

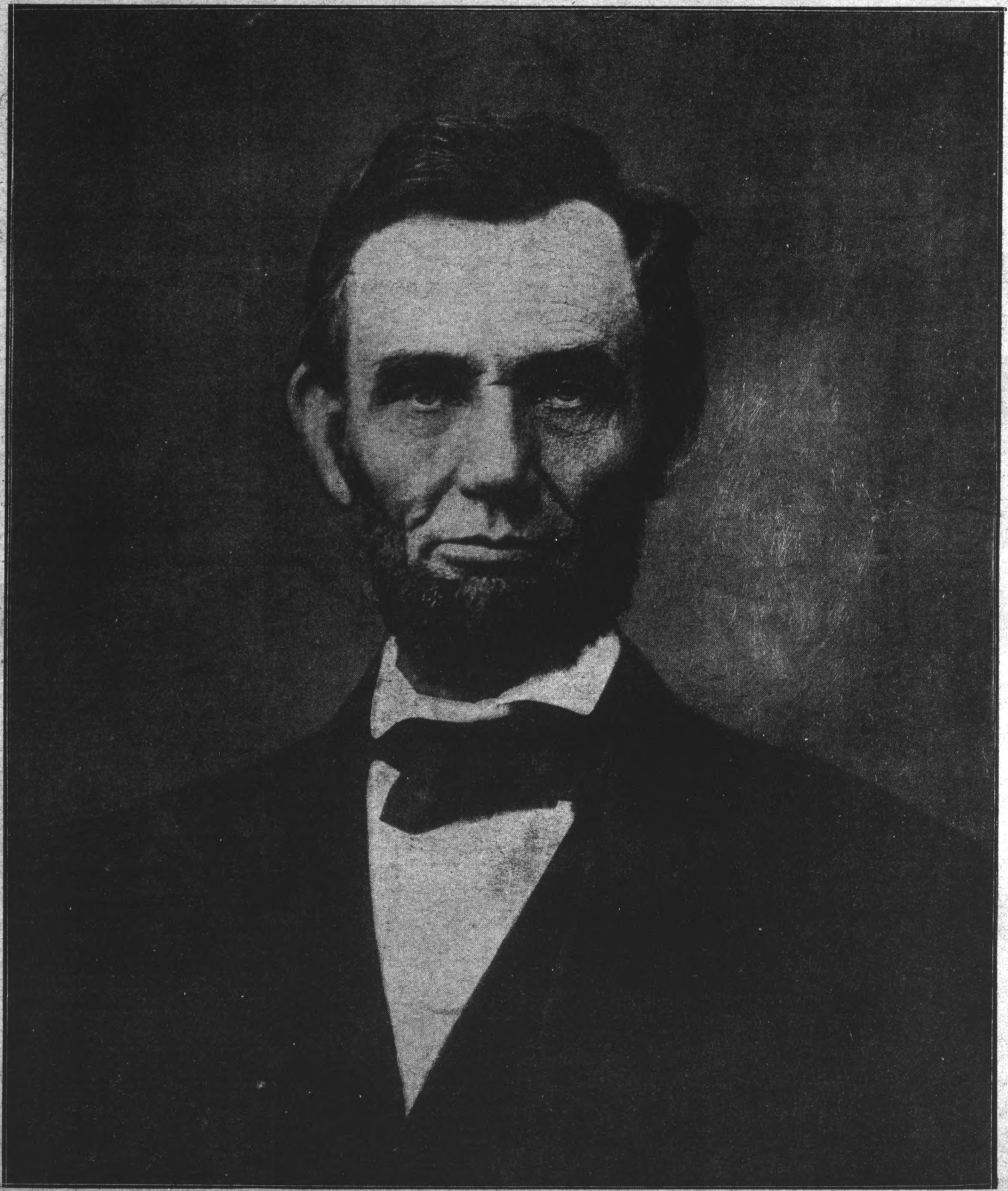
# MICHIGAN FARMER

AND LIVE STOCK JOURNAL  
PUBLISHED WEEKLY. ESTABLISHED 1843.

