not mean to say that no reputable schools give

correspondence courses, but it does say most emphatically that a considerable number of such schools are unfair.—U. S. Civil Service Commission.

LIABLE FOR DAMAGES FOR MIS-REPRESENTING SEEDS

What is the law in regards to a farmer selling clover seed to another farmer which has to be cleaned of all fowl seed? What could a farmer do with the one he got the seed from if he claimed it was clean seed?—F. T., Elkton, Mich.

The regulations concerning agricultural seeds may be found in Comp. Laws, 1915, at section 6307 to 6318 inclusive. If one represented that it was clean seed at the time of sale I am of the opinion that the seller would be liable for damages.—Legal Editor.

OLD AND NO HOME

Will you kindly tell us a few facts about mother's life lease. She had part of the old home left her at father's death. Their son who owned the balance of the old homestead persuaded mother to sign her life lease to him and wife. They held joint deed. They both agreed to keep mother and provide all care for her, but soon after she had signed her title to them the son died, and all the property went to the wife, the daughter-in-law. She married again. She has the money received from the farm and will not do anything for mother. Mother was about 80 years old at the time she signed her life lease to them and is 96 now, and has no property at all, and she has no papers to show the agreement as they never gave her anything to bind them for her keeping. The daughter-in-law has cared for mother some and kept her at her place for sometimes a few months until a year and a half ago. She sent mother away and does not do anything for her. The daughter-in-law has kept mother about two years in all since she got the property.—A. F., Tuscola County, Mich.

If the circumstances related could be proven the Circuit Judge would have the right to set aside the deed or require the daughter-in-law to carry out the agreement.—Legal Editor.

MUST PAY COMMISSION

While I was here attending school I listed my property with real estate men on July 6 and on the 10th I sold my place to other parties. The real estate firm say they have done nothing but send my ad to a paper yet they say they must have \$50 to settle with me. Their contract says they have, for \$1 and other valuable considerations, made this contract. They did not pay me anything. Will you kindly tell me if I will have to pay them the \$50.—D. W. D., Kingsley, Mich.

Yes, I think you are both morally and legally obligated to pay the commission. In signing the contract you acknowledged receipt of \$1 and other considerations, and it is immaterial whether you actually received it. You agreed to pay them a commission if you sold the place yourself, and you'll have to abide by your agreement.—Editor.

REGISTERED BONDS MAY BE DISTINGUISHED

Would you tell me if there is any way to tell whether bonds, including especially the Liberty and Victory bonds, are registered or not?—Subscriber, Alden, Mich.

Registered bonds bear the name of the owner stamped on their face. They are also devoid of interest coupons.—Editor.

MUST PAY HIRED MAN

Is a farmer compelled by law to pay a hired man who leaves just at harvest time, when man has promised to stay until fall, and has given no notice of his leaving?—Subscriber, South Lyon, Mich.

Yes. In the absence of a written contract, specifically outlining the nature of the work and the tenure of office and providing for a penalty for non-performance, the employee can collect the full amount of his wages for the time he has worked.—Editor.

FIRE INSURANCE COMPANIES

What is the best fire and lightning insurance company, the State Mutual or Gleaner's?

If one has a barn, started and just the wall up the second Monday in April, and the siding and roof put on the last of April and during May, and the inside work not done until the following winter, was it lawful to assess the barn as a finished barn that year? My barn was assessed as a finished barn before the roof was on and I do not think it was lawful. Please tell me if it was.—H. B., Copenish, Mich.

Both companies you mention insure farmers on the mutual plan under a similar set of by-laws. The Flint company insures buildings for 90 per cent of their value as determined and the Gleaner's but 75 per cent. The question arises which is the safest plan, let the insured carry 10 per cent of the responsibility or 25 per cent. No doubt each will assume that the position taken by his company is the safest, and it seems

to be a matter of opinion and yours would be as good as any other man, therefore this feature is left to your judgment.

The Flint company was organized in 1908 and had \$113,541,735 at risk Dec. 31st last, while the Gleaners was organized in 1917 and at the same date had \$23,453,004 at risk. The former is the largest mutual fire insurance company in Michigan insuring farm property and the Gleaners stand in fourth place.

Any company insuring farm risks on the plan of furnishing insurance protection to the farmers, treating their members with fairness when they meet with loss, keep their expense of operation at the lowest possible point, make honest and plain statements, and keep in mind that the business should be conducted for the good of its members not for the purpose of creating a good position for the officers in charge, is a safe one with which to entrust your protection whether it be a state-wide or county mutual.

These companies operate under the blanket policy plan and make the claim that it is much more advantageous to the member in case of loss. We would suggest that you ask for their statements and compare same, which will no doubt furnish you the information you are seeking. Both of these companies no doubt have members in your immediate locality. Ask them of their experience.

It would seem decidedly unjust to assess a building under process of construction as completed. It would seem that a fair assessor would assess the property based upon its value the date as of making the assessment. It would be just as reasonable to assess a suckling colt as a full grown matured horse. Did you ever hear of assessing a field of oats as threshed grain when the crop was only well out of the ground.

The only fair basis of valuation would be to determine the value of the lumber on the ground and erected, together with the hardware and paints, foundation and labor costs to the date the assessment was taken. Unless your property is assessed on this basis it is your duty to appear before the Board of review of your assessing district and inform them of the injustice, and they will be quite sure to appreciate the justice of your claim and reduce the valuation accordingly.—Editor.

COMMISSIONS IN REAL ESTATE DEALS

Will you kindly tell me if a real estate man can collect from both sides when two men trade places, one a farm, the other city property?—Mrs. Wm. L. Flint, Mich.

It is entirely permissible and is common practice for a real estate man to collect commissions from both parties to a trade.—Editor.

FARMERS MUST CUT OBNOXIOUS WEEDS

Is there a state law that compels farmers to cut such weeds as milk weeds, Canada thistle and burdock? I was talking with one of my neighbors and he said if a man had money to fight it through, that the law couldn't make him cut his weeds. That is what the prosecuting attorney told him and he says like the weed commissioner should miss some weeds where he was cutting on the man's property, he could make it hard for him. As I am weed commissioner of one half of this township would like to know the laws. They say in the next township they are not compelled to cut their weeds. I think there should be a law that money couldn't stop it, for I believe it is a benefit to every farmer to see that he gets weeds cut.—A. J. Boyne City, Mich.

According to Act No. 66, P. A. 1919, every property owner must cut his weeds. If he does not do so the highway commissioner is required to have them cut and charge the expense to the property owner. The more important sections of the act are as follows:

"It shall be the duty of every owner, possessor or occupier of land or of every person or persons, firm or corporation having charge of any lands in this state to cut or cause to be cut down and destroyed all Canada thistles, milkweed (asclepica cornutus), wild carrots, ox-eye daisies, or other noxious weeds growing thereon, at least once in each year, before the first day of July in townships south of range sixteen north, and before the fifteenth day of July in townships north of range sixteen north, including range sixteen north, and as much oftener as may be necessary to prevent them going to seed, and

(Continued on page 17)

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"The Farm Paper of Service"

Grain Growers Reorganize

THE announcement that the U. S. Grain Growers, Inc., have reorganized is a pathetic admission of its failure. It reports total liabilities of \$394,582.75, assets of \$109,315.48, leaving a net deficit of \$285,267.27. It is now in order for some emissary of the grain trade to mount the house-tops and howl, "we told you so; farmers can't market their own grain."

What was the trouble? Well, in the first place, the men who essayed to build the biggest marketing organization in the world were novices at the game. They knew a few rules of business, but not enough. And the ones they didn't know were exactly the ones they should have known. They started down the wrong road and kept a-going down the wrong road and paid no attention to the yells of their friends to warn them of the dangers ahead. "We'll show 'em we're hep to this marketing game," they said, "it's as simple as A B C." But they changed their minds when a detour led them straight into the mire!

In the second place, they knew but they did not practice that good old business principle of economy. They had a lot of money to spend and they proceeded to spend it. They set up elaborate offices, hired expensive legal talent, paid their department heads generous salaries. In a few months their funds were gone and they had accomplished virtually nothing. Now they are "broke" and a quarter of a million dollars in the hole.

In the third place, they met the united opposition of the grain trade, the force of which they failed to appreciate. Thousands of dollars were spent by the grain men to discredit the U. S. G. G., and they were not spent in vain. In every independent grain elevator in the country posters were stuck admonishing farmers to beware of the U. S. G. G. grain contract. Thus was the seed of suspicion sown and farmers who had formerly looked upon the organization with favor, turned against it.

Was the experience worth what it cost? We think it was. Our own faith in the principles of co-operative dealing have not been shaken in the least by the co-operative disasters of the past year. We are sorry to see farmers lose their money in enterprises of this kind but where they have lost pennies in co-operative failures they have lost dollars in worthless investments of other kinds. Every business organization has had to pass through the fire of experiment before it has tasted the rewards of success, and there is no reason to think that co-operative projects should prove an exception to the rule.

Those who undertook the job of building a national marketing organization were brave men. They were able men, too. But not even the keenest foresight could have foreseen all the difficulties which lay along the way. The

way had to be travelled first to discover the obstacles. Men cannot be prepared for the dangers they know not of.

The leaders in the U. S. G. G., have travelled the road and are wiser men than when they started. They know now why they should have done this and should not have done that. They have reorganized and are getting ready for another journey. We wish them well. There are rocks and chasms yet before them, but the experience of the past year has made them wary and they will be prepared for the stumbling blocks and pitfalls which they encounter on the way.

Give them another chance.

Curb the Commission Crook

STATE Commissioner of Agriculture John A. Doelle has under advisement a commission licensing bill which would put an effective check upon the dishonest commission firm. The present state law, of which Sen. H. F. Baker was the author, is an excellent law so far as it goes and sufficed well enough for a time. But it still leaves a loop-hole for those who are downright dishonest and are clever enough to see it. The present law provides that all commission firms shall be licensed, depending upon the good behavior of the licensee.

On submission of evidence showing that any commission house has sold produce without remitting the proceeds to the rightful owner, the state may take away the firm's license and forever bar them from the commission game. This provision is well enough for those who intend to remain long in the business but it does not touch the "fly-by-nighter" who is here today and gone tomorrow.

Many such fellows have gone into the commission business in Detroit, circulated flattering quotations, accepted and sold the farmers' produce and promptly put the entire proceeds in their pockets. Before the wheels of justice could be gotten in motion they have closed shop and skipped the country.

The key-note of Commissioner Doelle's proposed measure is a bond in the sum of \$3,000 which every man applying for a license to do a commission business would be required to file before his application would be granted.

This bond would remain in the hands of the state so long as the giver stayed in the business, and would constitute a perpetual indemnity for those who might ship their produce to the licensee. If the giver of the bond sold goods for which he failed to remit, the owner would appeal to the State Department of Agriculture and be reimbursed for his loss from the proceeds of the licensee's bond.

The idea is not exactly new, being a pattern of the Market law of New York and other states. It has been tried and found to provide the desired protection. Let it be tried in Michigan.

Potatoes

ONCE more the fatal cycle moves 'round and we are confronted again with the prospect of an over-production of potatoes. Present estimates are for a production one-fourth larger than last year, which simply means one-fourth more potatoes than the country can consume. And that means glutted markets and no prices.

It is well enough to call to mind the old proverbs about an ounce of prevention being worth a pound of cure, and locking the barn after the horse is stolen, but that doesn't help the situation any. We know well enough that such a huge acreage should never have been planted, and the fact that it was planted is an evidence that agriculture is still in the feeble-minded stage, but the potatoes are in the ground and growing like weeds—worse luck—

NOTICE TO SUBSCRIBERS

Rather than issue incomplete summer numbers, omitting important departments, as most farm papers have been forced to, the past few months, The Business Farmer has preferred to issue a complete number every other Saturday. Each issue thus "missed" has been credited to the expiration date of every subscription, so that in the end, no subscriber will miss a single copy for which he has paid.

and nothing seems to stop them. When next October rolls around you'll likely see one of the finest and biggest crops of spuds ever harvested.

Is there no cure for the situation? Taking the country as a whole, no. But individual states and sections may, if their rural leaders are wise, secure an advantage over other states and get a premium over the market. Already one keen-eyed county agent, Lisle Berry of Cheboygan county, has sensed the situation and the Cheboygan county farm bureau has adopted resolutions strongly recommending an extensive advertising campaign to create in the minds of potato consumers a desire for Michigan spuds.

Michigan growers need not suffer from the worst effects of over-production if they are on their toes and lay early plans for the marketing of their crop. For quality Michigan potatoes can't be beat. We know it here in Michigan, but do the folks outside of Michigan know it? Well, let's tell 'em. The suggestion of the Cheboygan county farm bureau is a good one and should be acted upon by the potato growers' exchange.

Hands Up!

ANOTHER "steal" is reported as having been discovered in the pending tariff bill. In the interests of the gigantic smelting corporations congress has provided for a 2 cent a pound tariff on white arsenic which is the basis of all effective insecticides and sheep and cattle dip. And despite the fact that the United States annually consumes 7,000 tons more than she produces.

"Not a fruit grower or potato grower, not a single raiser of vegetables or cotton from Maine to California but needs insecticides, and in fact is dependent upon them for saving a high percentage of his crop." The Michigan potato grower will suffer as greatly as the California fruit grower if the foreign supply is shut out by an excessive tariff. The cost of Paris green is high enough now without adding to it by a tariff subsidy to the smelting corporations.

When the whole truth about the new tariff bill has been unmasked we are quite likely to find that it is one of the biggest frauds ever perpetrated upon the consumer for the benefit of special interests. No wonder Pres. Harding's conscience has been smitten and he refuses to accept the monstrosity unless accompanied by authority to name a tariff commission. Like the resolution seating Sen. Newberry the tariff bill must have some redeeming feature to remove the curse.

When Organization Scores

ORGANIZATION has again proven its value to farmers. Through the combined efforts of the Michigan State Farm Bureau and the shippers the proposal of the L'ere Marquette to abandon its Big Rapids-White Cloud and Freeport branches has been nipped in the bud. After listening to the arguments presented by the Bureau proving that the railroads were a necessity to the regions served the Interstate Commerce Commission ordered the railroads not to abandon the two branches.

This is one of several railroad abandonment cases which is attracting the attention of the Michigan public and causing farmers dependent upon these avenues of transportation no end of uneasiness. The railroad is like many other of our modern conveniences. We fail to fully appreciate them until there is danger of losing them. Then we are appalled by the thought of an existence without them.

We have been fiddling with the railroad question for a half dozen years now and are no nearer a settled policy than when we started. A bad mess has become messier and the transportation system is in a more chaotic state than ever before. The threat of the roads to abandon their short lines and deprive farmers and others of their transportation facilities ought to be the last straw to break the camel's back. Railroads should be run for service and not for profit. And the only man who can handle the job is the same old long-whiskered gentleman who has made such a magnificent success of the postal service.

Uncle Rube Spinach Says

HOW DOES THINGS LOOK?

SOME time ago I had a little somethin' to say 'bout the coal strike which, at that time, had only started. I sed something of what it would mean to the peope later on. Coal then wuz 'bout three dollars a ton at the mines an' that wuz a good high price for coal. Well now at some mines it's jumped to seven dollars an' the end is not yet. Then comes the railroad strike an' there's the poss'blity that everything will be tied up tight—that you an' I'll be out of work while the railroad potentates, whatever that means, an' the men fight to see who's boss.

Kinda seems like the railroad labor board, to whom such questions are left, hez sort a mixed things up somewhat an' have got in where they can't get out.

Now this labor board must be drawin' pay for their time an' seems like the public must be payin' 'em but what good is a labor board if they can't enforce their orders? 'Course our president is tryin' to do somethin' but you see how it is with him. Most every week he has to take his reg'lar vacation of two weeks an' what with gawf, Laddie Boy an' everything there ain't much he can do to settle things an' so we wait with bated breath—mebbe, in some cases at least, I should say halted—but no matter, we are waitin' an' wonderin' whether we're goin' to freeze next winter. Whether we'll have a job next week—we wonder jest what we're goin' to do!

Looks like jest a few men comparatively speakin' can tie up all the industries in the country an' we mustn't say a word. If we try to do somethin' to relieve the situation we're scabs. We're lower'n the underside of a snake! Children may starve or freeze, mothers an' those about to become mothers may worry an' fret, hardships of all kinds may be heaped upon us but we must take it all 'cause this is a war 'tween cap'tal an' labor an' each must fight 'till one wins out.

