

"—for all the Farmers of Michigan!"

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How Shall Farmer Educate the Consumer?

Ignorance of City People on Cost and Difficulties of Producing Food a Handicap to Agriculture

IT IS truly astounding how little the people who live in the large cities and consume the major quantities of the foodstuffs raised on farms know about the cost and difficulties that are encountered in producing them. Some folks have a sort of hazy idea that all the farmer needs to do is to tickle the soil with the hoe, drop the seed and go auto-riding or picnicking until the crop has come to maturity. Then he takes a few days off from his pleasures, harvests and markets the crops, buries his gold in a strong-box, and resumes his indolent habits until it is once more time to tickle the soil and repeat the cycle of growing, harvesting and gathering in the shekels.

This ignorance of the real facts of farming works an incalculable harm to the farmer. In many cities, for instance, people who have been schooled to believe that the farmer is a profiteer and will charge all the traffic can bear, have declared boycotts against milk in the hopes of forcing the farmer to accept a lower price. Times without number farmers have been unable to secure a fair price for their products because the buying public has been so overwhelmingly opposed to higher prices. No one can estimate what the campaign against the high cost of living has cost the farmer. Investigations and propaganda have been conducted with an absolute disregard of the factors of costs. The whole purpose has been to lower prices to the consumer regardless of the investments and profits of the farmers and those who deal in farm products. I venture to say that had the people of this country been intelligently informed as to the cost of raising food products there would have been no outcry against the high cost of food and no propaganda to drive the prices of farm products down to less than the cost of production.

Daily Press Spreads Misstatements

One needs but to read the newspapers from day to day to gain an idea of how complete is the ignorance of people who ought to know better upon the subjects of farm costs and profits, or to realize the injury that is done by the publication of false statements. One of the most conspicuous and flagrant cases that has come to my attention in recent months was an article published in the Detroit Journal setting forth the opinions of Detroit wholesale and retail grocers upon the alleged profits and practices of farmers. The occasion was a meeting of a committee appointed by the Detroit city council to investigate the high cost of living. A member of this committee is Thomas Marsden, vice president of Lee & Cady, the large wholesale grocery firm. Another member is Mr. Parker, head of a chain of retail stores. According to the Journal the conversation ran something like this:

"It is the wholesaler who is getting the exorbitant prices, not the retailer," said Mr. Parker.

"You can bet that's just it," said another retailer.

But Mr. Marsden, the wholesale man, passed the buck to the farmer. He said, "None of these prices we are charging these days are fair. However, it is the farmer who gets the long price. We have to pay what he asks and we are glad to get the stuff."

Eleven Cents Held Fair Bean Price

The subject of beans was taken up. One retailer thought that 12½ cents was a fair price for navy beans; another that 11 cents was about right. The price finally agreed upon was 11 cents. There

By FORREST LORD

is nothing recorded in the report of the meeting that the committee knew or cared that the farmer was receiving only 5 1-2 cents a pound for these same beans.

"Farmer Mixes Dirt With Sugar Beets"

After declaring that it was the fault of the California growers that the price of raisins is so high, Mr. Marsden took up the subject of sugar and once more placed the blame for high prices upon the farmer.

"The sugar beet men want 10 1-2 cent sugar just as much as the people do," he said. "They want it now for now is the time for them to quote next year's prices to the farmers. And here again the farmer comes in. The government permits him to sell by weight and when I was talking to a beet man the other day he said that figures showed the farmers were furnishing 500 pounds of dirt to every ton of sugar beets, and of course in the end that boosts the prices."

Ridiculous? Absurd? False? Of course, but what are you going to do about it? How is the city consumer to know that every load of sugar beets is tested for tare and that the samples are carefully cleaned, scraped and freed of dirt and leaves? But isn't it going to be necessary some day to tell him the truth?

Talk with any man who has lived all his life in the city and the burden of his complaint will be that the farmer is responsible for the high cost of food and is getting fat off other people's pocket books. Get into the smoking compartment of a parlor car and as you whiz by the farm houses along the way note the words of wisdom that issue from the mouths of well-fed and prosperous looking gentlemen. They will tell you the most amazing things about farmers and farm life. You wonder how you could have lived all your life among farmers without becoming familiar with the fabulous profits of farming which these gentlemen talk about so glibly. One of them

will say, "I called on a farmer relative of mine a few weeks ago. He met me at the station in a new motor car and drove me out to the farm house. It was a great big roomy house, heated by steam, lighted with electricity and everything modern and convenient. They even had a bath room and a phonograph." And when you meekly suggest from your corner of the compartment that not all farmers are so favorably situated and anyway farmers ought to have all those things, the whole bunch glares at you and snaps out, "What d' you know about it?" It is of no use to argue further with them, so with a few more feeble attempts to set them right, you sink back into your corner and go to sleep to dream of farmers wearing silk plug hats and diamond-studded watches, riding in plush-lined limousines, and giving orders to well-fed servants who bear a striking resemblance to your acquaintances on the train.

Getting down to brass tacks, just how, Mr. Farmer, are you going to get the truth before your city cousins? There are two great ways to right the age old wrongs which have worked against agriculture. One is to organize to top notch efficiency and reap the benefits which splendid organization can bring, politically, economically and otherwise. Second, there is publicity. Ontario farmers bought and are running a big daily newspaper. Polls and publicity, then, offer answers to our question.

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Agricultural News of State and Nation... Page 6.
Three solid pages editorial comment by our editors and readers... Pages 10, 12 and 13.

FUTURE ISSUES WILL CONTAIN:

International Live Stock Champions, Canadian Co-operative Successes, Rebates for the Sugar Beet Growers, Bean Tariff Legislation, the Farmer-for-Governor Movement, Winter Care of Orchards, Sheep-Wool Society, and scores of other articles of interest to farmers and farm women.

Agricultural Profits vs. Manufacturing Profits

System of Fixing Selling Price Makes Enormous Profits Possible in Some Lines of Manufactures

By FREDERICK J. HASKIN

WHAT DOES it cost to make the manufactured articles which you use every day?

You have no idea. Well, here is an example. It is said that a certain popular safety razor which sells for \$5 is made at a shop cost of less than one-tenth of that amount.

Shop cost includes labor, materials interest on the actual investment in machinery and the amount involved in the deterioration of the machinery. It does not include the salaries of executives, and other purely administrative expenses. It is the actual cost of making the article.

Made to Sell for \$1

It is said that the man who designed and first made this razor for less than half a dollar, intended to sell it for a dollar. He could have made a nice profit at that figure and could have done a certain amount of advertising which is, of course absolutely necessary.

His business associate expressed the opinion that the razor could be sold for much more than a dollar. The inventor disagreed. They ended by forming two corporations—a manufacturing company and a sales company. The sales company bought the output of the manufacturing company at \$2 for each razor and sold the razors for \$5 each. Moreover, it sold millions of them all over the world. African chiefs and South Americans and Russians have corroborated the judgment of the sales manager that the public would pay \$5 for a 50-cent razor just as quickly as it would pay \$1.

Of course to the shop cost of less than 50 cents must be added the profit, and all costs of selling and distribution. But these things form an economic viewpoint should not amount to ten times the cost of producing the articles. And that this razor can be retailed for much less than \$5 is conclusively demonstrated by the quartermaster of the army, who sells it in his stores (in a khaki case with six extra blades) to soldiers for \$1.75.

In a word, the price for which this

razor is sold represents an enormous percentage of economic waste. It brings home to us two things. In the first place we have no idea what most of the things we buy are really worth and for that reason the price often bears little or no relation to the value of the article. And in the second place we have a wasteful system of distribution.

Of course, no one blames the promoter of this razor for selling his product for \$5. There are no reflections to be made upon his personal integrity or that of his firm. It is merely the economic principle that is questioned.

Case Is Not Exceptional

And the case of the razor is not exceptional. A brief examination of the matter of shop cost shows that the American people pay for the manufactured goods from six to 50 times as much as it costs to make them. The significance of this fact scarcely needs emphasis. Here, surely is one paramount factor in the high cost of living. Why prosecute

Who Are the Profiteers?

AS WE pointed out in a recent editorial there are "profiteers" in every line of business and vocation. Some are profiteers by chance; but many are profiteers by deliberate planning and control of prices. The kind of profiteers discussed in this article are of the latter class. Farmers cannot deliberately profiteer whenever they choose. Manufacturers of commodities in which there is strong competition cannot profiteer except through illegal agreements to hold the prices of their commodities up to a common level. There are several classes of manufacturers who can and do profiteer. First, there is the trust. Second, the manufacturer of luxuries or semi-luxuries in which there is little competition. Third, the manufacturer who by patent controls an improvement on a useful article which makes it so much more useful that the public is willing to pay a price far in excess of what the improvement actually costs.

Profiteers of all kinds are in bad repute these days and there are hopeful signs that profiteering manufacturers are beginning to see the "handwriting on the wall" and to reduce their profits to a fair return on the investment. We caution our readers against putting all manufacturers in the profiteering class. The failures in the manufacturing game show that the run of profits are not exorbitant, and that it is only a comparatively few who are "milking" the public.—Editor.

a Greek corner grocer for making an extra penny on a pound of sugar when the prices we pay for many articles of daily use have no relation whatever to their value?

Some Other Drains

The fact is that this enormous leak is draining the pockets of all of us. This difference between making cost and selling cost reaches its peak in the case of certain luxuries. A certain eyewash is reliably said to cost the manufacturer \$1 a gallon and to sell, in very small bottles at \$125 a gallon. A certain cream, which is supposed to beautify the complexion costs the manufacturer 14 cents a pound, and sells at your drug store at 50 cents for a three-ounce jar. You can figure the difference for yourself.

Carbon tetra chloride is a chemical used in fire extinguishers of the cheaper sort, which, incidentally, are of little value in fighting fires. Under a patent name, mixed with another chemical of no more value than it has, this substance is sold for several

times what it brings under its rightful name.

An ointment which consists of a certain irritant chemical mixed with a small amount of oil sells for 50 cents a small bottle. It costs about seven and a half cents a bottle to make.

These examples could be multiplied almost indefinitely. They show that for toilet articles and patent medicines you pay seldom less than seven times as much as it costs to make the article, and often 50 or 100 times that amount.

But these things are not as important as the necessary articles. Take typewriters for example. The shop cost of making a high grade typewriter to sell for \$100 is estimated by experts as from \$12 to \$18 each.

Certain makes of typewriters the regular price of which is \$100, are frequently offered on some special selling plan at little more than half that amount. This strongly suggests that a good typewriter can be marketed profitably for less than \$100.

What is true of typewriters is also true of sewing machines, bicycles, guns and of most other articles in the hardware class. The selling price is from 600 to 1,000 per cent higher than the shop cost.

In nearly every American home there is a little electric meter for which you pay when you have the wiring installed. Usually you pay in the neighborhood of \$6. Such a meter can be made for about \$1.

What is the remedy for this situation?

Where Makers Err

One expert in shop costs to whom this question was put, said: "I think the manufacturers are taking the wrong track. They are following the well known business method of making 'the price all the traffic will bear' and I believe they are losing money by it. There is one maker of automobiles in the United States who sells his cars for a little more than half what other cars of the same weight and quality cost. He has

(Continued on page 17)

"Save the Peace Treaty" is Plea of American League to Enforce Peace

Failure of Senate to Ratify League Covenant Held Injurious to Interests of the American People

BECAUSE of the stupidity, stubbornness, partisanship, or whatever you may call it, of fourteen senators the treaty of peace with Germany and the League of Nations covenant was rejected, and America stands today the laughing stock of the rest of the world, tax-ridden, profiteer-infested, plagued with social unrest and torn by partisan politics.

The League to Enforce Peace, of which Wm. Howard Taft is president, has sent out an appeal to newspapers and thinking people all over the country urging that they take immediate action to force the next session of Congress to adopt the peace treaty immediately upon convening. We quote as follows from the appeal of a League that knows no politics, but is comprised of men and women of all political faiths whose battle-cry is, "our country first!"

"Save the Peace Treaty!"

"The defeat of ratification has been received by the country with surprise and indignation. The people want Peace. They want Peace and they want a League of Nations to guard the Peace. Whose name it bears, which party brand it wears, they care not at all. They longed for and expected ratification before adjournment of the Senate.

"The making of peace is no more a party question than was the making of the war. The American people, without regard to party, stood behind the war until the day of victory. With like unanimity they now stand behind the Treaty.

"Shall the small minority who oppose a League of Nations in any form defeat ratification? Shall fourteen Senators decide where America will stand in this world crisis?

Eighty Senators have shown by their votes that they favor the great principle of the League of Nations. The fate of the Treaty rests in their hands. They have the votes. They have the power. Theirs is the responsibility. They must get together.

"The failure to ratify the Peace Treaty has encouraged social unrest both at home and abroad. Europe must have supplies or it will face starvation and anarchy this winter. Our farmers, cotton planters, live stock raisers and manufacturers have large surplus production of which they can market only in Europe. The rates of the exchange already demonstrate the collapse of any national credits. These credits, resting upon commerce and international securities, are the foundation of our continued prosperity and are vital to the maintenance of order and life in Europe.

"Men and women of America, this is your problem. Your interests, your welfare, the honor and the future of your country are involved. Your will is the supreme command for the men in Washington entrusted by your votes with guiding the nation along the paths of peace and victory.

"The Allied Nations established during the war a practical union which is being succeeded by the League of Nations. To refuse to join this League is to lose numberless benefits, and to invite the development of a league that will hurt us in feeling and in policy. The League of Nations gives the promise of a world co-operating for the purposes of peace and protecting

itself by concerted action against war and the threat of war. The ideal is American.

"The men and women who gladly dedicated their sons and their substance to the cause of obtaining peace through the defeat of the German menace refuse to believe that they have made an empty sacrifice.

"The Treaty should be ratified at the earliest possible moment after the Senate reconvenes on December 1st. In the name of thousands of Americans who have died to bring peace and end war and of millions of Americans who have toiled and sacrificed to that end, we call upon the Senate to forget prejudice and partisanship and agree upon a resolution of ratification couched in terms that will permit the other signatories of the Treaty to acquiesce in the conditions of our ratification. Save the peace treaty! Let us have peace."

"Act with all the vigor of a great purpose rising to meet a great responsibility. Visit your Senators! Write strong letters to your newspapers. Write and wire your Senators demanding action on the treaty immediately after December first.

"Drive home to every one you meet the pitiable spectacle we now present to the world as a result of partisanship in an international matter where common sense, patriotism and a 'decent respect for the opinion of mankind' demands that we be just Americans. Demand for yourself and urge everyone to also demand that the eighty senators meet in a spirit of 'get together' and on the common ground of adherence to the principle of a League of Nations proceed to the consideration of the covenant in order that we and the waiting world may have peace."



COMING ASHORE
—Harding in the Brooklyn Eagle.

Annual Session of the Michigan State Grange

Farm Organization to Hold Convention at Saginaw December 9, 10 and 11th

MICHIGAN STATE Grange will open in form at 10 a. m., Tuesday, December 9, in Masonic Temple, Saginaw. All officers and delegates should aim to be in their places at that hour, ready for four days of good hard work—interspersed with play in the form of music and social intercourse. Below are some of the special points of information.

Railroad Instructions

Reduced railroad fares will be granted all persons in attendance upon State Grange according to the certificate plan. The following directions are submitted for your guidance:

1. Tickets at the normal one-way fare for the going journey may be obtained on any of the following dates (but on no other date): Dec. 5 to 11. Be sure that, when purchasing your going ticket, you request a certificate. Do not make the mistake of asking for a "receipt."

2. Present yourself at the railroad station for ticket and certificate at least 30 minutes before departure of train on which you will begin your journey.

3. Certificates are not kept at all stations. Ask your local agent what is the nearest place on your route where you can obtain a certificate; buy a ticket to that point and then buy another and ask for a certificate to the place of meeting.

4. Present your certificates at State Grange to the Secretary, Miss Jennie Buell, for endorsement on Dec. 11 and 12. When returned to you, the certificates entitle you to buy return tickets for one-third regular fares. This applies to tickets that cost 75c or more. Your certificates entitle you to this reduced rate up to and including Dec. 16.

Notice—You may buy tickets and get certificates Dec. 5 to 11; and may obtain reduced fares on your certificates Dec. 11 to 16.

Hotels and Rooms

Arrangements are being completed to make everybody as comfortable as possible while in Saginaw.

Hotel Bancroft will be Headquarters at a rate of \$1.50 per person, two in a room. All should report at

this hotel for assignments to hotels and rooms. Saginaw Patrons will meet trains Monday afternoon and evening and direct you; Boy Scouts will assist you in finding your rooms when they have been assigned to you.

For rooms in hotels or private homes, address Mr. Chester Howell, Sec'y Board of Commerce, Saginaw, Mich. See him or his representative at the Bancroft, Monday evening, to ascertain what your assignment is or to make one if you have not written in advance.

Full Program Arranged

The program of the week, while not complete in all details will be a full one. Opening at 10 a. m., Tuesday, will be followed by greetings

from former officers and others and by informal reports on the Big Grange Drive. Come prepared to report what your county has done in the drive.

Tuesday afternoon the Master reads his annual address, and announces committee appointments. That evening occurs the public meeting when Saginaw welcomes her Granger guests and we accept her hospitality. Wednesday will see reports of officers and presentation of resolutions from the delegates; in the afternoon the Lecturer's report and open program, when noted farm specialists will be heard. That evening occurs the social love feast at a real banquet; after which short talks will answer the burning question, "What Do Michigan Farmers

Want?" Thursday and Friday at 8 a. m. are Lecturers' conferences; also at 8 a. m. on Thursday will occur the election of officers. Thursday and Friday will be filled with reports of committees and regular order of business. Thursday evening will be conferring of the fifth and sixth degrees, and Friday evening installation of officers.

The above outline of the annual State Grange meeting gives one but a bare glimpse into the vast amount of detailed work and pleasure which will confront those who attend this session.

There will be addresses by men and women, who are prominent both in and out of the Order upon far-reaching topics. There will be resolutions brought by delegates from their home Granges or originated by themselves which will reveal the pulse of thought among the rank and file of farmers over Michigan. There will result discussions and new resolutions will grow out of this coming together of many minds. Some of the big, throbbing questions are sure to come up for careful analysis and earnest action. Among these questions will doubtless be consideration of bills now before Congress, like the Capper-Hersman to legalize collective bargaining, and the Kenyon-Anderson to regulate the packers; the Grange's part in bringing producers and consumers in closer touch; relation of the Grange to other farm organizations; how to publish more widely the actual cost of production of food products; the farmers' right to cost of production plus a reasonable profit; what sort of rural schools are needed today; study of home sanitation and economics; and many others which the critical times suggest. In addition, there will be much time and discussion given to best means of building the Grange stronger and wider.

Sugar beet growers among our Grange people, will be interested to know that the annual mass meeting for growers of sugar beets is called to convene at Masonic Temple, Saginaw, Monday, at 1 p. m., December 8th.

Better Seed for Michigan Potato Growers

By C. W. WAID

Extension Specialist, M. A. C.

MANY POTATO growers in the State of Michigan are producing potatoes at an actual loss and many others with very little profit. On the other hand there are a good many growers who are making a fair return from their investment and labor.

One of the factors which has much to do with the profit and loss in connection with potato growing is the kind of seed used. If it were possible to secure records which would give a comparison between the kind of seed used and the profit or lack of profit, observation has led the writer to believe that it would be possible to determine in a general way whether a man is going to make any money growing potatoes when it is known as to the kind of seed he is using.

Realizing the importance of good seed and at the same time that many growers are still indifferent as to the kind of seed used, a committee was recently appointed by the county agents who were in session at Cadillac to confer with the Board of Directors of the Michigan Potato

Growers' Exchange and together work out a plan which would enable a much larger percentage of the members of the Exchange to secure first-class seed. The Board of Directors of the Exchange gave the plan their hearty indorsement and have agreed to let Mr. C. W. Cribbs, who is now working as field man along organization lines to devote a portion of his time to the putting of this plan into operation. The committee which is headed by William F. Johnston, of Roscommon, will continue to work with Mr. Cribbs.

In brief the plan is to have each local potato growers' association grow at least five acres of potatoes and to have the same distributed pro rata among the members of the association. In all probabilities a bushel of this high class seed stock will be exchanged for each bushel of table stock. The first year it will not be possible to get a sufficient amount of seed which has been carefully tested out in comparison with other seed to enable the growers to get all of the A No. 1 seed.

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Federal Grand Jury of Farmers Indicts Truman H. Newberry and Aids

United States Senator From Michigan Charged With Fraud, Corruption and Conspiracy

THE FEDERAL grand jury which has been in session at Grand Rapids since Oct. 21st hearing evidence in support of the alleged violation of election laws by Truman H. Newberry, last Saturday returned an indictment charging Mr. Newberry and 134 aids with serious criminal offenses against the laws of Michigan and the United States. Corruption, fraud and conspiracy are charged in the indictments. Warrants have been issued for the arrest of the men indicted and their arraignment has been set for Monday, Dec. 8th.

The evidence submitted to the grand jury showed that between \$500,000 and \$1,000,000 has been illegally spent by Mr. Newberry and friends in advertising, motion pictures, and other propaganda, and in salaries and wages to hundreds of men who performed some service or other in the furtherance of Mr. Newberry's campaign for United States Senator.

An Associated Press dispatch to the Detroit News Tribune says: "Government officials assert that the testimony presented to the Newberry grand jury revealed a political scandal that in many respects it without parallel in American annals. They say it extends from the most populous wards of Detroit to the Indian reservations where aborigines were voted according to the behest of the Newberry campaign organization. It is alleged that voters were bribed, election boards corrupted, editors subsidized and moving picture theatres bought up in the endeavor to defeat Henry Ford, first in the primaries of both parties, and later when he had won the Democratic nomination, in the election.

THE NEWBERRY CAMPAIGN

As Viewed by Michigan Business Farming

IN OUR September 7th, (1918) issue we made the following explanation of our opposition to Mr. Newberry's candidacy: "The people who voted for Mr. Ford and the people who voted for Mr. Osborn; yes, and the people who voted for Mr. Newberry will want an accounting of the \$150,000 that was spent to nominate Mr. Newberry. Not even their high regard for Mr. Newberry's unquestioned patriotism or his sterling Americanism will blind them to the bare fact that Mr. Newberry's friends if not Mr. Newberry himself have violated the laws and traversed the very principles of Americanism, of right and equality, upon which Mr. Newberry's campaign was made." Again in our Sept. 14th issue we said: "This expenditure of \$176,000 was in itself a violation of the law. It was in effect the price which Mr. Newberry's friends paid for Mr. Newberry's nomination. It violated every principle which gave birth to the primary law. It corrupted men's opinions, as money has a habit of doing, and it insulted the very intelligence of the great body politic of the state of Michigan."

As Viewed by Judge Sessions

"In returning these indictments you have decreed that a large number of men shall be placed upon trial for an offense which, if committed, strikes deeply at the foundation of our form of government as surely and certainly as the doctrines of the men who follow the red flag.

"If the result shall be one of acquittal, it will be a most fortunate and happy one for the accused. If, on the other hand, a conviction shall follow the result will be unfortunate and unhappy for the men who are indicted and yet it would be a vindication of the majesty and supremacy of the law of our land and whatever the result, it will be for good because already the truth and the conviction has been driven home to the minds of all thoughtful persons that is unsafe to tamper with the rights of the people."

It has been officially stated that the investigation of the Newberry senatorial campaign was instigated upon the information contained in complaints filed with the Department of Justice at Washington and by Lieut.-Governor Dickinson's pub-

lic charges of "graft and corruption." It will be remembered that immediately following the primaries the lieutenant governor issued a scathing denunciation of the Newberry methods, but before the election practically "ate his words" and

urged the election of Mr. Newberry as the Republican nominee.

Despite the enormous sums spent in his behalf and the magnificent political organization which fostered his candidacy, Mr. Newberry won the election as United States senator by less than 10,000 votes. A few weeks after the election when it was broadly hinted that more money was spent by Mr. Newberry than the law allowed, certain irregularities such as the burning of ballot boxes in several upper peninsula precincts were discovered, Henry Ford petitioned the United States senate for a recount, but up to the present time the Senate committee on privileges and election has refused to sanction a recount. The indictment of Mr. Newberry, or his possible unseating from the United States senate, will, it is understood, have no effect upon Henry Ford's standing. As the votes stand today he was defeated and unless a recount should later prove that there was an error in the canvass of the votes, Mr. Ford cannot have the job. The unseating of Mr. Newberry would leave a vacancy which would have to be filled by the appointment of Gov. Sleeper or the legislature.

Over half of the men constituting the grand jury which returned the indictment against Newberry are farmers. Sixteen of them are claimed to be Republicans and seven Democrats. Judge Sessions, of the federal district court of Grand Rapids has a high reputation for non-partisanship, and it is held that the methods pursued in uncovering the evidence, the examination of witnesses and the findings of the jury were entirely non-prejudicial, and conducted with the utmost fairness.

Co-Operative Cow-Testing Work is on Increase

Ten New Associations Now in Process of Organization Indicate Progress of Movement in This State

MICHIGAN was the first state in the union to organize a co-operative bull association. The success of this first association inspired farmers all over the state to get together in groups and purchase pure bred bulls for the improvement of their herds. Of equal importance, if of more recent origin, is the cow-testing association.