VOL. CLX. No. 6  
Whole Number 4239

DETROIT, MICH., SATURDAY, FEBRUARY 10, 1923

ONE YEAR \$1.00  
FIVE YEARS \$3.00





Published Weekly Established 1843 Copyright 1923

**The Lawrence Publishing Co.**  
Editors and Proprietors

1632 LaFayette Boulevard Detroit, Michigan  
Telephone Cherry 8384

NEW YORK OFFICE 501 Fifth Ave.  
CHICAGO OFFICE 199 No. Dearborn St.  
CLEVELAND OFFICE 1011-1013 Oregon Ave., N. E.  
PHILADELPHIA OFFICE 261-263 South Third St.

ARTHUR CAPPER ..... President  
MARCO MORROW ..... Vice-President  
PAUL LAWRENCE ..... Vice-President  
F. H. NANCE ..... Secretary

I. R. WATERBURY ..... Associate Editors  
BURT WERMUTH ..... Associate Editors  
FRANK A. WILKEN ..... Associate Editors  
ILA A. LEONARD ..... Field Editor  
P. F. POPE ..... Field Editor

I. R. WATERBURY ..... Business Manager

**TERMS OF SUBSCRIPTION**  
One Year, 52 issues ..... \$1.00  
Three Years, 156 issues ..... \$2.00  
Five Years, 260 issues ..... \$3.00  
All Sent Postpaid  
Canadian subscription 50c a year extra for postage

**RATES OF ADVERTISING**  
55 cents per line agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement entered as Second Class Matter at the Post Office at Detroit, Michigan, Under the Act of March 3, 1879, tisement inserted for less than \$1.65 each insertion. No objectionable advertisements inserted at any time.

Member Audit Bureau of Circulation

VOLUME CLX NUMBER SIX

DETROIT, FEBRUARY 10, 1923

## CURRENT COMMENT

### THE MICHIGAN FARMER SAYS:

Ambition without energy is like a "Henry" without gas.

One encouraging thing about the future is the amount of it.

Flat pocketbooks, like empty cattle racks, can best be filled by using strong backs.

One of the world's greatest needs is quality in men and in the things they produce.

There is one quality rubber has which men should acquire—a lot of give and take.

### Production Costs Again

A PROVEN principle again asserts itself. The world has for a period back apparently forgotten to give heed to production costs, and especially on the farms have we been thinking that more efficient marketing, through cooperation, would solve all our economical problems.

Now comes along our great economists, men like Dr. David Friday, the most talked of man in Michigan today, and Dr. G. F. Warren, the nation's, yes, the world's leading student of farm management problems, to tell us that we can not advance by taking profits out of the air. Even if we should succeed in getting all the profits from the other fellow this year, next year he would be unable to buy our products. There would then be an overproduction, and hence the products would be a drug on the market. This principle applies to other industries as well as to farming. Their very prosperity would ultimately mean their undoing.

These things are being brought to our attention very forcibly these days and the old established principle that, the man who produces at the lowest unit cost is the man who gets the greatest gain, is again being placed in the forefront. We should lose no time in applying it to our farms.

### Our New Wealth

ALL new wealth comes from the earth or from labor applied to the products of the earth. If in getting those products from the earth we spend as much as they are worth, no new wealth has been added, or if in applying labor to

these products to change them into other forms for the use of man, the cost of the labor equals the increased value of the product, no new wealth has been created, and the world stands right where it did before.

If, however, we can reduce the cost per bushel, per ton, or per pound of wheat, of beets or of butter, even to a slight degree, we stand to gain just to that extent and if by the more efficient use of our labor we can increase the returns therefrom, both ourselves and the world are that much better off. Our efforts along this line are therefore fundamental to permanent prosperity.

While our attention must largely be centered around our own business, we should not forget that we are but a part of the world-sized institution of civilization, and all interdependent. Is it not plainly evident then, that it is our efforts to reduce costs that add new wealth to the world and that only by adding new wealth to the world can we, as individual farmers, laborers, or manufacturers expect to permanently prosper.

### Learning The Truth

A MAN in attendance at the big Farmers' Week sessions at the M. A. C. last week, resented some statements that were made by one of the speakers. This speaker had had every available means for getting facts on his subject. The man who criticized did not. The latter objected because the thing said was unpleasant.