Now jest stop an' think for a minute jest where we're at. A few men, an' take 'em all together, mine operators, miners, railroad owners an' railroad workers, all of 'em together is only a handful wher compared to the whole population of this great country of ours.

An' yet this handful can stop every wheel of industry, can close our schools, courts, churches, can put millions of men an' women out of work, can bring sufferin' an' misery—even death into hundreds of thousands of homes an' the gover'ment, our gover'ment, that could draft five million men an' had the power to send 'em across the ocean to fight in foreign lands, seems to lack the power to handle a situation that is more of a menace than Germany ever wuz or any other foreign country ever can be.

Now I wouldn't want to interfere with anybody's gawf games or poker games or nothin' of that sort an' two weeks vacations every week or so ain't so awful unreasonable an' yet if there is anything our president can do or congress can do to stop the thing that is menacing the very life of this country, don't you think it'd be all right if Mr. Harding cut out one or two games of gawf an' even let Laddie Boy take care of himself for a few hours—an' even if Mr. Harding didn't heve his picture taken for two or three days, we wouldn't mind so much if he'd get down to business an' do somethin' that would stop the intolerable condition we're in jest at the present time.

Either the gover'ment has power to do it or it lacks the power an' we, the common people would jest like to know which is which. Cordially yours—UNCLE RUBE.

MICHIGAN HOG DAY

THE Michigan Hampshire Swine Breeders' Association, that was organized at the M. A. C. during Breeders' week last winter, are planning on a big day at Armstrong's grove near Cassopolis on Saturday, Aug. 26. Cassopolis is in the center of Cass county and the roads in all directions are always good.

They are pleased to term the day Michigan Hog Day and by the program that they have arranged no hog breeder can afford to miss it.

Regardless of the breed you favor you are invited and expected to attend.

J. M. Ballard, of Marion, Ind., who is one of the largest and most practical hog raisers of that state, is to deliver an address at 2 p. m. Mr. Ballard produced the grand champion car load of hogs at the Chicago Fat Stock show in 1920. This spring he has 85 brood sows that are raising 673 pigs, and all of this he does with an equipment that any tenant can afford to have. To hear him explain his methods will be a rare treat.

Brother Leo of Notre Dame University will have charge of a hog judging demonstration at 10 a. m. He maintains one of the finest herds of hogs in the middle west and to watch him pick the best hog out of a herd and state his reasons for so doing should interest every man who owns a hog.

E. M. Harsch of Peoria, Ill., who is assistant secretary of the American Hampshire Swine Record Association, will also be present. Mr. Harsch is in a position to study the hog business in a national way and should bring us some very valuable information. He speaks immediately after dinner.

There will be sports and contests for all the children, including a special pig race for all pig club members; boys and girls foot races, etc. There will be a horseshoe pitching tournament for men and something equally as interesting for the ladies. Suitable premiums will be awarded for each event.

The Cass County Pig club picnic and the Cass County Swine Breeders' picnic will be held in connection with Michigan Hog Day. In fact it is to be the one big day in 1922 for all Michigan hog raisers to get together. Bring your lunch basket for a picnic dinner and stay all day.

STRIKES

(Continued from page 6)

her power, the upholding of obedience to established law.

If this be not done our republic, like those of past ages, will crumble and perish. Would that this might be fully realized ere that fatal catastrophe destroys this nation, now standing in the vanguard of the nations of this century.

As a citizen, I love my country and I will respect and obey its laws and uphold its honor, in return for the many blessings it gives to me. —J. T. Daniels, Clinton County.

Yes, when respect for law and order is lost, all is lost. We cannot help but sympathize with striking laboring men who see the gains of years in danger of being swept away. And labor once more put upon the auction block. At the same time we cannot countenance the slightest suggestion of violence or duress which some union leaders are guilty of condoning. We cannot deprive men of the right to bargain collectively in the sale of their labor or the product of their labor, but we can and must arise against all efforts to prevent others from working or disposing of their goods if they choose to do so.—Editor.

WHAT IS A SAFE INVESTMENT?

"What is the limit of return on an investment, without sacrifice of safety?" is a question we are asked continually." B. F. Hudson, the president of the Standard Mortgage & Investment Company of Detroit says.

"The logical way to consider this question is to first determine what is a safe investment; then look the field over, and see what is the highest return we can get in the approved type.

"United States Bonds are considered first in safety; but because of the high credit of this government, the return is relatively low.

"State, municipal and county bonds, where the bonded indebtedness is low, are well considered. The rate of return is slightly higher than on U. S. bonds.

"The third kind of preferred investment is that which is based on real estate, where the money loaned is well below the market value of the property.

"There are two methods of loaning money on real estate—on mortgage and on contract. The former has long been popular with the individual capitalist; but with the growing tendency toward concentrating this important financial aid to building into large corporations, the land contract has, in many cases, proved safer and more profitable than the mortgage."

Did You Ever Find One?

We found what seemed to us a very phenomenal egg in a hen's nest one day. It was perhaps two-thirds the size of a goose egg and contained one ordinary sized egg in a shell and one without any shell. How do you account for it?—B. R., Breckenridge, Mich.

Happy Day

A little five-year-old was one day watching her mother cut up a squash preparatory to cooking it. She surprised her mother by asking, "Is there a happy day in it?" Upon being questioned as to what she meant she said, "Why happy day when Jesus squashed my sins away."—B. R., Breckenridge, Mich.



There's a Reason

for the satisfaction of property owners whose buildings are covered with MULE-HIDE.

It's built into MULE-HIDE itself; built up from a foundation of honesty and a desire to make overhead protection that will meet the most exacting requirements.

Try MULE-HIDE once, then you will understand the true significance of that unusual record:

"Not a Kick in a Million Feet"

You will understand why we urge you to insist on MULE-HIDE.

The discriminating dealer in your community has it. Don't accept "just as good,"—insist on MULE-HIDE.

You are cordially invited to visit the
MULE-HIDE
EXHIBIT
at the
State Fair
—
Come and get a crayon

THE LEHON COMPANY

MANUFACTURERS

44th to 45th Street on Oakley Avenue
CHICAGO, ILL.



Wheat Winter Oats and Rye

should receive the right kind of fertilization if they are to be profitable under the present trying conditions on the farm.

Use a fertilizer containing

3 to 5% POTASH

and 6% to 8% if these grains are to be followed by grass or clover. There is plenty of Potash in the country at much lower prices than last year, and if you insist on getting it, you will again find that

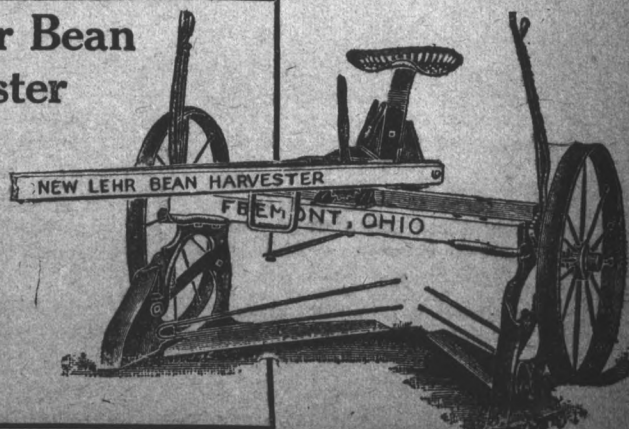
Potash Pays

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

New Lehr Bean Harvester

This harvester has been on the market for a number of years, giving universal satisfaction. If your local agent does not carry them then apply direct to the factory for special prices.

Lehr Company,
Fremont, Ohio



A BRIGHT LIGHT AHEAD

WE hear much about this being a transitory period for women. All periods have been transitory for women and men as well. The rate of progress varies, that is all. Just now we are moving very fast and not altogether in the right direction. We branch off here and there but the general progress of our course is upon the way marked out for us.

We will do better if we in no way try to imitate our brothers. The ideal method to better conditions is not by force and logic, man's special qualities, but by intuition and love where women perhaps excel. Force has been tried and has done it's work, logic has been found faulty. I see a bright era when intuition which is more sure than logic and love, the great power of the universe, shall be the new light which shall lead to better conditions, not for women alone but for the race. No effort is worthy which has for it's object the uplifting of one expression of humanity and leaves out the other.

My sisters of the League of Women voters will not agree with me altogether.

REMEMBRANCE

By Violet Alleya Storey

YOU may remember scenes in other lands;
Gay cities on a summer holiday;
Bright caravans that pass across gray sands,
Or singing peasants on the Applan Way.
But I shall all my life remember this
As my most clear and cherished memory:
Two children drinking deep of God's own bliss,
Watching the sunset far across the sea.
You may remember perfumes rich and rare;
Incense that comes when some jeweled censer sways;
The scent of blossoms that have drunk dim air;
Exotic odors that are swift to fade.
But I who have been poor, shall always know
The smell of sea-enamored winds that crawl
Over the bluff to talk with flowers that grow
In bright array against my moss-flecked wall.
You may remember luxury and ease;
The touch of silken cushions, soft and cool.
The taste of fruits plucked from dark-fronded trees
By hands that laved in some warm eastern pool.
But I'll remember struggle-flavoring peace;
The roughness of my cottage small and bare;
The taste of fish I fry in bubbling grease;
And little hands that set the table there.

But who can tell which memories will be dearer,
And who shall care if they bring youth the nearer?
—Harper's Monthly.

A GOOD MOUTH WASH

A most effective and harmless solvent to use as a mouth-wash is lime water. Dr. Russell Bunting of the University of Michigan is responsible for the statement that if but one thing could be had to prevent decay of the teeth lime water used three times a day would prove to be the most valuable.

Five cents worth of unslaked lime such as is used by masons for coarse plaster will make enough lime water to last a family a whole year.

The refined lime from a druggist is not so good. Buy from a paint store a lump of coarse lime, crush it into a fine powder, put a half cupful in a quart jar and fill almost full with cold water.

Thoroughly shake and then allow the lime to settle. This will take several hours. When it has settled pour out as much of the clear water as you can without losing any of the lime, this is just to wash the lime.

Again fill with cold water and let settle. Pour into a twelve ounce bottle the clear lime water, being careful not to stir up the lime in the bottom.

After brushing the teeth and using dental floss between them, take a little of the lime water in the mouth and force it back and forth between the teeth until it foams.

If you rinse it long enough to make it foam it has been in the mouth long enough to have a beneficial effect. Eject it from the mouth and rinse with clear water. You may then go to your night's rest with a clear conscience and a clean mouth, feeling sure no demon of decay is going to get in his dastardly



work while you sleep and cause you both pain and expense.
The directions for the mouth are exactly as Dr. Bunting gives them.

A WORD ABOUT OUR PATTERNS

Often an order comes in for patterns asking that they be sent by return mail. This is not possible, for the patterns are all sent out from the place where they are made and the company sells only thru the newspapers. This may entail a little delay, but when you realize that you save from 20c to 30c on a pattern, I know you will feel that you are willing to wait a few days. You should have your pattern in about one week from the time you order it. If it does not come promptly just send me a card and state the DATE of your order and I will see that your pattern is received. Delay is sometimes occasioned by an address not plainly written or by neglect to state size required. There are no better patterns sold.

GOITRE CURE

There have been several requests for the goitre cure published in our paper of March 18. Rather than mail out copies of that date I will reprint the article.

We are known to be in the goitre belt in this part of Michigan. It is found to be prevalent where there is not much if any iodine in the drinking water but this may be supplied if one will by adding two or three drops to a glass of water and drinking it. No harm could result if it were done once every day. This is simply a preventive for goitre in

its first stages. Use five drops of iodine in a half a glass of water three or four times a day.

"I saw Mrs. J. W. of Illinois request for a goitre cure. Take 1 cup of kerosene, 3 cakes of camphor gum, put in a pint can with rubber on. When all the camphor gum that will dissolve has, rub lightly on goitre three times a day; do not put any cloth around neck or the kerosene will blister. My sister had a very large goitre and she commenced using it Dec. 3, 1918, and used it faithfully, often rubbing on five or six times a day, and before the year was up her goitre was gone. If she thinks it is growing she uses it as directed for a month. A specialist on goitres gave it to her. She was doctoring with him for her heart; goitre had affected it.—R. E. B., Ill."

Of course the very best course is to consult a specialist as there are two forms of goitre, each requiring very different treatment. One is caused by over stimulation of the thyroid gland, the other by under stimulation.

CORRESPONDENTS COLUMN

Can anyone tell how to take varnish from white organdy and green and white gingham?—A. B., Romeo, Mich.

Turpentine will remove varnish but is apt to make the goods yellow. Plain white goods can be bleached with Javelle water but that would take the color from the green gingham. Has anyone a suggestion?

I spilled a quantity of iodine on a blue and white muslin dress and everyone said "you have ruined your gown," but plenty of soaking and rubbing in cold water removed every

AIDS TO GOOD DRESSING

For Simplicity, Service and Style

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

LACE mitts such as were worn in our girlhood are now being shown in the city shops. They come in black, white, tan and grey. If you are lucky enough to have laid away a pair you can now wear them with comfort and satisfaction.

One sees very few well-dressed women on the street in skirt and shirt waist this summer. The light coat often sleeveless as pictured some weeks ago or the much loved sweater is generally worn over thin waist and this arrangement really makes a proper street costume.

The one-piece dress is good and more popular than ever and it promises to be very plain in design. Loose-fitting and rather long waisted. The hem may be straight or uneven as suits the individual.

We are told that an effort is being made to return the wasp-like waist and hoops!

I will just prophesy right here that it will fail. Our clothing has been so comfortable these last few years that our waist-lines, our feet and our bumps of common sense have all increased in size and no fashion edict from some foolish designer shall rob us of our comforts.

Our new and up-to-date Fall and Winter catalogue is now ready with some lovely colored plates and an article on dressmaking. It is really a fashion book, in earnest and something more than a mere catalogue. Do you not want to see what will be worn this coming season? Just 15c for the book.

An Appropriate Bathing Suit



4062. Plaid gingham and white linene are here portrayed. The design is comfortable and easy to develop. The bloomers may be finished separately.

The pattern is cut in 4 sizes: 8, 10, 12 and 14 years. A 10 year size requires 3 2-4 yards of 32 inch material. For yoke and sleeve and skirt facing 3-4 yard will be required.

A Popular Apron Style



4063. Here is a model that with a guimpe will serve as a complete frock. It is nice in percale or dimity, as well as in cretonne, sateen or chintz.

The pattern is cut in 4 sizes: Small, 24-36; medium, 38-40; large, 42-44; extra large, 46-48 inches bust measure. A medium size requires 4 12 yards - of 27 inch material.

The "Latest" Play Suit Fashion



4042. This garment is made for freedom and comfort at play time. The toy pockets will appeal to the young wearer. Gingham with facings of linene, or pongee with chambray for trimming would be attractive. As here shown figured percale and cambric are combined.

The pattern is cut in 4 sizes: 2, 4, 6 and 8 years. A 4 year size requires 3 1-2 yards of 32 inch material. To trim as illustrated requires 5-8 yard of contrasting material 32 inches wide.

One of the Season's New Styles



4051. With lines that speak for grace and youth, and good style features in waist and skirt, this model is sure to please. Green and white plaid gingham with facings of organdy is here portrayed. The dress is in slip on style. It is cut in 4 sizes: 16, 18 and 20 years. An 18 year size requires 5 1-3 yards of 32 inch material. For trimming as illustrated 1 3-8 yards is required.

bit of discoloration and did not injure the color of the dress.

SILVER RE-PLATING

A subscriber asks for the name of a silver re-plating company. If she will send me an addressed envelope I will give her the name of several in this state.

Canning Baked Beans

Who can give directions for canning baked beans?

Get Rid of Moles

I so often notice the query, "to rid a garden of moles" will say that a few tablespoonsful of kerosene poured in the runs every few feet will drive them away. I take a round stick and punch a hole down into their runway and then pour in kerosene.

Of course kerosene will kill all plants it touches but use kerosene between rows of plants in the runway. I raise and sell many dozens of Gladioli blooms every season and it is here I have used the kerosene and found it effective.—Mrs. C. O. F., Fowlerville, Mich.

The Milwaukee Fire

As I am a reader of the M. B. F. I would like to send in a request and find out if any of the other readers can furnish me the song called "The Milwaukee Fire," and oblige.—Mrs. Wm. Page, St. Johns, Mich. F. 11, Box 10.

Words to Poems

Will you please publish the following question in the Women's Dept. of the Michigan Business Farmer? Who can send me the words of the poems called Kentucky Bell and The Switchman's Tale? Thanking you, I am—Ina MacHale, Hersey, Mich.

