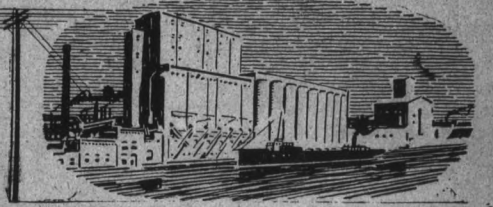


The Michigan **BUSINESS FARMER.**



An Independent
Farmer's Weekly Owned and
Edited in Michigan



VOL. IX, NO. 41

MT. CLEMENS, SATURDAY, AUGUST 5, 1922

\$1 PER YEAR



"Never saw corn look better, did you?"

Cast Your Vote in Business Farmer's Straw Ballot on Men and Issues—See Page Four

Current Agricultural News

BAKER ENTERS SENATE RACE

H. F. BAKER, dirt farmer, state senator from the 29th senatorial district, and well-known champion of agricultural and labor legislation, has announced his candidacy for the United States Senate on the Republican ticket.

Baker was born on a farm in Lenawee county and farming has always been his chief occupation. At present he owns and personally operates a 160-acre farm in Cheboygan county.

Mr. Baker has served three terms in the Michigan House of Representatives, and is completing his second term in the Senate. In 1911 he was speaker of the House.

Early in his legislative career he attracted considerable attention by his devotion to the agricultural interests of the state and has been instrumental in shaping considerable legislation of benefit to agriculture and the state in general. He has been particularly active in promoting legislation to purify the election laws and was author of a bill to prevent the use of excessive sums of money in campaigns.

In announcing his platform for the United States Senate, Mr. Baker

takes a strong position on all national issues, as follows:

1. Demands repeal of Esch-Cummins law.
2. Favors restoration of excess profits tax.
3. Favors enactment of a rapidly progressive tax on inheritances to pay the soldiers a bonus.
4. Opposes pending ship subsidy bill, to sell the government ships to private owners at one-tenth the original cost, and pay them a bonus for ten years to operate them.
5. Favors reduction in standing army and navy.
6. Favors strict enforcement of the 18th amendment.
7. Opposes sales tax.

SUGAR BEET PRODUCTION DROPS

THE forecast of production of sugar beets this year, on the basis of the July 1 condition, is 5,132,000 tons, compared with 7,782,000 tons in 1921 and the average production of 6,623,000 tons for the 5 years, 1916-1920.

On the basis of a 10-year average extraction, the production of sugar from this year's sugar beet crop will be approximately 1,318,800,000 lbs.,

or 656,900 short tons, compared with 1,020,000 short tons produced in 1921, a decline of 36 per cent.

MICHIGAN JERSEY MAKES FINE SHOWING

PRINCE'S CREAMPOT 307203 has just completed a very creditable Register of Merit test. She produced 12462 pounds of milk, 705.81 pounds of butterfat; starting test at 8 years 10 months of age.

Creampot appeared for 11 consecutive months in the 50 pound list and during the month of March produced as high as 1449 pounds of milk and 77.52 pounds of butterfat. She averaged 5.66 per cent throughout the test.

Bert Stuart, Ypsilanti, Michigan, is the owner of this Jersey.

WISCONSIN PROHIBITS FILLED MILK

DAIRY forces of the nation are jubilant over the victory against filled milk just won in Wisconsin. The Supreme Court of that state on July 20 handed down a decision which upheld the constitutionality of the law passed by the state legislature in 1921. This law prohibited the manufacture and sale of compounds of skim milk and vegetable oils.

"We are confident that the Wisconsin decision means a great step

toward a complete victory in the passing of a federal act to debar these filled milks from interstate and foreign commerce," said Charles W. Holman, executive secretary of the National Milk Producers' Federation.

Nearly 600 influential national, state and local organizations representing nearly all phases of the community life have joined in asking the Congress to pass the Voigt bill. That bill prohibits the movements of such compounds in interstate and foreign commerce. It has passed the House by a vote of 250 to 40 and is now in the hands of a subcommittee of the Senate committee on agriculture. Final hearings will be resumed August 1.

"The Wisconsin decision also has an important bearing on the acts passed this year by the state legislatures of New Jersey and New York. In both of these states laws prohibit the manufacture and sale of filled milk."

A suit to test the constitutionality of the Wisconsin act was instituted by the Carnation Milk Products Company and the Hebe Company. They asked that the law be set aside as unconstitutional and that the state dairy commissioner, J. Q. Emery, be enjoined from enforcing the statute. Unless the plaintiffs appeal to the U. S. Supreme Court, the filled milk traffic in Wisconsin is at an end.

MEAT FOR THE GERMANS

DUE to war losses and the compulsory deliveries of live stock to the Allies, Germany's meat larder is today so low that great quantities of frozen meats must be imported if the lowered standard of living is not to decline still further. Vice Consul R. E. Schoenfeld has just informed the Foodstuffs Division of the Department of Commerce. Depreciated German currency makes it impossible for a large majority of the German inhabitants to pay the prices of imported meats, and now a well-known Germany company has just completed a contract with the Argentine government which provides for the delivery of 50,000 tons of mutton and 60,000 tons of beef, annually, which shall be paid for in German goods. The agreement is to run for a period of two years.

OLEOMARGARINE PROHIBITED IN CANADA

OLEOMARGARINE may be manufactured and imported in Canada until August 31, 1923, and may be sold until March 1, 1924, under a bill just introduced in the House of Parliament. This is an extension of one year to the prohibition recently enacted by the Canadian government.

GERMANY'S SUGAR BEET CROP

GERMANY'S sugar beet yield this year will be 200,000 tons greater than last year and may suffice for the absolute domestic requirements of the country. Special Representative Dennis of the United States Department of Commerce has just cabled from Berlin. According to reliable information from trade sources the yield is estimated at 1,500,000 tons. Lack of butter and other fats is held responsible for the increased family consumption of sugar noticed during the last year or so. There is a marked increase in the sugar consumption by industries devoted to chocolate and artificial honey.

BUYING POWER OF FARM PRODUCTS SHOWS DECREASE

THE index number of the purchasing power of farm products for June, expressed in terms of commodities farmers buy, stood at 72 per cent of the 1913 base of 100 per cent. This represents a decrease of 4 points in the index number since March when the number expressing the buying power of farm products in terms of other products was 76 per cent of the 1913 base.

The current year began with an increased purchasing power of farm products compared with the low-water mark reached in November and December, 1921, the index number expressing the buying power of farm products standing at 65 per cent for January compared with 62

(Continued on page 17)



For Your Family's Sake

You owe it to them to provide for their future in so far as possible. This means the putting aside all you can for them; but if you do your full duty, it means investing it profitably and safely in securities that will give them full earnings regularly and certainly.

Standard Mortgage & Investment Company Certificates fill the requirements fully. They pay 7½%; you receive the full return on your savings; and your family, in case of your death, are free from anxiety and worry.

Send the Coupon today. It will bring you all the facts on the Security, Profit, and Certainty of this better investment.

The Standard Mortgage & Investment Company

Penobscot
Building
Detroit



**The STANDARD
MORTGAGE & INVESTMENT
COMPANY**
Pemberton Building Detroit, Michigan

Send the
Coupon
Below

Standard Mortgage & Investment Company
Without obligating me to anything, I'd like to know
Name _____ Address _____

Potato Growers to Hold Fourth Annual Meeting

Successful Co-operative Marketing Organization to Have Big Banquet and Conduct Tour Through Potato Region

THE Fourth Annual Meeting of the Michigan Potato Growers' Exchange will be held at Cadillac Aug. 16th and 17th. The meeting will follow closely the program of last year. The first session will be called to order Wednesday afternoon, August 16th at one o'clock. This session will be devoted to a discussion of the farmers' problems. The speakers will be David Friday, President of the Michigan Agricultural College, A. M. Dunton, manager of the Minnesota Potato Exchange, Clark L. Brody, general manager of the Michigan State Farm Bureau, and John A. Doelle, Commissioner of Agriculture for Michigan.

Wednesday evening the Michigan Potato Growers' Exchange will entertain the Board of Delegates, visiting members of the local associations and guests at a big banquet. This banquet is an annual affair. Last year over three hundred farmers attended. The speakers at this year's banquet will be members of some of the most successful local associations in the Exchange.

The Thursday morning session will be the regular business meeting of the Exchange. Reports will be given on the year's business and plans made for the coming season. Two directors will be elected.

The first Michigan Potato Inspection Tour will start from Cadillac on Thursday afternoon immediately following the business meeting and will visit potato fields in nine counties of the Northern Michigan potato belts. The growers will first go to Lake City, visiting fields in Missaukee county enroute and stopping for supper at Missaukee Park. They will return on the 18th to Wexford county and cover a route now being mapped out by County Farm Agent William F. Johnson of Cadillac. In Roscommon county, and under the leadership of County Farm Agent L. L. Drake will visit fields in Roscommon and Antrim counties until Saturday afternoon. Alba, Mancelona, and Bellaire will be visited and Traver-

HAVE YOU THOUGHT ABOUT THIS, MR. MILK PRODUCER?

FOR several years the July price of milk in the Detroit area has been considerably higher than the June price, owing to the greater scarcity of milk. The June, 1921, price was \$2.28, and the July, 1921, price, \$2.77, an increase of 21.49 per cent. The June, 1922 price was \$2.13 and the July, 1922 price, \$2.25, an increase of only 5.6 per cent. What's the matter? Have the people of Detroit quit using milk, or have the bounteous rains of the past few weeks increased the milk flow, or is it just a case of "take it or leave it?" Last year at this time thousands of men were out of work in Detroit and the Detroit distributors used that argument in forcing down the price of milk. Most of these men are now employed. If the condition of employment worked last year to bring about a reduction in milk prices, ought it not to work equally as well to bring about an increase this year? Milk producers who are conducting their business at a loss just now should watch these price fluctuations and not let their losses increase the already large profits of the Detroit distributors. In this case as in all others, "eternal vigilance is the price of liberty."

erse City will be reached late Saturday afternoon. The growers will spend Sunday at Traverse City where Dr. Houston, Secretary of the Grand Traverse County Farm Bureau, is arranging the week-end entertainment.

The tourists will again enter Antrim county Monday morning, stopping at Elk Rapids and Central Lake and reaching East Jordan by noon

where County Agent B. O. Hagerman will guide them through Charlevoix county. Emmet county will be toured Tuesday, August 22nd, following a route mapped out by County Farm Agent Dwight Cavanagh. Cheboygan will be reached that night.

Wednesday morning they will tour through Cheboygan county with County Agent D. B. Jewell, reaching Gaylord for supper and a night's stop. Thursday morning some of the good growers of Otsego county will be visited under the direction of County Agent A. C. Lytle and then the tourists will start for Elmira, reaching there Thursday noon, August 24th for a big round-up picnic at Maplewood Farm, owned by Thomas Buell, president of the Michigan Potato Producers' Association.

In each county the tourists will note the cultural practices and methods of treatment. Fertilizer experiments will be observed and experts will be present to explain the value of using commercial fertilizers, high powered sprayers and hill selection of seed.

Among those who will speak, either at the picnic or on the tour are: C. W. Waid, of the Ohio State Farm Bureau; F. B. Gaylord, of Indiana; J. Daugherty, of Pennsylvania; Prof. J. F. Cox and J. W. Watson of the farm crops department of Michigan Agricultural College; H. C. Moore, secretary of the Michigan Potato Producers Association; Henry Curtis and A. B. Large of the Michigan Potato Growers' Exchange; Carl H. Barnum of the Farm Bureau Seed Department; Jason Woodman, Paw Paw, member of the State Board of Agriculture and D. L. Hagerman, Agricultural Agent of the Pennsylvania Railway. County Agents of southern Michigan will be invited to make the tour. It is expected 200 potato growers will make the entire trip while many more will attend the meetings in the several counties.

Who Lost the Most Money Last Year, Beet Growers or Manufacturers?

THE annual statement of the Michigan Sugar Company for the year ending June 30th is out. It shows a loss on sales and inventory of finished products carried over from the previous year, of \$214,706.62, and an operating loss for the year of \$877,869.62, or a total loss for the year of \$1,222,839.74. That's bad.

But not so very bad. Because at the end of the previous year the company had a surplus of \$3,122,462.44 which they had accumulated as a result of low-priced beets and high-priced sugar, so that after deducting their loss they still have on hand the tidy sum of \$1,899,622.70, and in addition they paid total dividends during the year of \$130,263.50.

How many dividends did the growers of last year's beet crop pay themselves? How high a salary did they draw for their labor and supervision? How much of a cash surplus did they have left at the end of the season?

It is too bad that the sugar companies lost money last year, but how nice it was that they had a big surplus to fall back upon. Farmers wouldn't mind taking losses occasionally if their profits at other times were enough to enable them to build up a cash surplus for a rainy day.

WHAT WERE THE FARMERS LOSSES

While we feel sorry for the sugar companies we have infinitely greater compassion upon the farmers who grew beets last year for \$6. The most reliable figures available last year from farmers and the Michigan Agricultural College placed the cost of growing an acre of beets at around \$100. The average yield last year was less than 10 tons to the acre, so that the average farmer got \$4 less per ton than it actually cost him to grow the beets.

So against the manufacturers' loss last year of a million dollars we have the farmers' loss of over \$4,000,000. Is it any wonder that the farmers cut their acreage this year?

U. OF M. AUTHORITY MISQUOTED ON SUGAR STATEMENT

A few days ago a Detroit daily newspaper contained an alleged interview with Prof. A. E. White, director of the department of engineering research, at U. of M. The article dwelt at considerable length upon the losses the factories were supposed to have met last year, and quoted Prof. White as ascribing the reason for the reduced acreage this year to the manufacturers' unwillingness to take contracts rather than to the farmers' failure to sign because of the low price. The article also quoted Prof. White as saying that "the farmer made all the money there was made in the sugar business in Michigan last year."

In a communication to Prof. White the Business Farmer asked him upon what information he based his belief that the beet growers made money last year. Also why he should infer that the farmers were willing to grow beets at the unprofitable prices if the manufacturers would accept their contracts. To this letter Prof. White replied, emphatically denying that he had ever made such a statement or inference.

In passing, we cannot refrain from asking if the sugar beet growers have dropped their fight for a square deal and a fair share of the profits, or are they to continue indefinitely to take what the factories will offer, losing money one year and breaking even the next.

National Farm Bureau Heads to Come to Michigan

PRESIDENT HOWARD of the American Farm Bureau Federation has been secured to address a big Southern Michigan picnic at Coldwater on August 17th. This is the only occurrence of President Howard in Michigan this summer. His services were secured for the Branch County Farm Bureau by Milo D. Campbell, presi-

dent of the National Milk Producers' Organization and a personal friend of Mr. Howard.

Coldwater business men have offered to turn the town over to the farmers for the day. No "Keep Off The Grass" signs will be up; in fact, this will be the one big day of the year in the Southern Michigan City, when they plan to entertain Farm Bureau, Grange and Gleaner members from all Southern Michigan counties and from Northern Ohio and Indiana. Several county Farm Bureaus are planning auto tours to Coldwater to welcome President Howard.

The Grange is co-operating in conducting the picnic. Chas. M. Gardner, High Priest of Demeter of the National Grange, will speak for the Grange. The local Gleaners will also join in the Big Picnic and have a prominent speaker. A big parade is being planned, a ball game, and other sports will make things lively.

All Farm Organization members should show their colors on August 17th and help to prove to the world that the Farm Organizations of Southern Michigan are alive and active.

A REAL STRAW VOTE!

Directly on the reverse side of this, at the bottom of page 4, is a Straw Vote Coupon, which as a direct personal favor to The Business Farmer, we ask YOU to fill out and mail in an envelope to the Editor, today!

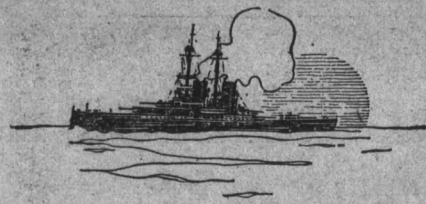
In The Business Farmer of August 19th, we will publish the results of this straw-vote and you will be as interested as the other 195,000 farmers in Michigan, if you will spend a two-cent stamp to vote.

YOU NEED NOT SIGN YOUR NAME, it is a secret ballot, but we do want to know where the REAL business farmers of Michigan stand on the men and issues now at stake.

Advertising Campaigns Increase Milk Demand

New York Dairymen's League Spends Thousands of Dollars in Advertising Dairy Products

By GILBERT I. STODOLA



The missing food that conquered a battleship

A GERMAN battleship in 1915 sailed into Newport News, surrendered, and hauled down the flag. The men and the ship were interned for the period of the war.

They had plenty of shot and shell. They had lots of food—meat, potatoes, white flour and sugar. Yet with full stomachs they were starving. Sickness attacked them, robbed them of their vitality of body and mind, and they deliberately chose internment to escape the horror of this mysterious disease.

What was the matter with this diet of good foodstuffs?

Something was missing. The modern scientist would call the missing element "vitamines." A doctor would diagnose the sickness as "undernourishment."

Whatever was missing from their diet could have been supplied by fresh milk. A few cows would have saved the battleship.

Some people, heavy eaters of heavy foods, would ridicule the idea that they are undernourished. In the ordinary course of eating, they get some vitamins from fresh vegetables and the dairy products they do eat.

They have no visible symptoms of disease, yet they are not altogether well.

It would be better for such people—for all of us—to eat less heavy food and drink more milk.

There was no back door to the battleship with a milkman coming to it as regularly as sunrise and leaving pure, fresh milk. You are more fortunate.

DAIRYMEN'S LEAGUE CO-OPERATIVE ASSOCIATION, INC.
UTICA, N. Y.

tising expense from the members' milk checks, was only \$.01 per 100 pounds.

There is no doubt that educational publicity along the right lines can help greatly to increase the consumption of milk. But heretofore practically all the advertising done in the dairy field has been done by the dealers and has been of little or no value to the dairy farmer.

Educating the Consumer

What the dairy farmer needs is something that will encourage the more general use of milk. It is a matter of "out of sight, out of mind." There is not as much milk drunk in the cities, either by adults or children, as there should be, for the reason that its merits are not brought to the attention of the public.

The Dairymen's League Co-operative Association, Inc., is therefore spending thousands of dollars annually to educate people up to the food value of milk, how necessary its use is to preserve health, and its other merits. This publicity work has been entrusted to experts in that line.

Most of the efforts to bring about the wider use of milk have been concentrated on New York City. Much newspaper space has been used; a series of instructive as well as entertaining advertisements are being run in the prominent daily and evening papers. Some of these advertisements catch the interest of the reader through some quaint or curious fact about milk. For instance, one advertisement gave some interesting and little-known information about whale's milk. Another quotes Benjamin Franklin, who said: "I eat it out of a two penny earthen porringer with a pewter spoon," referring to his breakfast of bread and milk. Still others tell about the dairymen of various foreign countries.

One hundred and fourteen wall bulletins are being used to drive home to city dwellers the value of milk as a drink and as a food. These are attractively painted in blue and white, the colors of the association, and their message is so simple that it cannot be missed. They read: "drink milk, eat milk, it's food." The location of these bulletins has been considered with great care, the purpose being to reach the greatest number of people, as they travel about the city, either on pleasure or business. They aim to appeal to all classes: the foreigner understanding little English; the banker of wall street, the clerk, stenographer, office worker or executive of the business sections, the wealthy people of Fifth Avenue or Riverside Drive, for they all need milk for the preservation of health.

Four of the bulletins are illuminated at night. These have been erected at points where thousands of people pass continually, day and night, including many visitors to the city. One bulletin, for example, is located at Broadway and 37th street, a section which somebody has aptly referred to as "the crossroads of the world."

Still other means are being used to arouse interest. For instance, the association has just had a contest among the students of the high schools



The fat women on the roof of Madison Square Garden

THEY are reducing their weight. Perhaps some of them look up enviously at the beautifully-formed, golden Diana poised at the top of the tower.

Day after day they run around the roof track and go through the various exercises. Most important of all, their diet is regulated and they eat what they are told to eat.

It is significant that milk is included in this diet for reducing flesh. With a restricted diet such as they have, it is imperative that they take some food that has in it strength and energy-producing qualities. So they are told to drink skimmed milk.

Milk is a remarkable food. It has in it the elements that

make bones, flesh, and blood. Vitamines, as mysterious as electric current yet as definite in results, exist in milk and in a natural form.

If you are thin and undernourished, drink whole milk. If you are fat and undernourished, eat less heavy foods and drink lots of skimmed milk.

The fat women on the roof of Madison Square Garden are under the care of a physician. You will agree that it is better to reduce your weight by proper exercise and food than to run around the roof of Madison Square Garden. Choose your foods wisely, eat what you should, and drink milk. More milk means better health.

DAIRYMEN'S LEAGUE CO-OPERATIVE ASSOCIATION, INC.
UTICA, N. Y.

NOT long ago George W. Slocum, president of the N. Y. Dairymen's League Co-operative Association Inc., said:

"Although the sale of milk in New York City has increased fifty per cent in the last ten years, yet if all the milk received in the metropolis were given to the children, each youngster would get only a pint a day, or less than half the amount which physicians and food experts say every growing child needs. On the other hand, if every man, woman and child took an additional tablespoonful of milk daily, there would not be enough cows in our present herds to supply the demand."

Yet, in spite of the importance of milk as a food, there is apparently much more being produced than can be consumed in its fluid state and dairy farmers have been compelled to accept prices that do not even cover the cost of production. One of the most important things, therefore, for the dairymen to do, for their own welfare as well as for that of the community, is to increase the use of milk and milk products. Plainly, it would be hopeless for the dairy farmer to attempt to do this individually, but the experience of the Dairymen's League Co-operative Association shows that it can effectively be done by co-operation. It is a striking fact, in this connection, that during the fiscal year ending March 31, 1922, the deduction made for adver-

in which several hundred dollars were distributed as prizes for the best posters. The contest resulted in a number of interesting and effective posters and got the students and their parents thinking about the value of milk as a food. Incidentally, it also attracted some newspaper publicity.

The products of the League's plants, such as condensed and evaporated milk, etc., are being advertised in the newspapers and elsewhere in a number of large cities, including Philadelphia, Pittsburgh and Cleveland, and even abroad. One of its advertisements reads:

"The men of the Dairymen's League—70,000 farmers—with many hundred thousand cows, devote their lives to the production of pure milk and milk products. They are as much a part of American life as New York State or Florida is. * * * Not all the farmers in this territory are members of the Dairymen's League Co-operative Association, Inc., for, to be a member, a farmer must have the right kind of farm and clean, healthy cows subject to regular rigid inspection and unscheduled inspections by government officials. This means much to all who buy milk or milk products."

(This is the fourth of a series of articles on the New York Dairymen's League's Co-operative activities, written exclusively for the Business Farmer by Mr. Stodola. The fifth and last article will be published in an early issue.—Editor.)

Cast Your Vote in Business Farmer's Straw Ballot on Men and Issues

MICHIGAN voters are facing an important election. On the 12th of September Woodbridge N. Ferris will receive the Democratic nomination for United State senator. But who will the Republicans name?

Michigan is not alone interested in that question. In every state of the Union where Newberryism has been made an issue public interest is at its height over the outcome of the primary election in Sen. Newberry's home state. Iowa, Pennsylvania and Indiana have definitely repudiated Newberryism and the Old Guard. What will the progressive voters of Michigan do?

Sen. Townsend, colleague of Mr. Newberry, is seeking re-election. Rightly or wrongly he has been clothed with the mantle of Newberryism and is courageously making the fight on that issue. The Republican political machine and the remnants of the Newberry organization are supporting Sen. Townsend.