There may be some advantage in not knowing all our dangers. Ignorance is bliss, we say. Things we do not know, do not hurt us. Should it be our good luck to go along our way and, by mere chance, miss the pitfalls and the dangers near us, then nothing particularly is lost by having definite information about the way we traveled. We would, however, have taken less chance by knowing of these dangers.

We make real advancement only by learning the truth. If, in our ignorance, we violate the laws of living, we, sooner or later, suffer for our transgression. Examples are too numerous in the life of every person to require illustration. And the laws of economics are just as certain in their action as are the laws of health.

It is our business to learn these laws. We should welcome light from whatever source, if that light reveals to us additional knowledge about our business, or our living.

Rational beings can make progress only when they have facts upon which to estimate the future.

### Paper and Ink

PAPER is made of wood, rags, straw, etc., dissolved with sulphuric acid and made into a soup, then rolled into sheets. Ink is made of certain salts of iron, or even soot and boiled oil. In themselves they are always paper and ink, beautiful products sometimes at that. When we put ink on paper with brush or pen it means nothing unless we put thought into their use. Then they become things which make us laugh or cry, wise or foolish. Paper, ink and thought has preserved for us the records of the human race and the wisdom of the world, and has brought to us one of the greatest and worthiest enjoyments of life. Paper and ink alone have done nothing for us.

And so with farming. We have the soil, the tools, and the seed. We can put the seed in the soil and use the tools to scratch around with, and we sometimes call it farming. But it is not farming until we mixed with these essentials our thoughts and ideals.

When we do that, farming becomes to us a profitable and enjoyable thing.

Perhaps the reason so many are failures in farming is because too many use these tools without thought, without anticipation, without ideals—because they are just paper and ink farmers.

To get any enjoyment out of paper and ink, thoughts and human impulses must be injected into their use. To get any enjoyment out of life and farming, thoughts, hopes, appreciations and ideals must be injected into them.

We live life here but once. Let's get the most out of it by being something else than paper-and-ink liver of life and farmers of farming.

### The Unearned Increment

MOST of us will look at the title of this editorial and say, "Whatever that is." But men versed in financial matters tell us that it means the unearned increase in value.

We farmers can hardly realize that there is such a thing, especially as we often earn more than we get. But such things do happen and some have been made rich through no efforts of their own.

It seems that since Germany started things going several years ago there has been a lot of this unearned increment floating around. People have been made rich through war and post-war profits and wages. However, being unearned it went as fast as it came, and many are just as bad off now as they were before the thing started. But things indicate that we are again entering at least a short get-rich-quick period.

And we just wonder if the fact that the carpenters are going to get \$1.15 per hour, the plumbers \$12 a day, and the plasterers making as much in a day as many do in a week, doesn't indicate there isn't some unearned increment somewhere?

Where is it going to stop? And who pays the bill? The first we can not answer, but in reply to the second, we can say that we all pay the bill. The other day an eighteen-dollar-a-day foreman decried the fact that he had to pay sixteen dollars for a pair of shoes. As the Jew says, "He should worry about the high cost of living." He is probably working half as hard as he used to and is getting twice as much.

All this increase would be O. K. if we all enjoyed it. But it looks as if farmers and some office help were going to get the full benefit of increased prices but not the benefit of increased wages to pay the increased prices.

If the platter is heaping full it should be passed around so we all can get a good helping of this unearned increment. But it is just our notion that things will not be satisfactory, or normal, until more people earn what they get.

### Shall We Let Them Go

SOME time ago two bandits boarded a bus, and, after riding some distance, robbed and murdered the driver. Clues were few, and for some time the public despaired of the capture of the guilty men. Today, however, they are both serving life sentences for the crime.

For apprehending the robber and murderer, we have political organization and machinery. In our statute books, many crimes are defined and officers are designated to bring those charged with these particular crimes into court, where guilt is determined.

But in our midst we have a foe who takes away life and yet his deed is not defined by our lawmakers. This foe is free to carry on his damaging work. He specially delights in robbing the infant and growing child of the food

elements which make for strong, healthy minds and bodies.