Wanted: Pumpkin Seeds

A dear old lady who lives next door to me is a shut-in, having used crutches for years on account of a swelling on the knee. The only relief she has found from the pain has come from using cloths wrung out of pumpkin seed tea, but as the seeds are so hard to obtain if any of the subscribers have some on hand and would mail them to me I would gladly take them to her and I know a prayer would be said and another charitable act placed to the credit of the sender.—Miss Lucille Shultz, 1160 Reed Place, Detroit, Mich.

My Favorite Perfume

I think all women like perfume whether farmer's wives or no. I use lily-of-the-valley. There is a more fragrant kind but I have forgotten the name.

I also agree with Dorothea and you about short dresses, not too short and not as long as they used to be and I like them nearly 2 yards around the bottom.

I would like to ask a favor through this column. Can anyone give me the recipe for nut bread, as you buy in bake shops? It has some raisins in and nuts and is not white but a dark color, something like gray or like rye or buckwheat flour. I would be very glad to get it.—A. B. C.

P. S.—A subscriber and always will be. I don't know how a farmer could get along without M. B. F.

RECIPES

Corn Relish

As I have received so many helps from your page I want to pass on to your readers a corn relish recipe given me last year by a neighbor. We think it is just fine.

1 head of cabbage, 18 large ears of sweet corn, 4 onions, 8 green peppers, 1 bunch celery. Grind all but corn, cook all one hour with 2 quarts vinegar, 1 1-2 pounds brown sugar (scant), 4 tablespoonsful salt, 1 pint prepared mustard.

Are any of you bothered with Buffalo bugs? I am, and so far I have had best results by dusting with a powder gun, powdered black flag. Does anyone know of anything more efficient than that.

With best wishes to all M. B. F. readers.—Mrs. C. W.

Butter Scotch Pie

I am going to send my butter scotch pie recipe to the M. B. F. ladies: Scorch 1 tablespoon butter, 1 tablespoon flour, 1 cup of brown sugar; then add 1 1-2 cup sweet milk, yolk of 1 egg, vanilla for flavoring. Use white of egg for frosting.

Oat Meal Cookies

4 cups oat meal, 4 cups flour, 2 cups sugar 2 cups, shortening, 1 teaspoon cinnamon, 1 cup boiling water, 1 teaspoon soda, 1 cup chopped raisins.—Mrs. F. S.

Japanese Crabmeat

Home Made Riddles

(All but the answer)

No one ever saw it
Till I dug it from the ground.
I found it when I lost it.
And I lost it when I found it;
I washed it and dressed it
And buried it once more—
Dug it up and loved it then
Better than before
I was paid for finding it.
I don't know why or how,
But I lost, found, and kept it,
And haven't got it now.

Sometimes it's all alone—
Sometimes in a crowd;
It says a thousand bright things,
But never talks aloud.
Everybody loves it,
And likes to have it call.
But if you shouldn't happen to,
It wouldn't care at all.
First you see or hear of it,
It's a-singing—then
You may look and listen,
But it never sings again.
—James Whitcomb Riley.

The Children's Hour

THE ABBER SCHOOL CLUB

THE Abber school was in a state of great excitement. The new teacher, Miss Vanel, had just suggested a new idea to the school children. They had been delighted with the plan and, as they were naturally a hustling bunch of youngsters, they were anxious to carry out the scheme.

But I have not told you of this wonderful idea. It was, indeed, extremely new and strange.

As it was just the beginning of the school year the children were fresh and studious. They had long been wanting to organize a club in their school. They wanted to raise vegetables and other farm products but their parents disapproved of the idea and refused to give them a piece of land to try on. They had been very disappointed and when Miss Vanel came they told her all their troubles. The teacher was very sympathetic and immediately began to work out a plan to help them out. She, herself, was interested in club work so she soon devised a plan.

About a week later, the morning on which this story opens, she told them her plan.

When school was called in the morning she said that instead of the usual morning exercises, she wanted to talk with the children.

Then she began, "How many children are willing to work hard this winter and have a garden all their own next spring?"

Every little hand went up enthusiastically.

"That's fine!" said Miss Vanel with a pleased smile. "Now, I shall tell you my plan. There are thirty children here, all strong and healthy. Now, I have asked Mr. Bakel who owns this land next to the school ground how much he will charge us for renting a couple of acres next to the school ground. He says he will rent it for one year for \$25. The land isn't very good but I think we can fix it up by fertilizing and cultivating it. Now we will all work hard from now until next spring and we will make enough money to rent this land. We can have socials, make things to sell, and do many things to make money. We will also have to get money for seed so we must hustle right now. Do you think you can earn \$3 or \$35 this winter?"

Every one was certain they could because winter was a long season.

When the parents heard of the plan some disapproved but most of them admired the children's pluck and courage and were willing to lend many tools to prepare the ground with. The older boys were going to work the ground.

During the winter the school made \$10 and in the spring they were all ready to work. Each child had a liberal portion of land and a prize was offered for the best garden raised. Everything went fine. People going by would admire the children's work and would say their garden was the best around there. Every noon and recess saw a troop of children at work in their garden. Miss Vanel was very proud of her industrious workers.

But one day one of the little boys was taken sick. He was sick a week but his garden didn't get full of weeds. No, the rest of the children, with a true spirit of good will, worked in his garden and kept it as clean as their own. The little boy was very grateful to them and worked very hard after that.

That fall the Abber school gave a club exhibit. The parents all came to the school house and were much pleased with their children's work and were no longer opposed to clubs. At the exhibit the prize for the best garden was given and the little boy who was sick won it. He had worked so very hard that he had the best garden. The prize was a set which contained a hoe, rake and spade. He also got a package of watermelon seed from his parents.

The school sent some of their products to the county fair and won first prize. After that they sold their products for \$100, thereby gaining \$60. The money was given for school purposes. This encouraged them greatly and they wanted to try again next year. Mr. Bakel was willing to rent the land again for \$15 because the children had taken such good care of it that it improved the land very much.

"The little boy who won the prize said, 'It was the happiest year of my school life, even tho' I did have to work at my garden during vacation' (for they did work at them during vacation). So they are now planning on raising another garden next year. We wish them all good luck.—Edna Federspiel, Sterling, Mich.

THE WONDERS OF A RESCUE

"Oh, that Nellie Howard, it makes me tired the way people speak of her," said Marian Campbell. "They are always saying she is so kind. Perhaps she is, but I certainly wouldn't want to be seen visiting those pauper children," as she tossed her head in a proud manner and took her friend Hattie Murray by the arm and walked out of the room.

"You are right, Marion. I just hate Nellie," said Hattie. This and many other things they said as they walked down to the seashore.

Marion Campbell was the daughter of Dr. Campbell and she thought herself far above most other girls. She was very proud and bold. Hattie Murray, her friend was a bold girl, too. They so disliked Nellie because everyone loved her. She was so kind to everyone, especially the poor children. Even to Marion she spoke kindly while Marion was snappy in return.

As the two girls reached the shore Marion exclaimed, "Oh, Nellie, let us go in bathing!"

"Oh, let's," said Hattie, and they hurried to the house and got into their bathing suits.

There was quicksand in one place just a little way from shore.

As the girls came back ready to go in they saw Nellie Howard and some other girls in bathing suits walking up the beach toward them. Marion and Hattie went in while the others stood watching them.

Marion was in advance, and all at once Nellie screamed, "Marion, Marion, Oh, come back, you are going straight to the quicksand!"

But Marion paying no heed to her words, went on. Then as she began to sink she realized the danger and began to scream for Hattie to help her, but Hattie, frightened, stood wringing her hands, near the shore. Nellie waited for no more but hurried out to where Marion, who was up to her chin in the water and over her knees in quicksand, was.

Though sinking herself, Nellie was very careful and told Marion to put her arms around her neck. This she did and before they reached shore Marion had fainted.

Dr. Campbell was soon notified of the accident and hurried to his daughter's side. She was taken home and the next day she was feeling well again.

There was one thing which she was always thinking about and that was, why Nellie, who should have hated her, risked her own life for Marion and why Hattie, to whom she had called, didn't come. Then all of a sudden she said to herself, "Oh, why have I been so mean to her? I see my mistake. I shall go to see Nellie this minute and ask her to forgive all my meanness to her."

When she got there she rang the door bell and Nellie came to the door. To see Marion was a great surprise to her for she had never been there before.

"Nellie, please forgive me. I have thought it all over and I now realize that you are my true friend," and she threw her arms around Nellie's neck and cried.

Nellie was so happy she kissed Marion and after that there were never any dearer friends than they.—Irene Palach, R. 1, Tyre, Mich.

THE BOYS' POTATOES

Mr. and Mrs. Thompson and their family lived in the city. They had two boys, Theodore and Ray.

Mr. Thompson was a cashier in the county bank there, and he was receiving a fairly large income.

Theodore, the oldest son, who was sixteen, was a junior in the Central high school. He was tall, but very muscular. His hair was light brown, he combed it long pompadore. His eyes were of a deep blue, which at times were very sparkling. He had high arched eyebrows; together with his smoot features gave him a very manly appearance.

His usual pastime was reading papers and magazines, especially those containing farm articles, which would always be of great interest to him, as he was very fond of farm life.

Ray was different from his brother. But he also was a good scholar. He being but fourteen, did not have much thought for himself, but more for a good time. His health was very poor, caused from living in the city, and not having the advantages of the country boys and girls.

For this reason and on account of Theodore's desire for farming Mr. Thompson decided to purchase a farm a few miles from town and take his family there. He thought, too, that he could make more for himself on a farm than in town, besides being independent of others.

It was in March when Mr. and Mrs. Thompson with the two boys moved to their new home.

The farm consisted of eighty acres, part of which had not yet been cleared. The soil was very fertile. Thru one corner of the pasture was a little stream, which contained some of the finest fish anywhere near there.

Altogether it was a perfect paradise to every one, they especially.

After the family got settled in their new home, and the winter began to make room for a cheerful spring, Mr. Thompson began to plan out his summer's work. He told the boys that he believed that in order to make a success of his farming he would have to subscribe for the M. B. F. which he was positive would be of great value to him. He told his sons that it would be up to them to help him with his summer's work and they willingly agreed.

One day, soon after Theodore asked, "Father, are you going to clear up any of the ground on the other side of the woods?"

The father replied that he was not, "But why do you ask, my son?"

"Oh, nothing much," he replied. And with that he turned and left his father in quest of Ray, whom he found busily employed in the work shop.

"Ray," he said after he had reached the side of his brother, "I have an idea. It is early yet, so what do you say about us taking the weekly vacation of two days which father has allowed us and clear up an acre of that ground on the farthest side so that no one else will know about it? You see," he continued, "we can use the horse which father gave us, to plow and fit up the ground."

"Yes," replied Ray, "I think it is a very good idea, and I will do all I can to help you. And what do you propose planting?"

"Potatoes, I believe; if they are well cared for they ought to produce from one hundred to one hundred and twenty-five bushels an acre."

It all being settled the brothers parted. A few days later the boys began clearing "their acre of the woods," as they called it.

After a great deal of labor the task was finally finished. Then came the plowing. (Continued on page 17)

\$1,000.00 REWARD!

SOLVE THIS MYSTERY

CAN YOU FIND A CLUE?



WHO ARE THEY?

- ① NO FLASK IS A GUD BAR
- ② LET MAMA DOG RAN
- ③ LAYRS REACH
- ④ CLEAN WHICIT, KEED
- ⑤ UR MAIL MAN FTWL
- ⑥ WORLD SANE CIRI
- ⑦ JAM IS WOOD KERK
- ⑧ LEN BEE IS BAD
- ⑨ PULL TIN HAVEN DOOR
- ⑩ TEACH WEB LENS

EVERYTHING TOPSY TURVY

Can You Solve This Movie Mystery?

You've heard of Murder Mysteries, Bank Mysteries, Fraud Mysteries and of many kinds of Mysteries, but have you ever heard of a Movie Mystery where \$1,000 in cash is being offered for the best solution?

The Blindfolded Face of a Man above is that of a well known Movie Star. You've seen him dozens of times, we'll wager—and you think he's a peach of an actor, too. Who is he? Do you recognize him? Why, of course! It's NO FLASK IS A GUD BAR. Yes—it is—only we've rearranged the letters in his name to make a funny sentence.

His name is Douglas Fairbanks—No. 1 of the ten Movie Stars whose names have been rearranged as part of our Big New Movie Mystery Puzzle.

To solve the mystery rearrange the letters in the funny sentences above so they will spell each Movie Star's name out correctly. For example: As we said before—No. 1 is Douglas Fairbanks. If you can make all ten names you will have solved the Movie Mystery and can win \$1,000.00.

More than likely you know the names of most of the Popular Movie Stars, but to be fair to everybody we are mentioning below the names of some of them just to refresh your memory: Dorothy Dalton, Douglas Fairbanks, Mary Pickford, Norma Talmadge, Theodore Roberts, William Farnum, Blanche Sweet, William Russell, Bebe Daniels, Rudolph Valentino, Wallace Reid, Claire Windsor, James Kirkwood, Helen Chadwick and Charles Ray.

185 "Points" Wins First Prize

For each name you arrange correctly you will receive 10 "points" toward the \$1,000 Reward, or you receive 100 "points" if you arrange all 10 names correctly. You can gain 60 more points by Qualifying your answer. That is, by proving that you have explained the "7 Peerless Points" of The Rural American to five people. The final 25 points will be awarded by Three Judges to the person making up the largest and nearest correct list of words from the letters in the name of the first Movie Actor listed on the screen above—DOUGLAS FAIRBANKS. It's easy! Can you make out 10—20—30 words like air, bank and glass, etc.? Send in your list of words right away with the names of the 10 Stars. Number and write each word in alphabetical order, and in making up your list don't use prefixes or suffixes, abbreviations, proper nouns or obsolete or archaic words if they are so listed in a New Standard Dictionary. Use each letter only as many times as it appears. For example: There are 3 "a's." Therefore "a" may be used 3 times if necessary in forming a word.

Costs Nothing to Try—You Can Win

The answer gaining 185 points (which is the maximum), will win the \$1,000.00 reward. In case of a tie, all tying contestants will receive the same prize. Send in your answer TODAY. As soon as it is received, we will send you a circular telling about the "7 Peerless Points" of The Rural American FREE to assist you in qualifying.

You will not be asked to subscribe to The Rural American nor to spend a penny in order to win. Just write your answer to the Puzzle on one side of the sheet of paper and PRINT your name and address on the upper right-hand corner. Send in your word list with your answer to the puzzle. Do your best and you can win. Contest closes Oct. 14th. Answer the Puzzle NOW.

K. M. GRANT, Dept. 53, Rural American, Minneapolis, Minnesota.

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See Michigan's Greatest Fair Grand Rapids, Mich. Sept. 18-22—Day & Night

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15-Mile Auto Race September 22. The FAIR that's Different.

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and on a plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.

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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.

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

BUSINESS FARMERS' EXCHANGE

50¢ A WORD PER ISSUE—3 insertions for 10¢ per word. Farm for sale ads. not accepted for less than 3 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

MICHIGAN FARM—FULLY EQUIPPED. Overlooking beautiful lake. Aged owner unable to operate, for quick sale includes team, 12 cattle, 3 hogs, poultry, potato planter, cream separator, cider mill, full implements, potatoes, oats, corn, hay, grain if taken now; 150 acres conveniently located, city markets; 100 acres rich dark loam tillage for bumper crop yields, 15-cow pasture, good woodlot; heavy bearing apple orchard; buildings insured \$4,500, fine 2-story, 9-room house with cool oak shade and delightful lake view; 60-foot barn, ample water, poultry house, garage, granary. For quick sale \$5,000 makes clean sweep, part cash. Details and photo page 51 illus. Catalog 1,200 Bargains FREE. STROUT FARM AGENCY, 514BE, Ford Bldg., Detroit, Mich.

40 ACRES, PRACTICALLY ALL CLEARED. Well fenced with woven wire, good orchard, fine modern eight room house, basement barn, 40x60 with addition 30x40, basement under all. Buildings raised at \$5,000, good clay loam land, part level, part rolling, 4 miles out of town, state award gravel road, short distance to school. Price \$4,500, \$1,500 down, balance payable to suit yourself. Write W. F. UMPHREY, Ewart, Mich.

FOR SALE—120 ACRE FARM, 2 1/2 miles north of Belknap, Antrim county, 1-2 mile from trunk line highway, 60 acres under cultivation, balance second growth hardwood, good pasture. Seven acres orchard. Large house and barn, both in good condition. Silo, 800 rods good fences. Price for quick sale, \$3,500 cash. D. J. BEDELL, Route No. 2, Belknap, Mich.