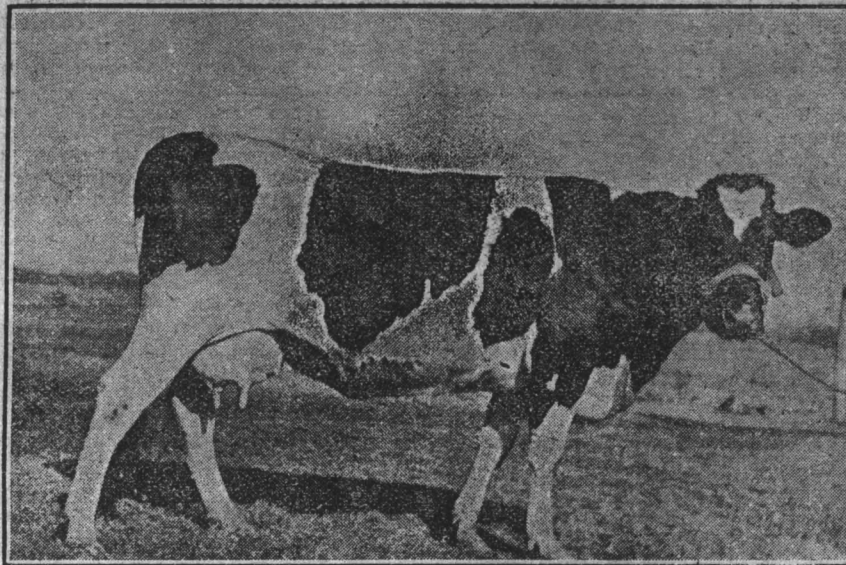
Fifteen months ago there were only five co-operative cow testing associations in Michigan. Today there are thirteen associations with 349 members owning 4,205 cows. At the present time ten more associations are in process of organization in the following counties: Livingston, Washtenaw, Macomb, Genesee, Cheboygan, Emmett, Osceola, Gladwin, Wayne and Barry. Associations organized up to the first of November are located in Oceana, Eaton, Van Buren, Branch, Lapeer, Wayne (2) Tuscola, Nashville, Kent, Oakland, Berrien and St. Joseph.

J. A. Waldron, dairy extension specialist of the M. A. C. is in charge of the cow testing association work in the state, and farmers interested in the plan should communicate with him at East Lansing.

By J. W. WALDRON

Dairy Extension Specialist, M. A. C.

A COW testing association is a co-operative organization the purpose of which is to provide its members with records that show the relative merits of their cows, and to aid them in the more economical production of milk and butterfat. The first organization of the kind was formed in Denmark in 1895, since that time there have been 500 associations organized in this small country, about the size of the lower peninsula of Michigan. There were over 2,000 in Europe before the war. The first association was formed in this country in Michigan at Fremont in 1905 and is still in operation. There are 500 associations in the United States. The association is usually composed of about 26 members so that each member may have the services of the man in charge of the association one working day each month. A man is employed by the year at a stated salary to take charge of the association. As stated above he spends one working day on the farm of each member each month and while there he makes a complete feed and production record on each individual cow in the herd. He



SINCE the cow testing associations came in, the poor producer is being weeded out to make room for the profit-maker.

weighs the milk from each cow both night and morning and takes a sample for testing. The milk is tested for butterfat. The cow is then credited for the butterfat produced at the price received. The feed of each cow is weighed and she is charged for it at the local market prices in the barn. The difference between the value of the products and the cost of the feed shows the profit or loss on the cow for the month. At the end of the year a summary is made of the twelve months' records of each cow and of the herd as a whole, so that the owner knows just what his herd did and what part each cow played in the year's work.

The supervisor in charge is also supplied with skim milk testing bottles so that he is able to detect defective separators. Often many dollars are saved by simply making small adjustments in the separator. He also can often aid the farmer to feed more economically by helping him to balance his rations more perfectly and to feed according to production.

What It Will Do

1. Show the value of individual cow in the herd by furnishing a yearly record on every cow in the herd. Often one or two cows may be cutting down the income of the whole herd until it is unprofitable. One man milking ten cows found by

cutting out three unprofitable ones that he was able to increase the average profit per cow by 95 per cent.

2. Gives a basis for building up a dairy herd. Points out pitfalls in the business. One man in one of the associations in Michigan found one purebred cow was kept at a loss of \$32.03 while her daughter a mature cow was kept at a loss of \$25.11 after paying her yearly feed bill. He was shown the folly of building on that kind of a foundation.

3. Increases the value of cows and young stock at least 20 per cent. There are instances where it has increased it much more. One man sold a grade cow valued at \$125 before he became a member of an association for \$200 at a public sale after her yearly record had been made.

4. Promotes interest in dairying by putting it on a more business-like basis.

5. Tests out herd sire. It is the best method to measure progress along breeding lines. We never profit by our mistakes or successes unless we have a means of determining them. One man found after belonging to an association for one year that he had one cow that produced 471 pounds of butterfat at a profit of \$78.79 over feed cost, her daughter produced 514.5 pounds at a profit of \$108.44 over feed cost,

and her granddaughter produced 540.8 pounds at a profit of \$99.85 over feed cost. This fact demonstrated to him that he was using sires that increased rather than decreased the production of his herd. It showed him that he was successful in his breeding operations.

6. Aids members to feed more economically. The following table gives the results of balancing the ration and feeding according to production in a herd of 10 cows in one of the Iowa associations: Dec., total milk yield, 5,133.6 lbs.; total fat yield, 225.5 lbs.; total feed cost, \$80.60; total profit over feed cost, \$2.47; Jan., total milk yield, 5,697.1 lbs.; total fat yield, 253.8 lbs.; total feed cost, \$48.66; total profit over feed cost, \$40.39.

7. Promotes community life because it brings men of like interests and desires together for a definite purpose.

8. Co-operative buying of feed also often creates a saving to members. One association in Michigan saved over \$15 per ton by buying feed early in ear lots.

9. Interests boys in the farm.

What It Will Cost

The cost of the association is the salary of the tester. He is boarded and lodged at the homes of the members and is transported to his next place of work by the man for whom he worked last.

The required books are furnished by the United States Department of Agriculture and the testing outfit has been furnished by the Extension Division of the College for one year work in each association.

A sum sufficient to pay the tester and meet incidental expenses is usually raised by charging each member about \$3 per month. This amount may be varied depending on the number of cows in the association and the size of the herds of the members. It is usually planned to have at least 350 cows represented in the association.

Supervisors and Organization

All business is in the hands of the members of the local associations. Communities are aided in organizing these associations by County Agents and representatives of the Extension Division of the College and of the United States Department of Agriculture and the tester's work is under the supervision of these departments.—J. A. Waldron, Dairy Extension Specialist, East Lansing Mich.

Campbell Leads in Business Farming's Straw Vote for Governor

Simpson, Baker and Helme Are Running Neck and Neck in the Race for Second Choice

EARLY returns in Michigan Business Farming's straw vote for Governor give Milo D. Campbell of Coldwater a substantial lead over all other candidates. Nathan F. Simpson appears to be quite a favorite and is leading Sen. Herbert Baker of Weadock and Jas. Helme of Adrian for second place. Sentiment seems to be fairly evenly divided on the other farmer candidates.

It should be stated that the returns thus far received are so meagre as to offer no basis for forecasting the final result. A few scattering votes are of little value in determining the strength of the several candidates, and it is entirely possible that the present standing of the candidates may be materially altered when the vote is completed. It is our purpose to advise our readers from week to week of the relative position of the candidates in the race but the number of votes received by each candidate will not be published for some time. If the votes come in for the balance of December at the same rate as during November we should be able to announce the result of the first canvass in our January 3rd issue. The sooner our readers vote the quicker we will be able to publish the returns.

We are highly pleased over the interest our readers (both men and women) are showing in this contest.

It proves conclusively that the farm folks of the state are waking up to their responsibilities as citizens and are determined to take a hand in the next campaign. Subscriber H. E. S., of St. Charles writes, "Find enclosed straw vote for Milo D. Campbell. I believe he would be a very good Governor and a man the farmers of Michigan should support. I appreciate the good work you are doing for us. I believe the day is near at hand when the farmers will be represented as they should be. Yours for success."

S. C., of Stanton declares, "We want not only a farmer for Governor, but as many farmers for senators and representatives as the Lord will permit."

G. M. G., of Allen says, "We have four enthusiastic votes for Mr. Campbell. I will also take an active part to support Mr. Campbell. He is the right kind of timber."

"Four votes in our family for Nate Simpson and one for L. Whitney Watkins," writes C. S., of Fenton.

A Riggsville family signs three names, one of them "our soldier

boy," to this brief declaration: "Will say there are three votes in our house for H. F. Baker."

As previously noted a considerable number of votes have been received for Grant Slocum and scattering votes for others whose names are not published among the list of candidates. No votes have yet been received for Denby, Groesbeck or Osborn. Six votes are for Ferris, two for Earle, one for Green, one for Waters, two for Dickinson, showing beyond a doubt that the farmers want a "farmer" governor.

Mr. A. B. Cook of Owosso writes us that while he appreciates the high honor of being mentioned as a candidate, he is "not a candidate and will not be a candidate for governor in 1920 under any circumstances."

Others who disclaim any present intention of becoming candidates are N. P. Hull of Lansing, Chas. S. Osborn, of Sault Ste. Marie, and W. N. Ferris, of Big Rapids.

The straw ballot will be published each week throughout the winter or until the farmers through some organized voice announce their choice of candidates. Then it will be our duty and pleasure to help put that candidate into the Governor's chair. Please help us to make the straw vote a success. We want to show our city cousins where the farmers stand.

Clip This Coupon

PLACE a cross after the name of your candidate, or if you prefer someone not mentioned write in the name on the dotted line. Then clip the coupon and mail it to Editor Michigan Business Farming, Mount Clemens.

Herbert F. Baker	☐	W. N. Ferris	☐	Nathan P. Hull	☐
Milo D. Campbell	☐	Fred Green	☐	Chase S. Osborn	☐
Edwin Denby	☐	Alex J. Groesbeck	☐	Nathan F. Simpson	☐
Luren D. Dickinson	☐	Jas. Helme	☐	Dudley E. Waters	☐
Horatio S. Earle	☐	John C. Ketcham	☐	L. Whitney Watkins	☐

M
If your candidate is not listed above write in name.



ARRAYED like a convoy on the road to the front in the war, this chain of autos started out in a show-down of motor efficiency from Saginaw for a tour thru the "Thumb" district.



AT Vassar, the first stop on the ship-by-truck tour, the crew lining up for the photograph shown above. Hundreds of farmers turned out in the rainy weather to witness the parade.

Ship-By-Truck Method Spreads Over Country

Estimated That This Mode of Transportation Will Effect Saving of 33½ per cent. in Next Five Years

TRANSPORTATION experts at Washington are responsible for the statement that, with the present progress of road building, it would be possible within five years to cut out 33 1-3 per cent from the cost of freight transportation in the United States through the use of automobile trucks. Engine, tire, and body builders now come forward with the statement that this will be done.

"The farm community," says a recent department report, "should be linked with the city market. Railway, waterway and motor truck service should be effectively co-ordinated. Farm products such as milk, eggs, poultry, fruit and vegetables can, on seventy-five per cent of the farms, be carried in small containers and sent direct into the cities by truck, thus relieving the burden on the railroads."

Upon reading the report the question which naturally arises is, are the farming communities awakening to the need of doing their share in creating the channels by which their products may flow smoothly from "farm to table."

An array of facts and figures are brought forth by E. Farr, director of the Firestone Ship by Truck Bureau, at Akron, Ohio, to support his affirmative answer. The bureau, which has 63 branches in the United States keeps in touch through these branches and its special investigators, with all matters affecting the motor truck and its uses.

"Motor trucks on improved highways," says Mr. Farr, "offer the farmers of the nation their best opportunity of starting products on a smooth flowing movement from 'land to men.'" And today the United States is carrying on the biggest highway improvement campaign in its history and in the history of the world. At the same time the factories are turning out an increasingly large number of motor trucks, most of which will go to farmers or into the service of farmers. It would appear, then, that the farmer is awakening fully to his opportunities in this respect. He is simplifying his end of the distributive system by making it possible to speed his products to market, thereby lessening the number of agencies through whose hands these products will pass, with the consequent narrowing of the circle of those who might be tempted to add to the price which will be paid by the consumer.

Figures recently announced by the International Shipping Digest show that during the current twelve months \$375,000,000 will be expended on road improvements and maintenance of roads in the United States. From reliable sources it is estimated that in the same period the country will manufacture 180,000 motor trucks.

It is significant that the states which will spend most freely for better highways and which manufacturers depend upon to buy the most motor trucks are states in which farming is the most predominant among the occupations.

It is estimated that Kansas, which will spend \$8,000,000 on bettering its roads, will buy 20,000 motor trucks in the same period.

Minnesota has a road building

program calling for the expenditure of \$11,127,986. As an illustration of what the farmer in this great state thinks of the motor truck might be cited a statement recently issued by the Northwestern National Bank in Minneapolis in which it is said that "trucks in large numbers, intended for immediate use in marketing the grain are being sold to this large buying class (the farmers,) and elevator scales in many places are being revamped to accommodate the growing fleet of farmers' trucks."

"Iowa, potential buyer of many motor trucks, will spend \$20,498,534 on better highways."

"Thus it goes. In the farming communities the coming of the motor trucks has made the era of good roads talk give way to the era of good roads construction. The farmer is doing his full share, to the best of his ability, in linking his community to the city market."

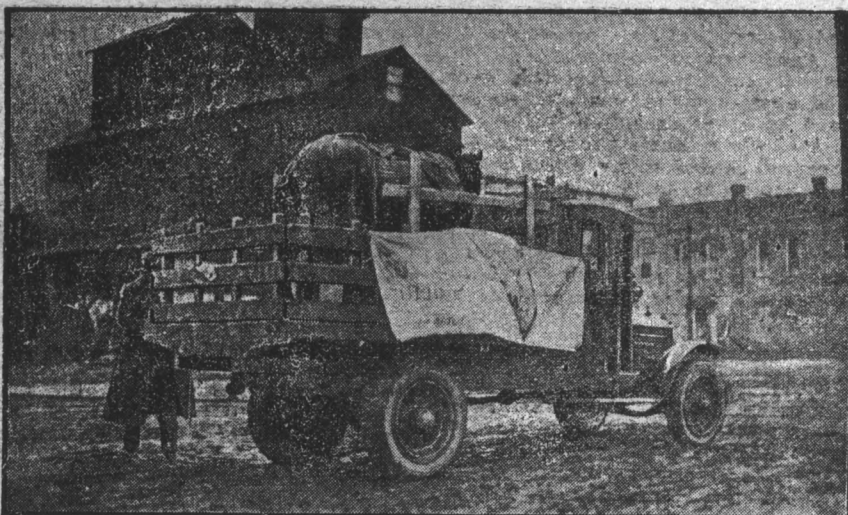
TRUCK TOUR IN "THUMB"

DRIVING home to farmers the importance of shipping by truck and thereby getting their products to market quicker and in

better shape and at the same time conserving their own labor by being able to stay home through the trucks driving up to their very farm doors, preaching to the small town merchants the great lessons of bringing him within a few hours shipment of the wholesale markets from which he gathers his products and over all expounding the importance of continuing the good roads movement, so that the foregoing points may be brought out, Saginaw Automobile Dealers Association co-operating with the Board of Commerce has just concluded a two-days Ship by Truck tour, an innovation in a way and put on at a time when weather conditions were the most adverse that could be encountered during the year and with but a few days publicity and greeted by hundreds of farmers who stood in the rain and listened to the messages of the speakers in all the cities along the route. Twelve trucks ranging from three quarter ton to three and one-half ton capacity jobs and two automobiles, the official cars left Saginaw promptly on schedule at eight o'clock in the morning and

visited Vassar, Caro, Cass City and Bad Axe, being the first day's run. Caro was the noon stop. The roads, in spite of the drizzling rain were found to be in good condition. Every truck that started got through without any mechanical or tire trouble and the schedule was followed as it was laid out. Caro, the noon stop, was reached on time and Bad Axe, the night control, found Mayor George T. English, who is also State Oil Inspector, and a large number of citizens of the enterprising Huron County metropolis out to greet the tourists. Amsdens Band of twenty-six pieces made the trip and in all the personnel of the party numbered sixty people. Chester M. Howell of the Saginaw Board of Commerce was tour manager and with Richard J. Zoat of the Firestone Ship by Truck Bureau delivered the speeches in the different towns. The tourists started from Bad Axe the second morning three minutes ahead of schedule visited Elkton, Pigeon, Kilmanagh and Sebawaing reaching the latter city forty minutes ahead of schedule. In all of these bustling centers of the rich thumb district there were large audiences out to greet the tourists. As was true of the first day, speeches were given and the band played from one to three selections at each stop. Excellent hotel arrangements had been made and not one unpleasant feature marked the day's run. Saginaw was reached on schedule at night, the afternoon run consisting of Unionville, Akron, Fairgrove, Gilford, Reese and Saginaw.

The thumb district is one of Michigan's garden spots. It abounds in many centers of population, short distances from each other and whipped together by good roads and offers a most fertile field for Ship by Truck service and out of this tour and its lessons have come several routes that are to be started. There is no doubt but that the Ship by Truck movement is going by leaps and bounds and in the next few years will see Michigan, wherever good roads abound, traversed by such companies. It is logical; it means that the farmer will save his own labor and labor is the greatest problem that the farmer has to contend with today. It is going to get in just the same way that the telephone and automobile and flying machine have done and it is the economic solution of our short haul transportation problem. Shipping by truck was fostered by the National Council of Defense as a war measure but with peace it looms up as an extreme necessity and far greater peace time measure than it was needed during the war. Ship by Truck routes covering routes of up to three or four hundred miles are already in operation in many centers of the United States where the good roads movement has been exemplified to a high degree and these Ship by Truck tours are going to make farmers and merchants of the smaller cities just that much more anxious to develop their highways to a point of excellence where heavy trucks can visit them and place them within a few hours transportation service of markets and wholesale districts.



OLD Dobbin made the trip of 200 miles, just to show the difference between the horse and the truck, the old age of transportation and the new.

More Money in Dual Purpose Breeds, Claim

By GEORGE B. SMITH

WITH prime baby beef selling at 20 cents per pound, the possibilities to farmers in Southern Michigan in combining milk and beef production, demand attention at least.

The dairy cow, besides producing a calf to take her place in the stall when she has passed her usefulness can supply the world with prime beef, as well.

Farmers, as a rule, have learned from experience how to produce a calf of beef type and tendency, from a cow of the opposite type and tendency, to convert her food into milk rather than flesh.

The use of pure bred sires of the extreme dairy breeds, for the first time is still fresh in the memory of many farmers in Southern Michigan. The prepotency of the pure bred in throwing type to the calf, especially when mated with cows of mixed breeding, which applies to the ex-

treme beef breeds as well as dairy breeds, affords a solution of the first problem the dairy farmer has to face who desires to make double profits with his herd.

The second problem is not so easy to solve, how to raise the calf to marketable age as baby beef, without sacrificing the milk check.

Farmers who grow hogs for market know that the cheaper gains are made on the younger animals, and the tendency is to breed for the pig that will be fat and ready for market at six months old. Likewise there is greater profit with the calf that will make prime beef as a yearling, rather than as a two-year-old provided the cheaper class of feeds can be used in putting the calf in proper flesh at that age.

At Glenwood Farm experiments have been made in calf raising with the cheaper feeds for a number of

(Continued on page 17)

MARKET FLASHES

WHEAT RECOVERS SLUMP

WHEAT PRICES PER BU., DEC. 6, 1919			
Grade	Detroit	Chicago	N. Y.
No. 2 Red	2.31	2.31	2.30 1/2
No. 2 White	2.29	2.29	2.34
No. 2 Mixed			

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
No. 2 Red	2.22	2.21	2.24
No. 2 White	2.20	2.21	2.24
No. 2 Mixed	2.20	2.20	2.23

Wheat completely recovered from the slight slump of a few days ago and early this week advanced several cents per bushel. The only marked slump had been in the higher grades of wheat. One of the lowering factors of prices has been the inflow of considerable Canadian wheat much feared at first by many wheat men in this country. But the wheat crossing the border to the United States has not had much weakening effect. Wheat rose four cents on Monday alone in the Detroit market due to a general bullish sentiment urged on by active buying by dealers and millers. In connection with the wheat market, it is of interest to note that flour is quiet and firm with good demand for mill feeds, and with nearly all mills working steadily filling chiefly old orders.

The wheat crop is almost entirely out of the farmers' hands now, and where the profits are being made they are being made mostly by dealers. A few farmers, of course, are reaping the reward for having waited, especially in case of the better grades of wheat.

CORN MARKET BULLISH

CORN PRICES PER BU., DEC. 6, 1919			
Grade	Detroit	Chicago	N. Y.
No. 2 Yellow	1.55	1.60	1.71
No. 3 Yellow	1.54		
No. 4 Yellow	1.50		

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
No. 2 Yellow	1.47	1.35	1.65
No. 3 Yellow	1.45	1.35	1.61
No. 4 Yellow	1.40	1.35	1.55

Coal shortage which is causing increasing anxiety in industry, has worked for higher prices in the corn markets in Chicago, Detroit and elsewhere. Gains of as high as three cents or more occurred in Chicago the opening of this week. Export demand is another sustaining feature of the corn deal. Unusually small stocks of corn feature the corn news from Detroit, where the corn market has been rather quiet.

In regard to the coal shortage it is of interest to note the seriousness of the situation which has caused scores of great industries to shut their doors in the West, and many will stay closed for several weeks until the situation is improved. There have been numerous bearish factors tearing down the prices, but when the market rises in spite of these it shows the inherent strength of the corn outlook. The bearish features were, in part, the breaking of foreign exchange to new low levels; heavy stock market; excellent weather conditions; larger receipts at the biggest terminal markets and so on. There seems, however, to be no rush at present on the part of most producers to sell their corn.

From the West come reports of rapid increase of farmer organizations with a great deal of sentimental effect on their attitude toward selling. It is their firm belief that \$1.25 should be the very lowest price paid for corn at the country loading stations, and that a much better price should be secured.

OAT PRICES CLIMB

OAT PRICES PER BU., DEC. 6, 1919			
Grade	Detroit	Chicago	N. Y.
Standard	.82	.81	.90
No. 3 White	.81	.80	
No. 4 White	.80		

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
Standard	.76	.75	.85
No. 3 White	.75	.74	.83
No. 4 White	.74	.73	.80

Strong foreign demand for oats and decrease in the amounts reported for the visible supply have done much to keep the oat market firm,

LAST MINUTE WIRES

DETROIT, Dec. 4.—All grains go higher, corn oats and rye advancing mainly because of small receipts. Active demand for seeds of all kinds. Beans, inactive and steady. Potatoes easy. Hay in good demand; offerings scant. Live stock higher than last week.

CHICAGO, Dec. 4.—Hogs drop about 25 cents, but close firm, following rising prices earlier in week. Cattle also slightly lower. Potatoes easy. Corn, oats, rye and barley bullish.

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

President's Message Confuses Trade Outlook

PRESIDENT WILSON stepped into the limelight again in the world of business and trade this week with his message to Congress. Some of the measures advocated by the president were: a budget system, simplifying of taxes, a trade which no longer allows America to be isolated from the rest of the world, aid for returned soldiers, laws to encourage the dye industries in America, increased production of food and the necessities of life, speedy return to normal conditions, politically, socially, industrially, etc., strong food control additions to present laws, sanction for collective bargaining, regulation of length of time produce can be kept in storage, fighting of the extreme Reds, etc.

The result of the message, the chief factor in Wall street this week, was dull and confusing trade conditions. Disappointment was felt in financial headquarters because of neglect in the message of remedies for the rail situation.

There are many other factors in the world of business and trade which need to be watched closely. The foreign exchange has collapsed to a record low level, and this may have very harmful effects in parts of the export trade. Adoption by the government of stringent regulations to prevent coal famine also will have their bearing in the grain markets, whose rises have often been due recently to the coal situation. The chief manufacturing concerns show little worry about the outcome of the fuel restrictions but it is admitted that further shortage of fuel and transportation is coming.

and the price of oats rose from one to two cents in some of the big markets the opening days this week. The upward trend was also encouraged by a bullish action in the corn sector, where anxiety over the coal shortage caused rising prices.

There seems to be a belief among certain market experts that the price of oats is too low, when compared with corn, barley and rye. Domestic shipping sales have been liberal. A lowering in the rates for ocean freight has opened up new buying of oats in the United Kingdom and other countries in Europe. Another bullish factor on the horizon is the fact that Argentine grains, notably oats, are pulling down higher prices in European markets than are the American grains.

RYE AND BARLEY HIGHER

Rye prices rose about one cent in

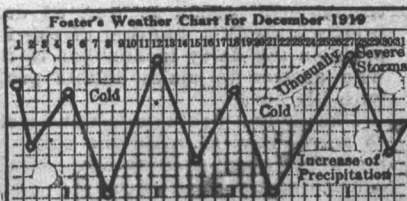
the Detroit markets the opening days this week. Barley also presents a firm condition. The persistent and increasing foreign demand is undoubtedly the strong bull in the rye and barley trade. The upward tendency of corn, has had a further strengthening to most grains. Detroit has exactly seven times as much rye on hand as it has corn; there are 21,000 bushels of corn and 147,000 bushels of rye.