Congressman Patrick H. Kelley, Lansing lawyer; Major Emery, Legion chief of Grand Rapids, and "Herb" Baker, dirt farmer, of Cheboygan, are contesting for Sen. Townsend's seat.

Kelley and Emery have been in the race for several months. Baker is a new contender, having consented to run only two weeks ago in re-

sponse to repeated demands from the Progressive Voters' League.

As we said at the start this is an important election. Many of the biggest issues of recent

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

years are at stake—tariff, campaign expenditures, Esch-Cummins law, Muscle Shoals, the primary law, taxation. On the one side is reaction and special privilege; on the other are progressive principles and equal privileges to all. It is presumed that all the candidates will declare themselves on these important issues before the campaign is over, and that the farmers will have every opportunity to compare the records and utterances of the candidates before they declare their choice.

The Business Farmer tries to keep its finger on the pulse of the farmers. It likes to know what they are thinking and saying and doing. It wants to know what they are thinking about the coming election and the men who are in the race. With that thought in mind we are publishing here a straw ballot on which every reader may indicate his choice for United State senator and for Governor. We also want to know what the farmers think about the proposed gasoline tax. Do they want to pay for the roads from taxes on their land or from a tax on the gasoline they use or a higher tax on their automobiles? This question is sure to bob up at the next session of the legislature. Help us, please, by putting your cross-mark on the ballot and sending to this office.

PICTURES FROM FAR AND NEAR

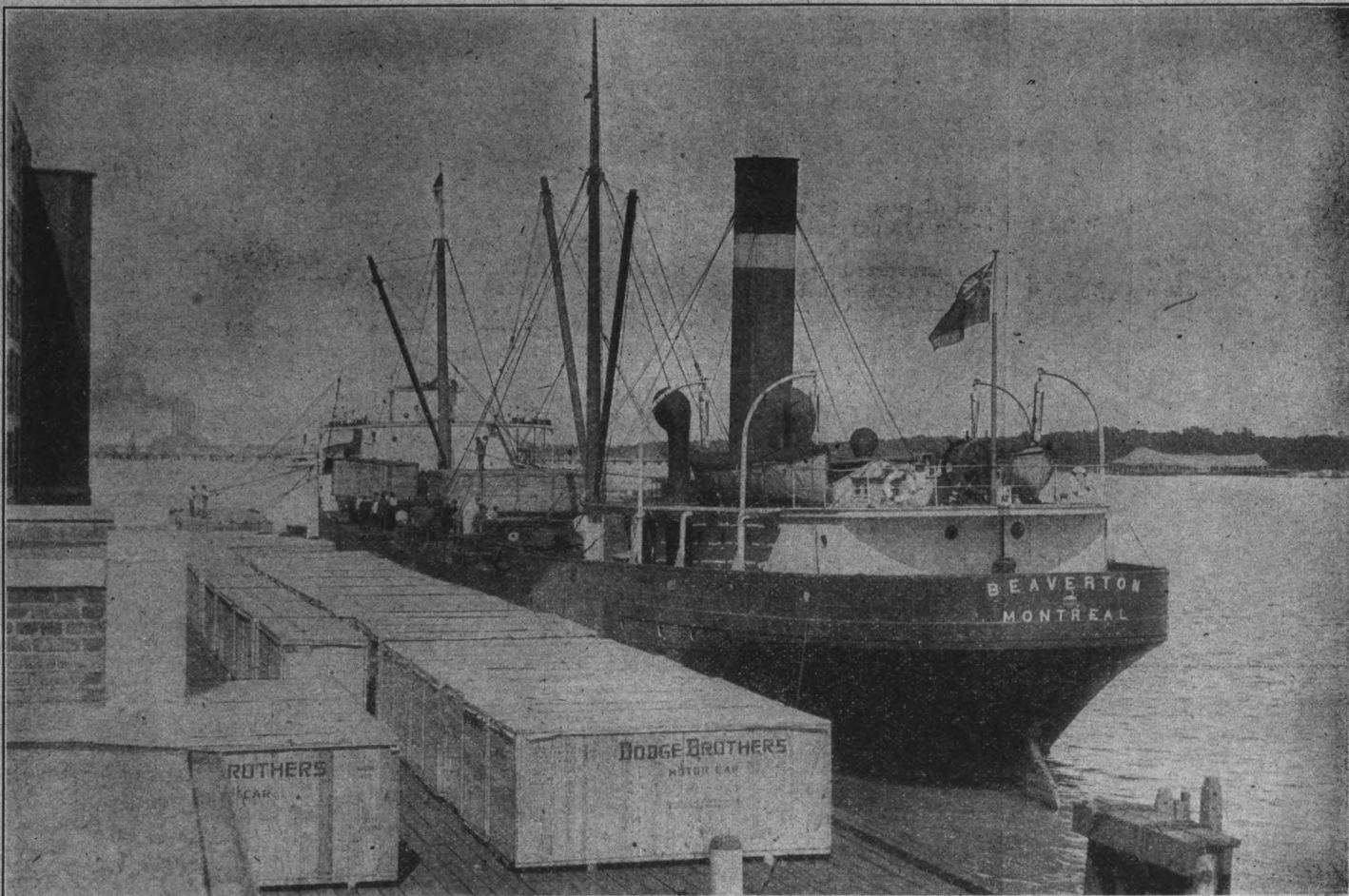
GREAT LAKES TO THE SEA

DAY by day the dream of Michigan that she may some time be linked with the great ports on the other side of the Atlantic by continuous navigable waterways, approaches its realization.

Only a few days ago the Canadian Steamship line freighter, Beaverton took on a big load of automobiles at a Detroit dock for transportation to Australia. The consignment consisted of 500 Ford cars, 71 Dodge cars and a number of Packards. In addition the Beaverton carried grain, 100 tons of whiskey, spark plugs and drug supplies.

This 3,600 ton shipment will go through the present Welland canal and the present canals of the St. Lawrence River to Montreal which is the docking place of many ocean-going vessels. Although the Beaverton could proceed safely to the destination of the cargo as it was in service

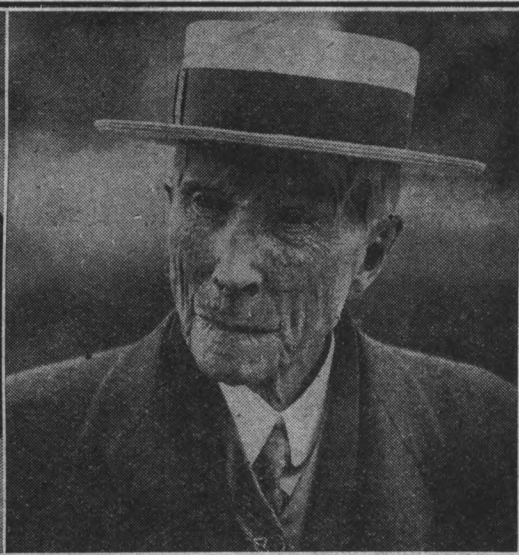
on the Atlantic throughout the war, the cargo will, for various reasons be transferred to another vessel of the same line. It is predicted that this shipment will be the first of many to go from Detroit by water to Montreal and thence across the Atlantic to European ports. As the St. Lawrence waterway is developed for the navigation of larger boats and the dangers of shallow water are eliminated, Detroit will expand and Michigan will thrive in proportion.



It's all the Rage in Nigeria, but American mothers are slow to adopt this type of twin perambulator. Wonder what the Nigerian mother does when it's triplets?



Meet Irene Castle and her—yes, it's a Dog. This noted dancer and movie star is to be one of the judges in the big dog show at the Michigan State Fair.



John D. at eighty-three. Who else but the world's richest man can wear a straw-hat and an overcoat in the middle of July without having his sanity questioned?



King and Queens of the Surf. Here we have Duke Kahanamoku, Hawaiian "crawl-stroke king," with four nationally known aquatic stars of the female species. All of them are in daily training to defend their respective titles in a big swimming meet soon to be held in Los Angeles.



Good-Bye, Dull Care! We're off for the open space, the woods and the meadows, the brooks and mosquitoes. The whole family travels in comfort in this little house on wheels. In the day-time it's a parlor-car, but when darkness shades the western horizon it can be changed in a jiffy to a luxurious Pullman sleeper.



\$ 1375

REO SPEED WAGON

Designed Expressly For the Farmer's Needs

It is an interesting fact that this Reo Speed Wagon, which enjoys a larger sale in cities than all others combined, was originally intended for farm service.

In a word, it was designed and built expressly to meet conditions of rural hauling.

There were several trucks of the old types that would perform on paved city streets.

But once off the hard, even surface—and loaded as the farmer must load at times to get his hauling done—they soon went under, or showed an upkeep cost that was excessive.

We felt that Reo was ideally equipped with experience and reputation to undertake this job that others shied clear of.

We knew that certain factors were necessary to success.

First, a rugged, dependable motor with a pull like a mule and built to stand grief.

That Reo Four motor is unquestionably the greatest motor ever built—bar none.

After more than ten years in service there is none to dispute that.

Chassis must be just as rugged—capable of standing up under excessive overloads and on all kinds of roads.

Transmission, clutch, gears, axles, steering gear—all must have stamina to meet any condition.

Speed too was essential if the truck were to pay for itself in saving of time, of men, and horses.

This Speed Wagon does all that, and in addition, pays a handsome profit by getting your produce or stock to market in perfect condition, and early enough to guarantee you top prices.

For all loads ranging from a quarter-ton to a ton-and-a-quarter.

A lighter truck will not do your work—nor will it prove as economical as this Reo Speed Wagon.

PRICES

Other body types are obtainable mounted upon the standard Speed Wagon chassis at the following prices:

Cab Express	
(Illustrated)	\$1375
Canopy Express	1375
Stock Rack	1400
Carry All	1400
Double Deck	1400
Stake Body	1400
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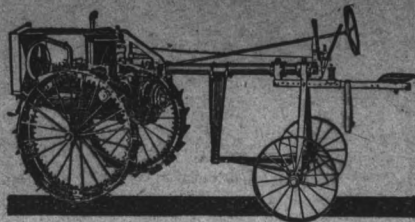
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MICHIGAN CROPS

SOWING SWEET CLOVER WITH RYE

Can sweet clover be sown in the fall with rye? Kindly advise through your paper the time to sow sweet clover and should it be sown alone?—Mrs. C. K., Mecosta, Mich.

Spring seedings of sweet clover are usually more successful than fall seedings. If it is desirable to seed in the fall would suggest seeding so late that the seed will not have a chance to germinate before winter sets in. Would also recommend seeding unscarified seed. If sown at the usual date of sowing rye, which is usually the latter part of September or the first of October, sweet clover will likely germinate and suffer greatly from winter killing. If you wish to use rye as a companion crop would suggest seeding in the rye during early spring, seeding scarified seed.

Sweet clover is very sensitive to soil acidity and usually satisfactory stands are not secured when the soil is quite low in lime. A firm seed bed and inoculation of the seed are also important points in establishing a stand of sweet clover.—C. R. Megee, Associate in Farm Crops, M. A. C.

CUTTING ALFALFA FOR SEED

Could you tell me if cutting alfalfa for seed this fall would in any way injure the crop for next spring cutting for the hay?—B. K. M.

Harvesting alfalfa for seed is not likely to injure the seed provided the seed crop is not cut too late in the fall. It is advisable to cut the alfalfa in time for the plants to make five or six inches top growth before winter sets in. If but little top growth is made the seed is likely to be thinned by winter-killing. It is customary to cut the first crop of alfalfa for hay allowing the second crop to set seed, that is, when a seed crop is desired. Weather conditions will determine to quite an extent whether this is advisable or not. When there is an excess of rainfall the seed crop is likely to be light.—C. R. Megee, Associate in Farm Crops, M. A. C.

SWEET CLOVER WILL NOT KILL QUACK GRASS

I have a field that has lots of quack grass and thistles in it and I read that sweet clover was good to get rid of such a pest. Now this field is in oats and barley. Would you advise sowing in the fall? If so at what time?—H. E. C., Secord, Mich.

Sweet clover is a fairly good crop to rid land of thistles but will not likely subdue the quack grass. This is because the sweet clover makes a quick, rank growth and is usually cut twice during the season. If the soil is in condition to secure a good stand of alfalfa it would be much better than sweet clover. Alfalfa is usually cut three times during the season and lasts from five to seven years, while sweet clover completes its cycle the second year. If you wish to seed the sweet clover during the fall would suggest that you use unscarified seed and sow it quite late; so late that the seed will not germinate until spring. We have found spring seedings more reliable.

Clean cultivation is the best method for eradicating quack grass. If convenient, pasture during the late summer and fall, fall plow and cultivate frequently with spring tooth harrow during the spring and early summer. If the season is favorable for frequent cultivation the quack may likely be subdued sufficiently to plant some clean cultivated crop during mid-summer. Otherwise it is advisable to summer fallow.—C. R. Megee, Associate in Farm Crops, M. A. C.

SWEET CLOVER MAY BE SEEDED IN AUGUST

Could a person sow sweet clover in July and August successfully for the next year?—A. M., Traverse City, Mich.

Sweet clover may be seeded the first part of August without much danger of winter killing provided there is sufficient moisture to germinate the seed and start the plants to growing. Sweet clover does not usually do well on an acid soil. There is likely to be considerably more winter killing also if the soil is low in lime. A few farmers follow the practice of sowing unscarified seed

during the late fall; usually so late that the seed do not germinate until spring. Good results are frequently secured by this method; however, it is not as reliable as spring or summer seedings.—C. R. Megee, Associate in Farm Crops, M. A. C.

HARVESTING SWEET CLOVER

I wish very much that you would print in your next issue, some information in regard to cutting, threshing, and removing the hull from sweet clover. What kind of a machine must I thresh it with, grainer or clover huller, and also what machine for removing hull.—R. L. B., Sparta, Mich.

The stage of growth at which sweet clover is cut determines very largely the quality of hay secured. Sweet clover should be cut just before the blossom buds appear. If allowed to come into bloom, the stems become woody, the leaves fall off and a very poor quality of hay results.

The height of cutting is very important. The second year sweet clover does not propagate from a crown as does alfalfa, but propagates from buds in the axils of the branches and leaves on the lower portion of the stalk. If the first cutting of the second year is made below the young branches, which bear leaves, the stand will be destroyed and the second crop will not be secured.

Sweet clover is more difficult to cure into hay than either alfalfa or red clover. This is largely due to the large amount of moisture contained within the plant at the time of cutting, causing the shattering of the leaves from the stems before the stems have cured out.

One of the most successful methods of curing sweet clover hay is to allow the plants to wilt in the swath,

then windrow with a side delivery rake and a few hours later place in small upright cocks. The hay should be in cocks before the leaves have dried out sufficiently to crumble or shatter. The hay is then left in the cock until cured sufficiently to put into the barn or stack. This may be only two or three days or may be two weeks depending upon weather conditions. The small cocks may be handled with practically no loss of leaf.

Harvesting the Seed

The best implement to use in harvesting sweet clover for seed will depend upon the growth made. If the growth is not too rank and heavy the grain binder may be used. However, if very rank the corn binder will give better satisfaction. A three foot swath may be cut with the corn binder when the sweet clover has not been broadcasted by placing ten-inch extensions upon the dividers. The mowing machine causes great loss of seed through shattering and is not satisfactory. Regardless of the implement used the shattering will not be nearly so great if the plants are harvested when toughened by a light mist or dew. At this stage of growth most of the leaves have fallen off and no difficulty is experienced in curing. A sweet clover plant does not mature all of its seed at one time, consequently the proper stage at which to harvest is when from 60 to 75 per cent of the seed pods have turned brown.

Sweet clover seed may be threshed with the ordinary grain thresher. If very dry most of the seed will be hulled, if slightly damp very few seed will be hulled. When the grain thresher does not remove the hull it may be removed with a clover huller or a sweet clover seed scarifier. Due to the greater capacity of the grain thresher it is better adapted for threshing sweet clover than the clover huller.

FRUIT and ORCHARD

EDITED BY FRANK D. WELLS

STOCK FOR CHERRIES

Will you tell me what seed is planted to grow the Montmorency cherry? As I understand it, all cherries are budded or grafted to make them bear true to name. I have been told that most nurseries import their seed from France. Is this the common practice with nurseries and if so where do they get their seed for propagation?—H. C. C., Grand Traverse County.

There are two kinds of stock used by our nurserymen in propagating cherries, both sweet and sour varieties. The Mahaleb is the more commonly used, since it is easier to bud, but the Mazzard makes the more vigorous tree.

Very little stock for cherries is grown in this country. Our nurserymen prefer to import it from France, where, in some localities, the growing of seedlings is an important branch of horticulture. This stock has been grown at such a low cost that Americans have not cared to compete with Europe in its production, but since 1914 the price has advanced so much that our nurserymen are seriously considering the possibilities of home production.

Little seedling cherries are imported during the winter, when they are pruned, both root and top. In each spring they are planted in rows about four feet apart, and about eight inches apart in the row. In July and August the budding is done. The seedling is cut away the following spring, leaving the bud to develop into a tree.

The propagation of the cherry may seem easy enough, but in practice it is the most difficult of the common orchard fruits. To know when the bark is in the right condition to receive the buds is something to be learned by experience. As a result, there is often a heavy loss of stock because the buds have failed to "catch." Such trees result, of course, in nothing but seedling stock, and the fruit they will produce will be worthless.

Mahalebs belong to Europe. They are wild cherries, small and sour. The only value of importance is for propagating cultivated varieties.

The Mazzard is found wild in parts of the United States. When somebody finds a means of propaga-

tion that is reasonably sure, it will be the favorite stock for budding the cherry.

GROWING APRICOTS

Would you advise growing apricots in the latitude, say of Port Huron? What price should they bring, compared with peaches or plums? Would a location suitable to peaches be good for apricots?—A. L. R., Lapeer County.

It is somewhat risky to give advice on such a subject. Under favorable conditions the apricot can be grown in the latitude of Port Huron, in fact, the tree can be grown where the peach can, but as to the production of fruit, that is a different story. The blossoms are out early, several days before the peach or cherry. As a result, they are frequently caught by a frost that is too early for other fruits. The best record we have heard was for some trees in central Oakland county which produced on the average a good crop once in three years, with usually some fruit every summer. These trees were on high land and heavy clay soil.

As a tree the apricot is hardier than the peach and endures neglect better. If the fruit is as well sprayed as the plum it should be free from insects, otherwise good fruit should not be expected as the curculis will spoil it.

The price for apricots is higher than for the peach, besides they ripen earlier, so have the market to themselves, and should be gone by the time home-grown peaches are ripe. But they are sold in small quantities, as compared with the peach or the plum.

There should be a place in Southern Michigan for such a fruit as the apricot. It would seem as though a little attention given to the development of late-blooming varieties might result in something that would meet the requirements.

There are some late broods of insects which should be looked for in August. Some of them have nests which are easily discovered; others do not make nests nor spin webs, but are chiefly in colonies at first. Then is the time to kill them, before they scatter. An arsenate of lead application will dispose of them. In case of tent caterpillars, spraying the foliage about the nest is as effective as burning with a torch, and does not injure the tree.

August is the Month of State Grange Rallies

AUGUST is the month of vacations, of picnics, of auto tours, and last, but not least, of State Grange regional meetings and rallies.

Farmer Bert Cook, master of the Michigan State Grange, says the only exception which Grange gatherings this August will offer to the rule of other years, is that everything will be on a much bigger and better scale. The meetings will be bigger, the base ball games more exciting, (He says he expects to see a half dozen umpires tarred and feathered); the watermelon will be sweeter, the chicken will be fried to a better turn than ever before; and soggy apple pies are absolutely barred; the horseshoe contests will be bitterly fought and will probably result in several fist-fights, murders and hangings, and other sports will be equally as exhilarating. All in all a fine time is promised all Grangers who turn out to make the regional meetings and the big State Rally at the M. A. C. howling successes.

The State Grange Rally will be held at the M. A. C., on Friday and Saturday, Aug. 18-19. Speakers will include Hon. Chas. M. Gardner, B. Needham, Hon. J. C. Ketcham, Hon. A. B. Cook and other state Grange officers.

The big sport events in connection with the Rally will be the base ball and horseshoe pitching games to decide the State Grange championships. The State Grange offers prizes in the sum of \$100 to the three high teams in the base ball events and of \$30 in the horseshoe contests.

And the Michigan Business Farmer is going to give a set of four beautiful nickel-plated standard horseshoes to the winning team in the pitching contest.

In addition to the prize money the State Grange will bestow a silk pennant, suitably worded, to the winning base ball team. All participants in both matches must be members in good standing in their Grange.

At 2 p. m. Friday, Aug. 18th, Pres. David Friday of the M. A. C., will deliver an address of welcome, to be followed by a big Grange program. At 4 o'clock the first ball game will be played, and at 7:30 a fine evening's program will be rendered.

The forenoon of the following day will be spent in seeing the M. A. C., and in playing the championship horseshoe games, to be followed by a general program in the afternoon, and a ball game between the Upper Peninsula's best team and winner of the Lower Peninsula title for State Grange championship. The evening will be spent in a general gab-fest, and get-together, at the gymnasium, with music by Valley Farm and other Grange bands and orchestra.

The State Grange Regional meetings began July 31st, when the Granges of Oakland, Macomb, Tuscola and Lapeer met at Orion Lake. The speakers were Oliver Wilson, past master, and Mrs. Wm. Lovejoy, regional deputy. Dates of other regional meetings already held or to be held during the month are as follows:

Region No. 4.—Aug. 1st, St. Clair, Huron, Sanilac, County park, Lake Huron; Aug. 2nd, Shiawassee, Genesee, Saginaw, McCurdy park, Corunna.

Region No. 3.—Oliver Wilson, past master speaker, Aug. 3rd—Bay City; Aug. 4th.—Mt Pleasant; Aug. 5th—Rose City.

Region No. 1.—National Master Lowell, speaker; Cora Anderson, regional deputy. Aug. 8—Powers. Aug. 9—Baraga. Aug. 10—Chatam.

Aug. 14—Chas. M. Gardner, high priest of Demeter; Hon. A. B. Cook, Master State Grange, speakers, Lenawee county—M. M. Dillon, deputy. Program committee, V. Colgrove, M. N.

Regional No. 7.—Chas. M. Gardner, speaker; Mrs. N. W. Laird, deputy. Aug. 15—Monroe county. Aug. 18—Pleasant lake, Washtenaw county. Aug. 21—Devils lake, Hillsdale, Jackson, Lenawee.

Region No. 6.—Chas. M. Gardner and Hon. John C. Ketcham Aug. 17—Coldwater. Aug. 22—South Haven.

Region No. 5.—National Lecturer B. Needham, Chas. M. Gardner, F. M. Stockman, regional deputy. Aug. 16—Round lake, Clinton county, Chas. M. Gardner. Aug. 22—Barry county, National Lecturer Needham. Aug. 23—Camp lake, Kent county.

Region No. 2.—Speaker, National Lecturer B. Needham; W. F. Taylor, regional deputy. Aug. 24—Scottville. Aug. 25—Charlevoix. Aug. 26—Reed City.

A just estimate of people's characters cannot be formed by what others say about them, but one may judge somewhat by what they say of others.

The happy man has a double chance of being good, and the same rule applies to children.

The best books are treasurers of good words and golden thoughts which, remembered and cherished, become our abiding companions and comforters.