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 town and school. All for \$1,250. Terms. Write owner, JOHN BARBER, Lincoln, 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.

FOR SALE—100 A. FARM, 1 1/2 MILES from Onaway, Mich., on State Pike, 125 A. cultivated dark clay soil, no waste, new modern house. Large bank barn. Good dairy farm. Address owner, A. J. BRENNER, Onaway, Mich.

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.

FOR SALE—95 ACRE FARM, GOOD BUILD- ings and soil, near school, easy terms. For particulars write MRS. CARRIE GIBSON, Lapeer, Mich. R. 5.

NEAT LITTLE FARM OF 23 ACRES, ONE mile from Charlotte, Mich., on state reward road. Seven room house. Buildings all first class. H. R. MOREHOUSE.

FOR SALE, A GOOD 80-ACRE IMPROVED all under cultivation. Berries, grapes, other fruit, 3 1/2 miles to good town. Inquire H. MORGAN, R. F. D. No. 8, Bad Axe, Mich.

BUY A FARM NEAR ANN ARBOR AND educate the boys in the University. Write for our farm bargains. Jerome Probst, Ann Arbor, Mich.

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

FOR SALE—80 ACRES, FAIR BUILDINGS, with or without crops, stock, tools. R. A. McILLEN, Remus, Mich. R. 2.

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

MISCELLANEOUS

GENERAL

FARM PICNICS AND FAIRS OFFERS EX- ceptional 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.

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 fur, estimates furnished. THE CROSBY FRISLAND FUR CO., Rochester, N. Y.

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 tying attachment. Testimonials and Catalog FREE showing picture of harvester. PROCESS HARVESTER CO., Salina, Kansas.

SEE WHEAT—HYBRID NO. 2 WHEAT (white wheat) yielded this year 35 bu. per acre, 60 lb. test, vigorous plant, medium growth straw, offering at \$1.50 per bu., bags extra, F. O. B. Vassar, Mich. Sample mailed upon request. Mail orders filled promptly. GEORGE W. RIDGE-MAN, Vassar, Michigan, R. D. 1.

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

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

FOREMAN WANTED—WE HAVE AN opening for working foreman on our modern farm. Permanent position for competent man. KONAFAIR, Fred H. Knox, Portland, Mich.

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

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BUZZ SAW FRAMES, BLADES, MANDRELS, belting pulleys, wood-working machinery, etc., of every description. Low prices, prompt shipments. Catalogue free. Write GEO. M. WETTSCHUR-ACK, La Fayette, Indiana.

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

TOBACCO

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.

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NATURAL LEAF TOBACCO, CHEWING, 5 pounds, \$1.75; 10 pounds, \$3.00. Smoking, 5 pounds, \$1.25; 10 pounds, \$2.00. Send no money. Pay when received. TOBACCO GROWERS' UNION, Paducah, Ky.

KENTUCKY TOBACCO, 3-YEAR-OLD LEAF. Don't send a penny pay for tobacco and postage when received. Extra fine, chewing 10 lbs., \$3; smoking 10 lbs., \$2.50; medium smoking 10 lbs., \$1.25. FARMERS' UNION, Hawesville, Ky.

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.

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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.

Enjoyable Economical Travel—Via D. & C. steamer from Detroit to Buffalo. Leave for Buffalo 6 p. m. For Cleveland 11 p. m. (2 steamers) Daylight trips to Cleveland Tuesday, Thursday, Saturday, 8:30 a. m. Low fares. Autos carried. Leave Third St. Wharf, Eastern Time.

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Can use M. B. F.'s Breeders' Directory to good advantage. Run your ad. and watch the returns come in.

What Have You to Offer?

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

FARM MECHANICS

BUILDING YOUR FARM BARN

HAVE you ever seriously considered the probable effect of your contemplated new barn upon the future crop yields of your farm? This should be a factor in determining the size of the structure, for it should be large enough to house the greatest crop you will probably raise during the coming ten or twenty years. Convenient arrangement and modern equipment in the stable will enable you to care for more stock and will also conserve the soil enriching properties of the manure, and this improvement in the quantity and quality of manure should swell crop yields.

Farmers often write to us stating that they intend to build a barn of certain dimensions and also for a stable plan to suit. The correct method is to determine how many stalls and compartments you will probably need, consider the arrangements that suits you best, provide for the necessary alleys and passages, and then enclose the entire layout with walls of the required dimensions. You will then have a stable proportioned according to your needs.

A barn of a certain size and arrangement may fit in perfectly with the methods, and needs of the owner but the vast majority of his neighbors who copy the design in all its details find in many respects it does not quite suit them. Each barn is a separate problem. The farmer who is thinking of erecting a barn should consult an experienced barn architect, for neither he nor the average carpenter is competent to design a barn particularly adapted to his needs. The efficiency gained by consulting a barn expert will repay many times the fee charged. The barn is a farm necessity, used every day in the year, and a building affording comfort, convenience, economy and efficiency is to the owner and user "a joy forever."

Recently a farmer submitted to us a rough sketch of a barn, asking our advice. We redesigned it for him at a saving of \$500 in the cost of construction—enough to pay for steel stalls, stanchions, litter carriers, etc. Suggestions on barn building, we believe, will be more timely than the discussion of some particular barn design.

Location—If possible, build the barn on a gentle southeastern slope, with the long way of the structure extending north and south. The early morning sun streaming through the east windows will cheer the entire stable. In the late afternoon a similar effect will be secured from the west, just when light is most desired. There should also be some windows in the south end. Then all day long sunshine will be streaming into the barn from some angle. Sunlight banishes disease. It is cheaply and easily obtained. A barn placed in this way will also shelter the east yard from the west winds. A wind-proof fence across the north end of the yard will complete the protection.

Foundations—On gravel or other well drained land the foundation may safely be laid after merely removing the sod and roots. In clay and other damp soils it will be necessary to excavate to a depth below the frost line. Make the foundation trenches about 24 inches wide and fill them with field stone and concrete. A mixture of one part cement and five parts of clean sand and gravel will suffice for the concrete, providing it is thoroughly mixed and an abundance of water used. Care must be taken to tamp concrete well in between all the large stones so that no voids remain. A tile drain should be laid all around the building. Place gravel in the ditch over the tile to facilitate percolating of the surface water.

Walls—Stone walls take up too

much space, are expensive and are really conductors and retainers of moisture. Concrete is often used for stable walls without proper provision being made for insulating the inside from the outside. When hollow molds are used concrete makes a desirable wall. Such walls occupy only a reasonable amount of space, are not very expensive and are easily erected.

Hollow clay tile has come to the front very rapidly as a barn building material during the past few years. It makes a warm, tight, moistureproof and sanitary structure which promotes the health of the herd, and is a permanent addition to the worth and appearance of the farm.

If built of wood 2x4 or 2x6 studs are used which are covered with 1x6 drop siding on the outside and 1x6 D. & M. flooring on the inside.

The first cost of hollow tile, hollow concrete or concrete blocks is more than offset by the saving in repairs, depreciation and insurance.

Floor—Concrete laid to a thickness of four inches will make a good stable floor. Vitrified tile drains to carry off the liquid excrement and the water used in flushing gutters, mangers and floors, should be laid before the floor is put down. If concrete is thought too cold for the cows, the stable floors may be insulated from the ground by placing a layer of square building tile beneath the concrete, or the floor may be floored with pressed cork brick. The horse stalls should be surfaced with two inch plank.

Doors—All the main openings through the stable walls should be three and a half or four feet wide. The doors should swing outward.

Windows—At least four square feet of glass area should be provided for each animal housed in the stable.

Ventilation—For each cow there should be about 600 cubic feet of air space in the stable. A thorough system of ventilation is necessary. Allow at least nine square inches at the mouth of the intake pipes for each animal housed in the stable and fifteen square inches at the mouth of the outlet; thus an intake 6x18 inches (the area of the mouth of which should be 108 square inches) is the minimum size required to supply ventilation for 12 cows, while an outlet 10x18 inches would be necessary. It will be found advisable to have several small and well distributed intakes instead of one, and at least two outlet flues with two mouths for each flue. The outlet is in reality a flue and the ordinary precautions exercised in the construction of a chimney must be observed, except, of course, that it need not be built of brick. It must, however, be as nearly straight as possible and its walls must be air tight so that it will "draw" well.

If the flue is constructed of wood it should be made of two thickness of closely matched lumber with heavy building paper between the layers. If galvanized iron pipes are used, heavy insulation should be placed between the outer and inner walls of the pipes. The mouths of the outlets should be about one foot from the floor line so that the damp, foul air will be drawn out through the flues.

Stable Equipment—Sanitation and economy of space demand that cow stalls be built of steel tubing. Modern stable equipment repays its cost in saving time alone. In a stable properly equipped with modern appliances, including feed and litter carriers, the labor of tending a herd of forty cows will be less than that required for twenty cows under the old method of feeding and cleaning. Moreover, the feed bills will be less. Without just the proper kind of mangers the cows will throw out grain

JOHN CLAY & COMPANY

LIVE STOCK COMMISSION—AT TEN MARKETS

BUFFALO, N. Y. CHICAGO, ILL. OMAHA, NEB. KANSAS CITY, MO. SO. ST. JOSEPH, MO. DENVER, COLO. SIOUX CITY, IA. SO. ST. PAUL, MINN. EL PASO, TEXAS E. ST. LOUIS, ILL.



and roughage with their noses and much of it will be lost in cracks and under foot.

Cows provided with proper comfort will produce more; thus proper equipment induces better health, reduces work, cuts feed bills and increases returns. Suppose that under more comfortable and pleasant conditions a cow increases her milk production one pint a day, or 140 quarts in a year' milking period of 280 days. At four cents per quart that will amount to \$5.60. Such an average increase in a herd of thirty cows would swell the annual income \$168, without one cent of added expense. That amount is equivalent to the interest, at six per cent on \$2,800, almost enough to construct a new barn with every modern dairy convenience.

Now, figure the saving in feed, the health of the cows, the effect on the hogs and ask yourself if, after all, modern equipment for the stable isn't one of the very best investments you could possibly make.—By Harley M. Ward.

COST OF TILING

Can you give me some idea of the cost of tiling 160 acres of muck land. Have direct outlet into dredge ditch. The muck is not deep, eighty acres spotted with clay and sandy loam.—H. A. S., Capac, Mich.

There are a number of local factors that might influence the cost with which I may not be familiar.

Ordinarily, muck land which is underlaid with clay will require practically the same sort of drainage as clay land because after the muck has been drained it will settle and work into the clay so that there will be practically no muck left after a few years of cultivation. I would suggest that this be drained about 4 rods apart. If, however, you have 2 feet of muck it might be drained 5 rods apart. The tile should be laid at least 3 feet deep and better 3 1-2 feet if you have two feet of muck because the muck will settle at least a foot leaving your tile only 2 1-2 feet underground. I am assuming that the tile in this case will be laid in the clay subsoil. If the tile are spaced 4 rods apart it will take approximately 600 tile per acre.

If soft clay tile are used, they will probably cost delivered at your station about \$35 per thousand. Glazed tile would cost around \$45 per thousand. This would mean that it will cost for tile, \$21 to \$27 per acre. The digging should be done for around 50c a rod, which will cost \$20 per acre where the tile are spaced 4 rods apart. I am assuming in making these calculations that you wish this farm thoroughly drained so that it will be suitable for nearly all kinds of crops, especially cultivated crops. If the muck land is merely intended for hay it might be possible to get satisfactory drainage by spacing the tile drains 10 rods apart. The upland will cost practically the same as the lowland when tiled 4 rods apart. The drains on high ground, however, should not be put in more than 2 1-2 feet deep.—O. E. Robey, Extension Specialist Drainage, M. A. C.

MUST CUT NOXIOUS WEEDS

(Continued from page 11)

If any owner, possessor or occupier of land, or any person or persons, firm or corporation having charge of and lands in this state shall, knowingly, suffer Canada thistles, milkweed, wild carrots or other noxious weeds to grow thereon or shall suffer the seeds to ripen, so as to cause or endanger the spread thereof, he or she shall on conviction in any court of competent jurisdiction be liable to a fine of ten dollars, together with costs of prosecution for every such offense and he or they shall pay the costs of cutting and destroying such weeds; Provided, That nothing in this act contained shall be construed as preventing or prohibiting the cultivation or growing of milkweed for the production of fibre: Provided further, That the persons or corporations growing such milkweed shall do so in such a way as to prevent the spreading of the seed to lands of other property owners in the vicinity.

"It shall be the duty of the commissioner of highways in each road district to give general notice in the following manner to every owner, possessor or occupier of land and to every person or persons, firm or corporation having charge of any lands in this state, whereon noxious

weeds are growing, to cut and destroy such noxious weeds: Four notices, each not less than one foot square shall be printed in clear, readable type and posted one in each of four conspicuous places in the road district, and notices shall also be published in some local paper having a general circulation in the township. The notices shall set forth the fact that all noxious weeds must be cut on or before a certain date, which date shall be fixed by the commissioner. The posting and publishing of such notices shall take place at least ten days prior to the date upon which the weeds must be cut. Also, at the time of posting said notices to mail a copy of the same to every owner, possessor or occupant or occupier of land and to every person or persons, firm or corporation having charge of any lands in this state, whereon noxious weeds are growing, whose postoffice address is known.

"In case the owner, possessor or land or the person or persons, firm or corporation having charge of any land shall refuse or neglect to comply with such notice and to cut the weeds on or before the date stated in such notice or within ten days thereafter, it shall be the duty of the highway commissioner and overseer of highways, or some one whom said overseer may employ to assist in carrying on the work, to enter upon the land and to cause all such noxious weeds to be cut down with as little damage to growing crops as may be, and he shall not be liable to be sued in any action of trespass therefor.

"Highway commissioners and overseers of highways shall keep an accurate account of the expenses incurred by them in carrying out the provisions of section three of this act with respect to each parcel of land entered upon therefor, and shall make a sworn statement of such account and present same to the township board of the township in which the expense was incurred. The township board is hereby authorized and required to audit and allow such account and order the same to be paid from the fund for general township purposes of said township out of any moneys in the township treasury not otherwise appropriated.

"The supervisor of the township shall cause all such expenditures to be severally levied on the lands on which such expenditures were made, and the same shall become a lien upon said land and shall be collected in the same manner as other township taxes are collected; the same when collected shall be paid into the general township fund to reimburse the outlay therefrom aforesaid.

"It shall be the duty of the highway commissioner and overseer of highways to cut all noxious weeds on state lands, school land and so forth, and all brush and noxious weeds on highways passing by or through the same and the cost of same shall be allowed by the township board and paid by the township treasurer of the township in which such land is located."

THE BOYS' POTATOES

(Continued from page 15)

ing, disking, dragging, etc., but this, too, was soon finished.

The boys took enough money from their savings bank to buy the best early potatoes. These they planted and cared for all thru the season. So far the boys had not been discovered but still they kept at their work.

One day late in June Ray discovered the potatoes had a diameter of about three inches. He showed them to Theodore who told him to skip to the house and get a basin, and they would take them to their mother.

After the potatoes had been secured the two boys, one with his hoe, the other with the potatoes, went to the house. They called to their mother who came to meet them, exclaiming, "Oh, where did you get those lovely potatoes?"

Then the boys revealed to her their secret.

The proud parents could hardly believe their eyes when they were shown that perfectly cared for field of potatoes.

Theodore and Ray dug and marketed their potatoes soon after and found there was one hundred and fifty bushels which they sold at 7 1-2 cents per pound.

They then told their friends and neighbors that their success was due to the different articles found in the M. B. F., which together with their hard labor, had helped to make a success of their work. Edith Howard, White Cloud, Mich.

A little boy aged six was trying on a new pair of pants one day to see how they fitted. He informed his mother they were too big around the bust—meaning the waist.—B. R., Breckenridge, Mich.

WARNING!

Do Not Drive Your Automobile to the Fairs

Unless it is insured against Fire, Theft, Liability and Collision in the Citizens' Mutual Auto Insurance Company.

When full protection against the risk of what may prove a large financial loss may be had at so small cost.

Do Not Park Your Car on City Streets

Take it to a garage where you will be sure to find it on your return. Thieves watch for unsuspecting visitors and pick out their cars as easy prey. The small amount you pay for storage will be well earned.