In the face of low rates of exchange, the German mark and the Austrian crown have declined almost to nothing. Nevertheless, the purchases of other countries keep up, including those of the British Isles and countries which had been neutral in the war.

Detroit quotes rye, cash No. 2, \$1.49. Barley, cash No. 3, \$2.80 @ 2.90 per cwt.

THE WEATHER FOR THE WEEK

As Forecasted by W. T. Foster for MICHIGAN BUSINESS FARMING



WASHINGTON, D. C., Dec. 6, 1919.—Warm waves will reach Vancouver about Dec. 6, 11 and 18 and temperatures will rise on all the Pacific slope. They will cross crest of Rockies by close of Dec. 7, 12, 19; plains sections 8, 13, 20; meridian 90, great lakes, middle Gulf states, Ohio-Tennessee valleys 9, 14, 21; eastern sections 10, 15, 22, reaching vicinity of Newfoundland about Dec. 11, 16, 23. Storm waves will follow about one day behind warm waves and cool waves about one day behind storm waves. These disturbances will dominate the weather of North America from near Dec. 6 to 25 and will include two cold waves that will be on meridian

90, moving eastward near Dec. 8 and 21. The reader should always have Foster's large weather map for ready reference. These maps are sent free on receipt of 1-cent. Always address: W. T. Foster, 1625 1-2 N. Capitol St., Washington, D. C.

December will bring in another important weather feature. It is now being demonstrated that the principal cause of the changing locations of droughts and floods, of all precipitation, is a regular change in the places where the sea waters are evaporated, from which evaporation the moisture comes to water the continents. One of these changes occurs first ten days of this month. The period of these changes is about 165 days and these evaporation occur near the same places at irregular intervals separated by years. The calculations are difficult and the knowledge should be in possession of the government in order that it might be worked out more thoroughly.

W. T. Foster

BEANS REMAIN INACTIVE

BEAN PRICES PER CWT., DEC. 6, 1919			
Grade	Detroit	Chicago	N. Y.
C. M. P.	9.00	10.00	11.50
Prime	8.85	7.50	7.25
Red Kidneys	11.50	13.00	13.50

PRICES ONE YEAR AGO			
Grade	Detroit	Chicago	N. Y.
C. M. P.	9.00	10.00	10.50
Prime	8.00	9.00	8.75
Red Kidneys	13.50	12.00	11.25

The bean market remains inactive and steady, according to reports from Detroit. Little activity has been occurring for some time in the Detroit market. Interesting news, however, comes from various parts of the bean world. Birch Run, Michigan, reports a fairly healthy market with receipts extremely light and with a fair demand. The Birch Run dealer is reported as declaring the crop to have been fifty per cent moved thus far, and the crop is said to be held by strong hands among the farmers who expect to wait until they can get a price above the cost of production. This sentiment seems to be fairly general in many parts of the bean belt of Michigan.

Colorado reports an increase of 50 cents per cwt. in the price of beans. California farmers and others are pooling their bean crop to some extent. Farmers everywhere seem to be awakening to the need of organizing in order to prevent glutted markets followed by price soaring after the crop is mostly into the dealers' hands.

POTATOES INCLINE EASIER

SPUDS PER CWT., DEC. 6, 1919			
	Sacked	Bulk	
Detroit	3.00	2.90	
Chicago	2.85	2.75	
Pittsburg	3.00	2.75	
New York	3.00	2.75	

PRICES ONE YEAR AGO			
	Sacked	Bulk	
Detroit	1.95	1.85	
Chicago	1.95	1.85	
Pittsburg	1.95	1.80	
New York	2.35	2.20	

Potatoes are reported as easy in many markets at present with less activity in the trade. Detroit reports an easier condition, although receipts are no larger. Prices hover around \$3 and above for 100 lb. sacks. Crop reporters of Business Farming tell of better prices for potatoes generally to farmer. The increased use of the motor truck has saved the day for many potato growers who wanted to sell during the car shortage. Frost and dry rot have played a certain amount of havoc with potatoes in transit in Michigan and other states.

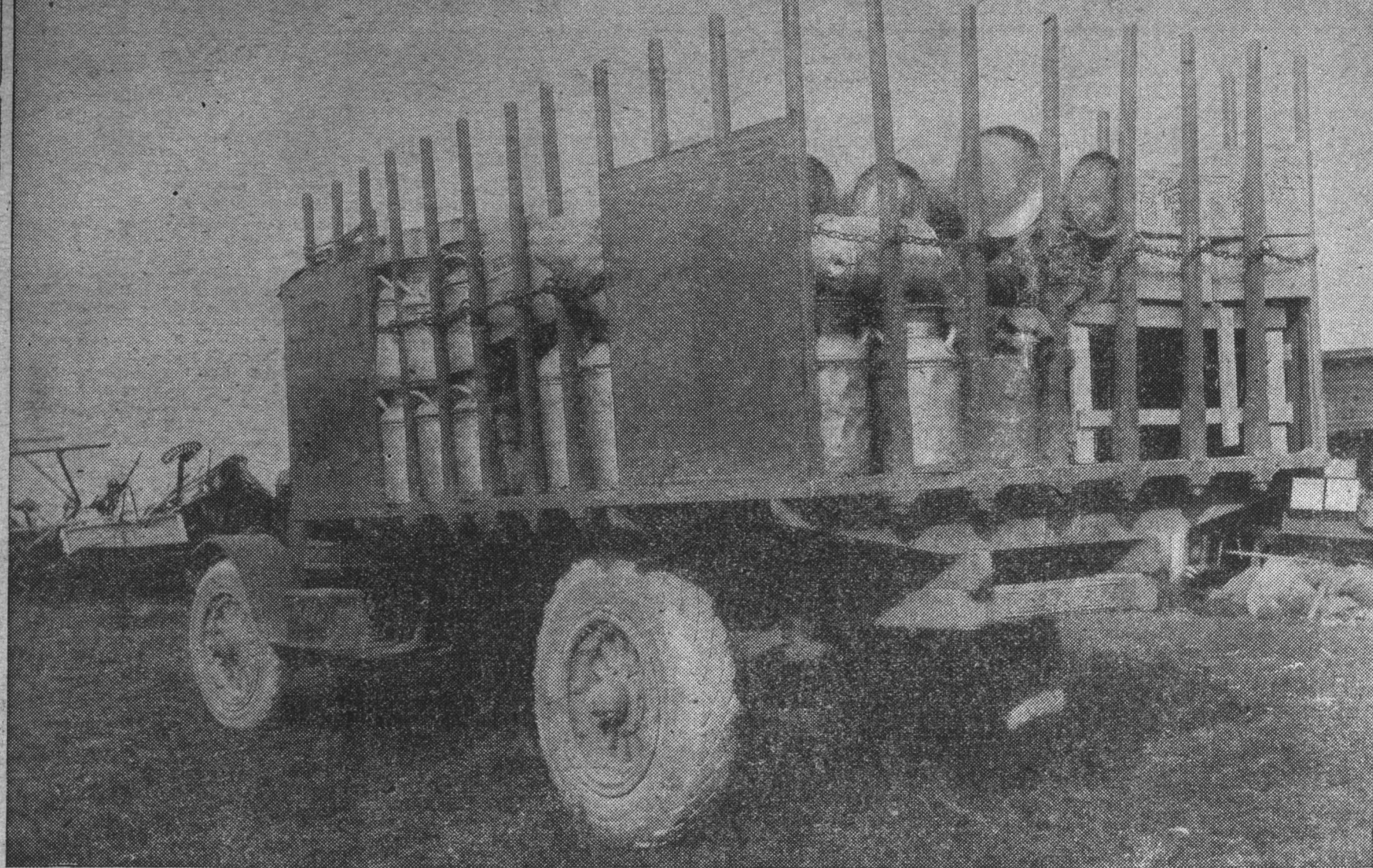
Chicago sends a message of an easier potato market at present. Thanksgiving week had its usual effect of reducing the amount of buying, following by an easier market. A recovery, however, is confidently hoped for by the spud bulls. The greatest decline was only 15 cents per cwt. and an upward jump is predicted in Chicago and other markets. Farmers should not be surprised to see another slump around Christmas week, when lighter trading usually makes for an easier market.

POULTRY MARKET LIFELESS

Michigan's poultry markets generally lack life this week, inasmuch as the Thanksgiving business took the wind out of the sales of the trade. In Detroit and elsewhere much of the poultry offered was left over stock and there was little urgency on the part of the buyers. Detroit quotes: LIVE POULTRY: spring chickens, large, 25@26c; leghorns, 20@22c; hens, 26@27c; small hens 18@20c; roosters, 16@18c; young geese, 25@26c; ducks, 30@32c; turkeys, 36@37c per lb. DRESSED POULTRY: turkeys, 38@43; chickens, 23@28c; ducks, 38@40c; geese, 28@30c per lb.

ADDITIONAL MARKETS
ON PAGE 17

MOTORIZE THE FARM



AFTER doing much of the market hauling of thirty-two farmers around Eden Prairie, Minnesota, with a motor truck on Goodyear Cord Pneumatic Truck Tires, Mr. C. P. Page states: "I would not use solid tires again under any consideration. Hills, mud and storms don't stop the big, tractive Goodyear Cords. Their cushioning is saving truck repairs and depreciation. They also are saving gasoline and oil. I now haul more milk and other loads in less time, find the work far easier, and note that the pneumatics save our roads. Several people have adopted them as a result of my experience with Goodyear Cords."

THE experience described above affords an excellent example of what pneumatic truck tires are accomplishing for farmers. Every limitation hitherto placed on the farm use of motor trucks by solid tires has been removed with the perfected pneumatic tire. For this reason, Goodyear's pioneer work in developing cord pneumatic truck tires has been extremely opportune; it has led to the more

extensive use of farm trucks during a serious scarcity of farm labor. Now, farmers are finding it extremely advantageous to employ Goodyear Cord-equipped trucks with other time-saving motor units and, thus, to motorize their work quite completely. Special information concerning the use of pneumatic-tired trucks on farms may be obtained from The Goodyear Tire & Rubber Company, at Akron, Ohio.



GOODYEAR  **MADE IN U.S.A.**

CURRENT AGRICULTURAL NEWS OF THE WORLD

SURPLUS WAR EXPLOSIVES

MAY CLEAR MICHIGAN LAND

Cheap explosives for clearing land in Michigan may be secured in the near future. There is said to be a probability of the war department distributing a large quantity of T. N. T. for this purpose, in much the same manner that quantities of this explosive have been sent to various states for use in road building.

Sec'y Marston, Bay City, wrote development bureau officials in the state, to the agricultural agents of the railroads to the state agricultural college and the public domain commission, suggesting that each one get in touch with congressman and senators from the state and get them interested in securing an allotment of this explosive for use in the north Michigan stump lands.

The response was quite general. W. P. Hartman, agricultural agent of the Grand Rapids & Indiana railroad got Congressman Mapes interested in the proposition; Congressman Currie got busy on it at once after receiving a letter from Secretary Marston at Bay City, and others have also been working on the proposition.

Congressman Currie writes that he has some encouragement that he will succeed in getting an allotment of 200,000 pounds for experiments in Michigan and also that a government bulletin is to be issued in a short time giving information concerning the use of T. N. T.

Soil Improvement Body Enlarges

The work of the Soil Improvement Committee of the National Fertilizer Association in middle western territory has constantly grown, and in order to keep pace with the growth two agronomists have recently been employed to help carry on the work.

One of these men is Ove F. Jensen, who, for the past three years, excepting for the time spent in military service has been connected with the Farm Crops Department of the Iowa Experiment Station at Ames, Iowa. Mr. Jensen is a graduate of the Michigan Agricultural College in the class of 1914. During his college course and after graduation he worked in the Fertilizer Division of the Experiment Station, and is especially trained for fertility work.

The other man recently engaged is H. R. Smalley of Fort Wayne, Indiana. Mr. Smalley was raised on an Indiana farm, is a graduate of the College of Agriculture of Purdue University in the class of 1911 and has specialized in Agricultural Chemistry and Soil Fertility subjects. For a time he was connected with the office of Farm Management U. S. Department of Agriculture and in this work had an opportunity to come in contact with some of the best types of farming in the Middle West. For the past four years he has been a county agent in Indiana. Both of these men will take up their work with the Chicago office of the Soil Improvement Committee at any early date.

New Features Announced for Farm Census

AMONG the new features included in the approaching 1920 census of agriculture will be a series of questions relating to the amount of corn and other crops raised for silage purposes. These statistics on silage, which are to be collected by the Bureau of the Census in accordance with the recommendations made to that Bureau and to Congress by the United States Department of Agriculture, are expected to furnish accurate and comprehensive figures on this important phase of farming which have heretofore been lacking. The facts and figures gathered in the census on this subject will be tabulated, so as to show what each county as well as what each state produced in the way of silage during the year 1919.

The Census Bureau also announces the inclusion in the farm schedule of questions to show how many farmers own tractors and automobiles and how many have heating and lighting plants and telephones in their homes. These questions are designed primarily to make known the better living conditions and modern improvements on farms in all sections of the country. The Census Bureau, in including these questions for the 1920 census, was guided by suggestions from leading farm economists as well as by communications from farmers' organizations. The Department of Agriculture is also interested in these questions and gave its endorsement to the plan.

Copies of Schedules for Farmers

To secure co-operation on the part of the farmers and interest them in the census, the Bureau of the Census has distributed more than a million copies of the agriculture schedule through the medium of several farm publications which have a wide circulation. The farmers who received these copies will thus have an opportunity to study the questions in advance and be ready to give prompt

and accurate information to the census enumerator when he calls during the month of January. Any farmer who desires a copy of the agriculture schedule in advance may secure one by writing to the Bureau of the Census, Washington, D. C. An extra supply of the schedules has been printed for this purpose.

That the individual farmer will realize the advantage of keeping a more accurate tab on what his farm is yielding is one result of the census hoped for by the Department of Agriculture. The schedule of questions which will be used in the approaching census will help the farmer in getting started in this work inasmuch as it sets forth the subjects in which the government is interested and thus provides a model which any farmer can easily adapt to his own needs.

When Reports Will be Ready

The published results of the 1920 census will be issued by the Census Bureau as rapidly as possible. No precise time can be set in advance as to when the first reports will appear, but it is thought that the preliminary bulletins will be issued within three months after the completion of the enumeration. Later a series of bound volumes appropriate for use as reference books in libraries and schools will be published.

These publications will show for each county, for each state, and for the country as a whole, the number of farms, the total acreage of farm lands, the value of farm property, the numbers of the different kinds of live stock, the acreage and production of all the important crops and many other items of interest connected with the farming industry.

The bulletins of the Census Bureau will be widely distributed and every effort will be made to make them of the greatest possible value to the farmers who furnished the information which they contain.

Farm and Labor Confers

"Out out the middleman!" This was the slogan for war on high cost of living declared by the joint conference of farm organizations and labor representatives at Chicago.

The conference was called by Herbert F. Baker, president of the Farmers' National Council, and Dalton T. Clarke, president of the National Co-operative Association, to line up labor and the farmer behind the big reconstruction program of legislation to be placed before congress.

Herb Baker sounded the keynote of the conference in his address.

"By holding this co-operative conference in advance of the labor conference called for December in Washington," he said, "the co-operative plans worked out here can be submitted to the conference with reasonable expectation of its receiving endorsement and adoption as the co-operative policy of all labor."

U. S. to Lift Wheat Embargoes

Embargoes on wheat and wheat flour will be lifted Dec. 15, it was

announced by the United States Grain Corporation recently.

Lifting of embargoes on both exports and imports followed the action of President Wilson in signing a proclamation completely terminating the embargo control which has been in effect more than two years.

Control over embargoes first was exercised by the War Trade Board to protect the supplies of wheat and wheat flour for the Allies. Later control was taken over by Julius H. Barnes, wheat director, under the Wheat Guarantee Bill.

Discussing the lifting of the embargo, Mr. Barnes said:

"This is one step in the necessary reconstruction of trade facilities broken by the war, which must function when the Grain Corporation terminates its three years' work. While ocean transport conditions and also disorganized international finance probably will prevent free trading between merchants of the various countries for some time, it is expected that, step by step, international trade may be rebuilt."

NEWAYGO ENDORSES ITS FARM BUREAU SYSTEM

At a spirited session of the Board of Supervisors which closed the adjourned October term at the county seat, the Newaygo County Farm Bureau was saved from death by a vote of 20 to 4.

That the farm bureau has been one of the greatest productive factors in farm life in this country, but there has been opposition to its continuance. Miles Barton, of Big Prairie, offered the resolution providing for the maintenance of the institution. The resolution of the board provided for the levying of a tax of one-tenth of one mill on the assessed valuation which will provide an appropriation of \$2,100 annually for the support of agricultural research and demonstration work in the county. Wm. Hilt-on of this city, Louis Ruprecht, of Bridgeton and R. H. Brownard of Ensey were appointed a committee to have charge of this fund and look after its expenditure. The county is now without a farm agent, Simon Harkema, who has had charge of the work for the past two years, having resigned October 1st.

Gleaners Rally in Van Buren

One of the best attendance records in the history of the organization marked the meeting of the Van Buren County Federation of Gleaners held at the I. O. O. F. hall in Hartford. All of the arbers in the county affiliated with the federation were represented and the hall was filled to its capacity at both the afternoon and evening sessions. The afternoon session was attended by the general public.

The new officers of the county federation elected at the morning session are, James M. Stafford, of Lawrence, Chief Gleaner; Adolph Dankard, of Bangor, Vice Chief Gleaner; Mrs. Jennie Dishrow, of Toquin, Secretary-Treasurer; Carl Winslow, of Mattawan, Lecturer; Mr. and Mrs. Edward Clark, of Almena, Conductor and Conductress; Truman Stratton, of Hartford, Inner Guard; Harry Winslow of Mattawan, Outer Guard.

FREE FARMERS' BULLETINS

A copy of any of the publications listed below may be obtained free upon application to the Chief of the Division of Publications, United States Department of Agriculture, Washington, D. C., as long as the department's supply lasts.

Cattle Fever Ticks and Methods of Eradication. By W. P. Ellenberger and Robert M. Chapin. Pp 32, figs. 5. Contribution from the Bureau of Animal Industry. (Farmers' Bulletin 1057.)

Unfermented Grape Juice. How to Make it at Home. By Charles Dearing, Horticulturist, Office of Horticultural and Pomological Investigations Pp. 32, figs. 20. Contribution from the Bureau of Plant Industry. Farmers' Bulletin 1075. This bulletin is intended solely as a manual for the home preparation of unfermented juice. Supersedes Bulletins 175 and 644.



Packing Case for Wintering Bees

By B. F. KINDIG, State Inspector of Apiaries

"I have four swarms of bees and as I have never had any experience with bees, I would like to know the best way to store them for the winter."—
S. A. O., Marlon, Mich.

POOR wintering is the great cause of loss of bees in Michigan. Sufficient packing insures the use of less stores, and is, therefore, a saving, and at the same time insures strong colonies in spring, if there were plenty of young bees in the fall. No amount of packing can compensate for weak colonies in the fall, or for insufficient honey for wintering. The entrances should preferably be away from the prevailing winds. The apiary should be located at a place where it is well protected from the winds of winter. If the snow should cover the packing cases, leave it there. Snow is excellent protection from the cold. Always remember that the bees must keep a temperature in the cluster very little below that which is comfortable for you in the living room during the winter. In order to do this, they must be given the best of protection, both from the cold and wind. The large entrance commonly used, is one of the chief avenues through which the bees lose the heat of the cluster. Could you heat your home in winter with the door standing open?

In traveling over the state, I have met with a demand for the specification for a packing case for two colonies, instead of the standard one and four colony cases. It seems that many feel that the two colony case is better adapted to the needs of most bee keepers. In nearly every yard, the colonies face in one direction, and it is very easy to bring two colonies together for packing. The chief objection to the one colony case is that more time and material is used per colony. The dimensions are given as a result of a study of a number of two colony cases found in various parts of the state. It is of such size as to accommodate almost any of the single or double-walled hives found in the course of our work. It is designed primarily for the standard ten frame single wall hive, using Hoffman frames. In cases the deeper frame is used, the packing case should be correspondingly higher.

The bottom board. Dimensions 2 ft. 10 in. by 4 ft. This should be made of one inch rough lumber, because it has to support the weight of the hives and packing, and should be rigid enough, so that it will not easily get out of shape. The boards used should be 2 ft. 10 in. long. They should be bound together with at least three 4 ft. strips 2 in. wide. The 2 in. strips should be nailed to the lower side of the bottom board. On the upper side of the bottom board,

two 2x4 pieces 3 ft. 10 in. long are nailed ten inches from the sides. These help make the bottom board rigid, and support the hives, and allow for four inches of packing under the hives.

The Sides. For one story hives, the sides should be 4 ft. long and 2 ft. 3 in. high; for story and one half hives, they should be 2 ft. 9 in. high; and for two story hives, they should be 3 ft. 1 in. high. The sides may be made of any light lumber that is convenient for use. Half-inch lumber is sufficient, as there is very little strain on the sides. If light lumber is used, at least three strips should be used to bind the boards firmly together. Store box or crating lumber, old siding, or cheap waste lumber can be used for the sides.

The ends. If one inch lumber is used for the sides, the ends should be 2 ft. 8 in. long. If half-inch lumber is used for the sides, then the ends should be 2 ft. 9 in. long. The height corresponds, of course, to the sides. Hooks can be used for fastening the sides and ends together, when set up. Some prefer to nail them together.

The cover. The cover should be made with a rim around the edge, not less than an inch wide. This prevents the wind from lifting it. The cover should measure 2 ft. 10 1-2 in. by 4 ft. 1-2 in. inside of the rim. It can be made of half inch or inch lumber, but if made of light lumber, it should be well reinforced, to prevent sagging in the middle. The lumber need not be of a very good quality as it should be covered with a very good quality of felt roofing.

The tunnel. This is the part that connects the entrance of the hive with the entrance of the packing case. This should be made the regular width of the full entrance of the hive. No entrance blocks should be used in the hive when packed. The tunnel should not be made as a part of the packing case, but should be made to fit against the inside of the entrance of the packing case. A small strip of wood can be nailed on the inside of the packing case. A small strip of wood can be nailed on the inside of the packing case, just below the entrance for the tunnel to rest upon. The entrance through the packing case should be nothing more than a 1-2 in. or 3-4 in. auger hole. This is plenty large enough for all of the needs of the colony during the time that the packing cases are used.

Care should be used, to see that the hives are well packed beneath. It is easier to put in the bottom packing before the sides are put in place. During the summer, the cases that are not needed for holding packing, should be piled up in such a way that none of the boards may become bent. With reasonable care, such packing cases should last many years.

Grangers Figure Cost of Producing Wheat

MRS. DORA Stockman, lecturer of the Michigan State Grange, has supervised the getting out of a lecturer's handbook in which costs of production are figured for

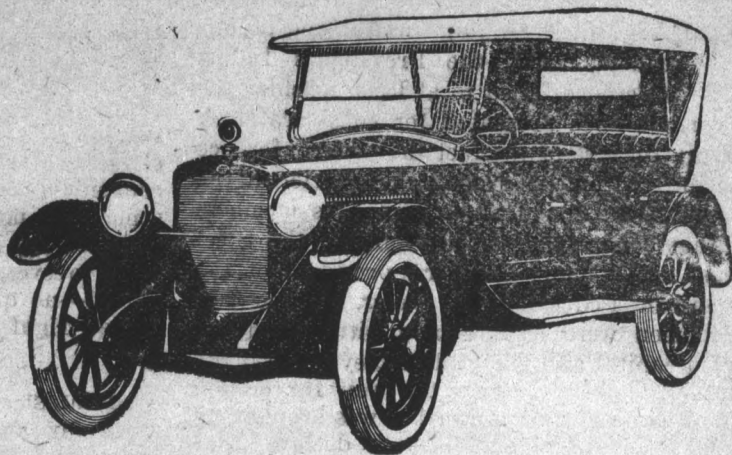
the various products of the farm. The following table computes what the Grange sets forth as being the production cost of certain growers who got 25 bushels per acre:

Wheat 10 Acres Specific Cost Sheet

Plowing 4 days, 3-horse team @ \$6.00	\$ 24.00
Harrowing, 3 spike, 1 spring tooth	15.00
Rolling 2 times	5.00
Fertilizer, 2,500 pounds, 14 per cent @ \$26.00	32.50
Applying same	
Manure	
Applying manure	60.00
Cleaning seed	1.00
Seed, 1 1-2 bushels per acre @ 2.12	31.80
Drilling	5.00
Cutting	12.50
Twine	4.50
Shocking	6.00
Threshing, 250 bushel at 5c	12.50
Threshing help	23.75
Boarding threshing help	8.00
Fuel	2.50
Delivery to market	10.00
Total	\$254.05
Per acre cost	\$ 25.40
General farm overhead	27.67
Total per acre cost	\$ 53.07
Total per bu. cost 25 bu. per acre	\$ 2.13
10 per cent profit	.21
Cost per bu., 1918, fair price for wheat	\$ 2.34

Fourteen bushels average yield per acre in Michigan, 1918.
What did the average bushel of wheat cost the farmer?