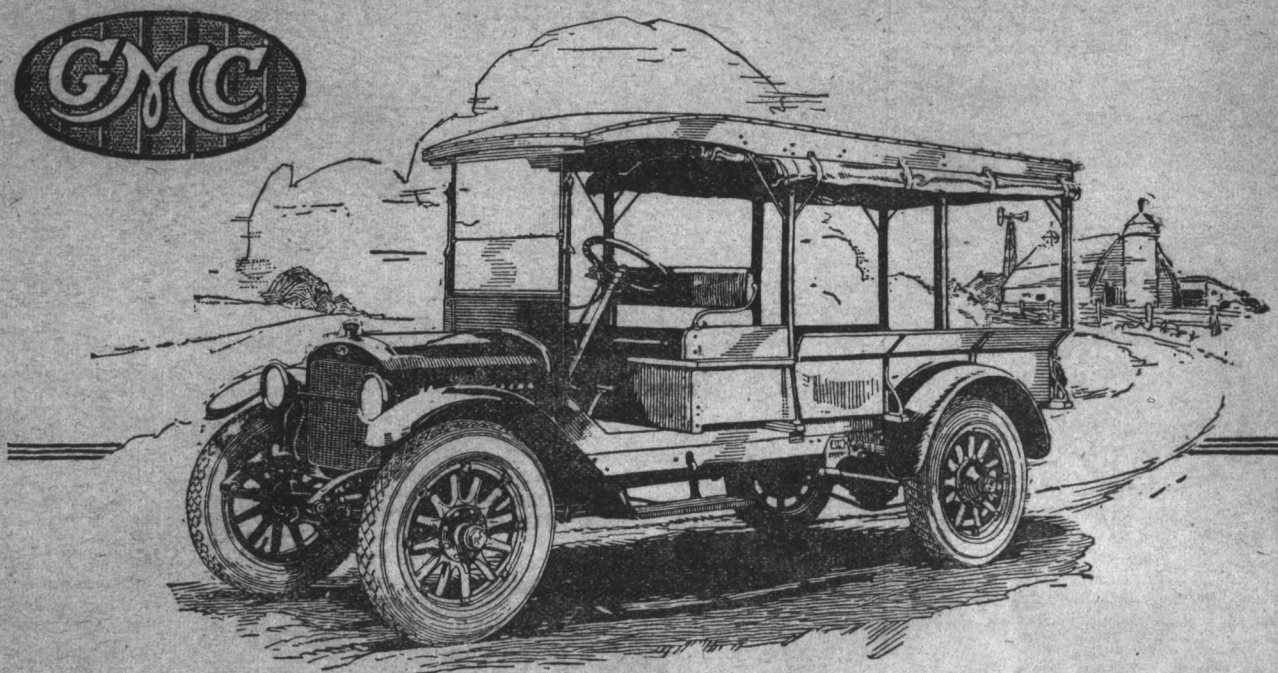
Misunderstanding goes on like a fallen stitch in a stocking, which in the beginning might have been taken up by a needle.

Thirty-three Farm Bureaus to Hold Horseshoe Tournaments

THIRTY-THREE horseshoe pitching tournaments will be held in as many counties during the month of August under the auspices of the county agents. The winning team in each tournament will go to the State Fair to compete for the Michigan Business Farmer cup and the \$200 in cash prizes. The winner at this tournament will be crowned champion of Michigan. Several counties are offering all expenses paid to the state tournament as one of the prizes in their local tournament. Agricultural agents of the following counties are participating to make the coming contests one of the big sportsman-ship events among Michigan ruralities.

Hillsdale, Alpena, Newaygo, Calhoun, Allegan, Shiawassee, Mason, Manistee, Grand Traverse, Antrim-Kalkaska, Charlevoix, Berrien, Kalamazoo, Eaton, Branch, Jackson, Lapeer, Midland, Barry, Clinton, Oakland, Muskegon, Oceana, Wayne, Ottawa, Macomb, Kent, Benzie, St. Clair, Otsego, Emmet, Livingston, Ionia.

A few of the picnics were held this week but the majority are to be held during the week centering on August 17th. The biggest picnic scheduled to date is the Jackson County picnic which is a sort of get-together affair between farmers and the people of Jackson City. The first year of this picnic 22,000 people were in attendance and the second year 43,000. Many valuable prizes will be given to the winners of the Jackson horseshoe pitching tournament.



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Model K-16 One Ton

It's a Jim-Dandy! That's the universal opinion of the GMC one ton truck.

Fast on the road, powerful in the hard going and economical all the time, this sturdy honest-to-goodness truck is just a "Jim-Dandy" for the farm.

It will haul produce, stock, milk and any other kind of load better and cheaper than a motor truck has ever done before.

For this GMC has improvements which are away in advance of ordinary motor truck construction and which make possible more continuous haulage, lower operating and lower maintenance costs. Such features as Removable Cylinder Walls, Pressure Lubrication, Removable Valve Lifter Assemblies and Instantaneous Governor, are all designed to produce the kind of performance that is vital to the success of a motor truck on the farm.

Model K-16 is a real motor truck, built entirely of truck units—no passenger car parts used.

In addition it is built in the most approved designs of motor truck construction. For instance, this one ton truck has Magneto Ignition, admittedly the most reliable type.

The Ignition is simple, just four wires leading from the Magneto to the spark plugs and all in the open where it can be readily inspected.

The Model K-16 also has Electric Lights, Starter and Generator with a Storage Battery built especially for motor truck use and of extra capacity. The wiring is all carried in metal conduits and is entirely separate from the Ignition System.

Demountable Rims, Cord Tires, Pressure Gun lubrication of the chassis. Extra Switch for spot light and Interchangeable Brake Rods are other GMC refinements.

No truck of like quality has ever been offered at as low a price as this chassis—\$1295 at the factory.

Write for an illustrated booklet "Motor Trucks on the Farm."

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Self Gathering for cutting Corn, Cane and Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only \$28 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction. Dexter L. Woodward, Sandy Creek, N. Y., writes: "8 years ago I purchased a Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Higgins, Spencer, Ohio, writes: "Works 5 times better than I expected. Saved \$40 dollars in labor this fall." Roy Apple, Farmersville, Ohio, writes: "I have used a corn shucker, corn binder and 2 rowed machines, but your machine beats them all and takes less time of any machine I have ever used." John F. Haag, Mayfield, Oklahoma, writes: "Your harvester gave good satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo., writes: "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.

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Farmers Service Bureau

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

PLANTING "IN THE MOON"

Can any definite results be obtained by planting potatoes and other vegetables in the different moon phases?—L. W. F. Leslie, Mich.

Careful tests conducted on the time of sowing various farm crops indicates that the moon phases have no influence on the yield of crops secured. Some crops require a warmer seed bed than others, while some demand cooler growing seasons; consequently, there is a time of the season which is more favorable for the planting of each crop. —C. R. Megee, Associate in Farm Crops, M. A. C.

POISONED MEAT

Has a person any right to put poisoned meat of any kind out to poison dogs? If not is there any penalty attached to same?—E. F. S. Midland, Mich.

Section 15353 of the Compiled Laws of 1915, provides a penalty of not less than ten dollars nor more than one hundred dollars or imprisonment in the county jail not more than three months for exposing any known poisonous substance, whether mixed with meat, etc., so that the same shall be liable to be eaten by any horses, cattle, dogs, etc.—Chas. J. DeLand, Secretary of State.

TAX ON ROW BOATS

I would like to know whether or not there is any war tax on row boats, or has the internal revenue been removed from the manufacture of same?—R. A. G., Milford, Mich.

You are informed that on pleasure boats and pleasure canoes, including rowboats if sold for more than \$100 by the manufacturer, producer or importer, the tax is at the rate of 10 per cent of the selling price.—Internal Revenue Service, Detroit.

ANYONE KNOW FRANK HUEGLE?

George H. Callard of Fenton, Mich., R. 2, would like to receive information concerning the whereabouts of his father, Frank Huegley. The last heard from him, his address was Rockland, Mich.

STATE'S SHARE OF ROAD REWARD

What are the disadvantages of taxing a township for 5 per cent of its assessed value for the purpose of building good roads? Would such township receive state reward in this case and to what extent? Who would have to maintain said roads, the township or state?—F. P., Metamora, Mich.

In reply to the first question would say that I know of no disadvantages in taxing a township for the improvement of the highways therein as it has been the experience of the writer that most township highways are sadly in need of improvements.

In reply to the second inquiry will say that the state reward would be paid to the township on the construction and completion of the road in accordance with the state's specifications, the amount depending on the cost of the road the state paying 25 per cent of the cost.

As for the question of maintenance will say that the statute imposes the duty upon the township to maintain these roads, but the state pays what is called an annual maintenance fund which is an amount of 6 per cent of the amount of state reward paid on such road which sum shall not in any case exceed \$100 per mile.—State Highway Department.

SCHOOL MAY PURCHASE BALL SUITS

Has a school board the right to appropriate \$100 for purchasing base ball suits for boys?—G. C., Beaverton, Mich.

If this constitutes a part of the equipment for physical training, as required by Act No. 274 of the Public Acts of 1919, it is legal for the board to do so. The statute reads in part as follows:

"There shall be established and provided in all the public schools of this state, and in all state normal schools, physical training for pupils of both sexes, and every pupil attending such schools of this state in

so far as he or she is physically fit and capable of doing so, shall take the course in physical training as herein provided."—B. J. Ford, Dep. of Public Instruction.

HUCKLEBERRY PICKER

Please let me know if our law makers passed a law so you can't use a huckleberry picker?—M. P. K., Shepherd, Mich.

There is no such law.—Editor.

TAX TITLE PROCEDURE

Through your valuable paper can you give me the law in regard to buying tax title land. How many years taxes do you have to hold before you can get a deed and what charges are there besides the taxes?—Mrs. O. P., Gould City, Mich.

If the taxes on real estate are not paid to the collector when due they are returned to the county treasurer, as delinquent. Within the time provided in the law the county treasurer reports such delinquents and the description of the land upon which the tax is not paid to the Auditor General, at Lansing.

Within the time provided in the law the auditor files his petition in the Circuit Court for the county where the property is located requiring the owner to show cause why the property should not be sold for the tax. If no sufficient reason is shown why the property should not be sold for the tax, then the auditor general advertises the property for sale on a certain date at the office of the county treasurer. If the tax is not paid before the day of sale the county treasurer offers the land for sale for the tax. Bidders are on hand to bid the amount of the tax and takes a certificate of sale for the tax bid. The owner has until the first Tuesday in May following the sale to redeem the property. If not redeemed before said first Tuesday in May following the sale. After said first Tuesday in May the purchaser may present his certificate of sale to the auditor general and, if not redeemed, the auditor general shall issue to said purchaser a deed of the land described, which deed shall be entitled to record. Such deed shall convey an absolute title to the land and the state may put the purchaser in possession by a writ of assistance. But the law provides that no writ of assistance shall be issued until six months after there shall have been filed with the county clerk of the county where the lands are situated, a return by the sheriff of the county showing that he has made personal service of a notice, or proof of substituted service, as therein provided, upon the person or persons appearing by the records in the office of the register of deeds of said county, to be the last grantee in the regular chain of title, etc., showing that the land has been sold at tax

sale and that the person signing the notice has title to the land and that the owner or persons who has any interest in said land may redeem the same by paying the amount paid upon the purchase of said land together with 100 per cent additional thereto, the fees of the sheriff or the cost of the publication of the notice and an additional fee of five dollars for each description. If not deemed according to such provisions of the law then after said six months has expired the purchaser may have a writ of restitution and the purchaser becomes the absolute owner of the land described in the deed.—Legal Editor.

NOTE IS COLLECTIBLE

Enclosed find collateral note for \$100 to Cedar Springs Co-operative Marketing Ass'n. The directors gave a man seventy of these notes for fifty-four hundred dollars to settle for a carload of rye that was shipped to a firm that proved to be a fraud, and also to pay for building and machinery. Now the directors are trying to collect these notes. I would like to know if they are collectible and if I receive my note will I still be holding for other debts. The association is incorporated under act 171, year 1903.—L. R., Cedar Springs, Mich.

The holder of the note who received the same as an innocent purchaser would be entitled to recover for the amount of the note. As to liability for other debts of the association will depend upon the agreements with the association. Generally stockholders are not individually liable for the debts of the corporation.—Legal Editor.

COVERT ROAD ASSESSMENT

I have a farm of eighty acres in Sanilac township, on the Town line between Sanilac and Washington township and four miles from the Huron pike road. Now can a board assess me as much as people one mile, to three miles from same road? I have paid out in the four years on this Huron pike \$109.12, which makes \$27.28 a year, and which is no benefit to me whatever. Now the trunk line twenty-seven miles will be a half mile from my farm in Washington. Will I have to pay as much, me living in Sanilac township, as those living in Washington township, as we know people living in Washington township who do not pay on the road in our township?—B. D., Carsonville, Mich.

Section 17 of the so-called Covert Road Act provides for the apportionment of the per cent of benefits to accrue to any piece or parcel of land according to benefits received which apportionment shall be announced at the time and place of hearing of objections to the assessment roll and which apportionment becomes subject to review and correction according to the provisions of the law applicable thereto.

You ask if it is possible for an assessment to be made wherein you will be charged as much as people owning property nearer the road. In reply please be advised that this is a matter of judgment of the assessing officers. It is entirely possible for a board to assess one residing four miles from a road as much as one residing one mile from the same road, but of course if they do so it would necessarily follow that it was an extreme case or a demonstration.

(Continued on the following page)

Hillsdale Jersey Breeders to Meet

ON Aug. 9, 1922 the Jersey breeders of Hillsdale county, Mich., will gather at the farm of J. J. Walsh and Son, three miles west of Allen. Hon. H. F. Probert of Jackson, will give an address to be followed by a judging demonstration, basket dinner and Jersey ice cream. In the afternoon a moving picture program will be given free to all.

Hillsdale county has 40 breeders, 600 registered Jerseys, free from tuberculosis, a silver medal yearling and cows with better than 800 lbs. of butter in one year, and the largest Jersey calf club in Michigan. "Everyone welcome. Come!" is the cordial invitation which Pres. Ray Baker extends to all farmers through the M. B. F.



Scene on the J. M. Landis farm at Litchfield when a number of Jersey breeders gathered on July 6th to inspect his fine herd.

stration of poor judgment on the part of the assessing officers. In either case, however, the party who feels himself aggrieved is given his day in court by being notified of the time and place of hearing and being provided with a method of appealing from the assessment should he consider himself aggrieved or injured thereby.

You further ask if you will be assessed for a trunk line which will run a half mile from your farm when the same is constructed. In reply thereto, please be advised that when the assessment district is established you will receive notice as to whether or not you are included in that district and if so it behooves you to attend the meeting for the review of the assessment that you may ascertain what per cent of benefits you are being assessed therefor and if you feel aggrieved by such assessment you may resort to your right to appeal from the same. This of course is assuming that the trunk line in question will be built under the so-called Covert Road Act, but if the same is built under the Trunk Line Act without any assessment district then of course you will not be assessed therefor, the state and county alone participating in the cost of the construction.—State Highway Department.

HOUSING COMPANIES AS AN INVESTMENT

Is the Lincoln Housing Company a reliable firm? I don't like their line of advertisement. It is located in Lincoln, Neb.—A. P., St. Johns, Mich.

The certificates of the Lincoln Housing Trust of St. Louis were approved by this commission a year ago. This approval was made after a thorough investigation including a visit of the Chief Accountant of this commission to St. Louis and the commission was unable to find anything in the plan of operation which was fraudulent or which might work a fraud upon the purchasers of these certificates.

The company is based upon the old English theory of pooling money and lending it to yourself and is a type of several which have operated at various times and in various parts of this country. It is practically a co-operative scheme of raising money for loans to members of the co-operative club or association, or whatever it might be called. As we understand it it is under the supervision of the Building & Loan Department of the state of Missouri.—Michigan Securities Commission.

The following editorial from the Wall Street Journal upon the subject of housing companies will be found of interest:

"All over the west are springing up so-called housing concerns that promise homes with 4 per cent money. Go down to a local bank in the west and they will still charge you 7 per cent for money on government bonds for security and at the same bank they will pay you 4 per cent for deposit money, payable on demand and secured by all the supervision and legislation that can protect our national banking system.

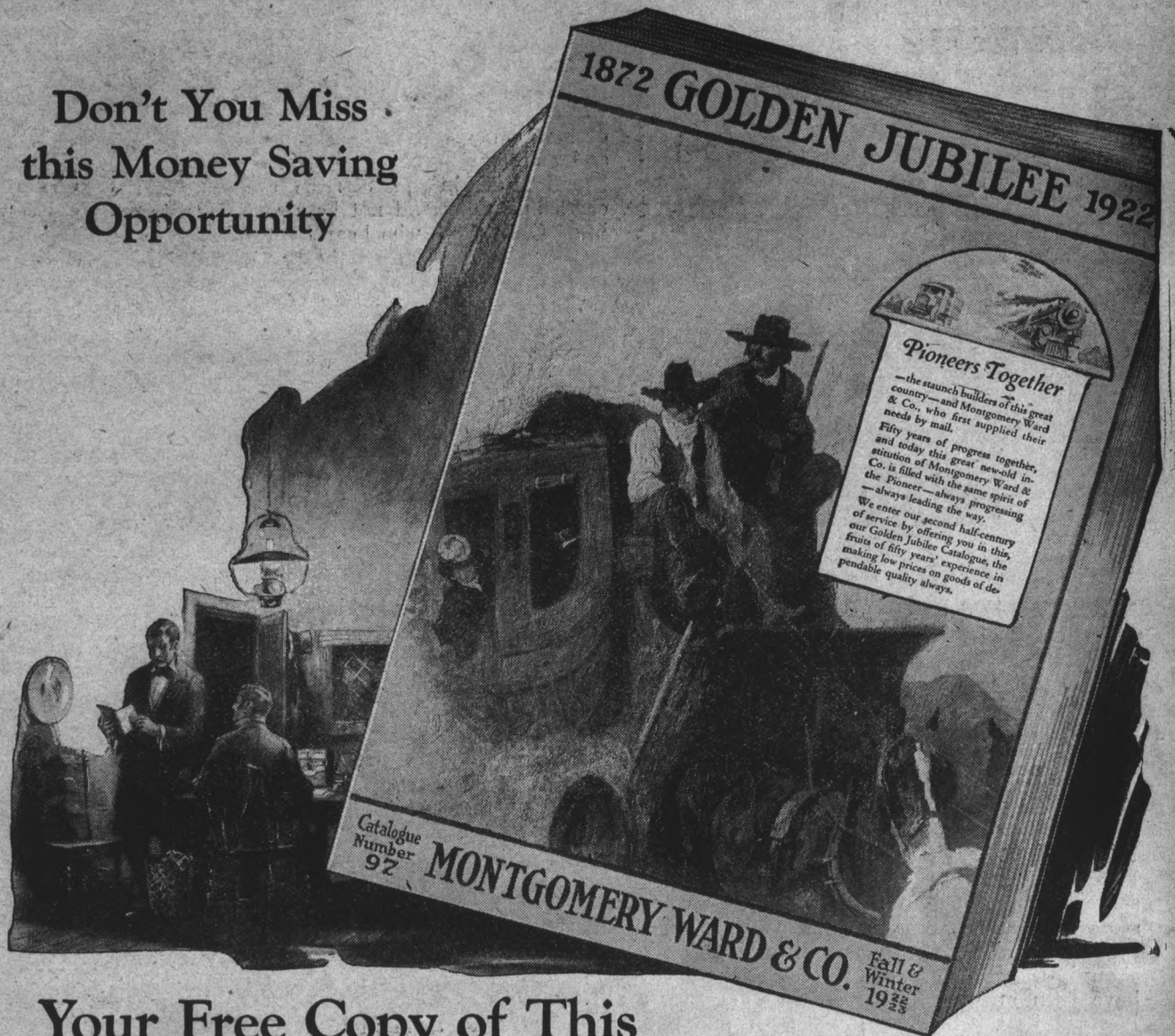
"Yet unincorporated groups of so-called financiers without capital or risk of a dollar of their own money will boldly step forward in the market place and promise the 'dear people' 4 per cent money with which to build homes provided only you begin trusting your savings at so many dollars a month with the aforesaid financiers. The feature of a home based on borrowed money at 4 per cent is so enticing that the disposition of the preliminary payments is glossed over or lost sight of. In brief, the 4 per cent housing promoters will put your first six monthly payments at the risk of total loss, for unless you continue beyond those six monthly payments, you forfeit all interest in your prospective 4 per cent home. The first four payments are to go to pay expenses and make profits for the promoters of the scheme. If after more than six months' payments you drop out of the enterprise you have a discount refund value for your payments. You are promised an investment to assist in securing a home. In reality you are offered a gamble where the first chances are with the insiders.

"Gambles in enterprises of this (Continued on page 17)

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"The Farm Paper of Service"

Some Jokers in the Tariff Law

YOU'VE heard the story of the man who summoned the housewife to the front door and engaged her in conversation while his partner entered the back door and ransacked the house! We are afraid that's about what has happened in consideration of the pending tariff bill.

A good deal of attention has been given to the tariff schedules on agricultural products, and a good many farmers have actually been led to believe that they are to secure enormous benefits as a result of the adoption of these schedules. In instances, they are to receive some benefit. In others, none. But be that as it may, while the farmer has occupied a chair in the front row of the show, the thieves have been at work and schedules have been inserted in the tariff bill which, if adopted, may cost the farmer many times over the paltry benefits he may receive from the tariff on his own products.

Take the single item of aluminum, for instance. Aluminum now enters into the manufacture of many important articles which the farmer buys, and nearly every housewife appreciates the utility of aluminum ware. But what every housewife doesn't know is that every ounce of aluminum produced in the United States is made by a single corporation, and that through its subsidiaries it produces over 90 per cent of all aluminum utensils. That corporation is the Aluminum Company of America, and is principally owned and dominated by Mr. Mellon, secretary of the treasury of the United States.

The Aluminum Co., we are told, started in 1888 with a paid in capital variously estimated as from \$100,000 to \$200,000. Besides paying dividends, it had accumulated up to July 31st, 1921, a capital stock of \$18,729,600, and a surplus of \$92,153,861, giving a net worth of \$110,883,461. These earnings have been made under the protecting arm of a generous tariff law. Not content with having done so much for the Aluminum Company, the Senate has voted to continue the duty of 5 cents on ingots, to make the duty of 9 cents on sheets and circles, and to increase the duty on aluminum wares from the present rate of about 20 per cent, under which importations are virtually prohibited, to 82 per cent! Generous Uncle Sam! Bless his dear kind heart! And mind you, this is but one instance out of many.

The question naturally arises, "what benefit is a tariff to the farmer or anyone else on goods they sell if the prices of the goods they buy are increased proportionately?"

Have You Seen the Bobolink?

"I am somewhat interested in birds and have noted the almost total absence of the bobolink this summer. There were not many last summer

either. Have you heard any reports from the other localities and have you any information to account for it. I suppose the bobolink is the rice-bird of the south and perhaps they are being killed down there."—A. G., Medina, Mich.

MUST we confess the shameful truth that those who in the pursuit of their various occupations are condemned to spend the most of their hours within office walls have little occasion to note and know the habits of the birds? To hear them sing we must rise very early in the morning with the first peep of dawn, and from the remote tops of the highest trees we may hear their twittering for a little while, but soon that is hushed by the whirr of aeroplanes and the noise of the street cars and automobiles. The whole family of bobolinks might pass from the face of the earth and we would not be aware of their going. Only those who hear their warbling and love-making throughout the live-long day may have the privilege of knowing one song from another, and sense the disappearance of a popular songster.

We know the bobolink by sight and have felt the thrill of its song. We hold it to be one of the finest singers of the feathered tribe. It would be a shame if in the protection of their crops, the rice-farmers have found it necessary to slaughter these birds in such numbers as to threaten their utter extinction.