Drive Carefully; Take No Chance

Most accidents can be avoided. Watch out for loose gravel at the new 35 mile speed limit. Stop at one side of the road when the glaring headlight fool refuses to dim his lights. Don't take a chance at the railway crossings—"Stop, Look and Listen!" will save you if you do it ALWAYS.

Before you start for the Fairs—call up the Citizens' Mutual agent in your locality—don't be satisfied with any other company—make them show their statements; your insurance is only as good as the company that writes it.

Almost any auto owner can tell you who your local Citizens' Mutual agent is—or write, phone or wire us and we will have our agent call AT ONCE, before you start for the fair.

W. E. ROBB, Secretary

Citizens' Mutual Automobile Insurance Company

HOWELL,

MICHIGAN

Gives you every comfort and convenience of much higher priced plants

You've been wanting electricity for a long time—but felt that you couldn't afford it. Here, at last, is an efficient, dependable electric light and power plant that you can afford. It is the simplest, lowest priced plant on the market and will give you every comfort and convenience of much higher priced plants.

Made in Detroit—in large quantities—its remarkably low price—and low operating cost—places it within the reach of every farm home in America. Think of it—for only \$275 you can have all the clean, safe light you want to use and an abundance of power—for both house and barn, for running household appliances, such as milking machine, cream separator, churn, washing machine, iron, sweeper, and for pumping water, turning grindstone, etc.

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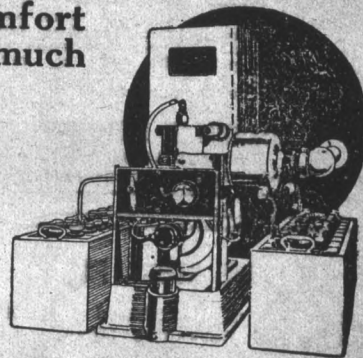
This machine is marketed direct from factory through dealers to user—no middlemen. Its low price is making it a wonderful seller. Ask for dealer proposition.

See our exhibit at Michigan State Fair, in Machinery Hall

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Two Models

16-volt, for light only.....\$225
32-volt, power and light..... 275
Let us send you descriptive booklet. Write for it today.

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"The Farm Paper of Service"

TELL YOUR FRIENDS ABOUT IT

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 15, 25 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

Sept. 1—Herefords, T. F. B. Sotham & Sons, Bad Axe, Mich.

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. R. Love, Waukesha, Wisconsin
L. W. Lovewell, So. Lyons, Mich.
J. E. Mack, Ft. Atkinson, Wisconsin
D. L. Perry, Columbus, Ohio
J. L. Post, Hillsdale, Mich.
O. A. Ramussen, Greenville, Mich.
J. E. Ruppert, Perry, Mich.
Guy C. Rutherford, Decatur, Mich.
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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.

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CATTLE

HOLSTEIN-FRIESIAN

SHOW BULL

Sired by a Pontiac Aaggie Koradyke-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.

HOLSTEIN BULL BARGAINS

Sired by Segis Koradyke 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 30 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.

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

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 FRIESIAN PURE-BRED BULL

calves; tuberculin tested herd. Prices are right.
LARRO RESEARCH FARM, Box A North End, Detroit, Michigan.

YEAR-OLD REGISTERED HOLSTEIN BULL
Sire, Sir Maplecrest Pietertje Doris; Dam, Korndyke Emporia, Netherland. Best breeding and marking. Will trade for bull of equal quality or sell reasonable.

E. B. HENNE, R. 3, Manchester, Mich.

FOR SALE—TWO BULL CALVES, A HOLSTEIN and Durham about 8 months old. Both have heavy milking dams. Not registered. \$50 each if taken at once.

CHASE STOCK FARM, Marietta, 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.

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.

FAIRACRES STOCK FARM

A small, but select herd of registered Shorthorn cattle is being built up at Fairacres Stock Farm, one mile north and one-half mile east of Capac, Michigan, where a few fine young bulls can be purchased very reasonably. Those interested are invited to come to the farm and see the cattle or to write to

CHARLES A. KOHNS, Capac, Michigan

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, Kelmascott Viscount 25th, 648,563. Prices reasonable.

LUNDY BROS., R4, 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 QUACK, Sault Ste. Marie, Mich.

RED POLLED

FOR SALE—OUR RED POLLED HERD BULL, Cossy Ella Laddie, and a few heifer calves.

PIERCE BROS., Eaton Rapids, Mich. R. 1.

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.

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

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

RUSSELL BROS., Merrill, Michigan

HEREFORDS

Money - Making HEREFORDS

At St. Clair; for sale and ready for immediate delivery.

Registered Cows and their Sucking Calves

Registered Bred Heifers—Registered Yearling Heifers—Registered Grade Cows—Unregistered and their Sucking Calves—Good Bulls, various ages.

Our Detroit Packing Co., Hereford Baby Beef Contract and the Sotham Hereford Auction System guarantees our customers profitable cash outlet for all increase and we can help finance responsible purchasers. Come, wire or write, right now.

T. F. B. SOTHAM & SONS

(Cattle Business Established 1835)
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FOR SALE. Choice Hereford Bulls, bargains prices. A. L. SMITH, Eckford, Mich. Farm eight miles south of Marshall, Mich. (F)

PLANTS THAT WILL MAKE SILAGE

OVER ninety per cent of all our silos are annually filled with corn. Indian corn is king of the silage plants; this fact, however, does not mean that corn is the only plant valuable for silage. We are discovering every year that good silage can be made from many different kinds of forages.

Sorghum ranks second to corn in popularity as a silage crop. Especially is this true in the south and west sections of the country. As sorghum can be grown with less moisture than Indian corn, it is favored in many sections where rainfall is light and hot seasons severe; and what is said of sorghum can also be said of all the plants relating to it such as milo maize, fateria, sudan grass, kaffir corn and napier grass. These sorghum-like plants all make rapid growth, and produce a large volume of excellent forage which when put into the silo will come out as good silage.

Many of the common hay crops such as alfalfa, clover, soy beans, cowpeas and vetches have been successfully siloed, tho' it should be understood that if possible to make hay of such plants it is better to do so. The lack of sugar in the leguminous plants is one of the weak points in their perfect preservation. Rainy seasons often prevent the making of good hay from the first cuttings of clover or alfalfa, in which case it can be successfully siloed and turned into a good feed. For many years beet pulp and cannery refuse has been siloed in stack, pit or building, and such silage, as a rule, is of good quality and its feeding value is well known. Beet tops have also been used as silage, and when free from dirt will, as a rule, produce excellent feed. Cane tops and sorghum baggage make good silage, and in places where this material is a by-product they certainly should be preserved.

Sunflowers have recently become very popular for silage in many sections of the north and west. There are large areas in this country where corn is not a sure crop owing to the short growing season and to frosts which come early in the fall. In such sections the Russian sunflower has proven the best silage plant. Sunflowers make a rapid growth and will stand considerable drought and hard freezing. In many latitudes they will yield twice as much feed as Indian corn, while their feeding value is nearly equal to that of corn.

I have examined in the high San Luis Valley of Colorado silos filled with Mexican peas and the silage was of excellent quality. Russian thistles and many of the weeds have also been siloed and fed out successfully. The common wild sunflower which grows so plentifully in many of the Plain states will make good silage, and large quantities of it are used annually. I have examined corn fields where over fifty per cent of the forage was made up of wild sunflower, pigeon grass, ragweed and pigweeds, and I have examined the silage made from such a crop and found it to be excellent not only in quality but also in feeding value. This, of course, does not mean that a man should let his corn field run to weeds, but simply that even if the field is extremely weedy it does not follow that his silage is destroyed or even greatly impaired. We do not yet know all the plants that can be made into silage, and we will probably find as years go by many plants for this use not yet commonly known.—A. L. Hacker.

WHICH IS MOST PROFITABLE—BUTTER OR CREAM?

Butter is 26c and cream 30. Which is the more profitable to sell and how much? Is there anything about the milk of a cow soon to be fresh which would make it unsafe for children? It seems to have a salty taste. What causes it?—Mrs. P. S. Manton, Mich.

It requires 80 pounds of butterfat to make a hundred pounds of butter. If this butterfat were sold at 30c a pound, the total receipts would be \$24. If it were made into 100 lbs. of

butter containing 80 per cent butterfat and sold at 26c per pound, the butter income would be \$26. The difference between making the butter and selling the cream is that you would get \$2.00 more for making the butter. You can figure out just exactly what you would be getting with the amount of butter that you would be making each week by using these figures given here as a basis for your computation.

There is really nothing unwholesome about the milk of a cow soon to be fresh, but as far as feeding it to young children is concerned, would say the composition of this milk differs greatly and it is very likely that this difference in composition would upset the child's digestive system. We know that the milk that the cow gives shortly after freshening, for the first few days, varies greatly in its composition as compared with normal milk and it also tastes different at that time. This is caused by the physical condition of the cow at that time and the difference in composition is brought about by the plan of nature to furnish the kind of milk the young calf needs when it is first born.—O. E. Reed, Professor of Dairy Husbandry, M. A. C.

WOULD LIKE START IN HOLSTEIN CATTLE

I am a young farmer and would like to get a start in registered Holstein Cattle. I haven't the money to buy a start. I have heard that there are breeders in the state that will let their cattle out on shares. I own a farm and can give reliable references. I also have had 16 weeks of school at M. A. C. If you could send me the names of men who would let their cattle out like this, or any other information along that line, I would be much obliged.—H. R. Tustin, Mich.

There have been in the past a number of breeders who have farmed out cattle under contract, and I believe that such a plan would be a very good one for you. A short time ago Mr. Freeman J. Fishbeck, of Howell, and Mr. E. W. McNitt, R. F. D. No. 9, Grand Rapids, were both working on this basis and had a number of cattle out in different sections of the state. Whether they are still doing this I am unable to say. Mr. Alexander W. Copland, R. F. D. No. 3, Birmingham, Mich., advised me a short time ago that he would be willing to put out a part of his herd in this way, and I would suggest that you write to each of these men.—Michigan Holstein-Friesian Ass'n, H. W. Norton, Jr., Secy.

VETERINARY DEPARTMENT

ANIMAL BARREN

I have a cow that does not come in heat. What can I do?—A. E. C., Grand Blanc, Mich.

This animal may be barren, or she may have diseased ovaries. My advice would be to fatten this cow and dispose of her.

HORSE HAS AZOTURIA

I have a four-year-old horse which has done a lot of hard work this spring. He has been in good condition all spring. After my work was done I turned him out in pasture and did not harness him for about ten days and I started for town with him and he got lame. I did not go only two miles and I unhitched him and the muscles on the front legs were swollen up and quite hard. I bathed them with hot water and salt and hot vinegar and the next day he was all right. Now what causes this and what can I do to prevent it or would it happen again?—A. J., Lincoln, Mich.

The horse no doubt had a mild attack of azoturia, a disease that occurs quite frequently in well-fed horses accustomed to regular work. The predisposing causes are heavy feed during a short two or three day rest, the horse being used to regular work. Exciting causes of azoturia are not known. In all probability it would be found to be due to the formation of certain toxins which develop either in the muscle or the digestive tract during rest. The disease sometimes reoccurs in certain individuals, the best preventive is to give the horse exercise when off duty and reduce the feed one-half or more.—John P. Hutton, Associate Professor of Veterinary Surgery and Medicine, M. A. C.

Shipping Pointers By One Who Knows

THE CITY MARKET AT YOUR DOOR

JOHN SMITH picked up his daily paper, glanced over the market quotations and grunted. "Mighty strange," he said to his wife, "the city folks are paying 35 to 40c a dozen for fresh eggs, and the best old Jones down at the Corners will offer is 20c. Wish I knew how to go about it, I'd go after that city trade." "Better not, John," cautioned the wife. "We've tried it before to our sorrow. Between the crooked commission man and the spoilage on the way, we take too big a chance." "Just the same," said John, "I don't see why it can't be done."

Who does? Is there an insurmountable obstacle between the producer of food and the consumer? Or is the trouble due to a lack of understanding or observance of simple rules of merchandizing?

There is no doubt that thousands of families in the big cities would prefer to deal direct with the farmer and pay him a premium over the market for strictly fresh goods. But how can the consumer who wants to buy straight from the farmer get in contact with the farmer who wants to sell direct to the consumer? The postoffice department tried to form such a contact by registering the names of buyers and sellers, but for some reason the scheme didn't work. There is no magic way in which this contact can be made. Farmers who are anxious to build up a city trade will simply have to go to the city they want to ship to as did John Danforth, in the following article, and work up a trade, through civic, church and social organizations. Once established and good goods and good service rendered, a farmer can maintain such a trade for years.

The lady who contributes the following article knows some of the reasons why the "direct-from-producer-to-consumer" scheme some times fails. Read her article and learn how you may profit by the mistakes of others.—Editor.

DID you ever go to your nearest railway station and have a good talk with the agent? Go and be benefited. Learn the why of shipping the products of your sweat and soil.

Michigan is well blessed with rail facilities, both steam and electric. The latter is quicker and cleaner because of rapid transit with no stop-overs.

I am agent for such a line, but I have met you before, Mr. Farmer. From the selling side of such a counter in a busy general store I learned all your faults and virtues. I know you sell your butter and eggs in town at half what you can get some where else. Why are you accepting twenty-five cents for eggs when mothers in cities are clamoring for fresh ones at twice that price. When hotels and hospitals, boarding schools and sanatoriums, clubs and colleges are willing to pay top price for fresh country produce. Why be longer blinded by the idea you can't be both producer and middleman?

The United Fuel and Supply Co. of Detroit and New York have a model farm near Oxford. Mr. John Danforth, manager of this farm is a progressive sort of fellow. I put a flea in John's ear and now John is in the mail order business. One day he took a day off and spent it in Detroit. He called on the chef of the Detroit Athletic Club. The poor fellow fell on John's neck and wept. Fresh eggs! Impossible. But John convinced the chef all eggs are fresh at first and the chef decided to have fresh eggs all the time.

Now Mr. Danforth ships a crate of ten dozen eggs every other day. Right now he is getting forty cents, and the local market reads twenty-two. Get the difference? The Club pays the freight on the eggs and pre-pays the empty crates back at the end of the week. All because they like John's fresh eggs and because John likes the forty cents.

Then again are you willing that hucksters with messy push carts should sell vegetables from house to house, handled by bargaining hands when you could ship them cool and green to their very doors, with little handling. Do not peddle. Even as a mail order house has a catalog so you can have your business card. Try it. Guarantee your produce and then live up to it.

And the railways will help you for they want the farmers' good will and business. Whether it's potatoes, apples or vegetables there is only one correct way of shipping these products. Ship selected apples in crates, others, as well as potatoes in whole burlap sacks. If folks that do ship a lot will only remember to use sacks without holes you will have the everlasting gratitude of freight handlers, agents and car crews. Nothing is worse than potatoes rolling over a freight car floor. Besides it creates a claim for short-age in weight.

Let me tell you how to ship a bar-

rel of miscellaneous vegetables or the same may apply to some fruits. A barrel is the only container fit to use.

We have an order to fill before us. In the bottom we will pack the dozens heads of new cabbage, root end down. Then such roots as carrots, radishes, onions and beets, all free from soil. Save all paper sacks coming into the house, you will need them. Wet a sack thoroughly and fill the order of string beans and peas. Lay these flat on the last layer in barrel. Now place a dampened paper over the whole. All leaf vegetables such as lettuce, asparagus and chard should be packed next. If corn and cucumbers are in season these should be placed around the sides of barrel. Cover the top with a damp paper. Do not head in the barrel. Use a double thickness of burlap and fasten down with the wooden rim. This covering allows the air to enter and eliminates sweating of the produce. The dampened paper takes care of the rest.

Tack two tags on either side of the barrel. Then also write on the side of barrel with blue pencil, "Fresh vegetables, Rush."

Be sure the bill of lading gives full name and address of consignee, telephone number also if possible. Weigh the barrel when packed as it must have exact weight before shipping bill can be made out. Otherwise the agent or freight house foreman must take time to ascertain the weight and it might mean loss of time. Many times I have had just such shipments come in and the local freight car all ready to go.

Better still, if you are shipping much, ask the agent for a block of lading bills. Make your own, be sure they are just as you want them billed.

Ask the shipping rates on commodities you wish to ship, then remember them. It is your right to know, especially if you must pay the freight out of your profits. And in carload shipments the same rules should be followed as to billing. The agent will furnish you with car sealers. If you are shipping from a crossing you will seal the car yourself. Be sure to do it well. I remember a car of apples spread from Oakwood crossing to Detroit. The shipper was to blame. The car was almost empty when it reached Detroit.