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Keen buyers who look below the paint, varnish and trim and want to know how the car performs, how it rides and how it stands up, are the quickest to appreciate this fact. They recognize the Grant Six as a wonderfully fine car.

The Grant Six has the smart beauty of a sport model; its lines are long, low and rangy, yet it is a true five-passenger touring car. It has plenty of room, its seats are the right depth and height for comfort and it is substantial and well built.

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And it is a fact that you can ride over country roads at better than ordinary speed with a

Grant Six because its long springs, correct weight distribution and perfect balance keep it comfortable at speeds and on roads simply impossible for an ordinary car.

The Grant Six is easily handled, it is "light on its feet," and yet it has extraordinary strength and endurance.

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Coupe	\$2450
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Five Passenger Touring Car	\$1495

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We wish to acknowledge our appreciation of your patronage and express our thanks to all our shippers. We will always, same as heretofore, continue to pay the top price for all furs shipped to us. Remember there are no charges whatsoever. The prices are net to you. Always having in mind our customers interest

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PUMP YOUR WATER
ELEVATE YOUR GRAIN



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JUST BETWEEN OURSELVES

"I CAN'T understand," writes one of our readers, "why the President's Industrial Conference failed to at least consider the grave questions presented for consideration." Simply because of the fact that the conference encountered an unsurmountable barrier at the outset. The President appointed as members of that congress President Gary of the Steel Trust and Samuel Gompers, president of the American Federation of Labor. These two gentlemen were leaders in a bitter fight between capital and labor when they entered the conference. In clearing the way for action, the question of organized labor was brought up and President Gary immediately declared that there "was no such animal." He represented organized capital, but refused absolutely to recognize organized labor. This decision at once removed the real serious question the conference had to consider, and the next step was to close the conference and go home—there was no alternative. And so the people are still being ground between the mill stones of Gompersism and Garyism.

The public, though most interested in the problems before the conference, did not even have an opportunity to rise to a point of order; capital said "You shall not;" labor answered "You shall." Labor said "We will;" capital retorted, "You won't," and the conference was over. The people should be able to regulate capital and curb organized labor, but at the moment no constituted authority dares take these two extremes and crack their heads together until they are willing to acknowledge that the interests of the whole are paramount to the selfish interests of the few.

DURING the first Roosevelt administration miners thruout the anthracite coal regions of Pennsylvania went on a strike and the mine owners refused to consider their demands and immediately called on a lock-out. The supply of coal for the approaching winter was in jeopardy. President Baier of the coal combination, simply said that the companies he represented were mining this precious fuel from God's store-house and that they had the divine right to operate their business as they pleased and without either direction from the Government or dictation by labor unions. "Divine-right Baier" was the title bestowed upon this short-sighted capitalist. It will be remembered that Roosevelt told Baier that if his companies did not get to digging coal within a given number of days Uncle Sam would shoulder pick and shovel and get busy. The strike ended within the allotted time.

I visited the mining village of Latimer during that strike. The miners lived in rude steel shacks on the bleak hill-sides—not a blade of grass or a tree in sight. The miners were paid in company script, good only at the company store and saloon. Miners were never out of debt to the companies no matter how hard they toiled. It was sad to contemplate how the half-clothed little children and sad-faced mothers must swelter in those steel shacks in the summer and half freeze during the bleak days of winter, helpless and hopeless, while discouraged husbands and fathers toiled on—shackled to the company store and saloon.

I was through the coal regions of the Virginias during the past summer. True, there has been an improvement in the conditions surrounding the mine worker, but conditions still exist which should not be for one moment tolerated. Not a single reader would go down into the bowels of the earth, brave the dangers of blasts and cave-ins and work as the miners are obliged to work for double the wages these underground workers receive. "Booze" has been banished; the miner is thinking with a clear brain. He knows what it costs to mine coal. He knows the amount of real capital necessary to successfully operate a mine and he knows what the people are obliged to pay

for the products of the mine. And knowing this he is discontented, and discontent leads to action; action demands progress; progress suggests the use of the best means to secure results—the miner has recourse to but one element of strength—strike. We are all inconvenienced by the miners' strike; perchance some of us may be obliged to shiver—but keep in mind the fact that there are always "two sides to every question." A principle is involved—no question is ever settled until it is settled right.

Grant Slocum: The farmers of Michigan are practically unanimous in their demand for a governor who understands the needs of the farmer, and is big enough to represent all of the people. Now friend Slocum, I have felt for a long time that you are the right man for us, and now as others mention your name in this connection, I am going to write you.

I am no orator, neither would I cut much of a figure as a campaigner, but if you will agree to become a candidate for governor, I will pull off my coat and do my best.

Sincerely yours,

JOHN McCALLUM.

Gagetown, Mich., R. No. 3.

THANK GOD for friends. Those fellows we meet and greet as we pass on life's highway, who somehow journeyed along with us, who, overlooking our limitations and our faults are forever after FRIENDS. I have received many letters from friends regarding my entering the primaries next fall as a candidate for governor, but did not feel it necessary to state my position until this morning a letter advises me that at a public meeting held in Huron county, the matter was discussed and a request for my decision made. I greatly appreciate the confidence imposed in me by these friends, and feel that here and now I should make my position clear. I would not, under any circumstances become a candidate for any political office in the coming campaign. I feel that whatever influence I may have will be much more effective as a soldier in the ranks, where, untrammelled by promises or pledges, with no enemies to punish or friends to reward, I can fight the good fight for the common good. Let it be understood that this declaration carries with it no hint or suggestion that I am not interested in the affairs of state or that I do not realize that good citizenship demands the active, earnest participation in all governmental affairs, by every man and woman entrusted with the ballot. On the contrary, it is because of my interest in a government of, for and by the people that I feel that every man should be stationed where he can render the most efficient service for the common good—my place, then, in the coming battle, is with you, my friends—with the rank and file, who must win all victories, and who suffer most in defeat. Let others have the glory—none can prevent the fruits of victory from being shared by all.

GRANT SLOCUM.

TIME PASSES rapidly enough, gracious knows, but the farmers of the nation would be willing to have Father Time throw the machine into high gear in order that Secretary of Agriculture Houston's time might sooner expire. Somehow David simply can't get the farmer's viewpoint. At the Chicago meeting of the National Commissioners of Agriculture, Secretary Houston said: "There should be just enough farmers to produce what the world would take at a profitable cost." Here indeed we have the problem solved. Limit the number of farmers; profitable prices forever after. Just how David would limit the number of farmers has not been explained. Possibly David would use a "sling" and thus make away with the number of farmers in excess of "just enough." Probably, he may

advocate farmer race suicide to prevent an excess above the "just enough" level. Surely the Secretary of Agriculture has painted a very rosy picture for the future of agriculture in this country. No suggestion of simplifying the old, out-grown, expensive machinery of distribution; no thought of government warehouses, or terminals; no hint that gambling in food products should be curtailed, or a reduction in the number of middlemen—no, nothing constructive, just a suggestion that this nation can not have an unlimited number of farmers—but "just enough farmers to produce just what the world would take at a profit!" Oh, piffle!

WHY SHOULD we be in a hurry to turn the railroads back to the owners? You can give a half dozen reasons why, but listen. Did you know the official reports of the Railroad Administration for July and August, 1919, show that the roads were paying all operating expenses, including maintenance, as well as the rental charge of \$900,000,000 a year? They did this and more, for in July they earned a surplus of \$2,316,501, and in August, \$16,296,025 in excess of all charges. And mind you, the people will get no reduction in freight and passenger rates if the roads are returned to the former owners. Indeed, in discussing the question in Washington the former owners have stated that rates must be increased at least 25 per cent above present rates or they will be unable to operate them.

It is also well for you to remember, Mr. Farmer, that the railroads under private ownership, have received more than \$700,000,000 in the shape of actual cash grants by cities, counties and states and aside from this they have been endowed with 129,000,000 acres of land. Now, if we go a step further we find that the actual cash put into these roads was at least fifty per cent less than the present bond issues—in other words, half cash and half water. And it is upon this sort of a valuation that the people are obliged to pay dividends.

Now, let's get a little nearer your own farm. Trucks have all but ruined the short-haul freight business. The auto and the electric interurban lines have grabbed off the short distance passenger business. This means that the long haul freight and passenger traffic must carry the burden—and the farmer is the real long-haul freight payer, for the simple reason that he must reach the terminal markets. Under private ownership railroads are operated for profit. This being true these arteries of commerce must subsist upon the country they pass through.

Suppose the rural delivery and mail system and parcel post were dependent upon the business from each route rather than from all the routes of the nation—do you think that in that case the route which serves you would be continued? And yet we have said nothing about labor troubles and strikes. Has the government had any real trouble in keeping the United States mail service in operation? Think these matters over, Mr. Farmer, for you are the nation's heaviest freight payer. Would it not be better to consider this question carefully before returning the roads to the manipulators? What's the hurry?

As soon as the remnants of the Thanksgiving turkey have been consumed we will put away all thoughts of our thanksgiving obligations for another year. For that is the way of the world.

Railroad legislation is a matter that vitally affects every farmer in the United States. We urge readers to advise their representatives in congress of their wishes on pending railroad legislation.

Grant Slocum

Dig Dollars from the Farm Subsoil

By PROF. M. M. McCool

SUBSOILS markedly affect the productivity of soils. It was stated in an earlier report that the subsoil is the section that extends from about the depth of the furrow slice downward. Since the root system of most crops extend several feet into the subsoil its nature must play an important role in crop production.

Subsoils Vary

The nature of subsoils, that is with respect to texture and structure or physical nature and composition, is as variable as the surface soils, in fact in some regions far more so. In the glaciated region broadly speaking, there are two groups of soils, those made up of unsorted material laid down by the glacier and the assorted or soils composed of material that was reworked by water after deposition. The subsoils of the former are very variable, in some instances they are very compact and almost impervious to water and roots of crops while in others they are very desirable being sufficiently fine in texture to retain water and elements of plant food yet drain freely and are easily penetrated by the roots of plants. In still others they are quite sandy and, therefore, somewhat droughty and leachy. Usually the subsoils of the assorted deposits are composed of strata or layers of different texture and thickness but usually they are coarser in texture than the other group. Where the soils were formed or deposited in lakes, especially the larger ones, the subsoils are generally very fine in texture and

present serious problems of drainage.

Hardpans are troublesome in some subsoils. There are two kinds of hardpan in nature, namely, those that are very fine in texture and compact and others that contain considerable gravel but sufficient fine material to be almost impervious to water and roots of plants as the former, and in addition layers of different thickness that are held together by time, compounds of iron or other cementing materials. Those cemented by lime may be recognized by their color and the action of muratic acid on them while those held together by compounds of iron are reddish or brown in color.

The first group in some instances are the result of fine material being carried downward from the upper layers of soil and also in others of the processes of soil formation and in addition the breaking down of a somewhat granular structure by the weight and sliding action of the plow and tramping of the horses in the bottom of the furrow when the soil is too wet. This condition is generally known as a "plow sole." The second group were usually formed by the washing or cementing material from the upper layers of soil and being deposited below the surface where their descent was arrested in some manner.

Many attempts have been made to improve the structure of subsoils. A discussion of these raises the question of the use of deep tillage implements and explosives. I shall discuss

(Continued on page 20)

Jap's Milla Garfield, Hall of Fame Nominee

IF ONE GREAT year's record helps to make a cow famous, then five great year's records should entitle Jap's Milla Garfield to a prominent niche in the hall of fame.

One of the notable features of her career has been the steady increase in butter fat production and the making of her best record at nine years and nine months of age. The latest record puts her close to the top of the list both as a milk and butter fat producer.

Her records and the order in which they were made follows:

Milk-Lbs	Fat-Lbs.	Yrs.	Mos
6245.2	349.6	2	3
10345.6	548.6	4	1
10464.5	560.0	5	8
16398.5	890.6	8	2
17234.5	941.0	9	9

A glance at the pedigree of Jap's Milla Garfield is sufficient to show the source of her producing ability. In the top line of her pedigree are found such bulls as The Imported Jap, Eminent's Raleigh and Eminent; in the lower line, Fontaine's King and Financial King.

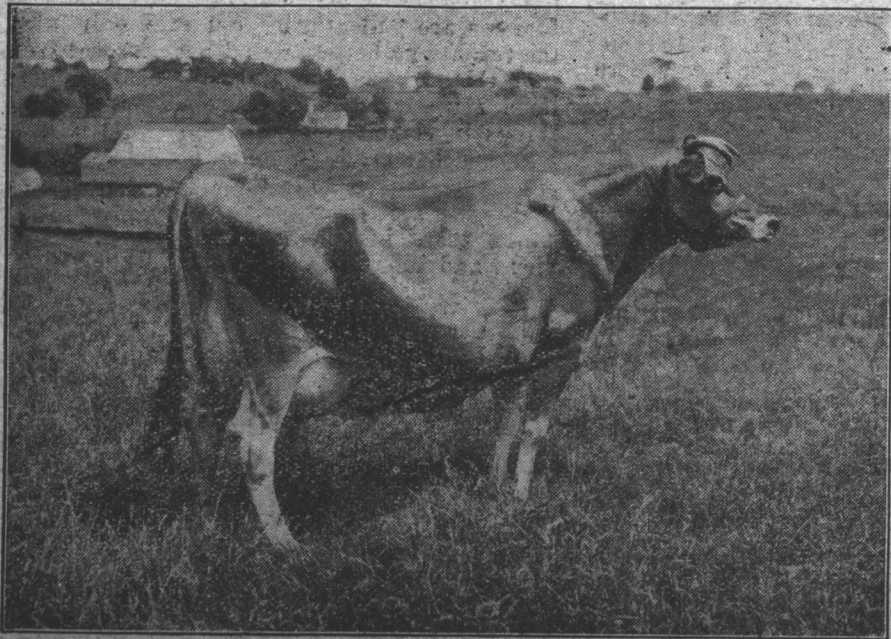
The Imported Jap is the sire of Jap's Milla Garfield. He is one of the eight gold medal bulls of the Jersey breed. Thirty-one of his daughters and three of his sons are in the Register of Merit. One of

these daughters, The Jap's Santa, is the dam of Interested Jap's Santa, the Jersey champion of California, which produced 15,569 pounds of milk and 940 pounds of butterfat in one year.

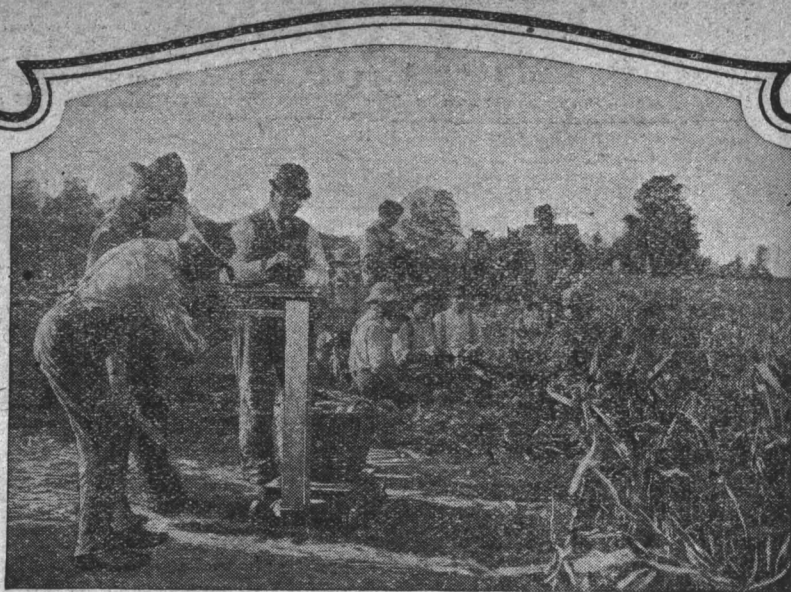
The Imported Jap's sire and grand-sire are Eminent's Ralenigh and Eminent, respectively. Eminent's Raleigh has twenty-six daughters and seven sons in the Register of Merit. Raleigh's Fairy Boy, Grand Champion at the National Dairy Show in 1910, is a son of Eminent's Raleigh. Eminent has the distinction of having thirty-one daughters and twenty sons in the Register of Merit.

The dam of Jap's Milla Garfield is King's Milla Garfield. He sire, Fontaine's King, with eleven daughters in the Register of Merit, is a son of Financial King. Financial King is the sire of Financial Countess, which was at one time the champion milk and butter cow of the Jersey breed. That was when her record of 13,248 pounds milk and 795 pounds butterfat in one year was unequalled by any other cow of the breed.

Jap's Milla Garfield is owned by Meridale Farms, Meredith, New York. Many other Jerseys, famous as great producers, such as Spermfild Owl's Eva, Jap Sayda's Baroness, etc., are her stable mates at Meredith.



Jap's Milla Garfield has run up an official record of 17,234.5 lbs. of milk and 941 lbs. of fat



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An accurate knowledge of yields is the best guide to improved farm practice. High prices furnish the incentive to produce more;—high wages make it necessary to keep down the cost per bushel. Increased production and lower cost per bushel can be accomplished by selecting fertilizer on the basis of accurately measured results.

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Our Agricultural Service Bureau has been carrying on such tests for many years, on farms in many states. These tests were made on all kinds of soils and under a great variety of conditions of rainfall and climate. This Bureau is therefore well equipped to point out a practical solution of your fertilizer problem. It has helped many farmers to determine the best fertilizer for their purposes—and it can help you. Dr. H. J. Wheeler, for many years Director of the Rhode Island Agricultural Experiment Station, is in personal charge of the Bureau. This service is free to you.



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MICHIGAN BUSINESS FARMING

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The Newberry Indictment

IT IS perfectly natural that those who were indicted with Truman H. Newberry for violation of the election laws should cry "politics." This is not the first time that defense has been made by those who have burned their fingers in political intrigues and election frauds. We expect the same public-be-fooled methods that were used with such success during the Newberry campaign will again be brought into play to convince the voters of Michigan that the indictment against Mr. Newberry and his aids was a gigantic plot of the Democratic administration.

It matters little what the motives have been for pushing the charges against those who spent the Newberry money. It was politics that called forth the expenditure of vast sums far in excess of what the laws allowed to elect Mr. Newberry, and it is difficult to understand why it should be considered a more despicable brand of politics to insist that Mr. Newberry and his aids be brought to trial and the majesty of the law upheld.

If Mr. Newberry committed an offense, it was an offense against the people and the law of a Republican state. It was likewise an offense against Osborn, his Republican opponent in the primaries. The principal charges upon which the federal investigations was based were made by a Republican lieutenant-governor who in 1916 received the largest majority ever given a candidate for a state office in Michigan. The majority of the grand jury which heard the evidence and made the charge that Mr. Newberry committed acts of fraud, corruption and conspiracy were Republicans. And lastly the judge who presided over the hearing is a Republican and was elected on the Republican ticket.

The Newberry managers themselves admitted the expenditure of over \$176,000. This statement of itself shows a clear violation of the law. But the evidence submitted to the grand jury indicates that between \$500,000 and \$1,000,000 was actually spent to secure the nomination and election. Nor was all this vast sum spent to advertise Mr. Newberry to the voters. According to the grand jury a part of it was used to influence voters, bribe election boards and for other corrupt purposes.

The indictment of Mr. Newberry is not politics. It is justice. To have suppressed the charges would have been neither wise, just nor charitable. It was necessary in order to preserve the inviolability of the law and prevent a repetition of the Newberry offenses, to investigate and upon the evidence presented to indict. And if the indicted men are found guilty when they come to trial there will be no other course open but to punish them. How else can the purity of elections be maintained?

Better Potatoes for Michigan

IN CO-OPERATION with Prof. C. W. Waid, M. A. C. extension specialist, the Michigan Potato Exchange have made plans for a systematic year-to-year selection of potato seed which if carried out will mean better potatoes, bigger yields and more money for Michigan growers.

Considering the excellence of our potato soil and the quality of potatoes produced Michigan ought to be ashamed of her comparatively small annual average yield. Thousands of farms produce less than sixty bushels to the acre; a few hundred farms over two hundred bushels. But consider the vast majority of farms that produce between eighty and ninety bushels to the acre to make up the average for the state of less than ninety-three bushels. On the face of the average yield it looks as if more farmers are losing than making money on potatoes.

Prof. Waid has made painstaking investigations into Michigan's potato soils, the variety best adapted to the soil and climate, the diseases that attack the crop and the best methods of seed selection. The major knowledge the farmers of the state now have upon these important details of potato culture has been gathered from Prof. Waid's contributions upon the subject, and his latest work in inducing the Potato Exchange to adopt a thorough method of seed selection must bring excellent results. The plan is discussed elsewhere in this issue.

Through the efforts of the Potato Exchange to standardize the variety and grade of potatoes grown by its members and to advertise the brand to the consuming public, a special demand for Michigan potatoes is being created. With increased production through the use of disease-free seed and improved methods of cultivation, a ready market for both first-class and cull stock, the potato industry bids fair to become the state's most important cash crop.

Freedom of Speech

FREEDOM of speech is in danger. Encouraged by the ease with which the wartime sedition law was used to silence critics of the government, politicians, notoriety seekers and others who wish to force unjust laws upon the people and protect special interests under the arm of the government are clamoring for a peace time sedition bill that will limit the rights of free speech and a free press. Bills for this purpose have been introduced in both houses of congress.

The Constitution guarantees to the people of the United States no more sacred privileges than freedom of speech and the press. The people of the old hemisphere suffered religious and economic oppression because they dared not preach or write against it. Many are the martyrs who braved the fatal displeasure of monarchs by violating the royal edicts forbidding the people to discuss the law and religion of the land. It was this very denial of the right of thinking men and women to make known their views upon matters of public welfare that drove our forefathers to this new world where the utmost freedom of public discussion was not only tolerated but encouraged. And nothing has contributed more to the perfection of our democracy and the education of our people than this free and uninterrupted interchange of views.

Naturally this latitude of speech has attracted to our shores thousands of cranks, theorists, radical socialists, anarchists and other dreamers who have convinced themselves that the only vicious forms of government and social life are those now in existence and that Utopia lies just the other side of revolution in which all property-owning classes must bow the knee to the proletariat. Professing to fear the effect of these doctrines of violence upon the mind of our body politic, the protectors of the people seek laws to suppress them. Let us think twice before we permit our legislators to pass such laws. Let us remember that for two hundred and fifty years our government has successfully withstood the attacks of the demagogues. Foreign agitators have flocked to our doors; soap-box orators have harangued and disappeared; radical newspapers have flooded

the country; socialists and communists have been elected to our legislatures and congress; but against them all the Constitution has presented an impenetrable front and has never been changed except by the legal mandate of the majority of the people.

Nor will it ever be altered except by legal and peaceful amendment. Let the ranters rant. They move us not. Their mouthings fall upon the body politic like sprinkle of rain upon the bosom of a quiet sea. Freedom of speech and the press must not be restricted. It is a heritage from our forefathers and in a nation of intelligent and law-abiding people it can bring us no harm.

The City Press and Farm Politics

THERE has always been a tendency on the part of the city press of the state to scoff at the farmer's political ambitions. As if speaking for the people of the cities who in times past have had the major representation in our legislative bodies, the city press has discouraged the agricultural communities from entering more freely into state politics. But now that there is a very definite movement on foot to launch a campaign for a farmer governor and farmer members to the legislature, with fair chances of success, there is a decided change of front on the part of many city newspapers.

Commenting recently upon the attitude of the Grange toward political affairs, the Detroit News had this to say:

"One drift of straws may be taken as an accurate indication of coming events in Michigan—the Grangers are said to be pretty well convinced that a farmer governor for Michigan would be desirable. What the farmers want in that respect they are likely to get."

The New Labor Party

HERBERT F. Baker, of Weadock, Michigan presided at the opening session of the joint labor and farmer conference which was recently held in Chicago and out of which has grown a new labor political party with farmers playing the second fiddle. The new party is made up of the more radical branches of organized labor and farmers with the Chicago Federation of Labor and the Non Partisan League playing the leading roles. It has been denied the official support of the American Federation of Labor, and the more powerful farm organizations and unless it can bring a considerable majority of the members of these associations under its wing, the new party is not likely to succeed.

The clashes between the Labor delegates and the farmer delegates to the convention were many, we are told. Labor hinted strongly that it would like to pass a resolution against prohibition. But the farmers wouldn't stand for that. The farmers were willing to adopt a program favoring the nationalization of almost every industry, but when labor suggested that agriculture be put on the nationalization program there was an uproar. Finally a compromise was effected by declaring for the nationalization of all "unused" land.

According to the theory of some well-meaning folks the interests of wage-earners and farmers are "identical," but it is only when the two are gathered around a conference table that they realize how wide the gulf between them actually is. There are no doubt many things in common between the two but it so happens that the issues upon which their leaders are trying to unite them for political and legislative action are the very issues upon which there is the greatest divergence of views and interests.

If Governor Sleeper has been correctly quoted as saying that he is not in favor of the suggestion made by the state association of prosecuting attorneys that he call a special session of the legislature for the purpose of passing food legislation, because "we have already had too much legislation, and legislation will not solve the problem," we want to commend the governor for his stand.

Funny how the coldest spells bring out the hottest arguments on marketing and politics and almost anything else.