The annual slaughter of birds is something tremendous, and something ought to be done to stop it. It will be a sorry day for the farmer when the ranks of his feathered friends are so depleted that they can no longer stand guard over the fields and protect them from insects. But that day bids fair to come. On every main highway in the United States thousands of birds are killed daily by speeding automobiles. Many of these birds are sparrows, but in a single day's trip we have counted among the little victims crushed out upon the pavements swallows, canaries, blue-birds, robins and even the saucy woodpecker. We have counted them into the scores, and then we have sickened of the diversion and turned our attention elsewhere. Since the day I ran over a young robin in a village street and saw the poor thing flutter till he was dead, I have had a horror of killing the innocent little things and either toot the horn or slack up when I see them in the road ahead.

Spare the birds! We cannot afford to lose them.

Cutting Acreage

THE Empire State Growers' Co-operative Ass'n, Inc., congratulates itself that its campaign to reduce potato and cabbage acreage in New York has met with success. It discovers that the farmers of the United States as a whole have increased their acreage of potatoes 10.8 per cent over last year and the acreage of cabbage something over 20 per cent. The farmers of New York, however, presumably as result of the campaign alluded to, increased the acreage of the two crops only 4 and 17 per cent respectively.

Commendable as was the effort of this potato association the result can hardly be one to rejoice over. New York's potato crop is nothing but a kettleful of the entire crop. No ordinary decrease or increase in her acreage or production could have any noticeable effect upon the market price of potatoes. So long as the prospects are for a total crop in excess of 400,000,000 bushels it matters not whether New York grows 25,000,000 bushels or 35,000,000, and the same applies to any other state. An actually harvested crop of 428,000,000 bushels will mean low potato prices, and a few million odd bushels either way won't cut much figure. So not only will the New York farmers fail

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.

to influence the market price but they have actually deprived themselves of the chance to share equally with the other states in the distribution of the money which the consumer will pay for the 1922 crop.

Some day the farmers of the United States will tumble to the fact that it's poor business to produce 300,000,000 bushels of potatoes one year and 450,000,000 bushels another year, and they will act to prevent such wide fluctuations. But it is a dangerous problem for one state to tackle alone. It is a matter for united action on the part of all.

"Michigan Pays the Piper"

ONE of the saddest stories in Michigan's history is the story of the debauchery of her standing timber. A quarter of a century ago Michigan was one of the richest states of the union in the wealth of her standing timber. Today her forests stand denuded. The hum of her great saw-mills is gradually ceasing. The thriving lumbering towns of other days have either been completely wiped off the map or are putting up a hopeless struggle for existence. While the great furniture and automobile industries of the state must go to the far western and southern states for the lumber which once stood in virgin garb at their very threshold.

But a remnant of the primeval forests remain, and every year which passes sees the timber line pushed farther and farther back until a day will dawn soon when the only standing timber will be the small woodlots of the farmers. The state is fully aware of this situation but is doing nothing to stay the hand of the lumberman, and very little to reforest the vast areas already depleted. Michigan should take a lesson from Germany and begin to formulate a real reforestation policy which will conserve what little timber we have left and encourage every land owner to plant trees.

An All-Fired High Rate

MR GEO. A. FENKELL, superintendent of the Board of Water Commissioners of Detroit had 6 1-2 tons of fertilizer shipped in bags from Detroit to Almont, a distance of 45 miles. His freight bill was \$41.28, or a little over \$6.30 per ton. Mr. Fenkell wrote the Michigan Railroad Commission that he thought this was an "all-fired" high rate.

We don't suppose anyone excepting the railway company will take issue with Mr. Fenkell's statement. Or will some of those Michigan senators and congressmen who voted for the Esch-Cummins law attempt to prove that such a rate is necessary to save the railroad companies from ruin?

The instance related above is typical, of course, of the way freight charges have increased the country over. The costly experience of the government in operating the roads under the hardest conditions of years shrinks into insignificance compared with the burden which the Esch-Cummins law has foisted upon the people. And the worst part of the situation is that none of our law-makers who supported the Esch-Cummins law give the over-taxed patrons of the roads any promise of relief.

Reclamation

THE State Commissioner of Agriculture has announced a program to reclaim 13,000,000 acres of idle land. The total land area of this state is 36,000,000 acres, of which 12,000,000 acres are improved. Michigan was first settled for agricultural purposes in 1816 when the state was a virgin forest except for a few trading posts. Since it has taken over a century to reclaim 12,000,000 acres how long will it take Mr. Doelle to reclaim 13,000,000 more? We used to worry about what would happen to the farmers when all this idle land was set to work producing crops. But no longer. Mr. Doelle and the editor will be playing harps in the heavenly chorus long, long years before any appreciable number of those idle acres will get to work.

Sen. Townsend says the railroads would be glad to sell out to the government. Yes, providing the government would buy the seven billions in watered stock which the capitalization of the roads now represents. Who wouldn't?

Uncle Rube Spinach Says:

JEST GOT TO ANSWER
YOU know I'd got to thinkin' the discussion 'bout women's dress, the prevallin' styles an' so forth, wuz 'bout ended. Kinda took it 'at I'd been out-classed jest a little an' thought I'd sort o' shet my head an' heve nothin' more to say. But—Well s' long's folks keep ear-in' into the matter mebbe I've got jest's much right to heve a say as anybody else.

Now in the June 24th M. B. F. some person signin' A. W., Williams-bury, Mich., to the letter, takes 'casion to score "Rhoda" of Olivet, an' sez Salome, whoever she is, might be a better name. I ain't goin' to try any defense for Rhoda, Rhoda's capable of defendin' herself. I don't know her but I do know she's got a heap of common sense an' purty nigh knows what she's talkin' 'bout an' that's mor'n can be sed of some folks.

An then in M. B. F. of July 8th Mrs. B. R., Breckenridge, Mich., agin takes up the cudgel an', in some verses, which can be sung to the tune of "Tramp, Tramp," or any other tune you like, scores our young women for their immodesty an' sez she don't jest approve of girls showin' their underness to the public, or words to that effect.

Well, bein' an ol' feller, hevin' lived purty nigh less'n a hundred years, I've seen many different styles in women's clothes. Seen the hoop skirts, an' all women wore 'em; I've seen skirts so long that if a man lost his knife, pipe, a dollar bill or plug of tobacco, some woman wuz bound to find the article in the bottom of her skirt when she got home. In them glad (?) days no street sweepers wuz needed, women did all that kind o' work an' they all wore 'em long. Bustles come in style—what they wuz for, nobody ever knew, yet the dear women all wore 'em.

High heels an' low heels heve each had their turn an' the women, in season, heve tried 'em out; wide skirts an' narrow skirts, all or sim'lar heve had their turn an' all loose sleeves, flowin' sleeves, tight sleeves, flat shoulders, puffed shoulders, high collars—some of 'em up to the ears—low collars, no collars—all of 'em's been tried an' all the women were guilty of tryin' 'em, long hair, bangs, puffs, crimps, switches, wigs, every conceivable manner an' style of wearin' the hair has been tried an' all the women tried 'em. Well I could mention more things that's been done for fashion's sake but what's the use and you who heve lived a hundred years or more know as much about it as I do. You know that no matter what the style, our dear women wuz ready to be the victim. An' who's goin' to say they heve been any more or any less immoral on 'count of any style 'ats ever been known?

Jest at the present time it's the style to wear 'em short. Waists, blouses some of 'em are called, are not so much chin ticklers as they used to be; stockin' are a little mite thinner'n wool mebbe—heels may be raised jest a trifle higher'n a hundred years ago when lots of women went barefoot—yes, things sure be different, Mrs. B. R., in her little bit of verse sez "Nip, nip," Well now that kind'a makes me—I wuz goin' to say smile, but I'll be—well I laugh right out loud about the nippin'—why our girls can walk, they can keep step with a man an' they are real human, too—jest as natural as life an' some of 'em bob their hair! An' some folks sez that's awful! an' yet it's the owner's own hair 'till she sees fit to shed it, then mebbe it b'longs to the barber an' he sells it to some poor dame who ain't got much hair to bob—anyway folks, some of 'em, anyway, sez it's immodest an' jest awful for girls to bob their hair an' yet not one of these critics ever sez a word when I mow my whiskers. Now nature give me an' every man whiskers, I don't know why, but we could all heve 'em, yes jest as many of 'em as our brothers of the House of

David over at Benton Harbor. We choose to cut 'em down now an' then 'cause we don't like 'em—we heve a right to do it an' nobody ever sez a word! Friends, girls heve the same right with their hair, it's no part of my business what they do an' I'm askin' you how much does it concern you?

Again let me say—it's not dress, high heels, bobbed hair, short skirts, low necked dresses or vice versa, that makes a woman any more'n whiskers make a man. Friends, it's the mother heart that lies within every women's breast. Modesty, common sense an' the beauty of womanhood that counts. Cordially yours,
 —UNCLE RUBE.

Never relate your misfortune, and never grieve over what you cannot prevent. Always try to look on the bright side of life and make the best of things.

Many a man's aim in life is restricted to shooting off his mouth about it.

MUSINGS OF A PLAIN FARMER

THERE was some low rumbling clouds in the west this morning as I rose from my bed. I always get religious just before and during a bad storm.

I'll keep away from the trees while I get the cows from the pasture. They say rubber boots are a non-conductor. I have mine on.

To breakfast of coffee, cows cream, wheat bread and a hen's egg.

The storm has gone around and I have gone back to my old way of living.

Hoe! Hoe! Hoe! It's too bad stock won't eat thistles. I believe I could grow 4 ton to the acre and increase my stock two-fold.

I wonder if the anti-co-operators will ever die off.

There is plenty of traffic on the road today. People go more now than when they had oxen, or even horse and shay. There goes a man I O and there goes our country's most prominent reformer. They say the fellow in the speed car is a boot-legger. Of course I don't know.

There goes another man I owe.

Guess I'll quit early for dinner or get off the street.

I am not enjoying the parade.—A. P. Ballard, Huron County, Mich.



It pays to beat about the bush these days. That is where the moonshine is hidden.

"What is this leathery stuff?"

"Filet of sole."

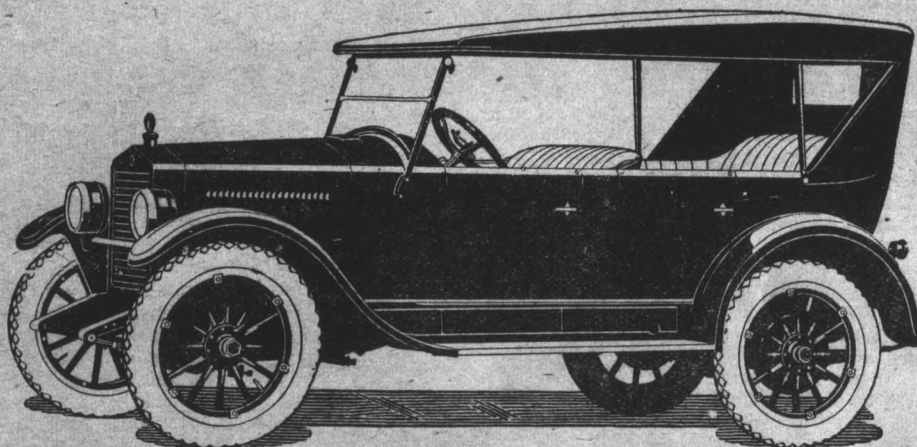
"Take it away, waiter, and see if you can get me a nice tender piece from the upper part of the boot, with the buttons removed."

Harold ran back from the lion in the museum. "Don't be afraid, dear," grandma said: "that lion is stuffed." "Yes," said Harold, "but mebbe he isn't stuffed so full that he couldn't find room for a little boy like me."

Four-year-old Bobby was stroking his cat before the fireplace in perfect content. The cat, also happy, began to purr loudly. Bobby gazed at her askance for a while, then suddenly seized her by the tail and dragged her roughly away from the hearth. His mother interposed.

"You must not hurt your kitty, Bobby." "I'm not," said Bobby, protestingly, "but I've got to get her away from the fire. She's beginning to boil."—The Argonaut (San Francisco.)

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ESSEX MOTORS, Detroit, Michigan

DEAR READERS

I AM back at my desk again after a vacation spent on the shores of wonderful Lake Huron, where one was lulled to sleep at night by the rolling breakers dashing against the big rocks on the shore and awakened in the morning to the same sweet music. The woods behind and the everlasting waters to the west, the north and east, the smell of pines and cedars, the glistening of white sands and the inspiration of interesting company,—if all that does not help me to make this year a better and more helpful one to the friends of Our Page, then I do not deserve the pleasure that was mine.

Perhaps there has been a little delay in answering personal letters, but now you know the reason and will overlook my apparent negligence. I am now ready to take up your problems, giving you my sympathetic interest at least and perhaps something of more practical. — Household Editor.

WHAT CAN SHE DO?

I am a young married woman, have only been married one and a half years. My husband says that he wishes he was not married and that he thinks more of other girls than he does of me. Now what should I do to gain his love?—Heart-broken.

The above letter came to me with its request for advice and I hesitate to say what I really think, that in this case, there being no children, a separation temporary if not permanent, is advisable, the outcome to remain undecided for a while. If any one has any better thought on this matter I will be willing to publish it.

For some years I have been impressed with the idea that our system of education in home and school does not teach some of the essentials, the big facts so necessary to know. We find them out through sad experience and generally our own, not someone else's.

Why not teach boys and girls the laws governing compatibility, the attraction of opposites and how in marriage one should be the complement of the other?

I for one do not shudder at the word eugenics. Why be like the ostrich who puts his head in the sand thereby shutting his eyes but exposing his person to the danger he will not see?

MORE LIGHT ON LIGHTENING

THAT eminent electrical engineer Dr. Charles P. Steinmetz, gives a most interesting interview in the "American" for July on nature's fireworks as he calls it, the fact and spectacle of lightning.

He says, that, of all the lightning flashes generated by a summer storm less than 1 per cent strike the earth, so you are more apt to commit suicide, die of heat prostration, be bitten by a mad dog or be killed by a fall than be struck by lightning. All of which is supposed to be encouraging, but as for me I would prefer lightning to any of them, it is quicker, cleaner and less painful, I imagine. However, that is beside the point.

He says, "There are three places where lightning will not strike you, they are an underground chamber, a steel-framed building and any place surrounded by metal net-work. Lightning takes the shortest path, consequently a tall tree, or a building on a hill is much more apt to be struck than one in a hollow. A living tree is more apt to be struck than a dead one, on account of the sap.

A barn filled with hay not very well cured is slightly more attractive than one filled with dry hay, standing beside it, but the danger of it's being set on fire is of course decreased.

You are just about as safe in one part of the house as in another and you will not insulate yourself by lying down in a feather bed. Yet there are a few danger spots. If you are in direct line between a steam radiator and a metal sink or between either and a metal rain-spout running up the side of the house you may be struck by either a direct or induced flash.

If you glory in a thunder storm as I do then stand in a window or on the veranda and enjoy it. You will be as safe as anywhere unless



POLITICS AND PIES

WOMEN—now, in restless legions, swarm throughout our native land; in all eagle-guarded regions, girls triumphant take their stand. Woman's sphere has been extended till its bounds most widely lie; now her servitude is ended, can she make a decent pie? Well I know that she can wrangle with our statesmen in debate, shoot our laws from any angle, make the income tax look straight; for on deep things, she is posted, she is stuffed with useful lore; but are ducks and beef ribs roasted as they were in days of yore? Can a woman save the nation from disaster and despair, and maintain her lofty station framing up the bill of fare? Will she make our flag a winner, save the country when it skids, or provide a good boiled dinner for the old man and kids?—Walt Mason in Hearst's International.

in the cellar and there you cannot take in its beauties.

Keep away from a chimney or open fireplace, the vertical layer of soot in the chimney is a good conductor. If a fire is burning there is an extra element of danger in the smoke and hot gases arising from the chimney. Railroad men testify that they have seen a lightning flash descend the smoke from a locomotive but as soon as it struck the steel of the locomotive, it went to the rails and was grounded.

Lightning rods should be well grounded, running them into a well of water is an excellent method of installation. If not well grounded they become a menace rather than a protection.

There is an ancient belief that lightning never strikes in the same place twice, in the case of a house or barn it is often true because the place is not there the second time.

Once as a child I saw a wonderful vision in a flash of lightning. It was not of the earth earthy. It has always remained with me and the only fear the wonderful display ever gives me is that it will strike some good farmer's barn, well filled with the result of a season's hard work.

Perhaps insurance is the best protection of all against that calamity.

CORRESPONDENTS' COLUMN

Mrs. W. B.—Certo is perfectly harmless and is made from vegetables and fruits that contain pectin, the substance that makes jelly "jell." We could make it ourselves, but it would take too much time and the manufactured product may always

be ready on our shelves. You may purchase it of most grocers or of the manufacturers.

Young Wife—There is one safe and pleasant method for reducing and I personally know ladies who have used it and thereby reduced four pounds a week, feeling perfectly splendid all the time except for a little lameness just at first.

It is necessary to have a phonograph and buy the records which come for this purpose, in other words, the directions are given on the records. It is really great fun and a number of ladies may take it up at one time, thereby dividing the expense.

To show our appreciation of your quick responses we sent out 20 jute bags instead of ten to the first 20 letters that came in. I hope you and them usefully.

Curly-locks and others—The only place to sell short curls is at a doll's hospital, there they are used for making doll's wigs. There are at least two doll hospitals in Detroit, one on Michigan avenue and one at 924 Gratiot avenue. Send them a sample and find out what they will do. Address, Doll Shop and Hospital.

Has anyone books or magazines she will send me? I will return same or send others in exchange.—Mrs. O. D. Billard, Coldwater, Mich., R. 2.

Mrs. G. V. W.—Your letter is on my desk and instead of publishing it just now I am going to write you a personal letter. I have been think-

AIDS TO GOOD DRESSING

For Simplicity, Service and Style

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



A Pretty House Dress
4054. Figured percale is here shown, with collar of white linen, which is also used for the string girdle. This style is also good for crepe, for gingham and for the new prints and tissues. The skirt may be finished with straight or shaped hem edge. The width at the foot is 2-5 yards, with plaits extended.

The pattern is cut in 7 sizes: 36, 38, 40, 42, 44, 46 and 48 in. bust measure. A 38 in. size will require 6-1-8 yards of 32 inch material. Collar of contrasting material requires 1-2 yard.



A Popular "Over" Blouse Model
4041. Silk or tissue gingham with organdy for collar and cuffs would be nice for this style. The peplum may be omitted. The blouse is in "slip on" style, and may be finished with the sleeves in wrist or elbow length.

The pattern is cut in sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. A 38 inch size requires 2-3-4 yards of 32 inch material. Collar and cuffs of contrasting material require 3-4 yard of 40 inches wide.

A New Version of a Popular Style
4052. This attractive one piece frock of dotted voile is trimmed with organdy and finished with a "short and long" button hole stitch. Plait sections lend fullness, and simulate length to the lines of this model.

The width at the foot with plaits extended is a little more than two yards.

The pattern is cut in 7 sizes: 36, 38, 40, 42, 44, 46 and 48 in. bust measure. A 38 inch size requires 5 yards of 40 inch material.

Popular Suit for the Growing Boy
4063. Here is a design that is easy to develop and which possesses a very practical feature in the form of an underarm gusset that will relieve strain at that part of the blouse.

The pattern is cut in 4 sizes: 4, 6, 8 and 10 years. It will require 3-5-8 yards of 27 inch material for a 6 year size. If desired the blouse may be made of madras or Indian head, and the trousers of cloth or khaki or other contrasting material as illustrated.



ing over your problems and certainly want to be of some help. Just be a little patient. I am thinking about you.

Will someone please send the old song, "Mid the Green Fields of Virginia?"—Arthur Brack.

MODERATE SKIRTS

I will enlist in Dorothea's company for wider skirts and those that don't collect dirt and dust. Why can't we have an American fashion and not follow Paris? A skirt that goes to the shoe-tops is long enough, then one is foot-free and can walk well.

I get so much good out of your department I will give a hint. When using baking soda dissolve it in a little vinegar then you will never taste the soda if you happen to take a little too much.—Mrs. H. T. Mayville, Mich.

CROCHET WORK

I notice a request for pattern of infant's sweater and booties. You may give the subscriber my name and address. I can furnish her some patterns. I have lots of them.

By the way, why can't we have crochet work illustrated in our best of farm papers? I for one would and could help furnish lots of pretty and useful patterns.—M. B. Crawford, Elsie, Mich.

MRS. BETTS PLEASE ANSWER

Will you please furnish manufactures address and name of pressure cooker, so highly lauded by Mrs. Betts on your page of the M. B. F. of July 8 and oblige? Thanking you in advance for the favor.—Mrs. E. Webster, Big Rapids, R. 1, Mich.

STEAM PRESSURE CANNER

Will not the readers who have steam pressure canners, or have used them, please tell us all about them? What success have you had canning vegetables and meats? What kind of cans are best? If you buy tin cans, can they be used more than one time for canning, or can they be opened and thrown away like store cans? Will some one please send recipes for buttermilk pie, also any other good pies with one crust? Has anyone made beet and horseradish relish such as we buy? If so will she please tell us how? Also how to can pumpkin. Mine always spoils. Thank you.—L. M. P. S.

TWO SONGS WANTED

We are subscribers of the M. B. F. Think we cannot farm without it. There are so many helpful ideas for farm and home. May I ask a favor of some one? Who has the words of the songs "Wearing of the Green" and "Tipperary"?—Mrs. J. W. F.

THE EDITOR'S OWN RECIPE FOR MOLASSES CAKE

Cream together three-quarters of a cupful of sugar and a half-cupful of butter. When creamed, add a beaten egg, a half-cupful of molasses, a half-cupful of sour milk, a half-teaspoonful of soda dissolved in a little hot water, a teaspoonful each of cinnamon and ginger, two teaspoonfuls of baking powder in three cupfuls of sifted flour and a teaspoonful of vanilla. Mix thoroughly, then turn into a well-buttered pan and bake for 30 minutes. This cake may also be cut hot in squares and served with a good sauce. It is delicious served with whipped cream.

SOAP MAKING

If the lady asking help in soap making will try the following she will be more than pleased. It is superior to any store soap and will always make a beautiful suds which the old lye soap won't always do.

Take 4 pounds of clear grease, 5 oz. of Borax, 5 oz. of pulverized rosin, 1 can of lye, 2-3 gallons soft water, boil 2 hours, pour into pans and when partly cold cut into cakes.—Mrs. Gitta Dyer, Eaton County, Michigan.

OATMEAL NUT BREAD

Cover 1 pint of rolled oats with 1 pint of boiling water, cover closely till cool, add 4 tablespoons of brown sugar, 2 tablespoons of melted shortening. Have one yeast cake in 1-2 cup of warm water, when no trace of yeast cake remains add to the oats. Stir in one cup white flour, beat well, let rise over night, in morning sift 1 tablespoon salt with 3 cups of flour, add to sponge, let rise 1-2 hours, knead in 1-2 cup of nut meats, 1-2 cup raisins (floured) mould in two loaves, let rise for 1 hour. Bake for 3-4 of hour. (I always double this recipe for our family, we like it so well.)

Suet Pudding

1 cup suet, 1 cup raisins chopped fine, 1 cup molasses, 1 cup of sour milk, 1 teaspoon of soda and salt, 1 grated nutmeg, flour to make a stiff batter, steam two hours. Serve with your favorite pudding.

Sauce

This is fine because it is quick to make: 1-2 cup of sugar, 2 teaspoons flour, small piece of butter, flavor with lemon or vinegar or both if liked, 2 cups of water, boil till clear.

A GOOD RECIPE FOR BUNS

At noon soak 1 yeast cake, then add 1 quart of warm water, 1 egg, 1 small cup sugar, 1-2 cup butter. Mix to a stiff batter and let it rise till bedtime. Then mix not quite as stiff as bread dough. Add salt. In the morning mould out in tins and let rise 3 or 4 hours. Bake in quick oven. If those who use the bread starter will save back a quart of their yeast when baking bread you will find it will make excellent buns. Use it instead of the yeast cake but don't let it be more than a few days old. If lard is rubbed on your bread while baking you will find it will do away with that hard crust that forms.