Farmers! Use the rails and save the highways.—Marie F. Haines.

CANADIAN 1921 WOOL CLIP DROPS

THE production of wool in Canada in 1921 amounted to 21,251,456 pounds, compared with the estimated clip in 1920 of 24,000,000 pounds, according to the Dominion Bureau of Statistics. At an average value for unwashed wool of 14c per pound, the total value of the wool clip for 1921 amounted to \$2,975,000 compared with \$5,280,000 in 1920 when the value per pound was estimated at 22c.



HERFORD AUCTION

AT
Bad Axe Fair Grounds
Bad Axe, Mich.

ON
Friday, Sept. 1, 1922

(Last day Bad Axe Fair—10 O'clock, A. M.)

5 Bulls 20 Females

(Many with calves by side.)

T. B. TESTED. Registration papers with each animal.

These cattle are exceedingly well bred. Being of Perfection Fairfax, Anxiety, Disturber, Perfection, Prime Star Grove and Dale breeding. Are of young age and in good thrifty condition that will do the purchaser most good. Are consigned by progressive breeders who produce Hereford Baby Beef under T. F. B. Sotham & Sons, EARLIRIPE BEEF CONTRACT, for consumers who purchase it from Detroit Packing Company.

The Sale Manager will be glad to mail you catalog and full particulars. Write now. Address,

T. F. B. SOTHAM & SONS
Saint Clair Michigan

GUERNSEYS

GUERNSEYS

OF MAY ROSE AND GLENWOOD BREEDING. No abortion, clean federal inspected. Their sire dam made 19,460.20 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.

AYRSHIRES

FOR SALE—REGISTERED AYRSHIRE bulls and bull calves, heifers and heifer calves. Also some choice cows.

FINDLAY BROS., R 5, Vassar, Mich.

JERSEYS

FIVE PINE FARM JERSEYS ARE MAJESTY bred. We offer two 6 mo. old bull calves out of high testing Red M. dams. Prices reasonable.

H. S. WELBORN, Kalamazoo, Mich., R. 1.

SWINE

POLAND CHINA

FOR SALE, LARGE TYPE

POLAND CHINA

boar pigs. Sired by F's Clansman 391211, 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.

FRANCISCO FARM POLAND CHINAS

Big stretchy spring boars as good as grow. Pairs and trios not akin. Can spare two or three of our good herd sows bred for September.

P. P. POPE

Mt. Pleasant Michigan

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

Spring pigs at above prices. Top fall gilts bred for summer farrow, priced right.

HART & OLIVE
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.

LARGE TYPE POLAND CHINA SPRING PIGS sired by C's Clansman, now ready to ship. Write for particulars.

W. CALDWELL & SON, Springport, 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.

85 FINE SPRING BOARS

all sired by Schnaros Top Col., a grandson of the famous Walk's Top Col. We want the room, send \$15.00 and get first selecting of these fine boars.

SCHAFER BROS., Oxford, Mich., R. 4.

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.

YOU WANT ONE OF THE BEST DUROC sows obtainable. We have them for sale. Tried sows and fall gilts. Sensation blood predominating. Our herd boar headed 2nd aged herd at 1921 Illinois State Fair. Swine Dept. Michigan Farm, Pavilion, Mich.

PURE BRED DUROC-JERSEY BOAR Pigs of April and May farrow, sired by Brookwater Sensation and Model of Orion Masterpiece. Place your order now, prices right. **DETROIT CREAMERY HOG FARM, Route 7, Mt. Clemens, Mich.**

BE PARTICULAR

Do and Durocs from champion blood. I have pigs sired by an outstanding son of "Great Orion Sensation" the twice world's champion, and farrowed by my mammoth son that won the Illinois State Fair last year. I register and guarantee every thing I sell. Send for photos and prices.

RAY I. THOMPSON, Charlotte, Mich.

FOR SALE OR EXCHANGE DUROC JERSEY BOAR

2 years old. 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.**

THE HOG OF THE HOUR

Spotted Poland China, Montales Marrel, Reg. 51189, at service. Orders booked for fall pigs.

E. E. MEYER, Lawrence, 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, Perrinton, Mich.**

DUROC 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 wants 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 Agate, Gilt Edge Tipston, 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.**

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. AND C. W. SOWS, BOARS, FOR 1923 litters, \$12 and \$15 each. Polled Shorthorns. Mail your wants. **FRANK BARTLETT, Dryden, Mich.**

O. I. C. TRUE TO NAME, PROLIFIC STRAIN, open gilts bred gilts, booking orders for September boar and sow pigs; we ship C. O. D. Ask for description and weight. The price will be right. **Maple Valley Stock Farm, North Adams, Mich.**

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**

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.

17 HAMPSHIRE EWES REGISTERED FOR SALE

Choice stock at bargain prices.

GRASS VALLEY FARM, Rochester, Mich.

REGISTERED SHROPSHIRE SHEEP, YEAR- ling rams, ram lambs. Breeding ewes. Ewe lambs. Breeding size, covering, also 100 high grade Shropshire ewes. Flock established 1890. **C. LEMEN, Dexter, Mich.**

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. Advertising Department, Mt. Clemens send it in. We will put it in type, send proof and quote rates by return mail. Address The Michigan Business Farmer, Write out what you have to offer and, Michigan.

BABY CHICKS

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, \$5.25 for 50; \$10 for 100; \$47.50 for 500. Pure Barron Eng. Leghorns, \$5.75 for 50; \$11 for 100; \$52.50 for 500. 100; \$52.50 for 500. Pure S. C. Anconas, \$5.75 for 50. Hatch every Tuesday in June and July. Order 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 dealings. Fine instructive catalog free.

HOLLAND HATCHERY

R. 7, Holland, Mich.

Baby Chicks

Build up your flock with pure bred chicks that lay early and often, best quality. Leghorns, Rocks, 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.

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, Gambier, O.

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. 160 each in 25 or 50 lots. 100 percent live delivery guaranteed. Order our 12 year producing chix that 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

PULLETS

We have pullets in the following breeds ready for shipment now. In most of these breeds we have 4 months pullets that we are still selling at the 3 months price.

White Leghorns; Anconas; White and Barred Rocks; White Wyandottes; White and Buff Orpingtons; Rhode Island Reds.

STATE FARMS ASSOCIATION

Kalamazoo, Mich.

CHICKS

THREE LEADING BREEDS
TOM BARRON ENGLISH WHITE LEG-
HORNS, PARK'S BARRED ROCKS, S. C.
R. I. REDS

PRICES FOR 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. Importer.

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

Cave Man Stuff

BACK near the beginning of things, our prehistoric forebears would have perished from the earth if they had not understood the science of reading advertising.

The cavemen didn't know much about underwear, hair tonic or phonographs, but they did have to eat. The one who could follow the tracks of the game he hunted, or read the meaning of a twisted leaf, or broken twig, was best off in life.

Then, as now, the most consistent reader of advertising was best dressed, best fed and most contented.

There has been something of an evolution in advertising in the last few thousands of years, but the principle is just the same.

The consistent reader of the advertisements is invariably best informed on what to eat and where to get it; what to wear and how much to pay for it; what to do and how to do it. He's up on the most important things in life. Consequently he gets most from life.

Throughout the ages, advertising has done much to make life livable and pleasant. We owe it much.

LET'S MAKE THE MOST OF IT.

PLYMOUTH ROCK

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

RHODE ISLAND REDS

RHODE ISLAND REDS, TOMPKINS STRAIN Both combs. Stock for sale after September 15th. WM. H. FROHM, New Baltimore, Mich. R. 1.

WHITTAKER'S R. I. REDS, 200 SINGLE comb red pullets at \$2.50 to \$5.00 each. Also both Rose and Single Comb cocks and cockerels. Write for catalog. 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 GRABOWSKIE Merrill, Mich., Route 4, Box 41.

HATCHING EGGS

EGGS \$1 SETTING, Parcel Post Paid. Thor-roughbreds. 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.

IF

YOU

HAVE

POULTRY

FOR

SALE

IT WILL PAY YOU TO
ADVERTISE IN THE
MICHIGAN BUSINESS
FARMER : : :



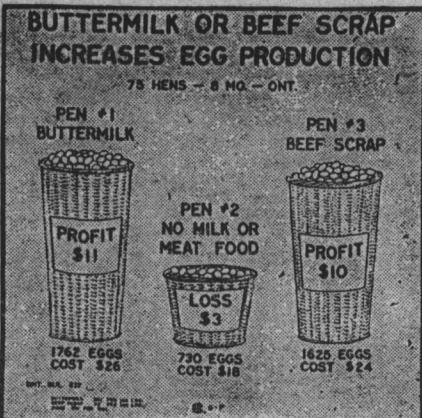
Poultry for Profit



BUTTERMILK OR BEEF SCRAP INCREASES EGG PRODUCTION

FOWLS need animal protein food. Bugs and worms furnish this in the summer; buttermilk and beef scrap make good substitutes in the winter.

The illustration below gives the results of an Ontario experiment. Twenty-five hens receiving buttermilk in their ration made \$11 profit in 8 months; a similar flock fed beef scrap made \$10 profit, while a flock receiving no meat or milk was kept at a loss of \$3.



If you feed beef scrap, get good quality, testing 60 or 65 per cent protein. Be careful not to feed too much.

A part of the protein given to the hens in the winter must be animal food. They need a substitute for the worms, bugs and insects which they relish so much when on free range in the summer.

Buttermilk or beef scrap is a good substitute. All farmers know how hens start to lay after they butcher. This is because the bones and offal are thrown to them. They get the meat food necessary for egg production.

The Ontario experiment lasted 8 months, starting the first of September and ending the first of May. Seventy-five hens were used. They were divided into three pens, 25 in each pen.

Hens in pen No. 1 were fed buttermilk; those in pen No. 3, beef scrap, while those in pen No. 2 had no milk or meat food.

Pen No. 1 produced 1,762 eggs and pen No. 3 produced 1,625 eggs. Pen No. 2, the pen having no milk or meat food, produced only 730 eggs, not quite half as many as either of the others.

The buttermilk pen made a profit of \$11, and the beef scrap pen a profit of \$10. But there was a loss of \$3 on the pen receiving no milk or beef scrap.

Of course it costs more to keep the buttermilk and beef scrap pens but it is the profit rather than the cost that counts. If by using the buttermilk or skim milk you have on the farm, or by spending a little money for commercial beef scrap you can keep your hens at a profit rather than at a loss, isn't it good business policy to furnish the buttermilk or beef scrap?

A similar experiment conducted in Indiana shows practically the same results. Skim milk was used instead of buttermilk. The skim milk pen produced 133 eggs per hen annually, and the beef scrap pen 135 eggs. The pen having no milk or meat food produced only 36 eggs per hen. The skim milk and beef scrap pens made a profit of about \$1 a hen per year, while those having no meat food were kept at loss of 4 cents per hen.

Plan to have some sort of meat food as a part of the winter ration. Give the hens the offals when you butcher. If wild game is plentiful, kill rabbits or squirrels and hang them in the poultry house just high enough so the hens will have to jump for them. Feed sour skim milk or buttermilk. If none of these is available, buy ground bone or beef scrap.

Beef scrap is a product of the packing houses. Waste pieces and offals are ground, disinfected and cooked. In this form they keep indefinitely. Get a good quality, one testing 60 or 65 per cent protein. Mix the beef scrap with the bran, shorts and corn meal. Allow 3 or 4 pounds of beef scrap to 12 or 15 pounds of the ground feed.

RHODE ISLAND REDS

Could you please tell me through your paper, which is right coloring for pure-bred Rhode Island Red chickens? I ordered some baby chicks from a Holland company. They arrived the 21st of June. Now I see they are getting black feathers in their wings and some are lighter and some darker red. Besides three of them have crippled toes. I am not satisfied with them and I think that I was cheated. I don't think they are pure bred R. I. R.—Mrs. M. Z. Interlocken, Mich.

Be advised that the Rhode Island Red chicks come in various shades of colors from almost a buff to a distinct red. Sometimes the chicks that are very light when hatched develop into deep colored specimens; however, the majority of chicks are rich and deep in color when hatched.

The first chick feathers that appear do not always indicate the finely colored pattern of the adult. Sometimes the feathers, wing feathers especially, will contain considerable black and white in addition to the red, but this disappears when the adult feathers grow in.

When the bird is matured, the plumage calls for a deep cherry red in all sections but in the wings and tail. The tail carries considerable black and the wings carry approximately half black and half red. The lower part of the primaries, and the upper part of the secondaries are black and the balance of the feathers should be red so that when the wing is folded, only the red color is exposed.

The hatchery was a little careless in their selection, otherwise the crippled toes would not be present. In a well-bred flock of Rhode Island Reds there is a uniformity of color and type and in the poorer stock a high percentage of variation occurs.—E. C. Foreman, Associate Prof. of Poultry Husbandry, M. A. C.

FAILURE WITH GOSLINGS

We have just subscribed for the Michigan Business Farmer. So I thought I would write you for some advice on how to raise goslings. I have tried it for three years and have had a failure every year. I had 19 goslings last year and only raised one. And I had 19 this spring and have lost them all but seven so far. I have turned them loose every year and thought that perhaps they were running themselves to death, so I put them in a yard this year 43 feet square and picked grass and cut it all up fine for them, and fed them dry oatmeal besides. I had a trough for them to swim in but people told me that they must not sit in the water all day, so I got a drinking fountain for them but nothing seems to help.

They seem to be nice strong goslings when they are hatched, and seem to be all right till they get to be about four or five weeks old, then they start to die off 2 and 3 at a time, they seem to get weak in the legs and can't walk, and they have a diarrhoea, they don't seem to grow as fast as they ought to either while they are growing. Will the readers please write and tell me what to do to raise them.—Mrs. R. C. B., Saginaw County, Mich.

HENS DIE

Could you tell me what to do for my hens? They are dying almost every day. Cholera and White Diarrhea is what I think is the trouble.—E. H., Adrian, Mich.

Bacillary White Diarrhea seldom affects mature hens in as far as diarrhea symptoms are concerned. There is, however, a diarrhea which accompanies cholera. I would recommend immediate segregation of all affected birds, being very careful not to feed or handle healthy fowls after being with the diseased birds. It would be best to burn or bury deep all fowls in advanced stages of the

disease. A thorough disinfection of roosting quarters would be a good practice.

By sending one of the diseased fowls to Doctor Stafseth of the Bacteriology Department, Michigan Agricultural College, a positive diagnosis could be established and proper steps outlined in arresting the disease. There is no satisfactory treatment for the fowls if they are affected with fowl cholera.—George F. Davis, Assistant in Poultry Husbandry, M. A. C.

The Collection Box

"NEVER Say Fail" is the slogan of the Collection Box Editor. But once in a while he has to admit failure. Take that case, for instance, of M. C. A., of Twinning, against the "American Literary Ass'n," of Kansas City. This association induced Mr. A. to part with \$1 "initiation" fee before they would agree to examine a short story he had written and was desirous of putting on the market. Having sent both the dollar and the manuscript he awaited results. They didn't come. He wrote the firm. His letter came back marked "no firm of this name known." He appealed to the Collection Box. But after having our letter to the firm meet the same fate as his and learning direct from the Kansas City postmaster that the firm had actually "flew the coop" leaving no tail feathers to mark the trail, we closed the files on the case, regretting, of course, that Mr. A. is to lose his dollar and his manuscript, both of which have probably caused him many hours of labor.

Beware of the glib circular letter that promises to find a market for your songs and stories. The person who thinks he or she can write as susceptible to flattery as the maiden lady of forty summers. But the market on both is limited. There are a few reliable song and story syndicates whose names and addresses can be learned by writing any literary magazine. All others shun.

THE EXPERIENCE POOL

Bring your everyday problems in and get the experience of other farmers. Questions addressed to this department are published here and answered by you, our readers, who are graduates of the School of Hard Knocks and who have their diplomas from the College of Experience. If you don't want our editor's advice or an expert's advice, but just plain, everyday business farmers' advice, send in your question here. We will publish one each week. If you can answer the other fellow's question, please do so, he may answer one of yours some day! Address Experience Pool, care The Business Farmer, Mt. Clemens, Mich.

TO SPRAY PLUM TREES

IN your issue of May 27 you tell the disease to plums but don't tell what to do—except to spray. Good—but with what? I had it in my grove and sprayed with Bordeaux. Dried up the bladders and saved the plums, and never had more of it. That is only the experience of one fellow. May be it won't work for others. If you try it, do the job yourself and do it thoroughly—4 to 5 times at least. Don't give the trees just one shot, and because it don't work for you, say it's no good. But go for 'em and go frequently—all season through. Remember the Bible says: "If you try anything—try it fully before you condemn."