ONTARIO ELECTION RESULTS

There is one phase of the situation in Ontario which may be of interest to you. Four of the farmers elected to the Ontario legislature are graduates from the Ontario Agricultural College. Mr. Drury is also a graduate, and when he secures a seat in the house, will make a fifth. It is rumored that Manning Dougherty, one of the defeated farmer candidates, will be given a Cabinet position, and will secure a seat. Mr. Dougherty is a graduate of the college at Guelph, and was once on a teaching staff. That will make six. Then in the federal by-election, J. Wilfred Kennedy was returned to the Dominion House from Stormount-Glengarry. Mr. Kennedy is a graduate of the O. A. C.

The significance of all this is that these are the boys who, after graduating from the college, returned to the farm. I attended that institution, and know from personal experience, therefore, that the general impression among students has been that the man who went back to the farm consigned himself to oblivion. This has in the past been only too true. For the first time, however, the college men on the farms have had an opportunity for getting into public life, and that opportunity has been provided by the farmers' movement. Previously with political machine control, the lawyers, doctors and business men were able to almost completely monopolize the seats in the legislature.

You will note that most of the members-elect are substantial farmers, and that a large number of them have had local experience in public life. The farmer-members belong to that class of men who have been conducting the municipal affairs of Ontario, and those of us who have lived in that province know that municipal affairs have been conducted a whole lot better than provincial matters.—

R. D. Colquette, Associate Editor
Grain Growers' Guide, Winnipeg, Manitoba.

This letter expresses nicely the general character of the average farmer who can be prevailed upon to accept public office. There is a feeling among "city folks" that farmers are ignoramuses and not fit to take a hand in matters of government. While it is true that comparatively few farmers are college graduates, it does not follow that they are not intelligent and able men. Some of the brightest men in the United States received their "college" education from the school of life. We already have too many educated fools holding down public jobs. Let's have a few men who have not neglected their heart while training their head.—Editor.

LABOR'S OPPORTUNITY

Labor with intelligent and aggressive leadership could make tremendous strides just now were its opportunity brighter. It has the fine excuse for appealing to public favor because in the war it was promised by official spokesmen of the government no less than by unofficial leaders of conservative thought that its status would be radically improved following the war. It is fine that these promises are valueless so far as the sincerity of those who made them goes out. Nevertheless they constitute a great justification in the eyes of honest thinking citizens. The fact is, it is generally recognized by all classes excepting those directly exploiting labor that the workers are entitled to an entirely new deal. The people are prepared for great changes in society and industry. The organized workers themselves are more radical than ever before and are prepared to go to the utmost lengths in enforcing industrial justice. Their power is supreme and unquestioned, all they need is the proper leadership. They can not only greatly advance their conditions, but they can really revolutionize things if they will, but they are held back by their leaders, who have the sloth of official position, who are more inclined to conservatism, who in many instances are not educated in economics, and in these stirring times of endless possibilities show no disposition to go further than the question of hours and wages, that have always occupied their thoughts, refuse to take advantage of the strategic situation that confronts them. It is to be feared that settlement of the wage demand of the railway men is now

made forever impossible—S. H. S., Westford county.

What constitutes "industrial justice?" I am asking for information. Do you claim that all wage earners are suffering from injustice, and that there must be some sweeping change in the wage system before the laboring classes will get justice? By what standard do you gauge a man's worth to society? There are thousands of workmen who have never spent a dollar nor sacrificed an hour to improve their capacity for service but who nevertheless receive bigger wages than our instructors in the public schools and executives in government service. And as a general rule the value of the service to mankind performed by the latter is infinitely greater than the value of the service rendered by the former. We want to see justice given to all kinds and classes of people alike, but we are honestly concerned as to how we are going to know when the proper balance of rights, benefits and privileges is struck.—Editor.

REDUCTION OF PROFITS

Enclosed you will find our choice of candidates for Governor. As you say there is sure some good timber presented and it's kind of hard to decide, but any farmer ought to be able to pick his favorite from the many farm men presented. What we must do is to back the final choice to the limit. Now, Mr. Editor, if you have time just a few thoughts on the present industrial situation. As it stands now labor and capital seem to be trying to shift the high cost of living onto each other's shoulders and there is no doubt that the ultimate result will be that labor will get an increase in wages and capital will continue to declare large dividends and the "vicious circle" will still go round.

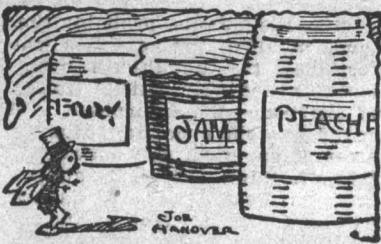
Now capital represents possibly five million of our people and it looks to me that it would work the

least hardship on the least number if capital in all lines would forego their profits and continue production and sale at cost. The capitalist would in that way set a good example before his employee and it would show labor that capital was interested and honestly wished to reduce old H. O. L. Prices would soon begin to drop and in a short time wages could be lowered without a hardship on the laborer. This plan would produce the least hardship and that only on the class that can best stand it. Of course, there are many people who depend on their interest earnings for a living but as there is plenty of work they could find employment. Now you know there is a great deal said too about increasing food production but I believe that if our government would honestly try to rebuild our system of distribution and eliminate about half of the middlemen and their profits and also the great amount of waste that food prices to the consumer could be lowered without hardship to the producer and that there would be plenty of food for all.

Now, if the capitalist would forego his profits farm machinery, etc., would be cheaper and the farmer could soon be satisfied with lower prices for his produce and soon everything would be back to a pre-war basis.

Capitalists would no doubt call this plan Bolshevistic and our government would never adopt such a plan which goes to show how much this is a government of, by and for the people. Like M.B.F. very much; stick to your good work and will stick by you.—N. T. V., Kewadin, Mich.

Sense and Nonsense



VERY THOUGHTFUL

Fly—My, how thoughtful of that housewife to put up these nice preserves for me.

The Proud Congressman

Representative Mudd of Maryland told at a Baltimore banquet a story about a new congressman.

"When this gentleman was elected to the house of representatives," said Mr. Mudd, "his pride knew no bounds. He—even he—was a congressman! Waking and sleeping, he rejoiced.

"One night in the small hours his wife gave him a sharp nudge and whispered:

"Joseph, Joseph, there are burglars in the house!"

"Joseph cleared his throat and answered:

"You are mistaken my love, quite mistaken. In the senate, yes—that I admit. But in the house—no, no! The suggestion is preposterous!"

Very Little Doing

Sales Director Hare of the War Department was talking about certain firms that had offered to buy back their surplus products from the government at 25 or 30 per cent of what the government had paid them.

"I don't feel very lenient towards those firms," he said. "In fact, I feel a good deal like the deaf banker.

"A speculator called on the banker one day and asked for a large loan.

"I'd like to borrow fifty thousand," he said.

"The banker, whose deafness was sometimes very convenient, put his hand behind his ear.

"Speak louder," he said "and cut down the amount."

A Warning

"We are at peace with Germany," said Representative Homer Hoch, of Kansas, "but we must keep a sharp eye on her none the less."

"A Marion boy came home the other day with a big lump on the back of his head.

"Johnny," said his mother, "you've been fighting."

"No I ain't nuther."

"But somebody hit you Johnny."

"No, nobody hit me, it was an accident."

"An accident? What kind of an accident?"

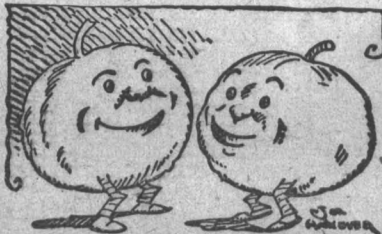
"Well, you see, I was sittin' on top o' George Peabody and I forgot to hold his feet."

A Little Too Far

In New England there lived a good housewife who was so painfully neat that she made life wretched for her family. One of her rules was that all the members of the household must remove their shoes before entering the house.

"Bill," she whined one day to her husband, "I found a grease spot on one of the dining room chairs, and I think it came off those pants you wear in the shop."

"Well, Mirandy," shouted Bill, his patience exhausted, "for the last 15 years I've taken my shoes off every time I came into this house, but I'll be hanged if I'm goin' to go any further."



H. C. L.

Old Sour Apple—Just think, they used to throw us to the pigs, now we're thirty cents a quarter peck.

Your plan for reducing the high cost of commodities seems sensible and fair, and would probably cause less hardship than any other practical plan. It seems to be a trait of human nature, however, that the man least able to give is the most willing, and vice versa. It is doubtless true that the thousands of manufacturing concerns could afford to forego or materially reduce their profits for a limited period. But we have not as yet seen any material disposition to do this thing. I have found by investigation that as a rule those who complain the most about the unrest among the laboring classes are the least willing to make voluntary concessions which they can afford to make, and would bear the harder upon the industrial classes if they did but dare. Until employers of capital show a much greater inclination than at present to do their share toward remedying labor's justifiable grievances, we may expect a continuation of the conditions which you mention.—Editor.

FRIEND OF ORGANIZED LABOR

I was somewhat surprised and disgusted a couple of weeks ago when I read in M. B. F. that the milk producers of a certain organization in Michigan went on record as denouncing organized labor. This was a slap in the face of organized labor and a fool piece of business, because it serves to irritate the laboring class and cause them to antagonize the efforts of the farmers for needed legislation and furthermore was absolutely uncalled for and unnecessary.

The union laborer is no more a grafter than is the farmer. It is big interests and middlemen who are robbing the farmer, and the real farmer is as much a laborer as the union man of the city, yet this resolution serves to drive a wedge between two branches of the laboring class and any milk producer who has a teaspoonful of gray matter in his cranium knows that union labor buys more of his milk than all the capitalist class and middlemen put together and upon the prosperity of the laboring class depends the prosperity of the farmer in general. This kind of work is getting common in farmers' conventions and its object is to divide the masses of the people against each other so they are defenseless before this capitalistic enemies.

Now how about the men who bunco steered this resolution thru? Were they doing it for the milk producers good? I fail to see any good in it, and I am a farmer who works his own farm and has studied farmers' problems for years, and if any of those gentlemen can explain how it is any benefit let them get right up and talk. Now it looks to me like the work of politicians who get into our organizations for the purpose of betraying us, that they may curry favor with the big interests that control political favors. They are lawyers, bankers, etc., and farmers last of all. Wolves in sheep's clothing of whom we should take notice and beware.

Now a word more. I would like to vote for a farmer for governor but it will depend who that farmer is. Some of the worst disappointments we have had in the legislature have been some of the before-mentioned class who have been elected as farmers, and I would rather trust a fair-minded capitalist any time to one of those simps. Now it is time for the farmers to make up. They have been made d— fools and jackasses to draw such fellows' burden long enough, but it seems to be the hardest thing you can ask of the average man, to just do a little thinking.—E. P., Williamston.

Mr. Subscriber, your argument is fairly good. We have noticed ourselves that all that is needed to get most any kind of a resolution through a farmers' meeting is to have a "stand in" with the resolutions committee. By the time the committee is ready to make its report, the crowd is impatient to leave and usually passes the resolutions presented with a "hooray, boys, let her go, it's time to go home." But don't make the mistake of thinking that all who are opposed to extreme radicalism in the labor ranks are enemies of organized labor. All the resolutions that may be presented by farm organizations against red radicalism, etc., do not a whit of good except to serve as propaganda in the hands of selfish interests to prove to the world that farmers are against organized labor. There is a safe middle ground where the farmer may assist organized labor to secure its rights by peaceful and lawful measures. The only question that Business Farming has ever raised is how far farmers should go to treat with organized labor on a basis that it secure its rights by peaceful and lawful measures.—Editor.

How many Germs in the Kitchen Sink?

Don't let the family get sick from germs which breed in your kitchen sink. Sift some Eagle Lye into the sink and drain pipes; this will make them sanitary and odorless; germs cannot live with Eagle Lye. Good grocers sell Eagle Lye 15 cents the can.



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The Farm Home

A Department for the Women

True Christmas Spirit

CALLED to Detroit recently on business, an influential man from the northern part of Michigan whom many of you would know should I mention his name, picked up the evening paper and was attracted by the picture of four little children who had just lost their mother and were left to the tender mercies of a big city.

"Who shall I call up to find out about those orphans?" he asked of the man in whose office he sat.

Upon being informed that the office where information might be obtained had been closed some time earlier, he left word to have the office called and arrangements made the next morning to send all four of them to his home in the north.

"But," asked the man to whom he was talking, "surely you don't mean that you will adopt all four of these little children?" "Well, certainly they have little enough in life to look forward to now without being separated," said he. "Wife and I have been discussing adopting two for some time, and I guess we have enough to care for four just as well, and I figure that we will get enough joy out of it to repay us in the end. For instance, Christmas is coming, and we were just discussing what we would do this year. At heart I'm still boy enough to like to have a Christmas tree and to make pop corn balls, but I wouldn't have any more excuse to do so without some children in the home than I would to go to a circus without borrowing a boy to take."

How many homes are there this Christmas to whom this holiday will be bereft of its true meaning because of this same lack. True, the little folks may mar the furniture and play havoc with the prim preciseness of the living room, but think of the joy of making fried cake dolls, pop corn balls and then the night before Christmas, all plans well laid and with the little folks safely tucked away, to fill the tiny stocking and trim the tree!

Just a few weeks ago in New York the owner of an apartment house sought to evict a family because there were some small children in the house and the baby had left the mark of his tiny hands on the wall paper. The judge before whom the case was tried dismissed the case and said this very fine thing:

"This would be a happier world to live in, if baby fingers could only make their imprints on the hearts of men and women. I would rather see the prints of baby fingers on the walls of my home than have them adorned by the world's masterpieces."

We pay taxes and lend our financial support in this manner to the upkeep of

By MABEL CLARE LADD

the various state institutions for the little homeless children, and we know that they are warmly clothed and well fed. But no matron of an institution can give the individual care to hundreds of babies which is every child's right to have. These institutions must have set rules to go by else they could not handle all the work which they have to do, but in so doing the individuality of the little folks is submerged. They can't go out with father while he milks and learn all about the cows and chickens first hand, nor is there any one of the superintendents of the home who has the time to sit down and take a little one on her lap and read aloud to them.



WHY NOT a home for me? is the question of several boys, from six to twelve years old, at the Children's Home, St. Joseph, Mich. They are bright of eye, active of brain, tender of heart, quick of hands and feet. They want love and a mother and a father and a home each one for his very own. Are there not a dozen men and women in Michigan who read this paper, potential fathers and mothers, with hearts big enough to receive a dozen of these little men in the making and thus help along the greatest cause in the world? Anyone interested in helping may write to the Michigan Children's Home Society, at St. Joseph.

Miss Elsie Janis, probably the best loved of all of the actresses who entertained the doughboys over seas has returned with a little Italian boy of fourteen—a war orphan. When asked how she ever thought she could attempt so much she answered "oh, that's nothing, everybody adopts war orphans these days. We have a selfish motive in it. Mother and I knew we were not eating enough for our good and it is proving a great stimulus to appetite to see a healthy, fourteen-year-old boy eat."

In one of our big daily newspapers they are running a series of articles purported to be from the pen of a "Lonesome Woman," and of all the effort she makes to find something in life to interest her, when if she would just open her home to one of Michigan's little homeless ones, the heart hunger of which she complains would have no place in her busy life.

Make This for a Gift

This block design is of one of the most charming and novel yokes for underwear. The work is commenced at the bottom edge of the front and crocheted to the point where the side and straps begin. One side is then made and the second joined, and then the back finished, to the lower edges. The edges are finished with a single crochet and picot edge.



Medicinal Plant Gardens

DURING THE year there has been conducted at the University of Michigan a series of experiments which may prove to be of considerable importance and value to the future of the United States in general and the state of Michigan in particular. Under the direction of Dr. Henry Kraemer of the University of Michigan College of Pharmacy, there were grown about 20,000 medicinal plants of great variety and wide scope of usefulness. In spite of the scarcity of labor, the inadequacy of the facilities for harvesting and curing, and the very newness of the project, the results obtained were gratifying as they were surprising. Out of the 20,000 plants grown, but a very small percentage were lost, and the harvested and cured plants were of an exceptionally high grade and strength.

The subject of growing medicinal plants in Michigan was first called to active attention by the enormous rise in prices of crude drugs during the war. It was then found that America had been almost entirely dependent on foreign sources for her supply of many drugs. When these were suddenly cut off, high prices and an absolute scarcity of many necessary principles brought home to us our criminal neglect in not providing a sufficient national resource to depend on in such times. And this is not the only reason for desiring to establish drug farming in this country. Heretofore, most of our raw drug materials were gathered from wild plants, but these are now becoming very scarce, seriously threatening this source of supply. It is also of great importance that the farming of drugs will make possible a greater uniformity in the raw materials, for the diversity of materials as now gathered at different seasons and places, and by unskilled collectors, is one of the serious drawbacks in pharmaceutical manufacturing.

It is often suggested that the difference of climate and soil will make it impracticable to raise a very great variety of medicinal plants in Michigan, but there are many instances at hand in which plants have grown and flourished in widely different parts of the world, far from their original habitat. Last summer's experiments at the Botanical Gardens show that Southern Michigan muck lands and temperate climate are eminently fitted for the cultivation

of a great variety of plants heretofore not found in these regions. These experiments already so successful, will be continued with the generous financial assistance of Frederick Stearns & Company, Manufacturing Pharmacists, Detroit, Michigan, under the direction of Dr. Kraemer. The

work in the future will aim at the determination of many factors necessary to the obtaining of the best results in the cultivation of medicinal plants of all kinds. The results of the use of various kinds of fertilizers will be examined with reference to their action on different plants, and their bearing on the quantity and quality of the active principles produced. Various methods of propagation will be used to determine the relative advantages of reproducing by means of seeds, rhizomes and rootstocks, all of which can be successfully utilized in certain plants. Systems of seeding, transplanting and hothouse forcing will also be worked out, and the most desirable methods of harvesting and curing the drugs will be looked into.

TIMELY POULTRY MARKETING

By Herbert Hartwig, M. A. C.

THE farmers and poultrymen of Michigan are losing money in the marketing of poultry. Money that should go into their pockets is swelling the bank accounts of the wholesale poultry dealers in the cities. This is true because most farmers sell their poultry at the time that the market is almost literally flooded. They sell their fowls at that time without stopping to consider whether the birds are in prime market condition—whether they will pay the maximum profit if sold at that time or if sold at some future time.

When a farmer has sheep, hogs, or cattle to sell, he tries to have his stock in the best possible market condition at the time that he can command the top price, but this is not true in the case of poultry. Only a few of the better business men among farmers have learned to study the poultry market.

Men who watch the market know that along about the time that taxes are due, each year there is an abundance of poultry on the market, and that at that time, poultry is lower than at any other time during the year. Farmers have expenses to meet; so they are penning-up the fowls they wish to dispose of, feeding for a week or two, and then selling them, whether they have the desirable degree of fatness or not.

Too often birds are fattened in this manner before they have their growth of frame. Unless the market is due to drop, it is advisable to allow the birds to develop as large a frame as possible before fattening. However, in doing this, it is well to remember that the nearer the bird is to maturity, the more each ounce of gain will cost.

A study of the Detroit poultry market during the last three years would reveal the fact that farmers evidently desired to dispose of their poultry as early as possible each fall. The fact that this has been true has made it advisable and profitable to do the other thing—keep your birds for the high prices that are bound to follow when the supply is reduced. The wholesale poultry dealer is taking advantage of this fact and is buying all he can at the low prices. It is at this time that cold-storage plants are being filled to capacity with birds that only await the jump in price that comes when most of the farmers have sold their poultry.

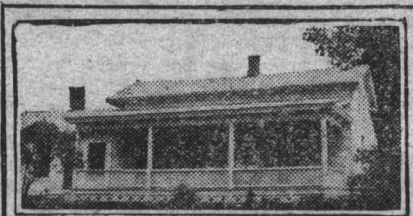
Very few farmers hold any poultry until after the holidays and, as a result of this, a very noticeable feature of the poultry market has been the jump of about 5c per pound in dressed poultry almost immediately after New Years.

Many people are surprised upon visiting the establishments of wholesale poultry dealers to find entire floors devoted to pens where fowls that come to market in a very lean condition are fattened at a neat profit to the wholesaler. These same pens are used to keep live birds for the rise in prices that invariably follows the holiday season.

If the farmer can continue the development of the frames of his fowls profitably—and a few of the best business farmers have—and start the fattening process at a time that will enable him to get the advanced price he is going to get the extra margin that the shrewd wholesaler now gets. And why shouldn't the farmer get it? If the farmer will keep his eye on the market and try to produce fowls at that time when the other farmer has none to sell, he will, undoubtedly, greatly increase his returns from poultry.

WOMAN'S VOICE IN POLITICS

"LIVING in this country of ours is not only a privilege," says Prof. Wenley, of the University of Michigan, "but it carries with that privilege a grave responsibility. You have absolutely no right to criticize the manner in which the affairs of state or nation are run, for the men who run these affairs are yours—yours by choice, and if you would have them run differently, then elect the men whom you know will uphold



A house on a farm doesn't have to be elaborate to be a good farm home. The above is a tenant farm house in Shiawassee county.

the principles you stand for."

Right now is the time to decide who you want to head the affairs of your state—and the question of a Governor who will be the friend and champion of the farmers' rights—one who actually knows what those rights should really consist of—as well as

the right man for all the people, is a problem to settle right now. And so M. B. F. has decided to take a straw vote—but the editor tells me that the votes of the women readers is strangely silent. Let's show the men that we have a mind of our own—and knowing what we want, that we are not afraid to step right out and say so. On another page will be found a straw vote ballot. Do not delay—just take your scissors right now, clip it out, check the man of your choice or if your choice is not there, indicate it in writing, and send the coupon in direct to the M. B. F. editor, at Mt. Clemens.

USE YOUR EMPTY HOTBEDS FOR STORING VEGETABLES

THE EMPTY hotbed and cold-frame may be used to good advantage during the fall and winter for storing vegetables, says J. T. Ross, Jr., of the University of Missouri College of Agriculture. The empty pit is then available for storing in bulk potatoes and root crops of all kinds. Celery and cabbage also can be stored here by pulling the plants with the roots on and setting them closely together in the upright position with the roots embed-

ded in a few inches of loose, moist soil in the bottom of the pit.

The cold-frame is used in the same way as the hotbed; but since it has no pit, its capacity is limited. The regular glass sash can be used to cover these structures when used for vegetable storage, but they must be supplemented with board shutters, straw mats, or loose straw to protect the contents from sunlight and from freezing and thawing.

The walls on the outside should be well banked with soil or manure.

JOY IN LIVING

There is lots of joy in living if you strike the proper gait; If you always come up smiling in the face of every fate. If you're keeping step and whistling some lively little tune, You'll be living gay and happy as a summer day in June.

Keep a level head, don't worry, help your brothers on the way; Let the sunshine of good humor shine upon you ev'ry day! Speak a cheerful word at all times—never "knock" your fellow man. And you'll surely be rewarded—just keep doing all you can.

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And in addition, this bigger, better farm power and farm light plant delivers 3½ H. P. to the line shaft for all belt work on the farm not in the tractor class. Send for illustrated folder showing

PHELPS Power and Light

pulling, from its belt pulley, a 280 foot deep well pump 16 hours a day and at the same time storing 1240 watts electric power in the batteries for individual power motors and lights. Study carefully this masterful achievement.

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READING, MICH.**

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All we ask you to do is to call on two of your friends and get them to subscribe to Michigan Business Farming for one year at \$1.00 each. Have them sign their names and address on the blank below, mail it to us and the OUTFIT will be yours.

Get your Father, Mother, Big Brother or Sister to help you.

In consideration of your offer to give the boy or girl whose name appears below a School Outfit for two new yearly subscriptions, I hereby subscribe to Michigan Business Farming for one year.

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Name of Boy or Girl getting subscribers

Town R. F. D. State

The Children's Hour

DEAR CHILDREN: I want to tell you this week about the trip I made to toy land a few days ago. I had gone into one of our big stores to find some suggestions of gifts which I might offer my little friends for getting subscriptions, and found that they had cleared a whole floor of all its regular list of clothing and had placed thereon just multitudes of toys and then how I wished that all my little friends of the Children's Hour could have been with me, for it makes one get the Christmas spirit long before the day, just to wander through toyland and see all the wonderful new toys—things they never thought of having when I was a little girl.

I asked the clerk about it: "you don't seem to have such useless toys any more," said I. "You formerly had glass pigs for banks; and a whole lot of little painted tin animals, while now I see animals stuffed to look like the real, honest-to-goodness animals one sees in the barnyard—and the wagons are practical which you display for sale. They will run—the engines the built just like an actual steam engine, while guessing games which had no practical value are not to be found now but in their place have come the educational games." "The explanation is simple," said the clerk. "Formerly we bought our Christmas toys almost entirely from Germany—now people refuse to accept German made toys and of course there were none to be had during the war so our own men took up this trade, and Americans are natural inventors, you know, so our men who made these toys made exact reproductions of the larger articles, like the engine you see. Now a boy who gets that engine will have a very good idea of how an engine works before he is old enough to go to school even, while the children who receive the walking dolls, the bible games and the cut-outs maps will learn something from them of actual value. Of course we sell thousands of sleds and skates aplenty."

I wonder if you realize the wonderful opportunities you are enjoying, my little friends, in this Twentieth Century. Surely when you grow to be men and women you will be a great deal wiser than are your fathers and mothers now, if you just take advantage of every opportunity to learn. Affectionately yours.—LAD-DIE.