Can some one send in a recipe for peanut butter cookies?—B. V. S., Climax, Mich.

The Children's Hour

DEAR Nieces and Nephews: Last spring I had a severe case of spring fever and I was under the impression that I had gotten over it alright but it has reacted upon me and the call of the woods and fields is so strong that I must take a vacation. I am now preparing to answer this call and by the time you read this I shall be many miles from here. Owing to this fact I am unable to announce a new contest in story writing.

Two more of the prize-winning stories in our recent contest are being published this week and I am sure you will all agree with me that the stories printed in this issue are just as interesting as any printed in the last two issues. La Vendee Adolph writes an especially interesting story and letter and I do hope we may hear from her again. I wonder if she would tell us more about the trip she took? How about it, La Vendee?

Will all prize winners in the story contest please write and tell me if they received their prizes alright and if they like them?—UNCLE NED.

OUR BOYS AND GIRLS

Dear Uncle Ned—I was just thinking of writing you when the M. B. F. came containing the picture of the old lady and the two boys.

I spent part of last summer on a short trip thru Kentucky. Sometimes we slept beside the road and sometimes at a hotel. One night after we had driven late we made our bed beside a road very near the fence. We were just dozing off to sleep when the fence began to creak and something laid down on the other side. I have slept with cats but the next morning I found I had slept with a mule.

When we arrived at Cave City boys and men came running from all sides to advertise the three different caves that are near there. We went to Mammoth Cave, it was certainly great.

We had weenie roasts most every meal and had beautiful places to have them on large flat rocks. You could find little caves with springs running out of a crevice all along the road. We never could resist the temptation of stopping for a cool drink.

On our way home we went to Lincoln's birthplace. Most people expect to see an old log cabin standing in some little valley. But instead one comes into a well-kept yard where the keeper lives. Then you drive back a quarter of a mile when you will come to a hill, with wide cement steps leading up to a large, beautiful building of sandstone which looked like marble with tall columns all the way around it. The lawns about it were beautifully terraced. Inside one finds the little cabin in which Lincoln was born. The walls of the building were made of bronze tablets with raised letters telling the story of Lincoln's life and work. A card file stood in one corner where all the names of all the people who gave money toward this building. I could write two or three pages about the grounds, walks and the little cave there, but I am afraid you'll think me a sponge now for soaking up so much room.

When I last wrote two girls wrote me very interesting letters but I have lost their address. One was from Stockcome, Stockford or some sort of Stock. It might have been bank stock for all I can remember. I would very much like to have them as well as any others write me.—La Vendee Adolph, Union City, Mich. Age 14.

Indian Bulbs and Jars

A large colonial house stood on a little raise of ground. All about it were the huts of the Negro servants. A magnificent hall opened to the beautiful grounds in front and in back it opened to a vine covered veranda.

There drove up the circular drive an old stage coach, that stopped in front of the large hall and two prominent gentlemen climbed out. As they ascended the steps the elderly gentleman remarked, "I want you to meet my little daughter of whom I am very fond. She's as dainty and prim as you could wish and just the type to enter society; very young and will be a favorite. Altho I have not seen her in many a year I can see just how she is going to look, just as dainty and just as sweet only a little taller."

The servant opened the door to the long shining mahogany hall. From the other end came a shrill boyish voice, "Fitz, I reckon if you don't hurry we won't get another look at my garden before my dad arrives. Wait! I'll get the jugs first."

The old gentleman sat down hard on one of the costly chairs, his mouth wide open. Before him stood a tall, tanned-faced, short-haired girl with two gaudy painted Indian water jugs. Her face lit up with a smile as she saw them.

"Why! er—Hello, Dad, er, I mean I'm pleased to see you home father."

"Evilina," gasped her father. "Go to your room!" he ordered, regaining his speech.

The girl whistled, whirled around and ran up the stairs, two steps at a time. The guests sneered and remarked: "I did not know your daughter was a gardener. Will you please have one of the servants show me to my room?"

The guest started up the polished stairs, another shrill whistle came from the upper hall. Then a bounding sound

on the back, vined porch and a small shaggy Fitz came bounding through the hall and up stairs, past the shocked, disgusted guest.

The old gentleman jumped from his chair. So this was how he was rewarded for letting his modest little daughter go to Michigan to stay while he went abroad.

He went up stairs and down the long corridor to the last door and knocked loudly on the door.

"Stop drumming on my door!" came the reply.

He opened it with a jerk and scowled. "What is the meaning of this?" he demanded. "I bring home a distinguished guest to be greeted by a fourteen-year-old tomboy gypsy. What do you mean by your garden, are there not enough servants?"

"Yes sir! When I was north I played with an Indian princess and when I left her father gave me some precious bulbs. I am getting a place to plant them. He also gave me these beautiful jugs. There they are, the bulbs are in them sir." She spoke with a mild unconcerned manner. This made him all the more disgusted and in his anger he grabbed the jars and threw them out the window into an uncared-for part of the lawn among the bush and weeds. There they lay cracked and broken.

"Now where's that dog? He was dripping wet?"

"Yes sir, he fell in the rain barrel, he's wrapped up in my blanket on the bed now—and you shall not touch him, sir."

"I shan't, eh? Well such a saucy little vagabond as you had better take your pup and go back north. The coach will be ready in an hour. I will send up Mandy to help you pack. I've had enough of your impudence!"

But this all happened many years ago and now our Evilina, our heroine, is old and gray. With the help of her granddaughter Shirley and her two grandsons, Bob and Jack, she is packing to visit her old home.

The day before they started Shirley had donned her coveralls and went back of the house where a very attractive garden was growing; not one cared for by stupid Negro servants, but by Shirley herself. A garden filled with quaint seats and arbors, the work of the boys who were members of the local handicraft club. All were much interested in garden, needlecraft, handicraft and pig clubs.

Now you can see the difference between Evilina's girlhood and Shirley's. For Evilina it had been a disgrace to want a garden. She was so glad that her grandchildren were not handicapped in the least by stupid customs but helped by parents and government.

They arrived at her old home in the early afternoon and the children were so anxious to explore that before night the place had been tramped from one end to the other. The boys came up and sat on the porch with their grandmother a long time before Shirley appeared. But soon she appeared coming through the bushiest uncared-for edge of the lawn carrying her red sleeveless jacket over her arm. She waved it over her head as she saw them and started to run but stubbed her toe and fell flat.

"Good night, what is that?" she remarked, picking herself up and limping toward the house. She had a long tear in her knickers and a gash in her leg.

"Come on into the house and let me wrap it up," said her grandmother, and Shirley went limping in.

Then Jack said, "Let's go out and see what it was that tripped Shirley. It must have been something sharp."

A few minutes later the boys came running toward the house calling, "Oh, grandmother, come quick! See what we found!"

As Evilina appeared at the door she saw in Jack's hand one of the old cracked Indian jars filled with what remained of the others. Evilina asked to be taken to the spot and there in the weeds and brush many strange buds were beginning to blossom.

What They Found

Louis and William were two boys who had never lived in the country except at short intervals during vacation when they had gone to visit their aunt who lived on a farm.

They enjoyed these visits very much and were always willing to help with whatever work they might.

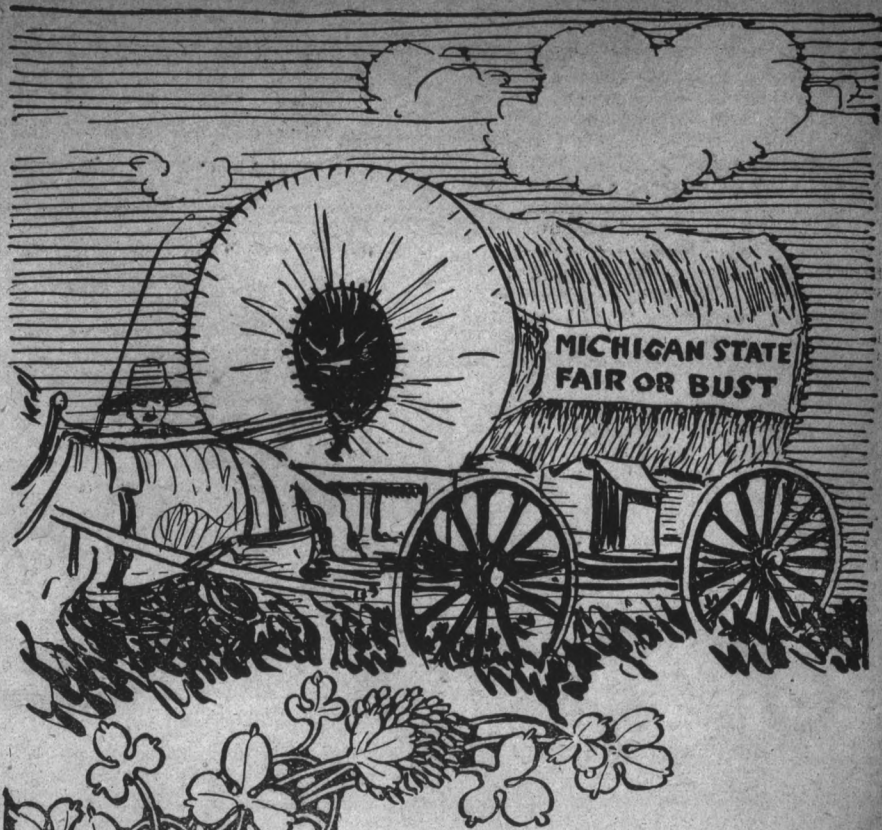
One time they went there to visit during hay harvest and when the hay was ready to bunch their uncle said they might help.

When they were in one corner of the field they heard a noise which sounded like little chickens in the grass but on a closer investigation found it was a nest of eggs and that three of the eggs were pecked so they decided to wait and look at them after their day's work was done and maybe they would have come out of the shells by that time.

After they had had their supper and it was time to feed the chickens they remembered the eggs and went to look at them and to their surprise they were not chickens but something resembling them. So William took his hat and put them in it and carried them to the house to show their aunt what they had found. She said they were Guineaas and that she was glad they had found them for she had been looking for the nest. She said that the boys might have a share in them for finding them.—Evelyn Eldridge, R. 2, Caro, Mich.

A schoolmaster wrote this brief criticism on a boy's report: "A good worker, but talks too much."

When the report came back signed according to the rule by the boy's father it bore besides the signature this feeling retort: "You should hear his mother!"—Selected.



PEOPLE Came in Prairie Schooners to Michigan's State Fair of 1849. If Worth While Then, How Much More So Now?

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10 Days--10 Nights

Detroit, Sept. 1-10

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400-ACRE VILLAGE FARM WITH 4 horses, poultry, 20 cows and heifers, 3 steers, 4 calves, bull, 18 hogs, poultry, full modern implements, cider mill, etc., included if taken now; on paved street and bordering river. All advantages at door; 3 tenant houses renting \$30 monthly, 150 acres fertile loam tillage for big variety crops; 40-acre spring-watered pasture; about 2,000 cords wood, 100,000 feet timber, 100 apple trees good 2-story 8-room house, gas heat, 80-foot basement barn, silo, 2nd barn, garage. Retiring owner's price only \$6,000. Part cash. Details page 51 plus catalog, 1,200 Bargains FREE. STROUT FARM AGENCY, 814 B. E. Ford Bldg., Detroit, Mich.

IMPROVED ROAD FARM ONLY \$1,850 25 acres crops, 12 cattle, 3 horses, flock poultry, cream separator, cider press and if taken soon 25 acres clover alfalfa, millet, rye, corn, etc., thrown in. 40 acres in beautiful prosperous section with good neighbors and excellent schools. 30 acres heavy cropping tillage, pasture, woodlot, 50 apple, 12 plum, pear, peach, cherry trees; 5-room house with broad outlook; 30-foot barn, granary, hay barn, poultry house. To close aged owners affairs quickly \$1,850 takes all. Part cash. Write today or better come at once. G. N. GOULD, Harbor Springs, Mich.

\$1,000 GETS 80 ACRES NEAR TOWN. Horses, cows, growing crops, poultry, hog, machinery, tools, cream separator, included if taken soon. On improved road, handy town with stores, high school, grist mill, cream station. Easy drive county seat. 68 acres loam tillage suited hay, corn, grain, potatoes, fruit, pasture and woodlot; 50 fruit trees, comfortable 6-room house, 50-foot basement barn. Owner unable operate. \$5,500, only \$1,000 down. Must be sold at once. MASON E. REYNOLDS, Mason, Mich.

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

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

40-ACRE FARM AND CROPS, CONSISTING of hay, oats, potatoes, good garden, cream separator, 4 cows, poultry, good soil, excellent water. On M10 road, close to Iowa 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. Good soil, good estate. Write the Administrator, GEORGE NELSON, Route No. 2, Greenville, Michigan.

FOR SALE—160 A. FARM, 1 1-2 MILES from Onaway, Mich., on State Pike. 125 A. cultivated dark clay soil, no waste, new modern house, large barn, good soil, good estate. Address owner, A. J. BRENNER, Onaway, Mich.

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

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

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FOR SALE—95 ACRE FARM, GOOD BUILD- ings and soil, near school, easy terms. For particulars write MRS. CARRIE GIBSON, Lapeer, Mich., R. 8.

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

FOR SALE—GOOD 80-ACRE FARM 10 1-2 miles from Alpena on M-10 highway. For particulars write J. J. FERGUSON, Herron, Mich.

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

IF YOU WANT TO SELL OR EXCHANGE your farm, town or city property, write JEROME PROBST, Ann Arbor, Mich.

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

MISCELLANEOUS

GENERAL

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

SEED WHEAT—HYBRID NO. 2 WHEAT (white wheat) yielded this year 35 bu. per acre, 40 lb. test, vigorous plant, medium growth straw, offering at \$1.50 per bu., bags extra. P. O. B. Vassar, Mich. Sample mailed upon request. Mail orders filled promptly. GEORGE W. RIDGE-MAN, Vassar, Michigan, R. D. 1.

50¢ CASH—REAL MONEY—FOR YOU! 50¢ Big new magazine wants a name. We will pay big money for your name and address today for instructions. Don't send us any money. This offer is free to all. Cash in on this. Address "BUSINESS," Box 637, Steubenville, Ohio.

OPPORTUNITY—FOR LIVE WIRES TO make big money handling our new special personal coverage Automobile Accident Policy. Twenty-five dollar weekly benefits. Annual premium \$5.00. Write NATIONAL CASUALTY COMPANY, Auto Department, Detroit, Mich.

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

LADIES—MAKE MONEY IN YOUR SPARE time. Be our agents for Japhco Household Medical Products. Experience not necessary. Write for information. JAPHCO PRODUCTS CO., 11700 St. Clair Ave., Cleveland, O.

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

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

WOMEN MAKE BIG MONEY SELLING THE "Martha Washington Apron Dresses" direct from factory; write for particulars. ILLINOIS GARMENT FACTORY, 3959 Lincoln Ave., Chicago, Ill.

IMPORTANT—PREPARE FOR CHRIST- mas, young and old. Send stamped envelope. Your occupation, age, married or single, to VICTOR FIDELITY CO., 1529 Bratton Ave., Cleveland, Ohio.

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

WANTED—BY RESPECTABLE WIDOW, age 39, job as housekeeper. MRS. VESTA J. GUINN, Warsaw Ind., R. 2, Box 73.

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

BEEES AND HONEY

BEE HIVES, SECTIONS, COMB FOUNDA- tion smokers, etc. Complete outfits for beginners with or without bees. Agents for A. I. Root Co. 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.

NATURAL LEAF TOBACCO—CHEWING, 5 pounds, \$1.75; 15 pounds, \$4.00. Smoking, 5 pounds, \$1.25; 15 pounds, \$2.00. Send no money. Pay when received. FARMERS' TOBACCO ASSOCIATION, Paducah, Ky.

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.

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.

TOBACCO, KENTUCKY'S NATURAL LEAF, Nice and mellow smoking, 10 lbs., \$2; 20 lbs., \$3. Hand selected chewing, 10 lbs., \$3; 20 lbs., \$5. FARMERS' TOBACCO UNION, Sedalia, Ky.

TOBACCO—KENTUCKY'S PRIDE, EXTRA fine chewing, 10 lb., \$3.00; smoking, 10 lb., \$2.00; 20 lb., \$3.50. FARMERS' CLUB, Mayfield, Ky.

IS YOUR FARM

FOR SALE?

AN AD IN M. B. F.

WILL SELL IT.

FARM MECHANICS

TO PURIFY CISTERN WATER

We have had considerable trouble with our cistern water since taking the old shingles off the roof last spring, prior to singling. Of course we knew that cedar shingles would discolor the water, but having cleaned the cistern thoroughly soon after that we thought the color would be the only bad result. Now the water has had a very unpleasant sour odor for the past two months and although we are using water out of it in quantities all the time it does not improve. Can you tell us of any acid we could use to deodorize the water and help to clear it? It is browner than ever.

We enjoy the Business Farmer, and consider it the best publication of its kind in this state. Especially have we been interested in the comments by the Editor of the Home and Family Page, such as the one about the Spiritual and the Real Body. We heartily endorse these broad, human sentiments and interpretations of the Bible and other fine books. Would like to see more of them.—R. A. H., Grand Rapids, Mich.

The cistern should be emptied again and thoroughly scrubbed out. If when it fills again the disagreeable odor appears put in a small quantity of some good brand of beeching powder.—F. E. Fogle, Ass't Prof. of Farm Mechanics, M. A. C.

MECHANICAL ENGINEERING A GOOD PROFESSION

Will you please tell me just what a mechanical engineer is, his duties, etc.? The M. A. C. offers a course in mechanical engineering but I don't quite get the idea what a mechanical engineer's work is. Also is this a paying profession for a young man to enter?—R. J. R., Suttons Bay, Mich.

The Mechanical Engineer deals primarily with the production and consumption of power. As such his work may be that of the power plant engineer leading up to positions as superintendents and managers of electric light and power companies. Or he may become interested in heating and ventilation, in which case he becomes engineer either designing or in sales work for such companies as The American Blower Company, Clarage Fan Co., American Radiator Co., and Holland Furnace Co.

Another field, is that of the industrial engineer, this branch of mechanical engineering deals with the methods of production in manufacturing establishments and leads to such positions as factory managers and superintendents and executives. A third division of mechanical engineering specializes in automotive design and construction, and these men are employed by the automobile and tractor companies for designing, testing and at times for sales.

The opportunities for the mechanical engineer are good. More and more things are being done mechanically, calling for knowledge of the above lines of work. Furthermore positions as executives are more and more being filled by men having some knowledge of engineering and especially mechanical engineering, as it pertains to the methods of manufacture.—H. B. Dirks, Professor of Mechanical Engineering, M. A. C.

TO TEMPER STONE HAMMER

Will you give me a receipt to temper a stone hammer as I do my own blacksmith work and I have no luck in getting it just right? There is some stuff to temper it in and I don't know what it is.—A. W. R.—Oxford, Mich.

Regarding the hardness of the tool it is, of course, determined by the temperature to which the piece is heated when it is cooled suddenly by dipping into oil or water. The temperature given by these authorities is from 440 to 460 degrees Fahrenheit. It is, of course, impossible to measure these temperatures by common methods. However, the color of the metal in cooling will correspond very closely with the temperature and the color given for the corresponding temperature is about as follows: The material is allowed to cool until it becomes a very pale straw yellow, which is about 550 degrees, when it is plunged into the cooling medium.

I do not have any specific instructions for the exact steps in tempering this tool but a blacksmith would probably understand how to carry them out.—H. H. Musselman, Professor of Farm Mechanics, M. A. C.

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.

THE CEMENT SILO

I have just bought a cement silo and as there isn't any of that kind around here I would like to know if they are any good. Can some reader tell me?—C. P., Cadillac, Mich.

TANNING HIDES ON THE FARM

TANNING HIDES are equipped to make all the leather the country needs and can make better leather more economically than the farmer can, but there are times when the producer of hides finds that the margin between the price paid for the raw material and the price asked for finished leather is so great that he determines to do his own tanning. For example in certain large sections of the country a farmer can hardly give away the hides he has, yet leather in small pieces costs him from \$1 to \$1.50 a pound. To help him in such emergencies the United States Department of Agriculture has just issued Department Circular 230, Home Tanning, which gives detailed directions for making leather for various purposes, and copy of which may be had without charge by addressing Division of Publications, U. S. Department of Agriculture.

O. F. Grube, a farmer living near Punxsutawney, Pa., directed two aviators, Harold O. Nevin and Leon Smith, to discontinue flying exhibitions over his farm, which is posted against trespassers. The aviators refused to quit. They said their machine did not touch Grube's property and that the air was free to all. Grube filed a complaint against the fliers. Squire Rowan found them guilty and fined them \$1 each and costs of court.

A Handy Tool For The Farm Work-Shop

WANT to earn a handy tool for the farm work-shop? In about 15 minutes? Free of cost? Without any work. Sounds like a get-rich-quick scheme, doesn't it? Well, here's the "dope." To the first farmer that writes me the best letter telling me what he would do with it if he had one, I am going to send a gas welding torch, all equipped for immediate welding. And to the next ten farmers I am going to give a year's subscription to the Business Farmer and tell them where they can buy a torch for less than \$10.

Now what I want to know is this:

What use do farmers generally have for a brazing and soldering torch? How often when farm implements break do they say, "Oh, if I only had a welding torch, I could fix that in a 'jiffy.'" And supposing they had a torch would the most of them know how to use it?

Now, you Mr. Handy Man with the tools, sit down this minute and tell me what uses YOU would have for an always ready torch, burning the hottest flame you ever saw, without odor, soot or smoke. And tell me if you think farmers generally, of your vicinity, for instance, would be interested in such a torch if it could be bought cheap and was guaranteed to give satisfaction. Address Editor Business Farmer, Mount Clemens, Mich.

STATE LAUNCHES LAND-CLEARING PROJECT

"WELL, my dear"—and Paul Bunyon, favorite stump puller, from his corner in the box-car which was conveying him, with the rest of the mechanical hired hands who had helped "Larry" Livingston put over his land-clearing campaign in Upper Michigan this year, turned to "Elizabeth," the horse-power puller: "It's been a hard grind for us all, that's true. But I'm satisfied, for I feel confident that, with the start, and the help we have given the farmers of Cloverland, they will go ahead, this year, and finish up the 60,000 acres which 'Larry' has predicted."

The occasion for the above marked the close of the campaign, waged by Larry Livingston, land-clearing expert, of the Michigan Agricultural College, A. J. McAdams, dynamite "shark," and other skilled workers, throughout the upper peninsula of Michigan this year. It was a war on stumps—a bravely fought, energetic battle which has won for Cloverland eighty-six acres actually cleared through their effort, approximately 2,700 "posted" farmers and a host of land-clearing enthusiasts who are pledged to "carry on" for the future. It was the opening shot to reclaim, for the upper peninsula of Michigan, some 5,000,000 or more acres of cut-over agricultural land—areas adequately adapted, by reason of the structure of their soils—for diversified agriculture.

For eight weeks—from May 1 to June 28—"Larry" Livingston and his crew of stump dentists blasted their way about the peninsula, conducting thirty-eight schools of instruction, for 2,700 farmers in Cloverland, this being the number who will receive certificates for having actually participated in the work and who showed, through their use of the various implements, an intimate knowledge of the modern, up-to-date methods of land-clearing, as taught by Larry's short course.