Now you plum fellows—cut this out—make a copy for every plum tree and paste on every tree—so when spring and spraying time comes—you can find the prescription.—A. A. Weston, Galesburg, Col.

VINEGAR HAS BITTER TASTE

We have a half barrel of cider two years old and it has not got into vinegar, but has a bitter taste. It looks pale and it has been in the basement all this time. Can I do anything to help it or not.—G. C., Standish, Mich.

TO TREAT TURKEYS

Mrs. C. M. B. of Langsburg, Mich., asked how to treat her ailing turkeys through the M. B. F. I have found the following successful, 10 drops fluid extract of Ipecac three times a day for three days, twice a day for two days, once a day for three days. To prevent disease in flock give one teaspoonful powdered Ipecac to each twenty turkeys twice a week in moist mash.—Mrs. H. S., Holly, Mich.

FRUIT and ORCHARDS

K. D. WELLS

FRUIT DID NOT SET WELL

Why is there such a poor stand of fruit after so many blossoms? Apples and cherries blossomed heavily but set little fruit. Peaches set full, but three-fourths are dropping off. Plums are loaded the heaviest I ever saw and they are staying on. My trees are on good soil and have been sprayed and cultivated and well cared for. Was it the cold, damp weather at blossoming time that caused the failure?—A. R. H., Macomb County.

You are, we think, correct in your supposition that the weather at blossoming time should be blamed for the poor showing the trees are making. It was noticeable that the bees were not very busy much of the time. Poor pollination resulted. Plums fared best. Peaches were inadequately fertilized, so are weak and have been dropping. Apples came later still and fared worse. The importance of bees in the orchard is obvious. Keep bees. There is no prospect of any new fangled method to take the place of bees.

NOTES AND COMMENTS

TWIG-BLIGHT on apple trees has been the cause of considerable injury in recent years. Cut back six inches or a foot beyond the affected part, then sterilize the knife before using again. A weak solution of lime-sulphur or copper sulphate will do. Either of these is strong enough to kill germs when only a small quantity is used in water. The former is strong enough at 1.35, the latter at the rate of a pound to 50 gallons of water. An ounce would be enough to sterilize the knife and saws for a small army of pruners. It is also well to brush the wound on the branch with the liquid.

If an orchard is to be planted next year and the ground is in sod it should be plowed this summer or early fall. Especially is this true of an old or heavy sod. The sooner it is turned under the better. A newly plowed sod is a poor place for an orchard, yet just such ground is often used. No wonder there is such a loss of trees the first year. Then the nurseryman is blamed for sending out worthless stock. The poor fellow is guilty of enough at best, he should not be blamed for the shortcomings of others.

There is usually a demand for green apples, even though berries are plentiful nothing quite takes the place of apple pie, even though the "makings" are not half-grown. Then is the time the enterprising orchardist markets his surplus, thus getting enough to pay for the cost of thinning the fruit. When there are clusters of three, four or more apples reduce the number to a pair. The benefit does not stop with the present. Buds for next year's blossoms are formed in mid-summer. Thinning fruit aids in this. A half-grown apple removed may result in one, perhaps two, for next year.

In thinning apples there is danger of pulling off too many in trying to remove one. A pair of grape shears for clipping the stems will be found useful. A little practice will enable an operator to use the shears rapidly. Some men are good at the work, but women are better trained in the use of such instruments, girls are usually handy with them, boys mostly worth the least of all.

Many unkind things have been said about the Gideon apple, so much so that it may be considered as a rival of the Ben Davis in unpopularity. To be sure it is a poor keeper and is of not much account as a dessert fruit. But it has several points in its favor. The tree is hardy and a wonderfully vigorous grower. It bears early, often and much. By the last of July the crop may be thinned by the removal of the largest apples. Later the thinning may be repeated and so on till the fruit is all gone. As a green fruit the Gideon is hard to beat, and some markets seem never to get enough. Growers have found it profitable for this purpose. Some say the Gideon has proved the most profitable tree in the orchard. If there is a good demand for green apples near at hand the Gideon is a variety that merits serious consideration by those who are planting orchards.

A Profit-Maker with Roller Bearings and a Much Lower Price

WHEN the new-design International Manure Spreader came on the market in large numbers about two years ago, it immediately met with such an enthusiastic demand that dealers could not begin to fill orders. This machine marked a great advance in good spreader building and the farm public was quick to realize it.

Stop at the McCormick-Deering dealer's store and find out the reason for this pronounced success. Study in detail these great features:

1. Roller bearings at seven points.
2. Power delivered from both wheels.
3. Double ratchet drive with six feed speeds.
4. Short turn front axle; no pole whipping.
5. Rear wheels track with front wheels.
6. Tight bottom.
7. Two beaters and wide-spread spiral.
8. All-steel main frame.

The International Manure Spreader is a wealth producer; it will return extra bushels from the same land; it will return its price over and over and add to your bank account.

And its price has been cut down to an attractive low figure. That is another detail you will find to be true in connection with the International at the store of your McCormick-Deering dealer.

INTERNATIONAL HARVESTER COMPANY

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OF AMERICA

USA

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



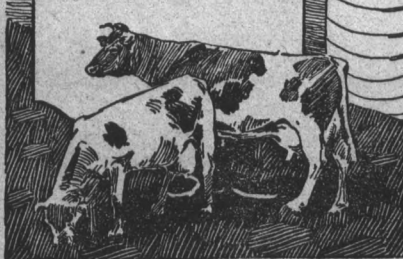
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First quality new cord tires fully backed by our ironclad guarantee for 10,000 miles.

Tires	Tubes	22x4	24x4	26x4	28x4	30x4
30x3	\$7.25	\$1.10	33x4	20.15	1.80	
30x3 1/2	8.95	1.30	34x4	20.75	1.85	
32x3 1/2	11.50	1.35	35x4	21.95	1.90	
31x4	12.75	1.40	36x4	24.20	2.00	
32x4	13.95	1.45	38x4	26.50	2.15	
33x4	14.88	1.50	35x5	27.50	2.25	
34x4	15.95	1.60	37x5	29.00	2.50	

Made in our factory of the best materials money can buy. These are rugged, sturdy Cords that run many miles over their guarantee.

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MARKET FLASHES

TRADE AND MARKET REVIEW

GENERAL business conditions which looked so promising a few weeks ago have taken a decided turn for the worse, and unless the strikes are settled shortly we may look for an extended period of unemployment and depression. The coal strike which should have been and could have been settled months ago by proper governmental action, is still paralyzing the production of coal and the entire country has at last been aroused to the dangers of a probable shortage. Industries which have been running full blast are slowing up because of lack of fuel and it is but a matter of a few weeks at the outside before all manufacturing depending upon coal for their motive power will have to shut down completely.

Fully as menacing to the nation's well-being is the rail strike which has reached such proportions that train service has been badly crippled and hundreds of trains have been taken off. We do not like to be pessimistic, but present conditions cannot continue much longer without costing everyone heavily in money and inconvenience. The administration has made a mess of the whole industrial situation, and the people are suffering the consequences.

Prices of the things the farmers buy are again tending upward while the prices on all farm commodities have a downward trend. Apparently the agricultural "deflation" has not yet run its course. Those who swore they would have wheat back to the dollar mark by the first of September appear to be making good on their threat. Wheat prices have tumbled rapidly this last two weeks and further price declines are in sight. Other grains are in sympathy, and the general tone of all farm commodities is weak and uncertain. It may yet be necessary to adopt drastic legislation to save agriculture from disaster. Certainly prices cannot go much lower without causing farmers great financial loss.

Crops in general are very good, the July estimate showing a considerable improvement over June in many states. Several bumper crops are in prospect. Under other circumstances we would welcome them, but in view of Europe's low buying power, they are likely to prove a curse instead of a blessing.

WHEAT

We are frank to confess that we don't know what is the matter with the wheat market. Mr. Foster, our weather forecaster, charges that the grain gamblers have conspired to force grain prices down and lay the cause at the door of the legislation which has been adopted and is pending to regulate and restrict the grain exchanges. Foreign demand is fair, the strike situation would naturally have a bullish effect, and everyone knows perfectly well that the rest of the world is short on wheat. But despite these bull factors the price keeps going down. It is now the lowest in several years, and \$1 wheat on the Chicago market is in sight.

The price decline has caused farmers much uneasiness and frightened many of them into selling their grain. Others have been obliged to sell to meet obligations. Few people believe, however, that wheat prices will remain long at their present level. The general belief is that artificial efforts to depress the price must soon give way to natural factors having an upward influence. We do not believe farmers should sell at the present level of prices.

Prices

Detroit—No. 2 red, \$1.06; No. 2 white and No. 2 mixed, \$1.04.
Chicago—No. 2 red, \$1.04 1-2@ 1.07 1-8.
New York—No. 2 red, \$1.18 1-2; No. 2 mixed, durum, \$1.21 1-2.
Prices one year ago—Detroit, No. 2 red, \$1.27; No. 2 white, \$1.24; No. 2 mixed, \$1.23.

MARKET SUMMARY

Wheat opens week bullish but later takes on easy tone. Corn steady. Oats unchanged. Rye lower. Beans quiet. Fair demand for butter and eggs. Potatoes in good supply and easy. Cattle steady to lower. Hogs active and higher. Sheep lower.

(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.)

CORN

Trade has been broad during the past couple of weeks while prices have been weak, the market losing 2c at Detroit. Domestic demand has been, and continues, small. Export business was fair the fore part of the last fortnight but at the close of last week was rather quiet. Receipts are light. Many sections report a more liberal country offering but the rail strike situation continues not favorable. Crop news as a whole show the growing crop in fine condition. Iowa reports the crop making good progress. In general the crop is about 10 days late in that state but, it is stated, with normal weather there should be a good crop. On the opening day of the current week the market developed some strength and prices were firm.

Prices

Detroit—No. 2 yellow, 70c; No. 3 yellow, 69c; No. 4 yellow, 68c.
Chicago—No. 2 yellow, 62 1-2@ 63c.
New York—No. 2 yellow and No. 2 white, 79 1-2c.
Prices one year ago—Detroit, No. 2 yellow, 62 1-2c; No. 3 yellow 61 1-2c; No. 4 yellow, 58 1-2c.

OATS

Present oat prices remind us of the "good old days" of calico and homespun. Highest cash prices at Chicago at the close of last week's market ranged well under 33 cents a bushel, with futures selling as low as 31 cents. Stock of oats remaining on farms is less just now than for some time—but that fact seems not to have any effect upon the market. Oats are acting in sympathy with wheat and will not likely show independent strength. We are in for a long period of low oat prices.

Prices

Detroit—No. 2 white, 35c; No. 3 white, 33c.
Chicago—No. 2 white, 31@34 1-2c; No. 3 white, 29 3-4@33c.
New York—No. 2 white, 45c.
Prices one year ago—Detroit, No. 2 white, 36c; No. 3 white, 34c; No. 4 white, 33 1-2c.

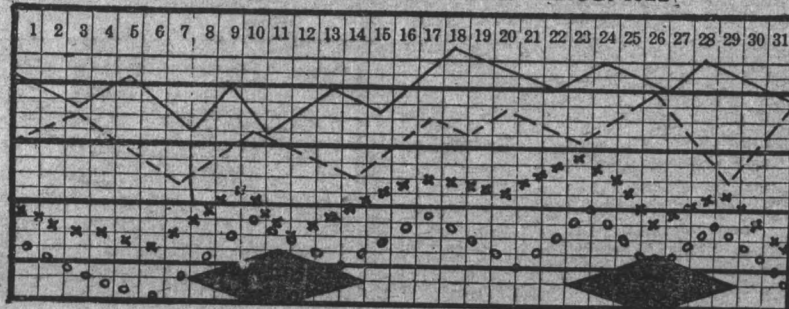
RYE

Rye follows the trend of the wheat market and the grain is easy at the present time. Prices on nearly all markets declined some during the last two weeks. The Detroit market

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, Aug. 18, 1922—North part of South America will continue dry and south part, including Argentina, wet. The drought in Europe, within 500 miles of the Mediterranean Sea, will continue and other parts of Europe about as for past three months. Shortage of rain—not a drought—in Australia and New Zealand will continue. In Eastern Asia and Japan poor crop weather; a little better, but shortage of rain will continue. North America is assured of good, average crops, but the dry spots will continue except a little increase in moisture on Pacific Slope. Cropweather in Mexico will continue as for past three months except a little increase of rain west of Rockies crest. I have completed the forecasts for 1924.

Severe storms are necessary to good cropweather. Without them we would not get rain, only a mist and more perpetually cloudy, damp weather as mentioned in Genesis of the Bible. That weather condition probably prevailed before the moon came to the earth. I have not before mentioned that the severe storm periods take effect on all parts of the earth near the same time, but in vastly different features. Whatever the prevailing feature is, increases in intensity. If wet weather more wet, if drought more severe. The storms, heat, cold, will be more radical. Recently severe storms were approaching China and my severe storm period for last days of July turned these slow moving storms into a terrific destroyer and 5,000 Chinese were killed by it. The severe storm period centering on August 26 will be of importance to all parts of the world.

Local Forecasts—Northeast, north of 36 and east of 90: Highest temperatures near August 23 and 28; west, 26 and 31; average near normal; most severe storms and most rain during week centering 26; distributed about as for past two months; more than usual rain. Cropweather of this section above normal.

Reports that I have predicted a drought for 1923 for all of North America are not correct. I predicted that serious drought, in a large section of North America, will begin within two years from October 31, 1922.

I lived nearly all my life in agricultural sections, was a farmer, school teacher, lawyer, publisher of newspapers, editor, merchant, lecturer, politician. I believe that people of those occupations, also bankers, millers, local grain dealers and other business people who live in agricultural districts, really and honestly want the farmers to succeed; are not opposed to wealth, but in favor of it; all want it. But all of them are opposed to capitalism which now means unfair dealing to gain wealth. Most of capitalism hovers around Chicago and New York. Some of their schemes were to destroy manufactures in the agricultural districts so as to give freight two ways to railroads; build big cities so that grain and provisions would have to be shipped from agricultural districts to feed the city people. Another scheme is the hedge on grain, a good thing for millers, local dealers, commission grain merchants, etc., but is turned into a robber machine by capitalism.

declined 4c during the week closing August 12.

Prices

Detroit—Cash, No. 2, 75c.
Chicago—No. 2, 71 1-2@71 3-4c.
Prices one year ago—Detroit, \$1.09.

BARLEY

Barley rules quiet with the price at Chicago, 53@58c per bushel.

BEANS

Bean prices have stiffened since our last issue, but in the absence of scarcely any supplies there is little trading. A well-known operator in beans told us a short time ago that he had been scouring the country for beans but was unable to find enough to fill his orders. Speculation is still keen on what the opening price on the new crop is likely to be. It is reported that one Michigan jobber is offering beans for October delivery at \$6 per cwt. The gentleman is likely to get his fingers burned. Certain it is that he and others who are accepting contracts for future delivery at prices far below those now prevailing will do everything in their power to depress the price to the level of their figures. The Michigan bean jobbers are in a position this year to dictate within a certain wide range what the price of beans shall be. Let us hope that they will not forget the interests of the growers, but will so far as possible, keep the price somewhere near the level necessary to yield the growers a fair profit. If they do not do so, the bean growers may have to act upon the suggestion of A. B. Cook, master of Michigan State Grange, and organize to keep the price above the cost of production.

Prices

Detroit—C. H. P., \$8.75 per cwt.
Chicago—C. H. P., \$9@9.25; red kidney, \$8.75@9 per cwt.
New York—C. H. P., \$9.75 per cwt.
Price one year ago—Detroit, C. H. P., \$4.65 per cwt.

POTATOES

There is nothing new to say about this market. All the dire predictions that have been made as to the trend of the market are gradually being fulfilled. The trend is downward. Prices on early stock are the lowest for some years and unless a general holding movement is inaugurated all over the country there is bound to be a rush of spuds to the market in early October which will all but destroy it. It seems as if there should be far-visioned men in the potato organizations who can bring forward a plan to prevent or at least defer the calamity of low prices which, barring the unforeseen, is sure to overtake the potato farmer.

Prices

Detroit—\$1.65 per cwt.
Chicago—\$1.35 per cwt.
New York—\$1.10 per cwt.
Pittsburg—\$1.22 per cwt.
Price one year ago—Detroit, \$4 per cwt.