THE JUNIOR COOK

Quince Conserve

Peel, quarter and core four quinces and four apples.

Chop lightly or run through the course cutter of a meat grinder. The grinder is much better than chopping, as the work can be done so quickly the fruit will not discolor.

Save every bit of juice and mix with ground fruit. Measure and put in saucepan over a slow fire.

After it has simmered for fifteen minutes add as much sugar as you had fruit. (If sugar is scarce, one cupful of a good grade of corn syrup may be used instead of one cupful of sugar. The rest must be sugar.)

Stir the sugar in and boil slowly for 25 minutes. Stir occasionally so it does not stick to bottom of pan.

Add one cupful of seeded raisins. Add one-half cupful nut meats chipped fine and cook 15 minutes—very slowly.

Take up in jelly glasses and when cool, seal with melted paraffin.

Fine for school sandwiches or to spread on crackers for afternoon tea parties.

WHAT IS IT?



to show you how to judge stock. Watch for it.

COULD you tell anything about this animal?

It is a Holstein or a Hereford? Is it a grade, scrub or a purebred? Why is it? Prove it. These are all things that the young folks on the farm are expected to know. So Children's Hour soon will begin a series of diagrams

OUR BOYS AND GIRLS

Dear Laddie—This is the first time I have written to you. My father takes the M. B. F. and he likes it fine. I live on a one hundred acre farm, we have five cows and twelve young cattle, thirteen pigs and two hundred hens and two ducks. For pets I have a black dog and a black and white kitten. I have a brother and one sister. My brother is married and he lives in Port Huron. I am ten years old the 5th of December, I am in the fifth grade and I walk a mile and one-half to school every day. I will close hoping to see this letter in print.

Dear Laddie—I've never written to you before, so I thought I would try my luck. I live in the country and like it very much. I have two sisters and two brothers. One sister is ten, her name is seven, the other brother is two, his name is Ellen. One brother is Lester, he is seven, the other brother is two, his name is Fay. Mamma and papa are both living. We live on a 181 acre farm. Papa works another farm where he has a married man living and we also have a hired man who boards with us. Papa has three cows, two horses which stay with us all the time then two on the other place and two which stay at either place. Papa has a load of sheep and also a load of cattle on some land which he is renting. Mamma has several hundred chickens. We have just had an electric line go near here, so we have electric lights, we enjoy them very much. We children go to school but Fay and Ellen, I am 11 and in the seventh grade. Papa takes the M. B. F. and likes it very much. I am especially fond of the Children's page. I will close for this time. Yours truly, Beatrice Munger, Clinton, Mich.

Seein' Things

I AIN'T AFRAID of snakes, or toads, or bugs, or worms, or mice, An' things 'at girls are skeered of I think are awful nice! I'm pretty brave, I guess; an' yet I hate to go to bed, For, when I'm tucked up warm an' snug an' when my prayers are said, Mother tells "Happy Dreams" an' takes away the light, An' leaves me lyin' all alone and seein' things at night. Sometimes they're in the corner, sometimes they're by the door, Sometimes they're all a-standin' in the middle uv the floor; Sometimes they're a sittin' down, sometimes they're walkin' round So softly an' so creepy-like they never make a sound; Sometimes they are as black as ink, an' other times they're white, But the color ain't no difference when you see things at night! Once, when I ticked a feller 'at had just moved on our street, An' father sent me up to bed without a bite to eat, I woke up in the dark an' saw things standin' in a row, A-lookin' at me cross-eyed and pintin' at me—so! Oh, my! I was so skeered that time I never slept a mite— It's almost allus when I'm bad that I see things at night! Lucky thing I ain't a girl or I'd be skeered to death! Bein' I'm a boy, I duck my head an' hold my breath; An' I am, oh, so sorry I'm a naughty boy, an' then Gran'ma tells me that's the only way to make it right When a feller has been wicked an' sees things at night. An' so when other naughty boys would coax me into sin, I try to skivush the tempter's voice 'at urges me within; An' when they's pie for supper or cakes 'at's big an' nice, I want to—but I do not pass my plate fr them things twice! No. Ruther let starvation wipe me slowly out of sight Than I should keep a-lyin' an' seein' things at night.

EUGENE FIELD.

HAY PRICES HIGHER

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	28.50 @ 29	27.50 @ 28	26.50 @ 27
Chicago	29.00 @ 30		27.00 @ 28
New York	34.00 @ 36		31.00 @ 34
Pittsburg	30.00 @ 31	29.00 @ 30	28.00 @ 29

	No. 1	No. 1	No. 1
	Light Mix.	Clover Mix.	Clover
Detroit	28.50 @ 27		26.50 @ 27
Chicago	29.00 @ 29	26.00 @ 27	25.00 @ 26
New York	32.00 @ 34	29.00 @ 32	
Pittsburg	29.00 @ 30	30.00 @ 31	27.00 @ 28

	No. 1 Tim.	Stan. Tim.	No. 2 Tim.
Detroit	28.50 @ 29	27.50 @ 28	26.50 @ 27
Chicago	30.00 @ 32	29.00 @ 30	28.00 @ 29
New York	36.00 @ 38	35.00 @ 37	34.00 @ 36
Pittsburg	31.00 @ 32	30.00 @ 31	28.00 @ 29

	No. 1	No. 1	No. 1
	Light Mix.	Clover Mix.	Clover
Detroit	27.50 @ 29	23.50 @ 24	22.50 @ 23
Chicago	29.00 @ 30	29.00 @ 29	16.00 @ 25
New York	34.00 @ 36	29.00 @ 32	30.00 @ 32
Pittsburg	28.00 @ 29	28.00 @ 29	28.00 @ 29

Hay markets in nearly every part of the country this week are firm with prices edging upward. This rise applies to nearly all grades of hay. In the Mississippi Valley markets the receipts were large at some points, and prices could not stay firm at those markets, even though the demand was almost strong enough to handle the glutted situation. Chicago has had but few receipts and has made sharp gains in values. In the East farmers are holding hay for higher prices, and are just barely supplying the present demand. The fact that the consumers lack activity prevents a big boost in hay values. Detroit reports small supply for nearly all lines of hay and the market is quoted firm.

NEW YORK BUTTER MARKET

For many years those who are familiar with the arguments advanced by the general run of farmers when an attempt has been made to convince them that they should make a greater effort to produce cream of better quality, have heard that it is not profitable to attempt to keep cream sweet and clean as there is not enough difference between the price paid for sweet and sour cream to make it worth the effort. Even the most skeptical would be convinced at the present time that it would pay to use every possible means to produce good cream if he would but spend a few days in this market. The quotations shown below should be convincing. One sees from them that an extra, which scores 92 points, is quoted at 73 to 73½c, but he also sees that top firsts, which score 90 to 91 points, are selling at 66½ to 72c. It seems unreasonable that butter scoring 90 points, which is a good piece of butter, should sell at a price 7c below that paid for a butter scoring 92 points. It is not only true that such a condition exists, but it is also true that while a 92 score butter will sell as soon as it arrives the 90-point butter sells only to a chance buyer. Low fruits, which score 88 to 89 points, are at a still greater disadvantage.

Receipts of fresh butter are at the lowest figure so far this season. It has been expected that there would be a slight increase in production because of the usual fall freshening of cows but the influence of that factor is not as yet being felt. A few cars of fresh Canadian butter are being received weekly. Held butter is moving freely, better than 1½ million pounds of such butter being taken from storage each week. Stocks that were purchased by exporters some time ago are being shipped in considerable quantities regularly. Centralized butter is dragging 66 1-2c being about the highest price paid for good 90 score quality. Held butter selling at a price about 3½c under that of fresh butter. Prevailing prices today are as follows: Extras, 73 to 73½c; higher scoring than extras, 74 to 74½c; firsts, (90-91 score), 66½ to 72c; firsts (88-89 score), 62½ to 65c; and, seconds, 57 to 61c.

The creamery which receives the highest price for its butter is the one which has seen the tendency of the times and has educated its patrons to the value of high quality production.

BIG WOOL CONSUMPTION

Manufacturers used about 69,000,000 pounds of wool, grease equivalent in October, 1919, the greatest amount consumed in any one month since May, 1918, when the wool textile industries' capacity was taxed by the war's demand, according to the monthly wool consumption report just released by the Bureau of Markets, United States Department of Agriculture.

Of the amount used in October, 34 per cent was fine, 18 per cent 1-2 blood, 17 per cent, 3-8 blood, 16 per cent 1-4 blood, 4 per cent, low, 10 per cent, carpet and 1 per cent, grade not stated. More fine wool was used in October than in any month since the monthly wool reports were inaugurated. The heavy consumption of fine wool reflects the great demand for the finer qualities of wool which has been so pronounced during the last six months, say the Bureau of Markets' specialists.

Massachusetts still holds the lead with 25,612,133 pounds of all kinds, classes and conditions, followed by Pennsylvania, 8,979,814 pounds; Rhode Island, 6,936,621 pounds; New Jersey, 5,738,314 pounds and New York, New Hampshire, Connecticut, Ohio and Maine in the order mentioned.

The total amounts used, by condition were: grease, 49,506,856 pounds, scoured, 8,561,958 pounds; pulled, 1,949,601 pounds.

Detailed monthly wool consumption reports will be sent to anyone addressing a request to the Bureau of Markets, United States Department of Agriculture, Washington, D. C.

LIVESTOCK MARKETS

DETROIT, Dec. 3.—Cattle: Canners and bulls steady; all others 50c higher; best heavy steers, \$11.50 to \$12.50; best heavy weight butcher steers, \$9.50 to \$10.50; mixed steers and heifers, \$8.50 to \$9; handy light butchers, \$7.50 to \$8.25; light butchers, \$6.50 to \$7.25; best cows, \$8.50 to \$9.50; butcher cows, \$6.75 to \$8; cutters, \$5.50 to \$6; canners, \$5 to \$5.50; best heavy bulls, \$8.50 to \$8.75; bologna bulls, \$6.50 to \$7; stock bulls, \$5.50 to \$6.25; feeders, \$9 to \$11; stockers, \$7 to \$8.75; milkers and springers, \$6.50 to \$15.00. Veal calves: market 50c to \$1 higher; best, \$18 to \$20; others, \$10 to \$13. Sheep and lambs: market steady to 25c higher; best lambs, \$15 to \$15.25; fair lambs, \$13 to \$14.50; light to common lambs, \$7 to \$11.25; fair to good sheep, \$7.50 to \$8; culls and common, \$3 to \$4.50. Hogs: 1,956; market strong; pigs, \$13.50; mixed hogs, \$14 to \$14.25. EAST BUFFALO, Dec. 3.—Dunning & Stevens report: Cattle: market, 25 to 50c higher; prime heavy steers, \$16 to \$18; best shipping steers, \$13.50 to \$17; medium shipping steers, \$11.50 to \$12.50; best yearlings, 95c to 1,000 lbs., \$16 to \$17; light yearlings, good quality, \$13 to \$14; best heavy steers, \$10.50 to \$12; fair to good, \$10.50 to \$11; handy steers and heifers mixed, \$9.50 to \$10.50; western heifers, \$10.50 to \$11.50; best fat cows, \$10 to \$11; butcher cows, \$7.50 to \$8.50; cutters, \$6 to \$6.50; canners, \$4 to \$5.25; fancy bulls, \$9 to \$10.50; butchering bulls, \$7 to \$8; common, \$6 to \$7; best feeding steers, \$10 to \$11; medium feeders, \$8.50 to \$9.50; best stockers, \$6.50 to \$7.50; light to common, \$5 to \$6; milkers and springers, \$7.50 to \$15.00. Hogs: Market 50 to 75c higher; heavy and yorkers, \$14.50 to

Another student of the price question said: "In my opinion some way must be devised for ascertaining the actual cost of an article in labor and material. Accounting systems are of no value in solving the price question. The bookkeepers seem to be able to get almost any result they wish, and no one but a bookkeeper can understand the work when it is done. The thing needed is scientific determination of how much man-power and how much steel, for example, is necessary to make a plow. Steel and man power can then be translated into money at its current value. Cost of distribution, overhead and other factors can be added, and an estimate of the price at which the farmer should get his plow, allowing a reasonable profit to all concerned in the work of producing and distributing it.

"In its efforts to reduce the cost of foodstuffs the government is trying to learn costs of production, and to allow reasonable profits. In fixing transportation rates, the method is the same—to learn the actual cost based on physical valuation, and then add a fair profit.

"The principle is rapidly being established that the consumer has a right to every commodity at a price which bears a fixed and fair relation to the cost of producing it. In my opinion, that principle must be applied to manufacturing for the benefit of both manufacturer and consumer. The consumer should know what the fair price for a bar of soap or a typewriter is just as he now knows that 11 cents a pound is a maximum fair price for sugar." Submitted by a Flint subscriber.

MORE MONEY IN DUAL PURPOSE BREEDS, CLAIM

(Continued from page 5)

years, and our conclusion is that good calves can be raised with comparatively little milk and put in good flesh for market inside of one year, by keeping the calf confined in a pen by itself and giving it a mixed ration of grain and hay.

The calf at an early age does not have the digestive fluids necessary to convert starch into sugar, hence starchy feeds must be avoided in the beginning, though not entirely excluded, as the secretion of starch transforming fluids is hastened by the accessibility of these starchy feeds, such as corn and oats, from the beginning, without forcing the calf to eat them as a steady, regular diet, which would certainly cause indigestion and possible stunting of the young thing for its entire life.

Parched meal, like toasted bread, is easily digested by the calf because the parching converts the starch particles into sugar (grape sugar.) Oil meal contains very little starch and also supplies the protein necessary. A New York dairyman to whom I once suggested using parch meal, told me that he was getting very good results with the use of Blackstrap Molasses. Feeding molasses is comparatively cheap this season on account of prohibition which threw the distillery molasses on the market.

I am using molasses this winter because of its cheapness and because I have a short hay crop and by sprinkling a solution of molasses and water on my wheat and rye straw. I can make it more palatable, more nutritive and the molasses also aids in digestion and prevents impaction which I must guard against in the use of coarse, fibrous feed.

The molasses I get comes direct from the Southern cane mills from this year's crop, and is fresh and wholesome food for man or beast, may be used for making molasses cakes after the old fashioned recipe, but it is not as nice for table use as some of the later glucose mixtures.

BETTER SEED FOR MICH. POTATO GROWERS

(Continued from page 3)

prove one of the most helpful lines of work along production lines which has been undertaken. Growers are coming to realize as they never did before they began their own marketing, the fact that the production of quality stock is the first step in successful marketing. They also are realizing the fact that low yield per acre as a rule means high cost of production and that high yield per acre, lower cost of production. The latter is especially true when the yield per acre is influenced by the quality of seed used.

MAIL LIST REVISION

WE ARE anxious that every subscriber to M. B. F. should receive his or her paper on or before the Saturday of date of issue. To accomplish this and assure every reader of receiving every copy mailed we are revising our entire mailing system, placing all names in type, as shown:

John H Jones Nov 20
Capac Mich R1 22S9

The date shown following your name in the first line is the month to which your subscription is paid in full, in the above example, the subscription would expire with the month of November, 1920. Following the address in the second line, is the date when your subscription was received, this is our key by which we can look up your original order and remittance at any time, should a question regarding it arise.

IS YOUR NAME ON OUR LIST CORRECTLY NOW?

Look at the label on the front cover of this copy, is your name, address and date of expiration correct? Are you receiving more than one copy or is there any other complaint you have to make—

—please write us, clipping the labels referred to in your letter, so we can look them up and make corrections immediately.

IF THE LETTER (G) OR ANY DATE BEFORE (JAN. 20) APPEARS ON THE LABEL FOLLOWING YOUR NAME, PLEASE RENEW AT ONCE. WE WILL THEN PUT YOUR NAME IN TYPE AS SHOWN ABOVE AND GUARANTEE THAT YOU DO NOT MISS ANY FUTURE ISSUES!

BOSTON WOOL QUOTATIONS

Michigan and New York fleeces are quoted in Boston as follows: Fine unwashed, 64 @ 65; Delaine unwashed, 80 @ 83; 1-2 blood unwashed, 78 @ 80; 3-8 blood unwashed, 66 and 67, 1-4 blood unwashed, 65 @ 66; 1-2, 3-8, 1-4 clothing, 55 @ 57; common and braid, 41 @ 42.

PRODUCE MARKET LIFELESS

Slight changes have occurred in the produce markets in the current week, little action being noted on the part of sellers or buyers. In Detroit fresh butter and eggs are scarce and in good demand, and the trade is obliged to cut deeply into the stored product. There is not much doing in the apple line nor in any other line of fruit. Good cranberries in Detroit are bought at \$10.50 per bbl.

APPLES, spies, top at \$3.50 per bu.; Baldwins, \$2.75; Greenings, \$3.25; Cork Imperials, \$2.75; No. 2 fruit brings \$1.25 @ 1.50 per bu.

CELERY, Kalamazoo, brings 50 @ 60c per bunch.

POPCORN, shelled, 12c per lb.

HONEY, white comb, 32 @ 35c per lb.

ONIONS, \$5.50 @ \$6 per 100 lb. sack.

CABBAGE, home grown, \$1.25 @ \$1.50 per bushel.

DRESSED HOGS, best, 17 @ 19c per lb.; heavy, 15 @ 16c.

DRESSED CALVES, fancy, 24 @ 25c; choice, 22 @ 23c per lb.

\$14.75; pigs, \$14.25 to \$14.50. Sheep and lamb: market higher; top lambs, \$16; yearlings, \$11 to \$12; wethers, \$9.50 to \$10; ewes, \$8 to \$8.50. Calves: market strong; tops, \$22; grass calves, \$5 to \$8.

CHICAGO, Dec. 3.—Hogs: Estimated tomorrow, 70,000; 50 to 65c higher; closed weak; bulk, \$14.10 to \$14.50; top, \$14.60; heavy, \$14.10 to \$14.55; medium, \$14.15 to \$14.60; light, \$14.10 to \$14.50; light lights, \$13.50 to \$14.25; heavy packing sows, smooth, \$13.50 to \$14; packing sows, rough, \$12.75 to \$13.50; pigs, \$13 to \$13.75. Cattle: estimated tomorrow, 25,000; unsettled; beef steers, medium and heavy weight, choice and prime, \$18.75 to \$21; medium and good, \$11.25 to \$13.65; common, \$9 to \$11.25; light weight, good and choice, \$14.25 to \$20.25; common and medium, \$7.75 to \$14.15; butcher cattle, heifers, \$6.65 to \$15; cows, \$6.50 to \$15.50; canners and cutters, \$5.50 to \$6.50; veal calves, \$14.25 to \$16.75; feeder steers, \$7 to \$13; stocker steers, \$6 to \$11; western range steers, \$7.50 to \$15.25; cows and heifers, \$6.60 to \$12.75. Sheep: estimated tomorrow, 27,000; strong; lambs, \$13.75 to \$13.75; culls and common, \$9.50 to \$13.50; ewes, medium, good and choice, \$7.50 to \$9; culls and common, \$3.75 to \$7.25; breeding, \$6.75 to \$11.25.

DETROIT BUTTER AND EGG PRICES

DETROIT, Dec. 3.—Butter: Fresh creamery, 64 to 64 1-2c; fresh, creamery, in 1-lb. bricks, 64 to 63 1-2c per lb. Eggs—Fresh eggs, 72 to 90c per doz., according to quality; storage eggs, according to quality, 47 3-4 to 51c per doz.

AGRICULTURAL PROFITS VS.

MANUFACTURING PROFITS

(Continued from page 2)

made more money than any of the rest of them. He has done it, not by putting the price as high as possible, but by putting it as low as possible. I think that any manufacturer who wants to make more money would do well to consider with an open mind the question whether he can do this best by raising prices or by lowering them."

PRINCE ALBERT



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by R. J. Reynolds
Tobacco Co.



Toppy red bags, tidy red tins, handsome pound and half pound tin humidors—and— that classy, practical pound crystal glass humidor with sponge moistener top that keeps the tobacco in such perfect condition.

PUT it right up to Prince Albert to produce for you more smoke happiness than you ever before collected! P. A.'s made to fit your smoke appetite like a glove. It has the best flavor and coolness and fragrance, ever!

Just what a whole lot of joy Prince Albert really is you want to find out the quickest way you know how! And, put it down how you could smoke P. A. for hours without tongue bite or parch. Our exclusive patented process cuts out bite and parch.

Realize what it would mean to get set with a joy'us jimmy pipe, or the papers and to fill 'er up every once and a while. And, puff to beat the cards! *Without a comeback!*

Just as sure as you're reading this, P. A. will hand you everything you ever yearned for in tobacco joy! Why, it's so good you feel like you'd just have to eat that fragrant smoke!

R. J. Reynolds Tobacco Company, Winston-Salem, N. C.

BUSINESS FARMERS' EXCHANGE

5 CENTS A WORD PER ISSUE. To maintain this low rate, we are compelled to eliminate all bookkeeping. Therefore, our terms on classified advertising are cash in full with order. Count as one word each initial and each group of figures, both in the body of the ad and in the address. The rate is 5 cents a word for each issue, regardless of number of times ad runs. There is no discount. Copy must reach us by Wednesday of preceding week. You will help us continue our low rate by making your remittance exactly right.—Address, Michigan Business Farming, Adv. Dept., Mt. Clemens, Michigan.

FARMS & LANDS

186 A. HIGH-GRADE CORN FARM. Unusually good stock farm, all natural blue grass land, about 70 acres rich creek bottom A-1 corn soil. Near big R.R. town, only 17 miles city of 90,000. 110 acres for the plow full of fertility; abundantly watered, well-fenced blue grass pasture for 50 head; much fruit. 9-room house, painted barns, &c. Highest quality and lowest price describes this bargain at \$15,810, terms. Details page 73 Strout's Fall Catalog Farm Bargains 23 States; copy free. E. A. STROUT FARM AGENCY, 814 B. E. Ford Bldg., Detroit.

FARM BARGAIN—240 ACRES GOOD clay land, 150 acres cleared. New 11-room house, large barn with basement, sheep barn, water piped to house and barn. On state reward road, 5 1-2 miles from Bad Axe. One of the few large up-to-date farms in good location, for sale. Must be sold by Dec. 15, 1919, to close up estate. James Morrison, guardian, Ubyly, Mich., R. F. D., No. 1.

FARMS FOR SALE—BIG LIST OF farms for sale by the owners, giving his name, location of farm, description, price and terms. Strictly mutual and co-operative between the buyer and seller and conducted for our members. CLEARING HOUSE ASS'N, Land Dept., Palmer and Woodward Ave.

ASK US TO SHOW YOU how you can make several hundred EXTRA dollars this winter sawing wood with a

DIXIE PORTABLE DRAG SAW
You can cut 25 to 40 cords day after day with only 2 gallons of gasoline—may to operate—the best built. Make big money cutting wood for yourself and your neighbors. Free descriptive folder, etc. THE PETER GERLACH COMPANY, Sole Makers, Dept. 34, Cleveland Ohio.

MISCELLANEOUS

WANTED—Small quantity of buckwheat honey. Please state price. Address Box A, care Michigan Business Farming, Mt. Clemens, Mich.

BARGAINS IN SILVERWARE. CROMWELL pattern 1847 Rogers Bros. Teaspoons post paid at \$2.32 per set of six. We do watch repairing. Clare Jewelry Co., Lock box 535, Clare, Mich.

RAILWAY TRAFFIC INSPECTORS Splendid pay and expenses; travel if desired; unlimited advancement. No age limit. Three months' home study. Situation arranged. Prepare for permanent position. Write for booklet C. M. 62, Standard Business Training Institute, Buffalo, N. Y.

Is Your Farm for Sale?

Write out a plain description and figure 5c for each word, initial or group of figures. Send it in for one, two or three times. There's no cheaper or better way of selling a farm in Michigan and you deal direct with the buyer. No agents or your farm, send in your ad today. Don't commissions. If you want to sell or trade just talk about it. Our Business Farming Farmers' Exchange gets results. Address Michigan Business Farming, Adv. Dept., Mt. Clemens.

FARMERS SERVICE BUREAU

(A Clearing Department for farmers' everyday troubles. Prompt, careful attention given to all complaints or requests for information addressed to this department. We are here to serve you.)

RIGHTS OF ROAD COMMISSIONERS

A—Does the township highway commissioner have authority to appoint overseers of road districts or should they be elected at town meeting? (b)—Can the highway commissioner or overseer dig a ditch in front of your house to change the water course down along the highway and remove a culvert across highway that has been in there thirty years, putting water down ditch in front of my house to my damage? (c)—Can the highway commissioner furnish cement pipe or other material to put a private crossing to any farmer's place? (d)—Can the highway commissioner or overseer move dirt from ditch in front of my place down the highway and put it on private property twelve rods from the place of removal?—C. B.