Although only those farmers who actually participated in the work, and who qualified, were given the certificates, approximately 10,000 people witnessed the work of the land clearing schools during the eight weeks of instruction. The train itself, consisting of nine cars, was a feature of unusual interest, for it comprised a complete land-clearing outfit from A to Z. And by that we mean that the train boasted every modern convenience—from a power-generating and lighting system to a radio outfit.

Unfavorable weather, unless it prohibited the efficient use of the tractors, stump pullers, pilers and other equipment, was no obstacle. Rain or shine, crowd or no crowd (but there was always a crowd) meant nothing to Cloverland's land-clearing crew. They were on the job, every working day in the week, and not once did they slip up on their schedule of thirty eight schools.

It was a proposition of "learn by doing" and every farmer who attended the various schools was given the opportunity, and urged to accept it, of taking a hand in the work.

Practically every known obstacle was met and overcome, as far as the condition of the land is concerned. Stumps of every known size and variety, from the great white-pine, deep rooted fellows to the small green grubs in the sandy areas, were numbered among the 6,000 or more which paid the toll for the season's work. On plain and hill-side, in dry and marshy areas, they worked, and, in fact, as concerns the land-clearing on any type of cut-over land, there is no cause, now, to say: "it can't be done."

The outfit featured, in its equipment, two tractors; a Cletrac and a Fordson; two hand-pullers; one Kirstin horse-power puller; a piler and, last, but by no means least, old "Paul Bunyon," the great, mallet-shaped hammer that performed miracles during the eight week's work.

A similar campaign is being planned for the lower peninsula of Michigan this fall. The details are incomplete, but the project itself has been practically decided upon. Michigan is awakening to her agricultural possibilities. A plan, recently formulated by Michigan's agricultural

department, John A. Doelle, commissioner, provides for the reclamation of some 13,000,000 acres of idle lands.—L. D. Tucker.

HOUSING COMPANIES

(Continued from page 11)

kind are based for profit upon the losses of fellow investors. You are promised that after making 36 monthly payments, in some instances at the rate of \$7.50 a month per 1,000 par value, you will be eligible to borrow money at 4 per cent to build your home from the common fund to which you and all associates on like terms are depositing money. If you follow along and promptly pay at this rate for ten years, you will have paid in \$900 and the promoters then promise you an absolute value of \$1,000—the \$100 beyond that you paid in covering presumably a compound interest return of little more than 2 per cent per annum.

"But at the end of three years you are in line to borrow at 4 per cent on your home or approved security 80 per cent of its value.

"This sounds very well, but the emphasis should be on the fact that you are now only 'in line.' What the investor would now consider, and what he should consider before he started is what are his chances in the line for that loan and by what means is he to get the money at 4 per cent? He fails to realize that he has put money into the hands of people who have not put up a dollar as security for him, but have taken from him at the start his first four monthly payments as their own compensation for expenses and 'thought' for his interest. They also, if he continues for ten years to pay, take substantially twice as much more over the ten years period. So that in effect he has paid for every thousand dollars he hopes to realize at least \$88 for guardianship and 'thought' and he gets back over a ten year period \$100 in interest.

"He could have done much better at any savings bank and had security with the bank's capital and his money always on call. What, therefore, is the incentive for him to 'house' his money with this housing speculation? It is the alluring promise that after three years he is 'in line' to borrow his total thousand—the sum he has really promised and guaranteed to himself with his own money and no other money. How, then, can the housing trust make good its unsecured promise? This is the crux of the whole matter, and should bring the thoughtful investor, or any of his banking advisors, to the clear understanding of the fact that he has not made an investment, but a speculation or a gamble, based upon the chances of misfortune to his fellow investors who will fall by the way and forfeit into the pool so as to help redeem his hopes.

"Promoters of these enterprises figure on tables of human frailties and broken promises that two out of every three that start fall by the way. It is this rotten system of gambling on human frailties that was once at the base of bad systems of life insurance; and the laws of most states in the Union have now eliminated such forms of life insurance as tended to make a wide gathering up of savings of the poor that should ultimately be forfeited for the benefit of the organizers and promoters.

BUYING POWER OF FARM PRODUCTS SHOW DECREASE

(Continued from page 2)

per cent for the preceding two months

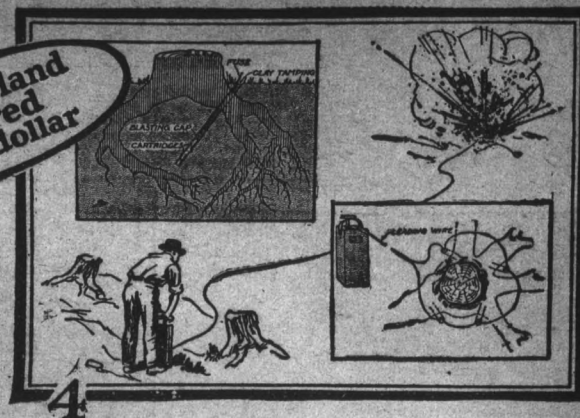
By February, this buying power had increased to 71 per cent of the 1913 base, and by March to 76 per cent. This increase was caused by the fact that the prices of farm products increased from December, 1921, to March, 1922, in greater degree than the wholesale prices of commodities farmers buy.

Since March, however, these two price movements relatively changed places and the prices of farm products increased from March to June in less degree than the prices of commodities farmers buy.

The decline since March in the purchasing power of farm products has been gradual, the index number having been 75 per cent of the 1913 base for April, 73 per cent for May, and 72 per cent for June.

1/3 more land cleared per dollar

—with DUMORITE save still more money by using the latest, cheapest blasting methods.



Firing the Charge

THERE are two methods of firing a dynamite charge: (1) by means of cap and fuse, or (2) by means of electric blasting caps and blasting machine.

When the cap and fuse method is used the blaster must remember that the fuse burns at the rate of 32 to 40 seconds per foot, and must allow ample length of fuse to enable him to retire to a safe point before the explosion. Six inches of fuse out of the bore hole should be sufficient.

When blasting very large stumps, where it is necessary to fire several charges simultaneously under the anchor roots, electric blasting caps and an electric blasting machine must be used. The electric method can also be used, of course, to fire a single charge.

The diagram above illustrates these two methods.

Dumprite, the new du Pont dynamite, has greatly reduced the cost of clearing land. 135 to 140 sticks of Dumprite cost the same as 100 sticks of 40% dynamite. Stick for stick, they have the same strength and Dumprite possesses also the slower heaving power of 20% dynamite, which makes it a better farm explosive than either 40% or 20%.

Order Dumprite from your local dealer and write us for free 104-page "Farmers' Handbook of Explosives." It gives full instructions covering the use of dynamite for land clearing, ditching and tree planting.

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(SPECIAL ADVERTISING RATES under this heading to honest breeders of live stock and poultry will be sent on request. Better still write out what you have to offer, let us put it in type, show you a proof and tell you what it will cost for 13, 28 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.

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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

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SHOW BULL

Sired by a Pontiac Aagie Korndyke-Hengerfeld 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.

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ROY F. FICKIES
Chesaning, Mich.

Choice of Herd of Registered
Holstein Cows
FOR SALE
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SOLD AGAIN

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

HOLSTEIN BULL BARGAINS

Sired by Segis Korndyke De Nijlander, a 32 lb. son of a twice Michigan ribbon winner, her dam, 29 1-2 lbs. Dams are daughters of King Segis Pontiac, a 37 lb. son of King Segis. Records up to 30 lbs. Priced at \$100 up. Federally tested. Write for list.
ALBERT G. WADE, White Pigeon, Mich.

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

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.

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

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

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

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Registered stock of all ages and both sex. Herd headed by the imported bull, Kelmscott Viscount 25th, 648,563. Prices reasonable.
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SHORTHORNS AND POLAND CHINAS. We are now offering two ten-months-old bulls, one bred heifer, and two ten-months-old heifers.
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sheep. Both sex for sale.
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GLADWIN COUNTY PURE BRED LIVESTOCK ASSOCIATION. Hereford, Shorthorn, Jersey and Holstein cattle; Duroc-Jersey, Poland China and Hampshire hogs; Oxford, Shropshire and Hampshire sheep.

A place to buy good breeding stock at reasonable prices.
FRED B. SWINEHART, O. E. ATWATER
President Secretary
Gladwin, Mich.

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

ANGUS

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

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

DAIRY and LIVESTOCK

COW TESTING ASSOCIATIONS ON THE INCREASE

THE increased interest in cow-testing work is attested by the fact that during the month of June two new counties, Eaton and Calhoun, took up the work and three other counties, Shiawassee, Kalamazoo and Ogemaw made preparations for organizing associations. Associations in Cass and Washtenaw counties are in process of organization and will be ready to report within another few weeks.

Macomb county has also organized, through the efforts of County Agent Murphy, with 390 cows, making it the largest association in the state. The cow tester began work in this Association on August 1st.

The 3410 cows reported for June averaged 726.7 pounds milk and 28.99 pounds butterfat or 24.2 pounds and .96 pounds butterfat daily. These amounts are 112 pounds milk and 3.61 pounds butterfat less per cow per month than the amount produced in May.

"The natural lessening and drying off of pastures influences milk production greatly," says A. C. Baltzer, M. A. C. Extension Specialist in Dairying. "The cow that is producing quite heavily and efficiently, simply cannot eat enough pasture no matter how abundant, to meet the requirements for milk production. As the summer season advances this influence will become more noticeable. It is good dairy practice to use small amounts of grain and also silage to supplement pasture. Feed 1 pound of grain mixture composed of 400 pounds corn meal or ground barley, 200 pounds ground oats or bran and 100 pounds cottonseed meal for each 4 pounds milk produced."

The Wayland Association in Allegan county leads the way in having in use 100 per cent pure bred sires. Allegan county has a distinctive manner in leading the way agriculturally and it is a unique distinction

to note that this Cow Testing Association, a product of the Dairy and Alfalfa campaign, is the first to report 100 per cent pure bred sires.

Russell Harwood, the cow tester in Kent county has been checking up on the separators. One he found left 1.5 per cent butterfat in the skim milk. 160 pounds of milk were being separated daily through this machine. Assuming 150 pounds of skim milk resulted daily, 2.25 pounds of butterfat were slipping away from the farmer. At 35 cents a pound this would mean a loss of 78c daily or \$23.40 a month.

It would not take many months to pay for several years of Cow Testing Association work on this basis. Also an extremely high rate of interest was being paid out by this member on an inefficient separator.

The eighteen active Cow Testing Associations now operating in Michigan constitute the largest group of Cow Testing Associations ever active during any year. The County Agricultural Agents with members of the Dairy Department of Michigan Agricultural College have been instrumental in these organizations. A substantial growth and demand for this work is arising in many other Michigan counties.

"It is not good practice to carry the persistent milker right up to her next freshening period," says Mr. Baltzer. "Cows due to freshen in the early fall will do better to not alone be turned dry but given additional feed while on pasture. We would suggest equal parts by weight of cornmeal, ground oats and bran be mixed and feed 3-6 pounds daily. It pays big dividends in the next lactation period."

The National Dairy Show is dated for the Minnesota Fair Grounds at St. Paul-Minneapolis, Minnesota, October 7th to 14th, 1922. Special recognition is being given to the

ASSOCIATION DATA FOR JUNE

Association	Tester	No. Cows Tested	Monthly Average of All Cows		Monthly Average of 10 High Cows	
			Milk	Fat	Milk	Fat
Wayne	J. H. Mathiesen	226	979.0	34.4	1698.2	64.08
Kent	R. Harwood	224	874.0	33.4	1452.6	58.24
Lapeer	H. E. Hoisington	313	862.0	31.36	1799.4	76.45
Jackson	Roy Chilberg	257	828.5	30.2	1563.2	58.53
S. Van Buren	G. C. Knight	180	665.5	30.2	1327.9	55.35
W. Allegan	J. R. Livermore	216	632.5	29.5	1107.8	53.50
N. Van Buren	M. S. Thomas	225	622.0	29.3	1150.2	56.53
Wayland-Allegan	R. Wilcox	243	787.0	28.43	1411.8	52.98
Parma-Jackson	F. Leonard	347	602.9	28.33	1132.3	54.48
Kalamazoo	S. P. Sexton	249	654.0	28.3	1152.3	54.78
Livingston	M. Proctor	184	768.0	27.5	1393.5	49.39
Newaygo	Hoyt Shisler	260	630.0	26.8	939.6	48.40
Calhoun	Percy Parkyn	157	641.7	25.16	1049.7	44.55
Eaton	Hans Kadel	188	636.8	23.04	1079.7	43.15
Emmet	D. Welsheimer	136			1024.3	53.92
Oceana	L. D. Leisenring	219	641.5	27.28	1049.4	51.65
Newaygo*		269	742.0	31.0	1225.4	57.39

*Month of May

High Herd in Butterfat Production in Each Association

Association	Owner	No. of Cows	Breed	Milk	Fat
Wayne	E. M. Stewart	6	R. Hol.	1751.00	56.20
W. Allegan	H. M. Atwater	3	R. Jer.	987.00	51.10
Wayland-Allegan	Geo. Brown	7	Gr. Hol.	1404.00	50.94
Kent	G. S. Felt	8	Gr. Hol.	1190.80	49.30
Jackson	Vernon Clough	10	R. Hol.	1299.10	47.40
Kalamazoo	S. J. Standley	9	R. Jer.	795.00	45.40
Lapeer	Wm. Thorman	14	Gr. Hol.	1140.10	44.50
Livingston	J. G. Hays	6	R. Hol.	1299.60	44.10
Emmet	Geo. Cook	8	Gr. Hol.	1014.90	43.02
N. VanBuren	E. A. Fowler	6	Jersey	861.0	41.40
Parma-Jackson	J. J. & J. M. Godfrey	12	Gr. Guern.	785.0	38.80
S. VanBuren	Chester Ball	7	R. Hol.	875.0	37.60
Eaton	Geo. O. Smith	8	Mixed	771.4	34.30
Newaygo	R. VanTil	12	Gr. Hol.	1006.0	33.80
Calhoun	A. T. Boyd & Son	11	R. & Gr. Hol.	930.8	31.99
Oceana	F. C. Sherman	11	G. & R. Jersey	878.4	40.05
Newaygo*	R. VanTil	12	Gr. Hol.	1410.0	46.00

*Month of May

High Cow in Butterfat Production in Each Association

Association	Owner	Breed	Milk	Fat
Lapeer	Michigan Home	R. Holstein	2040.0	108.12
S. Van Buren	Chester Ball	R. Holstein	2120.0	89.50
Wayne	Meadows Farm	Gr. Guernsey	1497.0	86.80
N. Van Buren	Sherman Dairy Co.	Gr. Holstein	1452.0	75.50
Parma-Jackson	F. L. Wheeler	R. Holstein	1320.0	72.60
Kent	H. A. Fick	R. Holstein	1571.7	67.60
Kalamazoo	R. N. Cose	Gr. Guernsey	1075.0	66.90
Emmet	E. J. Hyatt	Gr. Guernsey	1278.0	66.56
Jackson	Vernon Clough	R. Holstein	1571.7	64.40
Wayland-Allegan	Geo. Brown	R. Holstein	1650.0	64.40
Newaygo	Dr. Black	R. Jersey	978.0	64.00
Livingston	J. G. Hays	R. Holstein	1755.0	61.40
W. Allegan	H. H. Atwater	R. Jersey	1036.0	60.80
Calhoun	E. E. Ball	Gr. Guernsey	894.0	50.06
Eaton	Chappell & Smith	R. Holstein	1704.0	46.00
Oceana	F. C. Sherman	R. Jersey	1188.0	61.78
Newaygo*	Dr. Wm. Black	R. Jersey	1091.0	70.80

*Month of May

grade cow with a cow testing association record.

Michigan is the pioneer state in this phase of dairy development. Newaygo county had the first cow-testing association organized in the United States. It will be altogether fitting and extremely appropriate that Michigan grade cows with cow testing association records be gathered from several counties and sent to the National Dairy show. The following rules apply to this special class, which holds for Holstein, Guernsey, Jersey and Ayrshire cattle.

"Grade Cow Class"

All sired by pure-bred bulls and sires name and number must be given with the entry. Entry in classes 1 and 2 respectively for each breed limited to one class for each cow.

Class No. 1—Cow with cow test association production record of 500 pounds of butterfat or over; 1st, \$30; 2nd, \$25; 3rd, \$20; 4th, \$20; 5th, 6th and 7th, \$15; 9th and 10th, \$10.

Class No. 2—Cow with cow test association production record of 350 pounds to 500 pounds of butterfat (Same as for Class No. 1.)

Class No. 3—Group of 5 cows from a single cow test association eligible for above single classes: (Same as for Class No. 1.)

Class No. 4—Group of 4 cows eligible for above classes, sired by registered bull: (Same as for Class No. 1.)

Class No. 5—Champion Grade cow: \$10.

The Dairy Department, Michigan Agricultural College desires to poster this exhibit. It will help in the selection and arranging of this exhibit. Expenses to ship and care for a car load of livestock to St. Paul will be about \$600 to \$700.

MILK WORTH 4c A QUART WITH BUTTERFAT AT 40c

How much is a quart of whole sweet milk worth when one pound of cream butter fat is worth 35c to 40c?—W. T. A., Chief, Mich.

One quart of 4 per cent milk contains .086 pounds fat. At 40c per pound this would have a value of 3.44 cents per quart. Each quart of whole milk would contain 1.87 pounds of skim milk. The value of this skim milk would depend upon the use to which it could be put for feeding purposes on the farm. At 30 cents a hundred this amount of skim milk would be worth .0056 cents. Adding this to the value of the butter fat, it would give a value of 4 cents for 4 per cent milk. If this

milk were to be processed, cooled or bottled, it would of necessity demand a higher price because of the extra labor and operations involved.—O. T. Goodwin, Associate Professor of Dairy Manufacturers, M. A. C.

VETERINARY DEPARTMENT

PIG HAS PARALYSIS

We have a young sow that carries her head to one side and turned slightly up. When she tries to get anything from trough or ground staggers around and falls headlong. She has a good appetite and doesn't seem to be in any pain. This pig has a run by herself and has been fed a slop consisting of milk, ground corn and oats with middlings and bran and a little whole corn.—C. B. M., Laingsburg, Mich.

From the description which you give of your hog, the trouble is undoubtedly due to an acute form of indigestion which has resulted in a paralysis. In such a case about all that can be done is to give the sow laxative foods and keep her quiet. This trouble often occurs with hogs that are heavily fed. There is just a possibility that this trouble might be due to a nail having been swallowed and lodged somewhere in the throat. In either case, however, the treatment would be the same. When trouble is due to an obstruction in the throat they very often recover, whereas, with paralysis they more often succumb from the trouble.—Geo. A. Brown, Professor of Animal Husbandry, M. A. C.

COW HOLDS BACK MILK

I have a cow that holds her milk every few days and will not give it. Can you please tell me what is the matter with her? She is healthy and is on pasture every day. She is 4 1-2 years old.—Mrs. A. O., Auburn, Mich.

You do not give sufficient information on which to base a reply, but it would seem to me that the cow in question was a nervous individual and affected by unusual occurrences, causing her to hold up her milk. In a great many herds there are individuals whose nervous systems are affected by happenings which do influence the milk secretion of the herd. When such cows become frightened or excited, the circular muscles controlling the ducts in the upper part of the udder are closed and the cow does not let down her milk. The cow has no voluntary control over these muscles. They react from fright or excitement caused by unusual circumstances.—J. E. Burnett, Associate Professor of Dairy husbandry, M. A. C.

Special Offer In Pullets

We have an offer of Pullets that I know you will appreciate. There are yet left of the early hatched Pullets—

400 S. C. White Leghorns and 300 S. C. Superior English White Leghorns

These are now nearly 4 months old; large, well grown birds that should begin to lay in four or five weeks from the time you will get them. The Pullets will still be sold at the 3 months price, and at this price they are a genuine bargain. See price list in our publication, Homestead Farms for July; or we will send you a copy.

If you want Pullets that will begin to lay in September, or the first of October let us send you some of these Leghorns. If you start them in right and if you keep them up to the best, they will give you enough eggs by January 1 to pay for themselves.

These 700 Pullets at the 3 months price are a genuine bargain; if you are planning for laying Hens this fall and winter, you should buy some of these birds.

It will be necessary to order now; at 5 months old the Pullets will be of laying age, when the price must be raised.

I am giving you a good chance to buy them now at the 3 months bargain price. We guarantee the Pullets to be entirely satisfactory to you. Your order will be filled promptly—while the Pullets last.

State Farms Association

E. A. SEE, Manager

201 Chase Block,

Kalamazoo, Mich.

More Silage—Better Silage

If you own a silo it will pay you to own a Papec Ensilage Cutter also. Figure it out for yourself. The cutter crew fills your silo hurriedly. After it is gone, the silage settles and settles until your silo is about one-fourth empty. With your own cutter, you fill moderately and cut close; there is little settling when you finish and that little can be easily

The Powerful PAPEC Ensilage Cutter

THROWS
AND
BLOWS

refilled. More important still, your corn is likely to be too green or too ripe when the hired crew arrives. In either case, the silage does not have full feeding value. With your own cutter, you can fill when the corn is just right to give you the highest quality of silage. The stock will clean up their silage closer and get more nourishment from it. Besides, there is a very considerable saving in actual cash outlay. These savings taken together will pay for a Papec in two seasons, and it will still be nearly as good as new.

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Our Catalog fully explains how Papec users save money by owning their own ensilage cutter. It also gives the broadest guarantee made by any manufacturer of ensilage cutters—a guarantee that is backed by our entire assets, including the largest exclusive ensilage cutter factory in the world. Write today.

PAPEC MACHINE COMPANY, 187 Main Street, Shortsville, N. Y.
85 Distributing Houses Give Prompt Service

GUERNSEYS

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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 7% 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.

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 & CLINE
Address F. T. Hart, St. Louis, Mich

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

DUROCS

AM SELLING A GREAT OFFERING OF DUROC BRED SOWS AND GILTS

March 4th, mostly mated to Orion Giant Col., a son of Ohio Grand Champion. Get on mailing list for catalog.
W. C. TAYLOR, Milan, Mich.

PURE-BRED DUROC JERSEY HOGS

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

85 FINE SPRING BOARS

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

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

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.

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

REG. DUROC JERSEY SPRING PIGS, EITHER sex. Can furnish pairs unrelated. Also bred gilts. Priced to sell. VICTOR G. LADUKE, R. 1, Merrill, Mich.

THE HOG OF THE HOUR

Spotted Poland China, Montdales Marvel, Reg. 51139, at service. Orders booked for fall pigs.
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WE OFFER A FEW WELL-BRED SELECT: Wead 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.

HERE WE ARE AGAIN WITH A BUNCH the big boned kind: \$10.00 each with Pedigree.
F. A. LAMB, Cassopolis, Mich.

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

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

DUROCS—POPULAR BLOOD LINES—SEND your wants to OCEANA CO. DUROC JERSEY HOG ASS'N. V. Lidgard Sec., Hesperia, Michigan.

HAMPSHIRE

A CHANCE TO GET SOME REAL HAMPSHIRE. Boar pigs, sired by Gen. Pershing Again, Gilt Edge Tipton, Messenger All Over 10th. Gen. Pershing 2nd., and other great boars. Writes 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.

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. SILVEY, 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.

PET STOCK

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

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Claim The Date!

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LET "THE BUSINESS FARMER" CLAIM YOUR DATE!

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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. Pure S. C. Anconas, \$5.75 for 50; \$11 for 100; \$52.50 for 500. 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.

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R. 7, Holland, Mich.