HAY

Receipts of hay last week were much lighter at most terminal points, but the demand was not heavy. As there is a large quantity of unmerchantable hay in the offerings, there are accumulations of this sort reported, which are hard to move at any price. Old hay is in very small receipt and will bring a premium of from \$2 to \$3 over top quotations of new hay in some markets. However, there is little of the better grades offered and indications are that the best old hay is getting closely cleaned up.

Prices

Detroit—Standard timothy, \$20@21; No. 2 timothy, \$19@20; light mixed, \$20@21; No. 1 clover, \$14@15.
Chicago—No. 2 timothy, \$17@20; No. 1 clover mixed, \$15@18; No. 1 clover, \$14@16.
New York—No. 2 timothy, \$20@28; No. 1 clover mixed, \$23@26.

Prices one year ago—Detroit, standard timothy, \$20@21; No. 2 timothy, \$18@20.50; No. 1 light mixed, \$20@21; No. 1 clover, \$14@15.

EAST BUFFALO LIVE STOCK MARKET

The receipts of cattle Monday of the current week were 115 cars, including 12 cars left from last week's trade.

The market opened 25c higher on choice medium weight and weighty steers, which were in very light supply; butcher steers and handy weight steers were in light supply, sold 15 to 25c higher; heifers were in very light supply, sold strong; bulls were in heavy supply, sold 15 to 25c lower; all grades of cows were in heavy supply, sold 25 to 50c lower; stockers and feeders were in light supply, sold steady; yearlings were in very light supply, sold 15 to 25c higher.

There were no good heavy cattle on the market.

Top was \$10.50 for one load of choice long yearlings, averaging 1043 pounds.

The receipts of hogs Monday, Aug. 14, totaled 10,400 head. The market opened steady to 15c higher on the

heavy hogs and steady on all other grades, with the heavy hogs selling at \$9.00@9.25; mediums, \$9.50@10; mixed hogs, \$10.25@10.50; yorkers and pigs which were more plentiful than they have been for some time sold generally at \$10.75; roughs, \$7.50; stags, \$3.50@5.

The receipts of sheep and lambs on the opening day of this week were 22 cars or 4,400 head. Choice lambs sold 25c over last week's close, tops selling from \$12.75@13; culls, \$9.50@10; yearlings, \$9.50@10; wethers are quoted from \$8@8.25; handy weight ewes, \$6@6.50; heavy ewes, \$4.50@5.50.

The receipts of calves were 1,500 head. Choice calves sold 50c higher than last week, best selling from \$12.50@13; throwouts, 120 to 140 lbs., \$10@11; heavy throwouts, 160 to 190 lbs., \$7.50@9; heavy fat veal calves, \$8.50@10, as to weight and quality.

MISCELLANEOUS MARKET QUOTATIONS

Detroit, Tuesday, Aug. 15th.
BUTTER—Best creamery, in tubs, 31 1-2@22c per lb.
EGGS—Fresh, current receipts, 20 1-2@21 1-2c; fresh candled and graded, 22@23 1-2c per doz.
PLUMS—\$1.25@1.75 per bu.
BLACKBERRIES—\$7.50@8 per bu.
PEARS—Sugar, \$1.50@1.75 per bu.; Clapp's Favorite, \$1.75 per bu.
HUCKLEBERRIES—\$7@8 per bu.
PEACHES—Elbertas, \$2.50@3 per bu.
APPLES—New, \$1@1.50 per bu.
ONIONS—\$2.50@2.75 per sack of 100 lbs. and \$1.50@1.75 per hamper.
GREEN CORN—15@20c per doz.
CABBAGE—Home grown, 40@50c per bu.
HONEY—Comb, 18@20c per lb.
POPCORN—1 1-2@25c; Little Buster, 7 1-2@8c per lb.
DRESSED CALVES—Choice, 15@16c; medium, 12@13c; large coarse, 10@11c per lb.
LIVE POULTRY—Best springs, 30c; medium springs, 28c; leghorns, 23@24c; large fat hens, 22@23c; medium hens, 22@23c; small hens, 18@19c; old roosters, 15c; geese, 13c; ducks, 13@20c; turkeys, 25c per lb.
CELERY—Michigan, 15@20c per doz.

CONDITION OF VARIOUS TRUCK CROPS ON AUGUST 1

The commercial cabbage crop had a condition of 90 per cent of a normal condition on August 1, according to reports received by the United States Department of Agriculture. This is much above the 7-year average condition of 82 per cent of normal.

A condition of 80 per cent of normal was reported for commercial onions on August 1, compared with the 7-year average condition for this date of 73 per cent of normal. For commercial tomatoes a condition of 83 per cent of normal was reported, compared with the 7-year average condition of 81 per cent.

WOOL MARKETS

The wool market seems now to be in a very strong position. Stocks, at least in the middle west, are not reported large, and holders are not inclined to sell, so that very little is moving. For the present, what little is being sold is changing hands at about the quoted levels, but most western dealers are looking for better prices when buying in volume is resumed, probably in September, and consequently there is no anxiety to sell. The trade views the situation as bullish, as the estimated supply and demand figures indicate that this country is going to need more than is available at present price levels.

NEW LAMP BURNS 94% AIR

Beats Electric or Gas

A new oil lamp that gives an amazingly brilliant, soft, white light, even better than gas or electricity, has been tested by the U. S. Government and 35 leading universities and found to be superior to 10 ordinary oil lamps. It burns without odor, smoke or noise—no pumping up. Is simple, clean, safe. Burns 94 per cent air and 6 per cent common kerosene (coal-oil).

The inventor, A. R. Johnson, 609 W. Lake St., Chicago, is offering to send a lamp on 10 days' FREE trial, or even to give one FREE to the first user in each locality who will help him introduce it. Write him today for full particulars. Also ask him to explain how you can get the agency, and without experience or money make \$250 to \$500 per month.



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Progressive-Republican
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United States Senate

A man of the people, who knows the people's problems. Fearless, Independent, Big-Hearted, Able. Progressive, but not Radical. A Self-Educated, Self-Made Man.

BAKER'S RECORD

Born on a farm in Lenawee county; assumed charge of farm when only 15 years old. Worked his way through school. Settled in Cheboygan county in 1889, taught school, worked in woods, bought wild land and hewed a farm out of the wilderness. Now owns and personally operates one of the finest farms in Cheboygan county.

Member of Michigan House of Representatives for six years. Speaker in 1911. Member Michigan Senate for four years. Attained state-wide and even national prominence as debater and legislator. ALWAYS on the side of the people. NEVER with the friends of special privilege.

Mr. Baker was either author or militant leader in following legislation: Law establishing binder twine plant in Jackson prison; law for ad valorem taxation of telephone, telegraph and express companies; election reform laws; all prohibition enforcement acts; good roads legislation; credited with adoption of initiative, referendum and recall laws; ardent supporter of equal suffrage amendment; passed through house after memorable fight his bill providing for interchange of service by telephone companies; opposed all bills to provide for useless offices and fancy salaries; consistent fighter for economy in all public business.

BAKER'S PLATFORM

Demands repeal of Esch-Cummings law which is virtually a subsidy to the railroads and allows them to collect toll on seven billions of water stock.

Favors adoption of Woodruff resolution to uncover the war profiteers and make them return to the government the millions they have mulcted on war contracts.

Favors restoration of excess profits tax and a rapidly progressive tax on inheritances to pay the soldiers' adjusted compensation.

Opposes ship subsidy bill now before Congress.

Compels to sell government ships at about one-tenth their cost and to pay the purchaser a bonus of several hundred million dollars a year for ten years to operate them.

Favors a reduction in the standing army and navy.

Favors strict enforcement of the 18th amendment.

Opposes move of financial interests to force a sales tax through Congress, and other measures to shift burden of war debts to the back of the people.

If you approve of this progressive record and platform help to elect Baker.

(This advertisement ordered and paid for by the Baker-for-Senator Committee.)

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. Address office nearest you.

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Increase your income per acre.
Feed Saginaw Silage—aged next to the wood in Saginaw Silos.

A complete line of Saginaw Silos gives you various sizes and styles to choose from. They are the result of 20 years experience in silo building. They are priced to suit you, will pay for themselves in feeding savings, and bring you a substantial profit.

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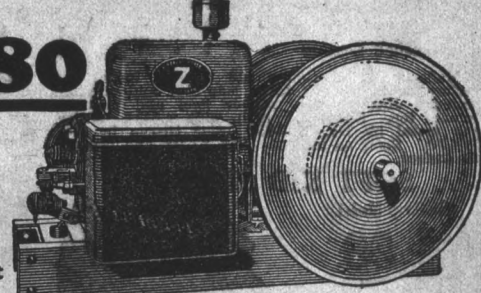


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\$44.80

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1½ 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 350,000 "Z" Engines in use. See your dealer or write us.

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New low prices on other "Z" Engines
With high-tension magneto and throttling governor
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All f.o.b. factory—add freight to your town. (58)



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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.

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Dept. 144 Kalamazoo, Mich.

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Effective September 1st, we are pleased to announce a reduction in our commission charge. Write us for particulars.

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**Lowest
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Arrival**

We mean every word of this. When you buy from Sharood, every penny you spend goes further than it would anywhere else in America. Don't send one cent now. Just letter or postcard brings any of these sensational bargains.

Merely give us number and size of each article you want. Pay nothing till goods arrive. Then only smashed bargain price and postage. If not satisfied, we instantly and cheerfully refund your money.

Very Richly Embroidered Gabardine DRESS

\$2.98

Sharood especially recommends this pretty model. A becoming style that is going to be very popular this Fall. Has wide flowing sleeves, two new fashion panels. Embroidered at top of waist. Women's and misses; sizes 16 to 44.

Order Brown by No. 97E5520, order navy by No. 97E5521. Send no money. Pay \$2.98 and postage. Money back if you're not satisfied. State size wanted.

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Strap Pumps

Brown or Patent Leather

\$1.98

This smart pump in sizes 2 1/2 to 8. In black patent leather. Brown calf finish—a stunning one-strap model with imitation shield tip and medallion, effectively perforated. Has medium rubber heel. Order patent leather by No. 97A72. Order Brown calf by No. 97A73. Send no money. Pay \$1.98 and postage on arrival.

This Beautiful Cleo Sandal

\$1.98

GIVE SIZE

Patent leather or Brown calf-finished leather. An unusually good-looking sandal with one front strap, fancy nicken button and tassel. Imitation shield tip and medallion. Sizes 2 1/2 to 8. Order patent by No. 97A296, order Brown by No. 97A295. Send no money. Pay \$1.98 and postage.

Popular Stitchdown Dark Brown Oxfords

\$1.98

Classy stitchdown, Oxford for women. Wonderfully comfortable and stylish. Uppers of dark mahogany leather. Smooth leather insole. Flexible stitch-down oak outsoles. Low rubber heels. Sizes 2 1/2 to 8. Wide widths. Order by No. 97A268. Send no money. Pay only \$1.98 and postage on arrival.

Black or Brown Kid Hi-Cut

Send for this handsome rich kidskin shoe in black or brown. Note the medium toes with pretty imitation perforated tips, the perforation around vamp and on lace stays. Very popular model and really a sensational bargain now. Durable flexible soles. Sizes 2 1/2 to 8 Wide Widths.

\$1.98

GIVE SIZE

Order black by No. 97A122. Pay \$1.98 and postage on arrival. Order brown by No. 97A103. Pay \$1.98 and postage on arrival.

Rich Black Sateen Apron

\$1.79

Amazingly low price for such truly splendid quality. Sharood is proud to recommend such a bargain to any woman who appreciates value. And this apron represents not only a neat saving but a charming style for housewear. Send for your size today—quick.

The material is an excellent soft, lustrous black sateen with collar, cuffs and pockets of good grade fancy cretonne. Pockets are a novelty basket design with applique flower trimming. The same effect is carried out on one side of waist. A full cut, comfortable garment which is just the thing for morning wear at home. Designed with wide self material mesh belt all around. Big value. Order by No. 97E5098. Send no money. Pay \$1.79 and postage on arrival. Money back if not satisfied.

Men's Dress Shoes

\$2.98

GIVE SIZE.

Men's French toe dress shoe or oxfords in Brown calf-finish leather. Have medium toes perforated oak soles and rubber heels. Perforated on vamp and eyelet stay. Sensational values. Sizes 6 to 11, wide widths. Order Oxford by No. 97A658. Order Shoe by No. 97A660. Send no money. Pay \$2.98 and postage on arrival for either style. State size.

Durable Outing Bal

\$1.99

Men's scout shoe of soft, pliable brown leather. Absolutely guaranteed barnyard proof, reliable sturdy soles; low broad leather heels; leather insoles; reinforced leather back stay. Guaranteed to stand hardest wear. Wide widths. Sizes 6 to 12.

\$1.99

GIVE SIZE.

Order by No. 97A733. Send no money. Pay \$1.99 and postage on arrival. Order little boys' sizes 9 to 12 by No. 97A565. Price \$1.79. Order big boys' sizes 1 to 6 by No. 97A564. Price \$1.89. Pay bargain price and postage on arrival. State size.

Amoskeag Gingham (32 inch)

99c

An almost unheard-of price for this famous gingham. Latest plaid, check and striped patterns in all desired colors, all fast and yarn-dyed. Order by No. 97F3414. Send no money. Pay 99c and postage on arrival.

10 Yards Fancy Outing Flannel

\$1.25

Ideal weight for undergarment. In all light and dark color, 26 in. State pattern and color. Order by No. 97F3426. Send no money. Pay \$1.25 and postage.

10 Yards 36-inch Pereale only

\$1.49

Very choice patterns in fast colors. In white, grey, Calcutta and indigo blue with neat stripes figures or dots. State color and pattern. Order by 97F3406. Send no money. Pay \$1.49 and postage on arrival.

Brown Leather Work Shoe for Men

1.99

State Size

Splendid brown ooze leather work shoes. Heavy durable uppers; extra strong solid oak leather soles; leather insoles; low broad leather heel; leather loop pull-strap and reinforced leather back stay. Roomy last. Sizes 6 to 12. Order by No. 97A758. Send No Money. Pay \$1.99 and postage on arrival. Order boys' sizes 1 to 5 1/2 by No. 97A554. Price \$1.89. Order little boys' sizes 9 to 13 1/2 by No. 97A555. Price \$1.79 and postage on arrival. Mention size.

Brand New Standard Tires

Guaranteed 6,000 Miles

\$5.98

30x3 size Now only

Fresh stock of heavy non-skid tires of live rubber. Generously over-size. 6,000 guaranteed, but often give 8,000 to 10,000 miles. Choice of non-skid or rib-tread in 30x3 size. Others are non-skid. Pay only bargain list price below and postage on arrival.

BARGAIN PRICE LIST

No. 97D40—30x3	\$ 5.98
No. 97D41—30x3 1/2	7.48
No. 97D42—32x3 1/2	9.98

GUARANTEED INNER TUBES

Now is your chance to buy extra thick, live rubber inner tubes at a big saving. Don't wait for tube prices to go up. How many shall we send? Give size wanted. No money now. Pay only bargain price and postage on arrival.

BARGAIN PRICE LIST

No. 97D20—30x3	\$1.09
No. 97D21—30x3 1/2	1.39
No. 97D22—32x3 1/2	1.49

New Oxfords

\$1.98

Women's Oxfords, Gun Metal or Calf-finished Leather

Made with imitation shield tip and medallion-perforated vamp, perforated lace stay and circular foxing. Has medium rubber heel and medium pointed toe. Sizes, 2 1/2 to 8, wide widths. Order gun metal by No. 97A689, order Brown by No. 97A70. Send no money. Pay \$1.98 and postage on arrival.

SOFT KID SLIPPER

One Strap Model

\$1.59

Mention Size.

Beautiful soft kid leather slipper. Stylish strap model with two buttons. Medium round toe. Cushion soles. Black only. Sizes 2 1/2 to 8. Wide widths. Order Black No. 97A228. Order gun metal by No. 97A229. Send no money. Pay \$1.59 and postage on arrival. State size.

Men's Hip Boots

\$2.79

GIVE SIZE

Don't fail to make this big saving on Men's pure gum hip boots; friction lined heavy corrugated sole and heel, guaranteed first quality. Made of the very best rubber. Usually retailed at \$5. Be sure to order your pair while this great saving offer lasts. Sizes 7 to 12. Wide widths. No half sizes.

Order by No. 97A949. Send no money. Pay \$2.79 and postage on arrival. State size wanted.

Be Sure to Mention Sizes, Colors, etc., and Send all Orders from this Page Direct to

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