(a) Overseers of the highway are to be elected. In case of vacancy for any cause the Highway Commissioner appoints to fill the vacancy. (b) I think the Highway Commissioner has authority to dig the ditch to remove the highway and to remove the culvert if it does not stop the natural flow of the water, or, if it is not taken care of with the new ditch. He would not have authority to dig a ditch and throw the water upon another's premises. He must provide for its care. He can not dig the ditch except for the improvement of the right of way. If the digging of the ditch was lawful and proper for the commissioner to do then the fact that the ditch is an inconvenience to you and a damage in the sense it is such a damage that you can not recover for. If, however, the damage is from the water in an unusual quantity or manner then he is liable for the damage. (c) I think it would be in the discretion of the Commissioner to furnish the title if it was for the protection of the highway. Otherwise from that reason the adjacent owner provides his own egress and ingress. (d) The Commissioner may take material within the boundary of the highway for improvements except that he shall not take within eight feet of the sides unless necessary to maintain grades. He could use it only for the improvement of the highway and not for private purposes.—W. E. Brown, legal editor.

FORCING A ROAD OPEN

I am thinking of purchasing a farm lying on a section and town line. About 1-2 mile of road is unopened this being my nearest way to market, about one mile as it is. I have to make a detour of 2 1-2 miles to reach town. There is a river, swamp and railway on this half mile, which they object to crossing. I understand. All three are quite easily crossed. Can I force them to open the road? If so, what would be the necessary steps? Do both townships stand half the expense? I would like to know before purchasing this land if I can get road open.—F. H., Clare County.

The methods of procedure are given in C. L. 1915, sections 4288 and following. The first step is a petition of seven or more freeholders addressed to the commissioner of either township. The commissioner to whom addressed must notify the commissioner of the adjoining township and they jointly fix place of meeting as described in section 4297. If the commissioners refuse to lay out an appeal may be made to the joint boards and if they refuse and a sufficient amount is at stake a further appeal to the circuit court may be made. Appeal is the only compulsion that can be exercised.—W. E. Brown, legal editor.

LAW GOVERNING RENTAL

What is the law governing the rental of farms and allowance for use of land? If a dispute between owner and tenant, how best settled.—M. E. C., Sanilac County.

The law governing the rentals of farms and allowance for the use of land is the general law of contracts and applicable to real estate. Whatever contract the landlord and tenant make is binding upon both parties if lawfully made. The law does not undertake to say what shall be paid for the use of land where parties agree upon the price. It is only where the parties do not agree upon the price that the "law" steps in and says the tenant shall pay to the landlord what it is reasonably worth. This is a question of fact and the jury would decide what it was reasonably worth. If a dispute arise between landlord and tenant it is my opinion that it can be best settled by arbitration. Three good neighbors can do better in their informal way than can be accomplished by litigation.—W. E. Brown, legal editor.

TITLE EXTENDS TO LOW WATER

What are my rights in regard to the beach? I have 160 acres along the lake shore, and every year I am annoyed by hunters who pay no attention to signs and say I can not keep them off the beach, as I can only claim to high water mark.—J. W., Huron County.

It has been held by the courts "that the owner of land bordering on the Great Lakes took title to low water mark only and that he had no ownership in land covered by shallow waters of the lake."—W. E. Brown, legal editor.

MIGHT GET DAMAGES

The city of M—built an electric dam on Cedar Creek which overflows part of my farm and the city won't pay me anywhere near what same is worth. Is there any way that I can make them take the water off from my farm or can I make them remove the dam? Please give me your advice on that question.—A. Reader.

I once defended a similar case. The judge refused to order the dam abated, very largely because the owner of the

farm had witnessed the construction of the dam and saw a very large amount of money expended in its construction that would be worthless if he entered an order of abatement. However, he assessed the damages for the overflow of the land and compelled the builder of the dam to pay it and also fixed the highest point at which the owner of the dam could maintain the water. I think it was good law. There are, however, so many things that may vary the rule that it is not best to rely upon so short a statement of facts as you give. There are cases in which the courts have restrained parties from overflowing the land. You need the advice of a good attorney after a full and careful statement of facts.—W. E. Brown, legal editor.

WHAT IS A LAWFUL FENCE?

There are 80 rods of fence, my half 40 rods being the east and a neighbor's 40 rods being the west. His fence is in bad shape. The posts are heaved from one to two feet out of the ground and my sheep get under the fence and on his wheat. I have taken my sheep out, but he will not repair his fence and says he does not have to fence for sheep.—H. M.

A lawful fence is one that is "four and one-half feet and in good repair." From the description given I would be of the opinion that the fence "was not in good repair." He is obliged to fence against sheep and should your sheep enter his premises through his part of the fence, by reason of its defective condition, then he can recover no damages by reason of what damage your sheep do.—W. E. Brown, legal editor.

GOVERNMENT LAND SURVEYS

Is there another description of land in the United States the same as the following: The S. W. 1-4 of Section 19, Town 35, North of Range 2, East? I know the Supreme Court has rendered a decision in the matter. It states the description is incomplete because the county and state is not mentioned. Now what I really want to know is, is there another town and range of the same number in the U. S.?—J. R.

So far as I know every state is surveyed on the same plan as Michigan with a base line and a meridian line. I do not have any authority at hand from which to determine. I think that if you wrote your congressman, Hon. Frank D. Scott, Washington, D. C., he would ascertain from the government surveys whether any other state had such a description.—W. E. Brown, legal editor.

LAND RENTER'S RIGHTS

If A rents a farm from B, money rent, and pays rent in advance, and B sells his farm, can he compel A to sell his crops to B or can A work the farm until his term is up?—F. S.

If the owner of the farm did not reserve the right to cancel the lease upon sale of the farm then the renter can hold the farm until the expiration of his time. The owner of the farm can not compel the renter to sell his crops nor can he take possession until the expiration of the lease unless he reserves such power when he rented the farm.—W. E. Brown, legal editor.

PETITIONING FOR A DRAIN

When a drain is petitioned for, to be deepened and widened and survey and profile made accordingly, can the contract be let for a partly new ditch, and what can be done about it?—Subscriber.

Generally a drain commissioner would not have authority to construct a new drain on a petition to deepen and widen an old one, but there are circumstances under which he might be justified and have authority to arrange to make part of the drain "new." The statement of facts are not complete enough to warrant a more definite opinion.—W. E. Brown, legal editor.

WHEN THE LAKE DRIED UP

A piece of property on lake shore (a small inland lake) read: "beginning at a point on sec. line at high water mark on east side of R Lake, thence east about 400 ft., thence north 100 ft., thence west to high water mark of R Lake, thence south to place of beginning. Now the question is if the lake recedes (as it has) can the owner of above described lot go to the water?—W. S.

It is my opinion that your boundary goes to the lake whether the water in the lake raises or falls.—W. E. Brown, legal editor.

GETTING PUREBRED'S PEDIGREE

I bought a young Holstein bull and have got only the certificate of registration and would like to have a tabulated pedigree but don't understand just what to do to obtain them. Will you please inform me through your paper what to do?—A. D. G.

We suggest that you write first to the party who sold you the bull. If no satisfaction is obtained write to D. D. Aitken, president Holstein-Friesian Association of America, Flint, Mich.—The Editor.

DAMAGES FOR KILLING A DOG

When I was moving my dog was following the load and an auto ran over him and killed him. Can I secure damages, and if so how shall I proceed?—Reader.

It is a question of whether the driver of the auto was negligent in his driving. If he was not negligent he would not be liable, but if he was negligent he would be liable for the value of the dog, to be recovered by suit at law for the damages.—W. E. Brown, legal editor.

GRATIOT, (E).—Cold wave with a little snow here. It makes beet pulling a little out of order. Corn husking and hauling clover are the order of the day. Most of the farmers are shipping their own stock. Lots of auction sales this fall from 12 to 16 every week, and everything selling well except horses.—J. W. The following prices were paid at Ithaca:—wheat, spring, \$2.20; winter, \$2.06; oats, 67; rye, \$1.25; beans, \$6.25; potatoes, \$1.25; hens, 18; springers, 21; ducks, 24; geese, 22; turkeys, 33; butter, 55; butterfat, 70; eggs, 60; sheep, 55; lambs, 12; hogs, \$12.50; beef steers, 10; veal calves, 16.



From The Healthy Dairy

the milk truck always takes a full load. As soon as disease creeps in the milk yield will show it. Cows that do not milk as they should are usually suffering from a run-down condition of the vital organs of production. Medical treatment is needed to restore health and vigor.

KOW-KURE is the best known and most used medicine for treating the "poor milker." It is unfailing in the prevention or treatment of Barrenness, Abortion, Retained Afterbirth, Bunches, Scouring and Milk Fever. It should be kept wherever cows are raised for profit. KOW-KURE comes in 60c and \$1.20 packages at feed dealers' and druggists'.

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Michigan Now One of the Champion Jersey States

MICHIGAN is so famous for her Holsteins that her splendid Jersey record is not always as widely known. Just one phase of Michigan's Jersey history is the fact that Eminent's Bess, 209719, of W. S. Prickett, Sidnaw, Mich., became world's champion Jersey in 1913.

More than twenty years ago the world greeted the first world's champion Jersey. On February 24, 1899, Dollie's Valentine completed her year's test with 10,218 pounds milk and 578 pounds butterfat, which was the best official record ever made by a Jersey up to that time.

During the twenty years that have passed since Dollie's Valentine record was made, eleven other Jersey cows have been acclaimed "World's Champion Jerseys" on the strength of their production records. Some of the cows were fortunate enough to be able to hold their titles for a number of years. Others were displaced within a few months. The longest any Jersey ever held the world's champion record was five years and eleven months. Dollie's Valentine completed her record in February, 1899, and it was not until January 1905 that her record was passed.

Eight states can claim the honor of having been the home of World's Champion Jerseys. They are Maine, Massachusetts, Illinois, Colorado, Kentucky, Oregon, New Hampshire and Michigan. Two of these states, Massachusetts and Oregon, have each been represented no less than three times. Two Jersey breeders, Est. of W. S. Ladd, Portland, Ore., and C. I. Hood, Lowell, Mass., have each been the owners of two world's champions.

The advancement of the Jersey breed may well be estimated by the increase in production of the present champion, Vive La France over Dollie's Valentine. Vive's record of 1031 pounds of fat is almost 100 per cent increase over the one made by the first champion. Twenty years ago 578 pounds fat in 365 days was the best official record ever produced. Now in 1919, records equal to that are being reported to the Register of Merit department daily.

What the record will be twenty years from now time only can tell. With the increased knowledge of scientific feeding and breeding, there seems to be no limit to the possibilities. The more cows that are tested, the more likelihood there is that world's champion Jerseys will be developed with greater frequency and higher records made. There may be other Jerseys in the country who are producing or who can produce more than 1031 pounds fat in one year, but there is no proof of their ability to do so. They have not been given the opportunity to make a name for themselves and their owners because they have never been officially tested.

More testing opens the gateway for more scientific breeding and feeding. If figures are available that prove that a certain cow is a good producer, she can be bred and fed more intelligently. This will result in higher-producing Jerseys, more record-breaking Jerseys, and will increase the value of every Jersey in the country.

A list of the twelve world's champion Jerseys with their owners and records is given below.

Present world's champion Jersey—Vive La France 319616, Pickard

Brothers, Marion, Oregon, 14,925 lbs. milk, -031.6 lbs. fat, class AA, Mar. 24, 1919.

Past world's champion Jerseys—Sophie's Agnes, 296759, Ayredale Stock Farm, Bangor Me., 16,212.8 lbs. milk, 1000.00 lbs. fat, class AA, Nov. 30, 1918; Sophia 19th of Hood Farm 189748, C. I. Hood, Lowell, Mass., 17,557 lbs. milk, 999.1 lbs. fat, class A, Jan. 20, 1914; Eminent's Bess, 209719, W. S. Prickett, Sidnaw, Mich., 18,728.9 lbs. milk, 962.8 lbs. fat, class A, Sept. 11, 1913; Jacoba Irene, 146,443, A. O. Auten, Jerseyville, Ill., 17,253.2 lbs. milk, 952.9 lbs. fat, class A, Jan. 24, 1909; Adelaide of Beechlands, 168699, Est. of W. S. Ladd, Portland, Ore., 15,572.1 lbs. milk, 849.6 lbs. fat, class AA, Nov. 24, 1908; Financial Countess, 155100, C. E. Parfet, Golden, Colo., 13,248.1 lbs. milk, 795.2 lbs. fat, class AA, June 7, 1908; Olive Dunn, 188,832, A. F. Pierce, Winchester, N. H., 9,930.3 lbs. milk, 671.9 lbs. fat, class A, Sept. 30, 1907; Peer's Surprise, 144248, Est. of W. S. Ladd, Portland, Ore., 14,452.2 lbs. milk, 653.6 lbs. fat, class A, Jan. 31, 1907; Emma's Rowena, 146877, C. I. Hood, Lowell, Mass., 10,383.6 lbs. milk, 638.3 lbs. fat, class A, Oct. 31, 1905; Magyarland's Temisia, 134765, R. A. Sibley, Spencer, Mass., 10,419.3 lbs. milk, 638.1 lbs. fat, class A, Jan. 23, 1905; Dollie's Valentine, 105049, Kentucky Agricultural Experiment Station, Lexington, Ky., 10,218.3 lbs. milk, 578.7 lbs. fat, class A, Feb. 24, 1899.

Note—Nineteen Jersey cows, all told, have made records exceeding 900 pounds fat. The above table represents only those listed as World's Champions in their line.

Deep Plowing Aids Beet Growing; Explosives Used to Aid Fertility

(Continued from page 11)

these in the order they are given.

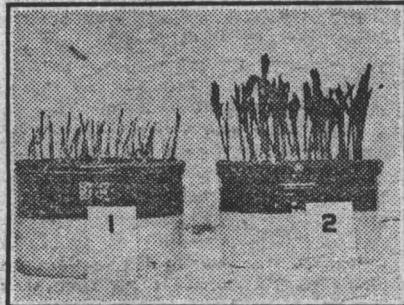
Numerous claims have been made for deep tillage and subsoiling. It has been maintained that such practices are desirable because the structure of the subsoil will be improved thereby providing better ventilation or aeration of it, increasing the water retaining capacity and increasing the amount of available mineral elements of plant food. Several agricultural experiment stations have provided us with reliable information concerning this question. In 1907 the Illinois Station began a series of investigations to determine the value of subsoiling on a silt loam soil underlain by a tight clay subsoil. The implement used loosened the subsoil in the bottom of the furrow made by the ordinary mold-board plow but did not throw it upon the surface. The eight year average yield reported for corn grown on the part of the field plowed as usual was fifty and one-half bushels per acre and forty-six and one-fifth bushels on the subsoiled portion. The investigations also show that the acre yields in the very dry seasons of 1913 and 1914 on the subsoiled land was less than one bushel greater than on the other. Or in other words, the effect on the water retaining capacity and other properties of this soil was negligible.

The Pennsylvania Agricultural Experiment Station began an investigation of the relative value of plowing a silt loam soil seven and one-half and fifteen inches deep respectively. Those who conducted these trials state that the difference in yield of corn, barley, oats, wheat, alfalfa, clover and timothy were negligible and when the draft of the plows was considered deep tillage resulted in an appreciable financial loss. The draft per square foot of cross section of the furrow was found to average 1,113 pounds for the 12 inch plow-in, and 724 pounds for the 7.5 inch

Williams and Welton of the Ohio Station reported in 1915 the results of five years work in which comparisons were made of 7.5 inch 15 inch and subsoiling on a rather heavy soil. These results reported are given in the following table:

Treatment (15 Year Test)			
Crop	7.5 In.	15 In.	Subsoil
Corn, bu. . . .	60.1	61.1	63.1
Oats, bu. . . .	45.1	43.1	45.1
Wheat, bu. . . .	23.1	33.1	34.1
Clover, tons . .	2.4	2.3	2.3

The results show that there was



Crock No. 1 shows plants which grew from seeds in ordinary soil without preliminary soaking. Crock No. 2 shows plants resulted from seeds planted at the same time, but their germination was hastened because the seeds were soaked for several hours in warm water.

not a sufficient difference in the yields to justify the expenditure of the extra amount of energy required to perform the deep tillage operations.

Deep tillage or subsoiling in the Great Plains as a whole does not increase yields of crops. Chilcott and Cole who conducted tests covering a wide range of crops, soils and conditions in ten different states sum of the function of plowing as follows:

"It is mistaking or failing to recognize the purpose of plowing that leads to the belief that its efficiency increases with its depth even though that depth be extended below all practical limits of cost and effort. Plowing does not increase the water holding capacity of the soil, nor the area in which roots may develop or from which the plants may obtain food. Plowing removes from the surface either green or dry material that may encumber it, provides a surface in which planting implements may cover the seed, and removes or delays the competition of weeds or plants other than those intended to grow, and in some cases by loosening and roughening the immediate surface, checks the run-off of rain water. All of these objects are accomplished as well by plowing to ordinary depths as by subsoiling, dynamiting, or deep tilling by any other method. There is little basis, therefore, for the expectation of increased yields from these practices, and the results of the experiments show that they have been generally ineffective."

Where root crops such as sugar beets are grown it is generally conceded that somewhat deeper plowing is better than it is for other crops

inasmuch as the improved structure of the subsoil results in a smoother lot of roots.

Results of investigations of the best depth to plow sandy soils are lacking. Observations lead us to conclude, however, that light soils that carry their vegetable matter in the first three or four inches are sometimes plowed too deeply, especially if the particles composing the lower layers fall apart when exposed, wind erosion becoming a serious matter. Owing to their rather porous or open condition it seems that it is not so necessary to plow sandy soils so deeply as the fine textured ones.

It is desirable to break up "plow soils." Where compact impervious layers of soil exist within striking distance of the plow or other implement they can be broken up to advantage. As a rule the so-called "plowsole" is a thin layer that lies within eight inches of the surface and can be done away with and avoided by altering the depth of plowing.

Can the subsoil be improved by means of explosives? We have a great deal of reliable information concerning the value of explosives in the improvement of soils. It has been asserted that most soils can be materially improved in this way. Some of the claims are the structure is improved resulting in better ventilation and drainage, elements of plant-food are made available and injurious insects and plant disease may be controlled—rather elaborate claims it seems.

The Kansas Experiment Station has rather exhaustively investigated the effect of dynamite upon the physical condition or structure of rather plastic clay subsoils. They found "when a charge of dynamite is exploded in a plastic clay soil the sudden expansion of the gases forces the soil back from the center of the charge, producing in the soil a cavity, the size of which is determined partly by the size of charge and composition of the powder used, and partly by the moisture content and physical nature of the soil. The soil particles driven out from the center of charge are forced into the pore spaces between the soil particles in the mass of soil adjoining. Thus a cavity is formed, the walls of which consist of a hard, compact mass of soil. This cavity, with its surrounding mass of soil, is often spoken of as the "dynamite jug."

Uncle Rube Spinach Says:

ROBBERS—AN' EV'RY THING

BEIN' as there's so many robber-ies an' so much stealin' goin' on, not only here in Battle Creek but all over the state an' the hull dum world purty nigh. I've kinda been studyin' the matter for some little time an' I got quite a little bit of information not known to the general public, so to speak.

I've got a friend livin' over to Marshall who works here in the same place I do an' so see him every night an' I'm learnin' a lot of things from him that may be useful to me when I get old enough to have judgment an' have reached the age of discretion—if there is such an age, which, of course is doubted by a good many folks, while a few still believe it exists.

Well this feller's name is Tingay—Tom Tingay, an' while he ain't no great shakes to look at he knows quite a lot, consider'n that he lives in Marshall. Marshall you know is the home of one John Bean an' John Bean—Uncle John, most everybody calls him, is the oldest constable in point of service in the state if not in the world—50 years at the business an' still goin' well as I said Tom lives near him an' so of course knows a hull lot about crime an' robbers an' every thing an' jest naturally Tom imparts a good deal of his knowledge to me—I bein' about the only one that's foolish enough to listen to him, that is, I mean, well I'll jest let it go at that. Talkin' about the robbin' that was goin' on here, I sez to Tom "the police say its amatoors that's pullin' off these stunts, their methods are crude an' done in such a bunglin' fashion we known professionals are not engaged in it at all."

That's jest it, Tom sez, of course it's am'teurs 'at's doin' it, an' that's what makes it so hard to catch 'em, professional am'teurs, Tom sez, works sly an' at night, when policemen are sleepin' on their jobs—They don't come right out and hold a fellow up at the point of a gun and demand "your money or your wife," or anything like that, they jest walk right in when folks are asleep an' take what they want an' then keep their mouth shut an' jolly the officers a bit an' git away with it all right Tom sez.

"But," sez Tom, kinda yawnin' a little as if the subject was becomin' tiresome, "their methods are crude at that, an' hard too, they have to work an' climb porches an' sneak aroun' in dark places, oh it's a hard life, he sez, an' that's why nearly all

the ol' timers have quite the bizness—it got so it didn't pay very big, wuz a little unsafe an' kinda darned slow—an' so they quit that way of doin' business an' that's why there's so many professional am'teurs at the present time, Tom sez.

Well I sez to 'im, "what has become of all the ol' timers be they all dead?" I sez.

"H—I no," Tom ans'wed, "gash I say they wasn't dead! Why they have multiplied and increased an' prospered and now are livin' in fine houses, ridin' in automobiles, wearin' the best of clothes, belong to church, are leaders in society, an' are the high mucks mucks of every community—they are the elite, the, the, well purty nigh the salt of the earth now an' the police can't bother 'em any more cause they're protected by law, but an' here Tom winked his other eye, the only good one he has—the other being weak—b'gosh they're still playin' the game, still robbin' the people an' they're a doin' a nice job at it too—a slick job, right in broad day light an' with the victims' eyes wide open, oh, they're a doin' a land office business, defyin' the govern'ment, laughin' at the law, hoodwinkin' the courts, why they're just a comin' in money an' by ginger there don't seem to be any way of stoppin' them either. Here Tom stopped a minnit, took a fresh chaw of the weed that is not in good repute where he works, an' then he blurted out "Am'teurs! why sure they're am'teurs—every man who will stick to the old method of robbin' now" he sez "is not only a am'teur, he's a dam fool."

But Tommy I sez to 'im tell me, I sez what is this new an' wonderful way? What are these men doin' now that life has become so lively an' to whom the world has grown so bright tell me Tom, I pleaded. Tell me what are they doin' now. Tom looked me in a kinda sorrowful way for quite a spell threw out his chaw of tobacco an' lit his pipe, took a few puffs, looked at me a'gin an' then, just as he started for the car to go to his home in Marshall he put his hand on my shoulder an' sez "Rube, ol' boy, you better wake up—go up town, he sez and you'll see the guys an' see 'em working too. Why you poor ol' fish he sez, the old timers are in business now and robbin' everybody, no partiality bein' shown everybody stands their share an' it's bein' done every day an' everywhere, goodbye—Uncle Rube.

Feed Hens Balanced Ration for Egg Yield

FEEDING is one of the most important factors in egg production. On poor rations hens will live and even keep in fair health; but well-balanced, palatable feeds are necessary to get good egg production. The additional cost of a good ration compared with a poor ration is repaid many times by the extra eggs obtained. As a rule the simplest feed mixtures composed of home-grown grain and their by-products, supplemented by sweet or sour milk or some animal feed rich in protein, such as meat scrap, will prove most profitable and will produce eggs at the lowest cost.

There is no one best ration for all conditions, but many of the grains can be fed interchangeably, depending on their availability and price. The rations described in this article are recommended as the result of extensive feeding experiments conducted at the Government farm at Beltsville, Md.

Corn, wheat, oats and barley are the principal grains fed to poultry; kafir corn and buckwheat are used also, but are not so generally available and usually cost more. Corn and wheat are the two best grains and are about equal in value as poultry feeds, although wheat can be fed alone better than corn, which is inclined to be fattening. Oats and barley, on account of their hulls and higher fiber content, are not so good as corn or wheat. Rye is not well relished by fowls and is seldom fed. Wheat screenings or slightly damaged grains sometimes may be bought

to advantage, their value depending entirely upon their quality and condition, but as a rule only sound grains in good condition should be fed to poultry, and mouldy grains should never be used. The locally grown grains which poultry will eat freely may generally be used to the best advantage. A scratch mixture, consisting of whole or cracked grains made of a combination of any two or more of these mentioned, can be fed to advantage. It is not advisable to feed continuously any single grain especially corn, owing to its fattening properties already mentioned.

A mash made of ground grains, mill products, and meat scrap should be fed usually in addition to the scratch mixture. Corn meal, wheat bran, wheat middlings, and meat scrap form the basis of a good mash, while corn chop, corn-and-cob meal, ground oats, and low grade flour also may be added or substituted to advantage. Just as good results can be obtained from a simple mash containing 3 or 4 ground grains and meat scraps as from a highly complicated mash containing 10 or 12 products.

A large number of commercial mixtures both of scratch grains and of ground grains are prepared for poultry feeds, but the value of any mixed commercial feed depends upon its composition and the quality of grains used in its preparation. If a poultry raiser does not produce any grain and keeps a comparatively small number of fowls it is often better to buy commercial feeds.



It's not fat—it's EGGS you want

Are your hens just boarders? Fat and lazy? All their food going to flesh? Nothing left for egg production? Madam,—Your hens' egg organs are dormant, and if you are going to be satisfied to let nature bide its own time to revive these dormant egg organs, it will be Spring eggs, not Winter eggs, for you. But why wait on nature? You can speed up egg production—you can make your hens lay now by feeding

Dr. Hess Poultry Pan-a-ce-a

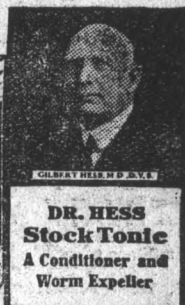
It contains *Nux Vomica* and *Quassia*, the best nerve, appetizing and digestive tonics known to the *Materia Medica*—tonics that promote a hen's digestion—tonics that tone up the dormant egg organs so that the proper amount of food goes to egg production, and not all to flesh, and fat, and laziness, when it's action, and eggs you want.