Egg Bred Chicks



Selected thoroughbreds. Prize winners at National Egg Laying Contest, Mo., 1922. June and July chicks make November layers. Now is the time to buy. S. C. Anconas, \$13, 100; \$7, 50. S. C. White Leghorns, \$12, 100; \$6.50, 50. Extra Star mating. Sheppard Anconas, \$16, 100; \$8.50, 50. Barron Eng. White Leghorns, \$14, 100; \$7.50, 50. Thousands ready for shipment every Tuesday. Parcel Post Prepaid. Guaranteed alive and healthy at your door. Catalog free.

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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.

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CHICKS WITH PEP

BIG JUNE AND JULY PRICE REDUCTION

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

HOLGATE CHICK HATCHERY

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NABOB JUST-RITE Baby Chicks

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

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

NABOB HATCHERIES, Dept. 30, Gambler, O.

BABY CHICKS

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

KNOLLS HATCHERY, Holland Mich R12

JULY, AUGUST AND SEPTEMBER CHIX—Order now. Barred or White Plymouth Rocks, R. I. Reds, Black Minorcas, White Leghorns or Anconas \$14.00 per 100, prepaid. 16c each in 25 or 50 lots. 100 percent live delivery guaranteed. Order our 12 year producing chick 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.

PLYMOUTH ROCK

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

CHICKS

THREE LEADING BREEDS

TOM BARRON ENGLISH WHITE LEGHORN, 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

POULTRY

THREE MONTHS OLD PULLETS WHITE LEGHORN

We have 1,000 of the Pullets that we can ship right now.

They will be ready to lay in September and will give you money-making eggs all thru the fall. Send for a description of these Pullets; also we will tell you of the other varieties of stock we have; 18 breeds.

Yearling Hens in White and Brown Leghorns and Anconas.

STATE FARMS ASSOCIATION

202 Chase Block Kalamazoo, Mich.

LEGHORNS

POUND PULLETS (S. C. W. L.) HATCHED MARCH 20th.

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

WYANDOTTE

HEIMBACH'S WHITE WYANDOTTES. Exhibition and utility—Rhode Island Reds. Chicks all sold for the season. Hatching eggs half price C. W. HEIMBACH, Big Rapids, Michigan.

RHODE ISLAND REDS

RHODE ISLAND REDS, TOMPKINS STRAIN, Both combs. WM. H. FROHM, New Baltimore, Mich. R. 1.

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

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

ORPINGTONS

ORPINGTONS BUFF, WHITE, BLACK

Hatching eggs in season. AUGUST GRABOWSKIE Merrill, Mich., Route 4, Box 41.

HATCHING EGGS

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

WHITE ROCK EGGS FOR HATCHING

Blue Ribbon winners. Write for prices and information. Mrs. Roy Oakes, Hartford, Mich.

Results

WE can not commence to take care of orders. We certainly have received a fine business from our ad in your paper, and we will be with you again in January for next season.

BRUMMER'S POULTRY FARM
HOLLAND, MICH.



Poultry for Profit



DON'T JUST HOUSE HENS—GIVE THEM A HOME

A hen house is not always a hen home. The former may be cold, dark, and damp; the latter is always light, clean, cheery and comfortable.

The poultry house should be convenient. It should be close to the other buildings, and easy to clean. A low house is hard to work in; a high house is hard to keep warm. Have plenty of light in the house—sunlight is a good germ destroyer. Leave all or a part of the south side open to keep the house dry and well-ventilated. Allow no drafts. Keep the house clean and free from vermin.

A good house does not necessarily need to be an expensive house. A cheap house, built along the right lines and kept clean, will serve just as well as an expensive house.

Don't just house hens—give them a home. There is a great difference between a hen house and a hen home. A hen house may be cold, dark, damp, or may harbor lice and mites. A hen home is light, clean, cheery and comfortable. Professor Rice of Cornell says, "The singing hen is the laying hen." You will not have "singing hens" unless you keep them comfortable and happy.

There are many good types of poultry houses. In this limited space, all we can do is to give you a few general principles which you should keep in mind in fixing over your chicken coop or in building a new one.

House Should be Convenient—This is especially for your benefit. Don't put the hen house too far away from the other buildings. Make it of material which will be easy to clean. Put as many of the labor-saving devices in and about it as you can afford.

Labor is money. Anything which helps to lessen the amount of labor in caring for the flock will increase your profit. Dropping boards, convenient nests, a place for surplus feed, a barrel close by for manure—all of these will save time and make it easier and cheaper to care for your poultry.

House Should be Comfortable—This is meant for both you and the hens. If the house is so low that you can't work in it easily, it won't be cleaned as often as it should. But to make it comfortable and warm for the hens you must build it low.

The hen is a great heat maker; her temperature averages about 108 degrees. The animal heat thrown off by a flock of 100 hens in a house reasonably low will keep the temperature safe, even though the thermometer goes below zero. A poultry house should never be more than seven feet high in front and five feet in the rear.

House Should be Light—Sunlight is the best germ destroyer in the world. The house should face the south and should be constructed so that as much sunshine as possible may enter.

House Should be Dry—A dry house is secured by having a good dry floor and a good system of ventilation. Build the house on a hillside or a well-drained place. Have the floor higher than the surrounding ground.

Admit plenty of air so that the house will keep dry. A warmly-built house with a glass front gets hot in the daytime and cools off quickly at night. Such a house is always damp because moisture condenses on the walls and there is no circulation of air to dry it out.

Have a considerable part of the south side of the house open. The cold does not hurt hens, but they cannot stand sudden changes of temperature.

When the thermometer drops below zero and there is danger of the hens' freezing their combs, stretch muslin curtains over the open windows. The curtains keep out the snow, wind and cold, yet allow the

air to pass through, so that the house keeps dry.

House Should be Well Ventilated—Fresh air is as good for hens as it is for people. If you have an open front, or a partly open front poultry house, you need not worry about the ventilation.

FATTY INFILTRATION

Would like to know what was the matter with a pullet that died.

She seemed perfectly well until I found her staggering. Did not know what would be the cause unless it was lice, altho I could not find any, but put lard on in case there was any. In less than three hours she was dead.

I opened her up and found that she was fat, also that her liver was enlarged to the size of a man's fist.

The color was real dark, almost a black, with light brown streaks running thru, more like the natural color of liver. One side was infected more than the other, otherwise she looked all right. What is the cause and is it contagious? Mrs. O. G., Cadillac, Mich.

This condition may be a physiological or normal process until the accumulation of fat occurs in such quantities as to interfere with the function of the liver cells. The liver is one of the so-called store-houses of the body of fat. In it is stored a surplus until needed by the body for use (for combustion, or the production of heat and energy).

Overfed hens, or those closely housed and not forced to work, or fed too heavily on starchy feeds, store up much of the surplus nutrition in the liver as well as in other portions of the abdomen, especially in the mesentery and in the abdominal walls. In these cases, on autopsy, the liver will be found to be enlarged, brownish or grayish-brown in color (Mottled), friable (easily torn,) and when cut thru appears "greasy" much fat adhering to the knife blade. In these cases rupture of the liver often occurs when the hen is thrown or jumps a long distance on hard ground or a concrete floor. In the liver, in which fat is stored up there is, after a while, an encroachment upon the protoplasm to such an extent that the cells cannot properly function, when death of the bird may occur. In these cases the liver enlarges to such an extent as to cause death of the bird.—Dr. W. Austin Ewalt, Veterinary Editor.

CHICKENS INFESTED WITH WORMS

I keep a few chickens and they are wormy. Can you tell me what to do for them? The worms are about 2 1-2 inches long. They resemble a hog worm. The intestines are full, still the chickens are fat and lay every day.—Mrs. J. L. Marshall, Mich.

You can eliminate this pest by giving 1 teaspoon of Oil of American Worm Seed and one teaspoon of turpentine to each 12 fowls. This is most easily given in the form of a moistened mash. Lime should be also given in the drinking water, at the rate of one pound to 100 hens. This treatment has been very successful in eliminating trouble from this cause. The feeding method has nothing to do with this infestation other than that the trouble is spread by the foods picked up by fowls contaminated with the embryo which later develop in the intestinal tract.—C. E. Foreman, Associate Professor of Poultry Husbandry, M. A. C.

MALLARD AND ROUEN DUCKS

What color are the Mallard ducks? What color are the Rouen ducks?—H. B., Hudsonville, Mich.

The Mallard, or common wild duck is found throughout the northern hemisphere, except in the tropics and is known as the original stock of the domesticated duck but appears to have been reclaimed at an early period. The bird is beautifully colored. Its bill is grass green, the head and about half way down on the neck a greenish blue. This is followed by a white ring around the neck. The rest of the neck and entire breast is of a reddish brown color while the back and wings are brown. The tail is colored the same as the head. Shanks are of orange tint.

The Rouen duck is the largest

and most popular of colored ducks. It descended from the Mallard, or wild duck, but is much larger weighing from 7 to 9 pounds. The plumage of the drake is a grand combination of lustrous green, black in different tones, gray, shining blue and white. The plumage of the female is a sober brown in different shades, handsomely penciled and striped. Shanks are orange or orange brown.—Editor.

DUCKS AILING

I have quite a big flock of ducks and there is something the matter with them. They don't die, but flop over and can hardly walk without falling. I have four like them, one of them is sometimes blind. They eat and drink, but not so much.—Mrs. P. D., Brant, Mich.

This department does not have on hand bulletins on duck raising but upon application to the Dept. of Agriculture, Washington, D. C., Farmers' Bulletin No. 697 can be procured. The following is the method of rearing young ducks which is recommended in that bulletin:

Second day to third—Equal parts rolled oats (made into wet mash) and bread crumbs, 3 per cent of sharp end.

Third to the seventh—Equal parts rolled oats (made into wet mash) bran, corn meal, bread crumbs, 3 per cent sharp sand.

Seventh day to 3 weeks—Three parts of bran (made into wet mash) 1 of flour, 1 of corn meal, 10 per cent green feed, 5 per cent beef scrap.

After the ducks are three weeks of age it is advisable to gradually increase the corn meal in the ration, and eventually omit the flour and reduce the bran ration.—George F. Davis, Assistant in Poultry Husbandry, M. A. C.

TURKEY HAS STRANGE AILMENT

We bought a turkey that did not act right soon after bringing him home. In a few days yellow spots appeared on head and in the throat. One eye swelled until it was the size of a walnut. My husband killed him and now I find the same thing among the hens. Can you tell me the trouble and what to do for it?—C. B. M., Laingsburg, Mich.

From the description given, it is impossible to say to any degree of accuracy what the cause of the trouble is. The possibilities are, however, that the condition is caused by one of two or three diseases.

Bird Pox occasionally affects turkeys in a manner described in the inquiry. Roup may also affect turkeys, but it is not very common. More often the condition described is the result of black head or what is known as Enterohepatitis. Black head is the disease affecting the liver and intestinal tract. The first symptoms noticed are signs of diarrhea, loss of appetite, and a dull attitude. In extreme cases, wartlike growths may or may not appear on the head. Upon opening a bird, pustular sacs will be found on the surface of the liver and on the lining of the intestinal tract. The liver is usually enlarged and pale in color.

There is no satisfactory cure or treatment for turkeys affected with Black head. By breeding for constitution, vigor and vitality and by keeping the birds out on free range away from the chickens, a great deal of the trouble with Black head can be averted.

As it is necessary to have a laboratory examination of the birds before knowing positively the cause of the trouble, it would be well to mail one of the affected turkey heads to Doctor Stafseth of the Bacteriology Department of the College for diagnosis.—George F. Davis, Assistant in Poultry Husbandry, M. A. C.

KEEPING DOWN SWARMING

I am having considerable trouble with my bees as they wish to swarm and I am unable to prevent it. Could you tell me how to stop their swarming? Your reply will be appreciated.—V. C. Sherrod, Van Buren County, Michigan.

WHILE THERE is no great amount of science needed in taking care of bees so that they will produce a surplus with comparative regularity it does take some more care than is given the colonies by the average farm beekeeper. It is not care that will take up much time, and it is not hard to learn to do. It is simply a matter of doing it, and at the right time. The

greatest secret of honey production is in keeping down swarming to the minimum.

There are some good methods of prevention used that will give fair results with almost no extra labor or manipulation of the hives. The principle involved is one of room. It is natural for bees that are crowded or that have so small an entrance that the heat inside the hive when the workers and brood rearing processes are active cannot be kept down, to divide up their forces, and the old queen and a large part of the working bees will seek a new hive. This will make it impossible for either hive to gain anything much in surplus unless the flow is very good. This is the reason why so many farm colonies fail to produce when colonies of regular professional beekeepers will give a good surplus.

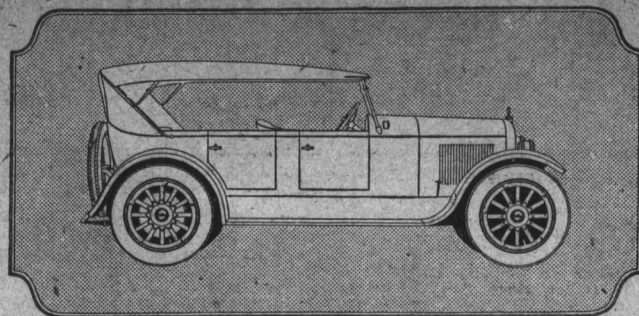
The first thing to do is to give ample entrance room, and as the season advances give more. Then keep down all weeds and grass from around the hives so the air will not be obstructed, and give shade to keep the sun from heating the walls of the hives. Now with plenty of room for brood rearing and honey storage the tendency to swarm will be held in check, though this will not be effectual to the full extent. In addition to these means we should do artificial swarming if we would get the maximum results. This consists in removing the brood from the hive and giving empty frames just before the honey flow begins, and when there are signs of the bees preparing for swarming, such as queen cells in the hives, bees clinging in great masses outside the hive, and the coming out of the first swarms of the year. By giving these frames of brood to colonies, that are not so strong these will build up fast and be able to do good work during the harvest while they might have failed to more than keep themselves supplied if this were not done. I never remove all the frames of brood but leave one or two that have mainly eggs in them, and I leave all frames that have honey only in them. After such artificial swarming there is not very much danger of their swarming, as they will be busy in the honey storing before the queen gets the brood chamber filled with larva again, and the lack of demand for the honey for feeding larva gives them a good start in the supers if the flow is good. It is best to shake all the bees from the frames or they are taken out, before giving to the new hives, for we want all the bees possible left to store honey in the old hive. Sometimes I have taken the removed frames and one frame bees and all with the queen and started a new colony and left one queen cell that is fully capped in the old hive instead of the queen, and this will give the old hive a young queen, and with such there is almost no danger at all of their swarming out no matter how strong they get.

The one point that we want to keep in mind above every other is that the more bees we can get in one hive the more surplus we will be likely to get, for there will be more bees to gather, and less demands on them for nurse bees and larva rearing, and keeping up the temperature in the hive. A hundred thousand bees in one hive will produce much more surplus than will the same number in two hives, and where the colonies swarm so much that they divide up into weak colonies they will hardly gather enough honey to keep them over winter. I don't believe in keeping a very weak colony and trying to build it up, for I figure the bees will be better in helping to build up into extra strength some other stronger hive. If we practice artificial swarming we can hardly get a colony too strong before the honey flow begins.—Lee Hilco.

When on his way to evening service the new minister of the village met a rising young man of the place whom he was anxious to interest in the church.

"Good evening, my young friend," he said, solemnly. "Do you ever attend a place of worship?"

"Yes, indeed, sir, every Sunday night," replied the young man, with a smile. "I'm on my way to see her now."



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There is a right size for everything you use for profit or convenience or pleasure on the farm.

In horses or motor cars, overweight means high first cost and heavy operating expense. Lack of size and stamina, on the other hand, brings risk of failure and discomfort.

Earl quality motor cars are built for everyday use in the country—although their low-sweeping lines and fine proportions make them noticeable on any city boulevard.

Big enough to carry five full-grown passengers in satisfying comfort anywhere an automobile can be driven, they are surprisingly thrifty of oil and gasoline. Their flexible, long-stroke motors develop power enough to handle any road condition. Yet on average highways, the Earl is more economical than any other car of anything like its size and riding qualities.

The over-all length of Earl touring cars is fourteen feet, less one inch. Their handsome green bodies are swung lower on longer and more resilient springs—56-inch rear—than in any other car of the Earl's wheel base or price—\$1095. The road clearance is standard.

See the Earl before you buy your car. If there is no dealer in your town, write to Jackson for an illustrated catalog and the name of the nearest Earl distributor. At \$1095, the Earl is the outstanding motor car value of the year.

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BETTER LOOKING—BETTER BUILT

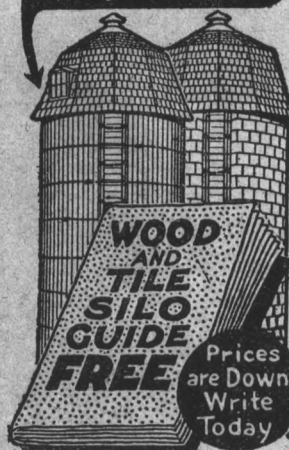
Touring Car, \$1095
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are the standard of the world today. A Kalamazoo silo is a money-maker for you. A poor silo is an expense. Over 70,000 farmers can testify to Kalamazoo reliability and stability.

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

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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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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 out 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.

WHEN WRITING TO ADVERTISERS PLEASE MENTION THE M. B. F.

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

MARKET FLASHES

TRADE AND MARKET REVIEW

THE prospects of an early settlement of the railway and coal strikes has encouraged business greatly, though the curtailment occasioned by the strikes has actually caused but little halt in the industrial processes. The strikes have had the effect, however, of causing great uneasiness in commercial circles and halting plans for future production. The fact that the country has weathered the strikes so successfully up to the present time is an indication, it seems to us, of the general soundness of business conditions, and gives promise of another great industrial surge as soon as the strikes are settled.

As commented upon before in this column, business has enjoyed a remarkably prosperous summer considering the curtailment in the farmer's buying power. We expected the improvement which came last spring, but looked for another slump about July 1st. While business in general is probably not quite so good just now as it was the first of July there is nothing to worry about. The farmer will soon be back in the ring and business will be greatly stimulated again by the purchases which will be fairly large throughout the fall and winter.

Crops generally are good and indicate a bountiful harvest. In some instances, we are afraid, the harvest will be so bountiful that the farmer cannot possibly get cost of production. With a forecast of one of the largest crops of potatoes, beans, cabbage, apples and certain other products, it is most essential that business conditions be good and that men are employed at good wages if these crops are to be sold at a fair price and without great losses to the farmers.

WHEAT

The principal obstacle to higher wheat prices is the heavy marketing of the new crop. The foreign demand is fairly active. Last week alone over 15,000,000 bushels were purchased for foreign account. The world wheat situation has not changed from what has been described in these columns the last few weeks, and it is certain that prices would be stabilized around the present level if there was not so confounded much wheat in sight. As it is, we can only look for lower prices in the immediate future. But further price declines will be slight and slow in coming, and will probably be followed long before the end of the year with material advances. At present prices wheat is down below what all the factors in the situation would warrant.

Prices

Detroit—No. 2 red, \$1.10; No. 2 mixed and No. 2 white, \$1.08.
Chicago—No. 2 red, \$1.09@1.09-1-4; No. 2 hard, \$1.06 1-2@1.10.
New York—No. 2 red, \$1.23; No. 2 hard, \$1.28.
Prices one year ago—Detroit, No. 2 red, \$1.26; No. 2 mixed and No. 2 white, \$1.21.

CORN

August 1—The wheat market took an up and down trend the past couple of weeks but corn paid no attention, remaining steady and gaining 1c at Detroit during that period. Demand has not been very good but receipts from the country showed a falling off thus keeping the market from weakening. Exporters are in the market but they are not buying as readily now as they have been. On the opening of the present week there was a slight slump at Chicago while the Detroit market remained steady and demand was good.

Prices

Detroit—No. 2 yellow, 72c; No. 3 yellow, 71c; No. 4 yellow, 70c.
Chicago—No. 2 yellow, 63 1-4@64c.
New York—No. 2 yellow and No. 2 white, 82c.
Prices one year ago—Detroit, No. 2 yellow, 70c; No. 3 yellow, 69c; No. 4 yellow, 66c.

MARKET SUMMARY

Wheat, oats and rye easy after recent declines in prices. Corn steady and in good demand. Potatoes show some weakness. Beans steady to dull. Cattle firm and active. Sheep slow. Hogs active to higher. Provisions advance. Butter and eggs active. Poultry in demand. Fruit quiet.

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

OATS

We still fail to see little hope for oats. Prices are near the lowest in several years and the new crop promise is depressing. Oats will probably act in sympathy with other grains as they have done so consistently the past few years, but we see no independent strength in sight, at least for a number of months.

Prices

Detroit—No. 2 white, 39c; No. 3 white, 37c; No. 4 white, 33@35c.
Chicago—No. 2 white, 34@37c; No. 3 white, 32 1-4@36 1-4c.
New York—No. 2 white, 46c.
Prices one year ago—Detroit, No. 2 white, 37c; No. 3 white, 35c.

RYE

August 1—Rye fluctuated considerably during the past fortnight and a summing-up shows that the grain has lost 2c at Detroit since Monday, July 17th. The close of last week found rye at Detroit one cent higher for the day and the market steady.

Prices

Detroit—Cash, No. 2, 83c.
Chicago—No. 2, 78c.

BEANS

Our position on the bean market has not changed. The market has performed in about the manner we said it would, demand slow, supplies limited, prices lower. The bean trade is doing a lot of guessing these days as to what will happen the next sixty days, but we expect to see the market on the new crop open at very much below the prevailing prices. Don't let this scare you, Mr. Bean Grower. You'll make some money on this year's crop if you only "watch your step."

Prices

Detroit—C. H. P., \$8.60 per cwt.
Chicago—C. H. P., \$9.25@9.40 per cwt.; red kidney, \$8.75@9 per cwt.
Prices one year ago—Detroit, C. H. P., \$4.00 per cwt.

POTATOES

Potato prices are slowly dropping and where or when they will stop nobody knows. The early varieties have turned out fair and the country is well supplied with good stock. Maine potatoes have suffered considerably from the extremely wet weather while some of the western states' yield will be cut by drought. Lots of things can happen between now and harvesting. We don't wish anyone any bad luck, but it would be a God-send if the estimated yield could be cut about 75,000,000 bu.

Prices

Detroit—\$1.90 per cwt.
Chicago—\$1.25 per cwt.

HAY

Timothy hay is slow in demand on western market but prices are firm and at some points they are higher than they were two weeks ago. Eastern markets are experiencing a fair demand for good hay. Receipts are reported small on nearly all markets.

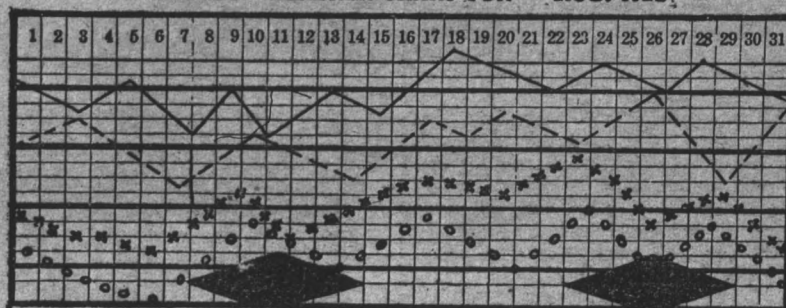
Prices

Detroit—Standard timothy and light clover mixed, \$20@21; No. 2 timothy, \$19@20; No. 1 clover, \$15@16.
Chicago—No. 2 timothy, \$15@17; No. 1 clover mixed, \$14@16.
Prices one year ago—Detroit, standard timothy and No. 1 light mixed, \$21@21.50; No. 2 timothy, \$19@20.50; No. 1 clover, \$14@15.

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. 3, 1922.—As the first severe storm period of this month, covering about seven days, centers near August 11, I will give some special explanations. If I do not say dangerous don't expect danger. I have no better term than "severe storm" to express weather extremes. Severe storms, not necessarily dangerous, sometimes cause extremes of heat, cold, rain, drought, snow, floods, hail, wind, thunder storms, frosts, hot winds. The severe storms near August 11 will be of a character that requires watching though not expected to be very dangerous. Cropweather for middle third of August will be of the same kind as for past three months, but a little more extreme than the average.

Northeast—Low temperatures near August 6 and 12, high near 10, averaging below normal; more than usual rain during next seven days, distributed near the average of past three months.

Probably the greatest discovery ever made is the cause that controls future cropweather. Some of the details have recently been worked out. Some local errors occurred before these details were completed. Otherwise I have successfully foretold the cropweather of all continents for six years. Certain electro-magnetic combinations of the bodies—sun, earth, moon and the other seven principal planets—magnetize large parts of some one of the five great oceans, and for several months after the moisture to water the continents comes from the great body of water so magnetized. If the magnetization occurs on land it causes a drought. Sometimes the effects are small, at other times very great. The variations are caused by the relative positions of the ten bodies. These electro-magnetic effects either creates or vastly increases the very small animalcules upon which salt water fish feed, and that is the cause of certain schools of fish changing their feeding waters once or more times every year.

EAST BUFFALO LIVE STOCK MARKET

The receipts of cattle Monday of the present week were 95 cars, including 5 cars left from last week's trade. Our market opened 15 to 25c higher on medium weight and weighty steer cattle, which were in very light supply; butcher steers and handy weight steers were in light supply, sold 15 to 25c higher; bulls were in heavy supply, sold steady; all grades of cows were in good supply, sold steady; stockers and feeders were in light supply, sold steady; yearlings were in very light supply, sold 15 to 25c higher. Top on heavy cattle was \$10.25 for one load of good quality, fat, Michigan steers, averaging 1242 pounds. Top on yearlings was \$10 for a load of choice Hereford yearling steers and heifers, averaging 885 pounds.

The receipts of hogs Monday, July 31st, were 7,200 head. The market opened 25 to 50c higher on the light hogs to shippers and eastern order-buyers, but packers bid steady to 25c lower on their kind and were bearish again on hogs that weighed above 220 pounds and the trade was slow on hogs that showed any weight. The bulk of the heavy weight hogs sold at \$10.50, with a few down to \$10.25; 220 to 240 pound hogs, \$10.50 to \$11; light mixed, \$11 to \$11.25; light hogs, weighing 190 pounds and down, \$11.25@11.50; light yorkers and pigs, \$11.75@12; roughs, \$8; stags, \$3.50@5.50.

The receipts of sheep and lambs the opening day of the current week were 12 cars. Choice lambs sold 25 to 50c higher than last week's close, tops selling from \$13.25@13.50; culls, \$9@10; yearlings, \$9@10; wethers, sold 25c higher, tops selling at \$8.25; ewes, \$5@6.50; as to weight and quality.

There were about 1,700 calves on sale Monday and choice calves sold from \$12 to \$12.25, which was 50c higher than last week's close; throw-outs, 120 to 140 lbs., \$9@10; heavy throwouts, 160 to 190 lbs., \$7.50@8.50; heavy fat veal calves, \$8.50@10; as to weight and quality. Buyers are discriminating very bitterly against rough and weighty fat veal calves and they have to be taken out and sold from \$2@3 per cwt. less than top price.

MISCELLANEOUS MARKET QUOTATIONS

Detroit, Tuesday, August 1st

BUTTER—Best creamery, in tubs, 31 1-2@32c per lb.
EGGS—Fresh, current receipts, 19 1-2 @20 1-2c; fresh candled and graded, 21 @21 1-2c per doz.
BLACKBERRIES—\$6.50@7 per bu.
CHERRIES—Sour, \$4.50@5 per bu.; sweet, \$2.25@2.50 per 16-quart case.
RASPBERRIES—Black, \$7@7.50 per bu.; red, \$8@8.50 per bu.
RED CURRANTS—Common, \$3.50@3.75; cherry, \$4@4.25 per 24-quart case.
HUCKLEBERRIES—\$3.50@3.75 per 16-qt. case.
PEACHES—Elbertas, \$3.25@3.50 per bu.
APPLES—New, \$1.25@1.50 per bu.
GREEN CORN—30@35c per doz.
CABBAGE—Home grown, 50@60c per bu.
HONEY—Comb, 20@22c per lb.
DRESSED CALVES—Choice, 15@16c; medium, 12@13c; large coarse, 10@11c per lb.
TOMATOES—Hothouse, 75c@90c per 7-lb. basket; home-grown, \$2.25@2.50 per bu.; Canadian, 65@85c per 16-lb. basket.
LIVE POULTRY—Best spring, 30@32c; medium springs, 30@32c; leghorns, 22@23c; large fat hens, 25@26c; medium hens, 25@26c; small hens, 20@21c; old roosters, 15c; geese, 13c; ducks, 22@23c; turkeys, 25c per pound.
CELERY—Michigan, 30@50c per doz.

WEEKLY MARKETGRAM

U. S. Bureau of Agricultural Economics

WASHINGTON, D. C.—For the week ending July 28, 1922.

FEED—Wheat feeds quoted lower. Northwest more anxious to sell but demand continues dull. Linseed meal unchanged, demand quiet, offerings fair. Liberal offerings of new crop cottonseed meal at sharp discounts. Hominy and gluten feed firm, offerings small, demand light. Alfalfa meal neglected, production good. Stocks in most markets fair and ample to take care of nearby requirements. Prices generally a shade easier. Quoted bran \$16, middlings \$18, flour mixed \$24, rye feed \$17, 33 per cent linseed meal \$45.50. Minneapolis; gluten feed \$29.85. Chicago July shipment white hominy feed \$26.25; Chicago 36 per cent

cottonseed meal \$33. Minneapolis No. 1 Alfalfa meal \$18.50 Kansas City.

FRUITS AND VEGETABLES—For the week watermelons weak in New York, steady to firm other markets. Missouri stock firm in Chicago. Values well maintained at shipping points. Cantaloupes generally steady. Indiana stock appearing in midwestern markets. Potatoes weaker. Virginia and Maryland eastern Shore barreled stock down 75 cents to \$1 per barrel in consuming centers and at shipping points. New Jersey sacked stock down 65 to 75 cents per 100 pounds in city markets, down 50 to 85 cents f. o. b. Kansas early Ohio poorly graded down 50 cents. Peach markets weaker. Georgia varieties down 50 to 75 cents. North Carolina stock \$1 lower in city markets. Georgia 25c to 40c lower and North Carolinas down 35 cents at shipping points. On the 28th Georgia and South Carolina Tom Watsons medium sizes \$200-\$375 bulk per car eastern markets, \$100-\$175 f. o. b. shipping points. Irish greys \$100-\$200 f. o. b. Missouri Tom Watsons, \$275-\$390 Chicago; \$100-\$250 f. o. b. Kennett. Georgian and Carolina shipments decreasing rapidly. Car lot arrivals tend to lessen in most markets but local supplies will continue liberal. Texas movement will stop early in August. California and Arizona cantaloupes, salmon tints, standards 45's \$2.50-\$3.25. North Carolina Maryland and Delaware green meats, 75c @ 1.50. Indiana and Arkansas stock steady in Chicago at \$1.50 @ 2. Virginia and Maryland eastern shore cobbles mostly \$2 @ 3, reaching \$3.25 Boston. \$3.50 Cincinnati, \$2 @ 2.10 f. o. b. New Jersey sacked cobbles, \$1 @ 1.85 per 100 pounds, \$1 @ 1.15 f. o. b. Kansas early Ohio, poorly graded, 75c @ 1.05 in Chicago. N. J. potatoes lead the supply of eastern markets in August. Supply of potatoes tends to increase until late October. Peaches sixes and bushel baskets Georgia Elbertas and belles, \$2.25 @ 2.75 in most city markets, steady Boston at \$2.50 @ 3.50. Elbertas \$2.25 f. o. b. shipping points. North Carolina Elbertas and Belles \$2 @ 2.50 in wholesale markets \$2 @ 2.65 f. o. b. Aberdeen.

LIVE STOCK AND MEATS—Chicago hog prices ranged 15 to 50 cents lower than a week ago, heavy hogs losing most. Cattle prices were not materially changed, beef steers 10 @ 15 cents lower, heifers steady, cows steady to 10 cents higher; veal calves 50 to 75 cents higher with feeder steers unchanged. Fat lambs steady to 15 cents lower; feeding lambs down 50 cents net. Yearlings 40 cents lower to 25 cents higher while fat ewes were 15 cents to \$1.25 lower for the week. On July 28 at Chicago hogs opened 15 to 25 cents higher, closed firm on light hogs and 10 to 15 cents higher on others. Beef steers strong, butcher cows and heifers and stockers steady; bulls dull unevenly lower; calves around 25 cents lower. Lambs strong to higher, considering quality, sheep very scarce. July 28, Chicago prices: Hogs, top \$10.60; bulk of sales \$8.25 @ 10.50; medium and good beef steers \$7.90 @ 9.85; butcher cows and heifers, \$4 @ 8.85; feeder steers, \$6.65 @ 7.75; light and medium weight veal calves \$8.50 @ 10.25; fat lambs, \$12 @ 13; feeding lambs, \$11.50 @ 12.50; yearlings, \$8.50 @ 10.85; fat ewes, \$3 @ 7.50. Stocker and feeder shipments from 12 important markets during the week ending July 21 were: Cattle and calves, 47,627, hogs 5,140, sheep 34,919. All classes of fresh meats in eastern wholesale markets showed declines for the week. Beef declined 50 cents to \$1; veal \$2 @ 4; lamb, \$2 @ 3; and mutton \$2 @ 5 down; Light pork loins were weak to \$1 lower and heavy loins \$1 @ 2 down per 100 pounds. On July 28 lamb, mutton and pork loins weak to \$1 lower; veal weak and beef weak to \$2 lower per 100 pounds. July 28 prices good grade meats: Beef \$14 @ 15.50; veal \$13 @ 14; lamb, \$20 @ 25; mutton, \$13 @ 15; light pork loins, \$20 @ 23; heavy loins, \$12 @ 18.

DAIRY PRODUCTS—Butter markets unsettled during the week. Prices have been fluctuating from day to day. Heavy receipts and storage stocks are the weakening factor. Closing prices 92 score butter: Boston, 35 1-2c; New York, 34 1-2c; Philadelphia, 35c; Chicago, 33 1-2c. Cheese markets show weaker trend with trading on lower basis in line with lower costs at country points. Demand still relatively light. Prices at Wisconsin primary cheese markets July 27: Flats, 18 1-2c; Twins, 18 1-4c; Daisies, 18 1-4c; Double Daisies, 17 3-4c; Young Americans, 18 3-4c; Longhorns, 18 1-2c; Square Prints, 18 3-4c.

BUTTER MARKET WEAK

Increasing accumulations and growing lack of confidence among the trade were the principal factors bringing about extremely weak conditions and radical declines during the early part of the week ending July 29th, and the resulting lower prices which attracted the speculative interests were largely instrumental in causing equally radical advances during the latter part of the week. The week closed with prices hovering near the same level as the opening prices and conditions at the close, while not so extremely weak because of lighter stocks, were equally unsettled.

Despite the weak condition of the markets and the quite general lack of confidence in the situation there are a few operators who do not see disaster in the future. The support of this optimism is the excellent consumptive demand, possibility of export, and the improbability of imports. There are no immediate prospects of export, but the shortage of butter holdings in foreign markets makes it probable that more butter will be exported and equally improbable that the imports will be large.

Still, without considering the exports and imports, the enormous quantities of butter going into consumption is a major factor in considering the possible trend of the markets. Receipts at the four markets since January 1st show a surplus of some fifty-eight million pounds over the same period a year ago. Of this, close to eleven million pounds were stored in excess of last year. Import and export figures are available only to June 1st but during the first five months the net imports (exports deducted) during 1921 exceed those of 1922 by about eight million pounds. Deducting the eleven million pounds which was stored in excess of last year and the net decrease in imports leaves a surplus since January 1st for 1922 of some thirty-nine million pounds with the only possible outlet, that of consumption. When the June and July export and import figures become available it is expected that they will show more exports and less imports than during 1921 but even though the surplus consumed during 1922 is cut from thirty-nine million to thirty-five million pounds it still furnishes the basis for some optimism.

THE "WHY" OF PRICE DIFFERENCES

Would like an explanation in connection with the grain markets, particularly rye, as I notice the difference between our market (here and Saginaw) and the market at Detroit, widens as the harvest grows near.

During the past several months I have noticed that the difference between Saginaw and Detroit in wheat averaged around 12 cents and the difference between the same markets in rye were around 18 cents and on inquiry of the Pere Marquette agent found that the cost of shipping rye from here to Detroit is a fraction above seven cents per bushel

and shipping wheat is higher owing to the extra weight per bushel and the insurance as the wheat is most valuable but today, June 2, Detroit rye \$1.06 and Saginaw rye 76c and today Detroit wheat \$1.25 and \$1.23, Saginaw wheat \$1.19 and \$1.16. Why can Saginaw follow so close in wheat and take our rye for one-third the crop? An outsider would naturally think Saginaw the last jumping off place in the jack pine planes, but we shouldn't be held up in such a prosperous locality. I have wheat land but am raising rye at present because the Hessian fly has been in wheat seriously of late.

We have stock shipping association here and get splendid results, but had better help ourselves some more apparently. Enclose find renewal for another two years of your paper and go after them some more with the big stick.—C. W., Saginaw County.

The traffic department of the Saginaw Board of Trade has kindly provided us with the following "explanation" of the price discrepancy you mention:

"Referring to your communication of June 10, which covers difference in prices on rye and wheat between Detroit and Saginaw, your quotation of June 1 was \$1.06, which must have been an error as the Chicago quotation on rye was 98c on that date.

"Your quotation on wheat was \$1.24 and \$1.23. Chicago's was \$1.19.

"On June 10 your Detroit quotation on rye was 94c. Chicago's was 91c; Saginaw's 76c. The rate from Saginaw to New York is 34c. The proportional rate from Chicago to New York was 30c, which is 4c under Saginaw's rate. Your price quotation of June 10 at Saginaw was 76c, which corresponds with your letter.

"Mostly all rye is exported, and if Detroit wants to quote more than Chicago, which they are doing, we are afraid they will be the losers in the deal. Saginaw buyers buy on

Chicago basis. Your party at Merrill has the privilege, they state, to sell in Detroit market, Chicago, or New York, as the sale is left to them. The grain merchants here are evidently taking the safe side.—Donald MacDonald, Traffic Manager.

COWS BRING \$2 APIECE

Cows are selling at \$2 apiece in American money in Argentina, South America. This statement was made by Joseph R. Davis, a New York City banker, upon his return recently from Buenos Ayres. Mr. Davis said the Argentine Republic is overstocked with cattle. Thousands of cattle are being slaughtered for their hides and to get them out of pastures. Tenderloin steaks are retailing at seven cents a pound.

MARGARINE IN DENMARK

A recent report of the assistant trade commissioner of Denmark shows that in that country the production of margarine from animal materials is fast decreasing while that produced from vegetable matter is increasing.

The number of plants manufacturing margarine in that country has increased nearly 50 per cent during and since the war. There used to be an excess of imports but the last two or three years have seen a very small importation while the exportation of the product has increased rapidly.

Looking after a husband is like playing a game of cards. You must play with what is dealt you, and the glory consists not so much in the winning as in playing a poor hand well.—London Opinion.

Stage Aspirant—"Do you think I can ever do anything with my voice?" Blunt Professor—"Well, it may come in handy in case of fire."



Don't Just Ask For Roofing Demand MULE-HIDE

When you go to your dealer to buy roofing say "I want Mule-Hide."

—Don't just ask for roofing. Ask for **Mule-Hide** roofing or shingles.

—And you'll get overhead protection that is real protection; you'll get roofing that stands the tests of the elements and keeps on "Smiling Thru," the roofing that costs less per year of service; the roofing with the remarkable record of

"Not a Kick in a Million Feet"

—Discriminating dealers have it. Insist on getting it.

THE LEHON COMPANY of CHICAGO

OFFICE AND FACTORY

44th to 45th Street on Oakley Avenue

You are cordially invited to visit the

MULE-HIDE Exhibit

at the
State Fair

Come and get a crayon

EXTRA VALUE

for Every Penny You Spend at Sharoods

Read every item on this page. You will then be convinced that Sharood prices mean Extra Value for every penny. These are reasonable articles, offered at a price that mean big savings to you.

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Women's Comfort Oxfords or High Cut

1⁷⁹



Every woman should get a pair of these sensible broad-toe shoes at this amazing price. Uppers of soft kid-finish leather. Solid oak leather soles are sturdy but extremely flexible. Low rubber heels; comfort cushioned in-soles. Sizes 2 1/2 to 8.

Oxford No. 96A-233. High shoe No. 96A262. Send no money.

Pay \$1.79 and postage on arrival for either style.

Men's Fine French Toe Boot or Oxford

\$2⁹⁸

You'll be amazed at such an Unusual Value



Mahogany brown calf-finish leather boot or oxford, with medium toes; perforated, natural oak leather soles and rubber heels. Perforated on vamp and eyelet stay. Sizes 6 to 11 wide widths. Oxford No. 96A658. Boot No. 96A660. Send no money. Pay \$2.98 and postage on arrival.

Not Re-Treaded.

Brand New Standard Tires Guaranteed 6,000 Miles

30x3 size Now only **\$6⁴⁸**

Fresh stock of heavy non-skid tires of live rubber. Generously oversize, 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. 96D40—30x3	\$6.48
No. 96D41—30x3 1-2	7.69
No. 96D42—32x3 1-2	9.98
No. 96D43—31x4	10.98
No. 96D44—32x4	12.79
No. 96D45—33x4	12.98
No. 96D46—34x4	13.98

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. 96D20—30x3	1.09
No. 96D21—30x3 1-2	1.39
No. 96D22—32x3 1-2	1.49
No. 96D23—31x4	1.69
No. 96D24—32x4	1.79
No. 96D25—33x4	1.79
No. 96D26—34x4	1.79

Stylish Oxfords

Patent and Mahogany Calf Finish

\$1⁹⁸

State Size



Women's black patent leather or mahogany calf-finished oxford, with imitation shield tip and medallion, perforated vamp, imitation circular foxing and lace stay perforated. Medium rubber heel and medium narrow toe. Sizes 2 1/2 to 8. Order patent by No. 96A64, Mahogany by No. 96A65. Send no money. Pay \$1.98 and postage on arrival for either style. State size.

Women's Oxfords Unbelievably Low Priced Here

\$1⁹⁸



Women's Oxfords in Gunmetal 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. Same style misses mahogany. Sizes 11 1/2 to 2. Order by No. 96A478. \$1.79. Order gunmetal by No. 96A69. Mahogany No. 96A70. Send no money. Pay \$1.98 and postage on arrival. State size.

Soft Kid Slippers

BLACK OR BROWN

\$1⁵⁹

Always Mention Size



Soft kid leather slipper. Stylish strap model with two buttons. Medium round toe. Cushion insoles. Medium rubber heels. Solid oak leather soles. A bargain at our slashed price. Sizes 2 1/2 to 8. Wide widths. Order black by No. 96A228. Order brown by No. 96A229. Send no money. Pay \$1.59 and postage on arrival.

Worsted Pants

Neat narrow stripe pattern of Thorndyke cotton worsted. Celebrated for its durability. Ideal material for work trousers. Suspender buttons. Belt loops, plain bottoms. Stoutly sewed waistband. Sizes, waist 30 to 42. Inseam 30 to 34.

\$1⁵⁹

Order by No. 96B-2575. Pay only \$1.59 and postage on arrival. Give your waist and inseam size.



Khaki Work Pants

\$1²⁹

A wonder value that should prompt men to buy two or three pairs at this bargain price. Made of heavy khaki cloth, with reinforced waistband, 5 roomy pockets, belt loops, suspender buttons and cuff bottoms. They're cut full and have stout seams. Waist 30 to 42. Inseam 30 to 34. Order by No. 96A2579. Send no money. Pay \$1.29 and postage on arrival. Money back if not satisfied. Give measurements.

Beautiful Cleo Sandal

1⁹⁸

GIVE SIZE



Patent Leather or Mahogany Calf-finished Leather. An unusually good looking sandal with one front strap, fancy nickel button and tassel. Imitation shield tip and medallion. Order patent by No. 96A296, mahogany by No. 96A295. Send no money. Pay \$1.98 and postage. Sizes 2 1/2 to 8.

Men's, Boys' and Little Boys' Gun Metal Blucher

\$1⁷⁹ UP

Give Size



Mothers—don't fail to take advantage of this splendid offer in a practical blucher for your boy. Sturdy dress shoe for boys and little fellows, of heavy, genuine gun metal veal uppers and solid leather soles. Low, broad heels. Be sure to get your order in at once. Big value. Order little boys' gun metal blucher, sizes 9 to 13 1/2, by No. 96A590. Pay \$1.79 and postage on arrival. Order same style for big boys, sizes 1 to 5 1/2, by No. 96A589. Pay \$1.89 and postage on arrival. Always mention size. Order same style for men, sizes 6 to 11 by No. 96A674. Price \$1.99 and postage on arrival.

Durable Outing Bal

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

\$1⁹⁹



Order by No. 96A793. Send no money. Pay \$1.99 and postage on arrival. Order little boys' sizes 9 to 13 1/2 by No. 96A566. Price \$1.79. Order big boys' sizes 1 to 6 by No. 96A564. Price \$1.89. Pay bargain price and postage on arrival. State size.

Hip Boots Bargain

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.

\$2⁷⁹

GIVE SIZE



Order By No. 96A949. Send no money. Pay \$2.48 and postage on arrival. State size wanted.

Rich Black Sateen Apron

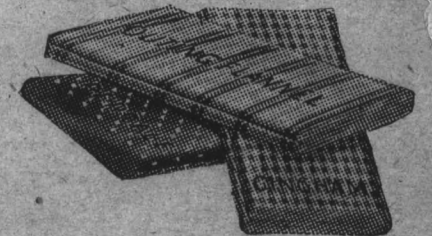
\$1⁷⁹

Amazingly low price for such truly splendid quality. Sharood is proud to recommend such a bargain to any woman who appreciates a real value. And this apron represents 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 sash belt all around. Big value. Order by No. 96E5075. Send no money. Pay \$1.79 and postage on arrival. Money back if not satisfied.



Save on Wash Goods



5 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. 96F3414. Send no money. Pay 99c and postage for 5 yards on arrival. State pattern and color wanted.

10 Yards Fancy Outing Flannel \$1⁴⁹

Ideal weight for nightgowns and underwear. In fancy stripes, checks and plaids, white grounds with pink, blue or tan designs. 27-in. width. State pattern and color. Order by No. 96F3423. Send no money. Pay \$1.49 and postage for 10 yards on arrival.

10 Yards 36-inch Perealet \$1⁴⁹

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 No. 96F3406. Send no money. Pay \$1.49 and postage on arrival for 10 yards.

Brown Leather Work Shoe 1⁸⁹

State Size



Splendid brown leather work shoes. Heavy durable uppers; extra strong solid oak leather soles; leather insoles; low broad leather heels; reinforced leather back stay. Roomy last. Sizes 6 to 12. Order by No. 96A753. Send no money. Pay \$1.98 and postage on arrival. Order boys' sizes 1 to 5 1/2 by No. 96A566. Price \$1.79. Order little boys' sizes 9 to 13 1/2 by No. 96A564. Price \$1.89 and postage on arrival. Mention size.

Be Sure to Mention Sizes, Colors And Send All Orders Direct to

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