Pan-a-ce-a supplies the additional iron for the blood, which is essential to the speeding up process. It contains certain forms of lime that supply the needed material for making egg shells.

Dr. Hess Poultry Pan-a-ce-a insures a healthy, singing, laying, paying poultry flock, Winter as well as Summer.

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

B. T. P. C.

Spring Boars all sold. Have one Oct. 21st yearling boar, weight 425 lbs. as near perfect as any pig in Mich. Price \$125. Act quick. Gilts ready Jan. 1st, bred to a good son of the \$10,000 Harrison's Big Bob, none better in Mich. Priced reasonable. Come and see.
JOHN D. WILEY, Schoolcraft, Mich.

LTPC A FEW SPRING BOARS LEFT AT FARMERS' PRICES.
H. O. SWARTZ, Schoolcraft, Mich.

LARGE TYPE P. C. LARGEST IN MICH. VISIT my herd if looking for a boar pig that is a little bigger and better bred than you have been able to find, and satisfy your wants. Come and see the real big type both in herd boars and brood sows. Boars in service L's Big Orange Lord Clansman, Orange Price and L's Long Prospect. Expenses paid of not as represented. Prices reasonable.
W. E. LIVINGSTON, Parma, Mich.

LARGE TYPE P. C. SPRING BOARS and gilts now ready to ship. Also one Fall Yearling Boar and Fall Pigs. Clyde Fisher, St. Louis, Mich. R. R. 3.

WONDERLAND HERD

LARGE TYPE POLAND CHINAS Some cracking good spring boars and a few June sow pigs at private treaty. Free livery any time.
Wm. J. CLARKE
R No. 1 Eaton Rapids, Mich.

FOR SALE—LARGE TYPE POLAND China boars. April and May farrow. The farmer's kind at farmer's prices. F. M. Piggott & Son, Fowler, Mich.

OUTSTANDING BOARS FOR SALE

O. A. KING JOE 290831, sired by King Joe 251257, by King of Wonders 205757, by (Old) A Wonder 107653; Dam, Monarch 6rd 622512 by A Monarch 213293, by A Wonder 107353. He is bred by W. B. Wallace Bounceton, Mo. His individuality is equal to his pedigree, which a very critical breeder will have cause to admire. He stamps his get, in line with his ancestors, which fact makes him a breeding boar, worthy to go into a very select herd.

BUSTER HALFTON 298225, sired by Great Big Half Ton 201243, by Big Half Ton 217217, by Hillcroft Half Ton 172551; Dam, Mollie Buster 622612, one of the best and biggest sows ever sired by Giant Buster 240655. "The Epoch Maker," by Dishers Giant 240655. If you like the top notchers, this great boar has the blood in his pedigree. Come and look them over or write for my price. Be quick, for I have placed them to move in order to make room for a new boar I have ordered, to cross their get with. Look for classy stuff next spring.
O. A. BOONE, Blanchard, Mich.

A New Herd Boar

(his name) Big Bob Mastodon

sired by Caldwell Big Bob, champion of the world in 1917. His dam is Mastodon Josie; she is a daughter of A's Mastodon the Grand Champion at Iowa State Fair in 1917. Ready to ship boars.
(Come and see him.)
O. E. GARNANT, Eaton Rapids, Mich.

POLAND CHINAS I WAS AT ASHLEY, Ind., Nov. 6th and saw Jossie Giant sell for \$1,610. She is a litter mate to my Michigan Buster. Boars and gilts by him and also by Bob-O-Link.
O. L. WRIGHT, Jonesville, Mich.

LEONARD'S Big Type Poland China Boars, all ages. The kind that makes good. Call or write.
E. R. LEONARD, St. Louis, Mich.

DUROC

Duroc Opportunity

We are now booking orders for July and Sept. pigs cheap. Also March and April pigs of either sex. Shipped C. O. D.
EAGER, BROS., R 1 Howell, Mich.

PEACH HILL FARM

We are offering a few choice spring boars, of March and April farrow. They are of Protection and Col. breeding, out of prize winning stock. Prices reasonable. Write or come and see.
INWOOD BROS., Romeo, Mich.

DUROC BOARS OF SIZE, QUALITY and breeding, including several State Fair winners. Newton Barnhart, St. Johns, Mich.

READY FOR SERVICE

FOUR REGISTERED DUROC BOARS The boars will weigh 170 lbs. and are long bodied with good hams and shoulders. They are well grown and from a popular strain. Free from disease. Price crated, \$45 each.
H. E. BROWN, Breedsville, Mich.
Breeder of Reg. Holsteins and Durocs

DUROC JERSEY SWINE FOR SALE. YEAR-ling boars ready for service, spring boars, also yearling gilts open and bred for spring litters, to Panama Special 11th, a good son of Panama Special out of Orion Chief Bell 5th. Also fall boar pigs. Write for description and prices. Visitors always welcome.
THOS. UNDERHILL & SON, Salem, Mich.

DUROCS BOTH SEX FOR SALE, LAST OF
Mar. and first of April farrow. 1919.
Weighing around 175 to 200 lbs., priced from
\$50.00 to \$60.00 with pedigree.
H. G. KEESLER, Cassopolis, Mich., R 5

SPECIAL PRICES TO MOVE THEM QUICK.
Eight big growthy spring boars, will weigh 200
lbs. or better. Price \$50.
C. E. DAVIS & SON, Ashley, Mich.

DUROC BOARS FROM PRIZE
WINNING STOCK
ready for service. Geo. B. Smith, Addi-
son, Mich.

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

DUROC SPRING BOARS. ONLY A FEW
left. Priced at \$45 each and up.
Pedigree free. Also 2 registered Holstein year-
ling bulls at \$125 each.
MERLE H. GREEN, Ashley, Mich.

DUROC JERSEY BOAR PIGS.
Grandsons of Brookwater Cherry King or
Panama Special. \$20 at 8 weeks. Reg-
istered. E. E. Calkins, Ann Arbor, Mich.

FOR SALE—REGISTERED DUROC JERSEY
swine. Both sex. All ages. Rhode Island Red
Barred Rock and White Leghorn cockerels. 40 a.
and 80 acre farms. Easy terms.
W. U. BARNES, Wheeler, Mich.

FOR SALE REG. DUROC JERSEYS—GOOD,
big, rugged spring and fall pigs,
both sexes. Modern type and good quality. Write
for descriptions, pedigrees and prices. Better still,
come and see for yourself. Satisfaction guaran-
teed. F. Helms & Son, Davison, Mich.

PHILLIP'S PRIZE WINNING DUROCS FOR
sale—A few good boars of breeding age, also
a few good gilts, prices right, let me convince you.
Henry D. Phillips, Milan, Mich.

SIX CHOICE REGISTERED BOAR PIGS, LIT-
ter 10. Wonder and King Breeding, \$15 at
8 weeks. Ready Dec. 1. Honesty our motto.
AUSTIN BROS., Bloomingdale, Mich.

FOR SALE BIG TYPE DUROC JERSEYS—
one yearling boar sired by Brook-
water Tippy Orion No. 55421. 8 spring boars,
fine individuals. Fall pigs of either sex sired by
Cherry Premier 2nd No. 102819. Albert Eber-
sole, R. F. D. No. 8, Plymouth, Mich.

HYDE'S BIG TYPE DUROCS. 15 SPRING
boars for sale. Good ones, sired by Prize win-
ners. Priced right if taken soon. Call or write
HARRY L. HYDE, Ithaca Mich., R 1, Bell Phone

O. I. C.

Shadowland Farm

O. I. C.'s

Bred Gilts in May and June,
Booking orders for
Spring Pigs. Everything shipped C.O.D.
and registered in buyer's name. If
you want the best, write
J. CARL JEWETT, Mason, Mich.

O.I.C.'s I WILL PAY THE EXPENSES
RECORD IN BUYER'S NAME
AND SHIP O. O. D. EVERY
boar sold in Nov. and Dec. I have a few choice
O.I.C. gilts for the ones who are particular. My
entire herd is cholera immunized by double treat-
ment.
F. C. BURGESS, Mason, Mich., R 8.

FOR SALE O. I. C. BOAR, 15 MOS.
old weight about 500 lbs. One
of Crandell's Prize hogs sired by Abo 2nd.
Pedigree furnished. Mrs. E. M. Ebeling,
Alanson, Mich.

SPRING BOARS READY TO SHIP,
also bred Gilts and a few fall pigs. Some
of the best O. I. C. pigs, sired by Jumbo
Master No. 64687. All stock shipped C.
O. D. Joseph Van Etten, Clifford, Mich.

Mud-Way-Aush-Ka farm

offers O. I. C. pigs of May farrow. Also young
stock and mature breeders in White Wyandottes,
Barred Rocks, White Embden Geese and White
Runner ducks.
DIKE C. MILLER, Dryden, Mich.

SAGINAW VALLEY HERD OF O. I. C.
old swine won ex-
hibition prize at Saginaw Fair. Our herd boar,
C. C. Michigan Boy, was the largest hog of all
breeds shown. Pigs of this big type, prize win-
ning stock, registered free and shipped C. O. D.
JOHN GIBSON, Fosters, Mich., R. No. 2.

O I C'S—BIG TYPE SERVICEABLE
boars, summer farrowed boars.
Gilts, long bodied, short nosed, open or
bred.
G. P. ANDREWS, Dansville, Mich.

HAMPSHIRE

HAMPSHIRE Spring boars a few left. Fall
pigs of new blood lines now
ready. Bred Gilts in season.
JOHN W. SNYDER, St. John, Mich. R4.

HAMPSHIRE

of superior breeding and good quality. Will find
same at the home of Moses' Boy.
Spring boars all sold.
Fall pigs either sex now ready.
Bred gilts after Dec. 15.
GUS THOMAS, New Lothrop, Mich.

HAMPSHIRE, SPRING BOARS AND GILTS,
H \$35 while they last. Fall pigs \$15 at 8 weeks
old. Bred sows in season.
W. A. EASTWOOD, R 2, Chesaning, Mich.

BERKSHIRE

Big Growthy Berkshire Pigs
Registered. W. H. Every, Manchester, Mich.

FOR SALE BERKSHIRE BOARS
ready for service. I am booking orders
for my fall litters. Sired by Synthesizer's
Onward 2nd, write us your wants. A. A.
Pattullo, Becharville, Mich.

FOR SALE—REGISTERED BERKSHIRE GILTS
and boars. March and April farrow. Also
Aberdeen-Angus bull calves.
RUSSELL BROS., R 8, Merrill, Mich.

REGISTERED BERKSHIRE BOARS for sale,
farrowed Aug. 10, for \$30 each. Also 1 far-
rowed Mar. 23.
JOHN YOUNG, Breckenridge, Mich.

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

CHESTER WHITES

FARMERS INCREASE YOUR PROF-
its by raising pure bred Chester Whites.
Send orders now for fall pigs. Ralph Co-
sens, Levering, Mich.

CHESTER WHITES—A FEW MAY BOARS,
fall pigs in pairs or trios from most prominent
bloodlines at reasonable prices. Registered free.
F. W. Alexander, Vassar, Mich.

SHEEP
Registered Hampshire Sheep

Rams all SOLD—
A few choice bred Ewes
\$25—to—\$50 each
J. M. WILLIAMS, No. Adams, Mich.

BLACK TOP DELAINE SHEEP. 50
pure bred rams for sale. Newton &
Blank Hill Crest Farms, Perrinton,
Mich. Farm 4 miles straight south of
Middleton.

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

OXFORD DOWNS

I can spare a few registered ewes of any age.
O. M. YORK, Millington, Mich.

SHROPSHIRE & HAMPSHIRE
RAMS

In order to finish the ram trade quick-
ly I will give you your choice of a dozen
very good yearlings at \$35.00
KOPE-KON FARMS, Coldwater, Mich.
S. W. Wing, Prop

Hampshire Rams

Registered yearling rams weighing
up to 300 lbs. for sale. Also ram lambs.
A well built growthy lot. Satisfaction
guaranteed.

C. U. HAIRE.
West Branch, Michigan

FOR SALE 80 Registered Shropshire Rams.
40 Registered Shropshire Ewes.
Harry Potter & Son, Davison, Mich

FOR SALE: Improved Black Top De-
laine Merino Rams, Frank Rohrabacher,
Lalingsburg, Mich.

POULTRY

HOMESTEAD FARMS

Cockerels of strictly high quality—the best
we have ever offered—that will please you;
practical poultry true to type.
Barred Rocks, highly bred; White Rocks; S.
C. and R. C. rich dark plumage Reds; White
Orpingtons, fine type large birds; White Wyand-
ottes; S. C. Black Minorcas; S. C. and R. C.
White and S. C. Brown Leghorns; Anconas.
We will send you our Fall Circular and Price
List.

STATE FARMS ASSOCIATION,
Kalamazoo, Michigan.

LEGHORN

I HAVE FOR SALE—A few Hasley Strain Buff
Leghorns, Cockerels and Pullets and a few par-
tridge Wyandotte Cockerels. Price, \$1.50 to \$3.
E. B. HOLLENBECK, Athens, Mich.

FOR SALE THOROUGHERED R. O. BROWN
Leghorn Cockerels. Price \$1.50.
Also one year old hens \$1.25, great laying strain.
Wm. CHEESEMAN, Yalo, Mich., R 2

S. C. WHITE LEGHORN COCKERELS, ENG-
lish strain. Sired by Cock 296 egg record.
Mrs. A. J. Gordon, R 8, Derr, Mich.

R C BROWN LEGHORN COCKERELS, Sired
by a Madison Sq. winner. Large, vigor-
ous birds. \$2 and up. Quality guaranteed.
Flemish Giant Rabbits that are giants.
E. E. HIMEBAUGH, Coldwater, Mich.

RHODE ISLAND REDS

WHITTAKER'S R. I. REDS. BOTH COMBS.
Bred for color and egg. Choice, farm raised
cockers at reasonable prices. Day old chicks.
Order now for early spring delivery. Write for
prices.
INTERLAKES FARM, Box 4, Lawrence, Mich.

S. C. RHODE ISLAND RED COCKERELS
from good laying hens. Price \$3.50.
W. G. HUBER, Gladwin, Mich.

S C REDS, LARGE VIGOROUS COCKERELS
from a good laying strain, \$3 and \$5 each.
F. F. WHITMYER, Williamston, Mich.

PLYMOUTH ROCKS

BARRED ROCK COCKERELS. BRED FROM
great layers.
W. C. COFFMAN, Benton, Harbor, Mich., R 8

JOHN'S BIG BEAUTIFUL BARRED ROCKS
are hatched, good layers, grow quick, and
on approval. Price \$4 to \$6 each. Photos.
Circulars. John Nathan, Clare, Mich.

BRANMAS

FOR SALE—PURE BRED LIGHT BRANMA
Cockerels, also few yearling hens. \$3 to \$5.
Satisfaction guaranteed. Eggs in season.
MRS. E. S. WILLITS, R 1, Reading, Mich.

ORPINGTONS

S. C. W. ORPINGTON COCKERELS, \$4
each. White Guineas, \$2.
O. ARNOLD, Coleman, Mich.

For Sick Chickens

Preventive and curative of colds, roup, canker, swelled
head, sore head, chicken pox, limber neck, sour crop, chol-
era, bowel trouble, etc. Mrs. T. A. Morley of Galien, Mich.,
says: "Have used Germozone 17 yrs. for chickens and could
not get along without it." Geo. F. Vickerman, Rockdale,
N. Y., says: "Have used Germozone 12 years; the best for
bowel troubles I ever found." Frank Suka, Chicago, Ill.,
writes: "I have lost but 1 pigeon and no chickens in the 3 yrs.
I have been using Germozone." C. O. Petrain, Moline, Ill.:
"I never had a sick chick all last season." Bernard Horn-
ing, Kirksville, Mo., says: "Cured my puniest chicks this
spring." Ralph Wurst, Erie, Pa., says: "Not a case of white
diarrhea in 3 yrs. I raise over a thousand a year." Good
also for rabbits, birds, pet stock.
GERMOZONE is sold generally at drug and seed stores.
Don't risk a substitute. We mail from Omaha postpaid in
new 25c, 75c and \$1.50 sizes. Poultry books free.
GEO. N. LEE CO., Dept. 416 OMAHA, NEB.

FOR BEST NET RESULTS

SHIP TO
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Enough Said Detroit, Mich.

---poultry breeders!

Start your advertising NOW, whether you
have anything to sell right now or not, get
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WHERE YOU KNOW IT WILL PAY!

Write MICHIGAN BUSINESS FARMING, Breeders' Directory,
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for special rates, or better still send copy, we
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America's
Pioneer
Dog Medicines

BOOK ON DOG DISEASES And How to Feed

Mailed free to any address by
the Author
H. CLAY GLOVER CO., Inc.,
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Clean Cut Business Farmers and Stockmen
wanted as general and local agents, in coun-
ties and townships where we are not now
represented. Write or call at once.
(The Tin Tin Line for Centerville Animal Life.)
PARSONS CHEMICAL WORKS, Leona Park
Experiment Station, Grand Lodge, Michigan.

BREEDERS ATTENTION!

If you are planning on a sale this fall, write us now and
CLAIM THE DATE!

This service is free to the live stock industry in Michigan
to avoid conflicting sale dates

LET "BUSINESS FARMING" CLAIM YOUR DATE!

ANCONAS
ANACONA COCKERELS FOR SALE
\$2 EACH
JOHN YOUNG, Breckenridge, Mich.

DUCKS AND GESE
WHITE PERIN DUCKS AND WHITE
CHINESE GESE—MRS. CLAUDIA
BETTS, HILLSDALE, MICH.

TURKEYS
TURKEYS MAMMOTH BRONZE. EARLY
hatched. Big boned, fine color and marking.
Write for prices. Mrs. Jay Harwood, Ionia, Mich.

FOR SALE Pure bred Mammoth Bronze Tur-
keys, Hugo strain, hens \$5, Tom, \$10.
Fall price.
MRS. WALTER DILLMAN, R 8, Dowagiac, Mich.

PET STOCK

BEAGLE HARES, CHOICE STOCK, 3 AND 4
months old, also S. C. Ancona Cockerels. Write
for prices. Sheridan Rabbits, R 8, Sheridan, Mich.

Any subscriber who happens
some week to receive an extra
copy of M. B. F. can "boost the
cause" if he will hand it to a
neighbor, who may not be a reg-
ular reader.

Get More Eggs; Save Feed

Egg prices are high and going sky-
high—higher than ever before. Those
who know how and what to feed to
get the most eggs all winter and
spring will reap big profits. Improper
feeding methods will result in fewer
eggs, wasted feed—loss and disap-
pointment. Prof. T. E. Quisenberry,
Director-in-Chief of the great Ameri-
can Egg Laying Contest, and official-
ly recognized as one of the world's
greatest poultry authorities, has just
completed a 16-page bulletin on
"How to Get More Eggs and Save
Feed." He will mail this bulletin to
readers of Michigan Business Farm-
ing who will write him without de-
lay. Send no money. Over a thou-
sand hens under Quisenberry's di-
rection laid from 200 to 804 eggs
each per year. He just finished mak-
ing a profit of \$6.15 per hen in nine
months on commercial eggs from one
large flock. Write him today for his
free bulletin, addressing care of Am-
erican Poultry School, Dept. 1391,
Kansas City, Mo.—(Adv.)

160 HENS- 1500 EGGS

LAST winter eggs sold as high as \$1.00 a dozen. As America's foremost poultry expert I predict that this winter eggs will go even higher. Poultry raisers are going to reap tremendous profits. You, too, can make sure of a big egg yield by giving your hens a few cents' worth "More Eggs tonic."

This product has been tried, tested and proven by 400,000 chicken raisers. It is acknowledged the best and most successful egg producer on the market today. *Guaranteed by a million dollar bank.* Every day that you don't use it means that you are losing money. Don't delay. Start with a few cents' worth of "More Eggs" tonic now.

Got 117 Eggs Instead of 3

That's the experience of one poultry raiser who wrote me. Mrs. Myrtle Ice of Boston, Ky., writes: "More Eggs" Tonic is a great Godsend. I was only getting 12 eggs a day and am now getting 50 a day." 400,000 chicken raisers have used this wonderful tonic. Here are a few letters of thousands received:

"160 Hens—125 Dozen Eggs"

E. J. Reefer: I have fed two boxes of More Eggs Tonic to my hens and I think my hens have broken the record for eggs. I have 160 White Leghorns and from March 25 to April 15 I sold 125 dozen eggs.
Waverly, Mo.
MRS. H. M. PATTON.

"15 Hens—310 Eggs"

E. J. Reefer: I used your More Egg Tonic and from December 1 to February 1, from 15 hens, I got 310 eggs. Your remedies are just what you claim them to be.
Turner Falls, Mass.
MRS. C. R. STOUTON.

"More Than Doubled In Eggs"

E. J. Reefer: I am very much pleased with your "More Eggs" Tonic. My hens have more than doubled up in their eggs.
Mendon, Ill.
L. D. NICHOLS.

"48 Dozen in One Week"

Dear Mr. Reefer: I can't express how much I have been benefited by answering your ads. I've got more eggs than I ever did. I've sold 42 1/2 dozen eggs last week, set 4 dozen, ate some and had 1 1/2 dozen left.
Woodbury, Tenn.
From your friend, MRS. LENA McBRON.

"Selling Eggs Now"

E. J. Reefer: I was not getting an egg when I began the use of the "More Eggs" Tonic. Now I am selling eggs.
Hebo, Oregon
MRS. J. F. BRINK.

"Gets Winter Eggs"

E. J. Reefer: It is the first time I got so many eggs in winter. When I began using "More Eggs" I was only getting from 1 to 3 eggs per day and now I am getting 11 to 13 eggs per day.
Wilburton, Kan.
MRS. JULIA GOODEN.

18 Hens—12 Eggs a Day

E. J. Reefer: Six weeks ago I began giving "More Eggs" Tonic and I was not getting an egg from 18 hens, and now I am getting 10 to 12 every day. You can quote me as saying that it is the best chicken tonic in the world.
Luray, Va.
R. L. REYNOLDS.

"37 Eggs a Day"

E. J. Reefer: That More Eggs Tonic is simply grand. When I started using it they did not lay at all, now I get 37 eggs a day.
Elwood, Indiana
EDGAR E. J. LINNIGER.

"Increases from 8 to 36 Eggs a Day"

E. J. Reefer: I am well pleased with your More Eggs Tonic. I was only getting 8 or 9 eggs, now I am getting 36 dozen a day. Yours truly, WM. SCHMIDT.
Shady Bend, Kansas.

"Doubles Egg Production"

E. J. Reefer: I have been using More Eggs Tonic 3 or 4 weeks and must say it is fine. My egg production has been doubled.
Paradise, Texas
J. C. KOENIGER.

"Increase from 2 to 45 Eggs a Day"

Reefer's Hatchery: Since I began the use of your More Eggs Tonic 2 weeks ago I am getting 45 eggs a day, and before I was only getting 2 or 3 a day.
Derby, Iowa
DORA PHILLIPS.

More Eggs Makes Layers Out of Loafers!

This is a concentrated tonic, not a food. It consists of every element that goes toward the making of more eggs. A perfect regulator, aids digestion, stimulates egg production and builds firm bones and strong muscles. The foremost authorities in America and poultry raisers from every state endorse Reefer's "More Eggs" tonic.

Results Guaranteed!

Here is the facsimile of the guarantee of a million dollar bank that "More Eggs" will produce results. The million-dollar bank guarantees to refund your money if you are not satisfied. You run no risk. So don't delay. Every day you wait you are losing money.



**A Million Dollar Bank
Guarantee**
Absolute Satisfaction or Money Back

Merchants Bank
Kansas City, Mo.
Resources—over \$1,000,000.00

TO WHOM IT MAY CONCERN:

This is to certify that Mr. E. J. Reefer has deposited in this Bank Ten Thousand Dollars. Out of this special fund this Bank is authorized and does hereby guarantee to return to any of Mr. Reefer's customers the total amount of their purchases from him, if the goods purchased are not entirely satisfactory in every way or if Mr. Reefer fails to do as he agrees.

Very truly yours,
G. A. Simpson
Vice President.

E. J. Reefer, Poultry Expert
4209 Reefer Bldg., Kansas City, Mo.

Send me one full-size package of "More Eggs." Send this with an absolute guarantee that you will refund my money if this tonic is not satisfactory in every way.
I enclose \$1.00 (a dollar bill, P. O. money order, or your private check—just as you please).

Name _____
Address _____

Order Today

Every day counts! Start your hens making money for you right away. Send the coupon today for a full-size package of "More Eggs" Tonic. You run absolutely no risk. A million dollar bank will refund instantly if you are not entirely satisfied. Just put a dollar bill in with the coupon and mail today. Profit by the experience of a man who has himself made a fortune out of the poultry business, and is helping others to do the same. **Send for this guaranteed egg producer and profit maker TODAY.**

E. J. Reefer
Backed By a Million Dollars!

4209 Reefer Bldg. Kansas City, Mo.