We speak of filled milk and of him who manufactures and merchandises it. Every unbiased food expert testifies to the inadequacy of filled milk for the young. Growing children, to attain normal growth, must have pure milk with the animal fat in it. Filled milk is skim-milk with vegetable fat substituted for the butter-fat. The ordinary person cannot distinguish one from the other.

The health of our people is at stake. Because filled milk can be easily substituted for true milk and great profits realized to the vendors, the situation is alarming. The question is, "shall Michigan follow the lead of other states and outlaw this robber of life, and authorize our officials to apprehend those who traffic in it, or shall we let them go?"

### Cooin'

WEBSTER'S novel what I am reading in, says cooin' is makin' a low sound like pigeons. Now, I guess Noah is right, 'cause I've watched pigeons and they sure kin coo.

Pigeons is ladies and gentlemen. The lady pigeon is shy and modest and nice, like the ladies you read about in the stories, but you don't see often on the streets. And the man pigeon is a regular ladies' man. He spends most of his time throwin' out his chest showin' the lady how big he is, and is always bowin' and talkin' to her "sweet and low," like the song says.



It seems to me that we should have a law what makes it necessary for every family to have

pigeons so they kin learn how to act like ladies and gentlemen.

Now, Mr. Pigeon just keeps on talkin' so sweet and low that afterwards Miss Pigeon begins to believe what he says and she does what you call, fall for him.

Now, men folks do this cooin' stuff, too. Most every one tries it once in a while, and sometimes it works. For inst., there's Joe Weber what cooded to Mary Smith for nearly ten years and at last she wanted to know how he looked when he acted differunt, so she married him. He did act differunt; he stopped cooin'.

Now, that's where there's a difference between men and pigeons. Mr. Pigeon keeps right on cooin' after he is married, but most men change from cooin' to booin' after they get married. I kin remember years ago I used to coo by the fireside, now I snooze by the fireside. Both seems like they is enjoyable at their proper times.

Now, there's another kind of cooin' what's got the world agoin'. A French doctor has got everybody cooin' to themselves that "every day, in every way, I'm gettin' better and better." This Dr. Coue says if you say it often enough to yourself you'll begin to believe it. I guess he's right.

For inst., Sophie didn't like me much in our early encounters, but I just kept right on cooin' to her that every day I was better and better, and after a while she believed it enough to marry me. I ain't asked her lately if she believes it yet or not, but if I kin fool her into believin' it by sayin' it often enough, I sure kin do the same to myself, 'cause Sophie is awful hard to convince. Seems like if a fellow tries hard enough he kin make himself believe himself after awhile. So, I say to Dr. Coue, just keep up your cooin', and you'll get the whole world to believin' you!

HY SYCKLE.

# Certified Seed Potatoes for Michigan

*Michigan Certified Seed Will Give a Better Yield of Better Quality Potatoes*

**H**IGH quality seed is one of the most essential factors in successful potato growing and is one that is the least appreciated by many growers. Maximum results from systematic crop rotation, careful cultivation, thorough spraying, etc., can not be secured if an inferior grade of seed is used.

Operations involved in potato growing are expensive. Investigations conducted by the Farm Management Department of the Michigan Agricultural College in 1921 showed that the average cost of production on the 732 acres under observation was \$54 per acre. The 1921 crop report for Michigan gives the average yield per acre for potatoes over a fifty-six-year period as eighty-six bushels, while the average price received per bushel during this period was fifty-two cents. A little study of these figures makes it very evident that growers can not produce potatoes profitably if they get only "average yields." They must get larger yields that will aid in reducing the cost of production per bushel and will make for more efficient and more economical production.

Poor quality seed is largely responsible for the low average yield of potatoes in this state. In order to better the average yield and raise the standard of potato production in Michigan the work of inspecting and certifying seed potatoes was begun in 1920 by the cooperative efforts of the Michigan Agricultural College and the Michigan Potato Producers' Association. The object of this work was to make available to Michigan potato growers seed that was comparatively free from disease and varietal mixture and that was produced from the high-yielding strains.

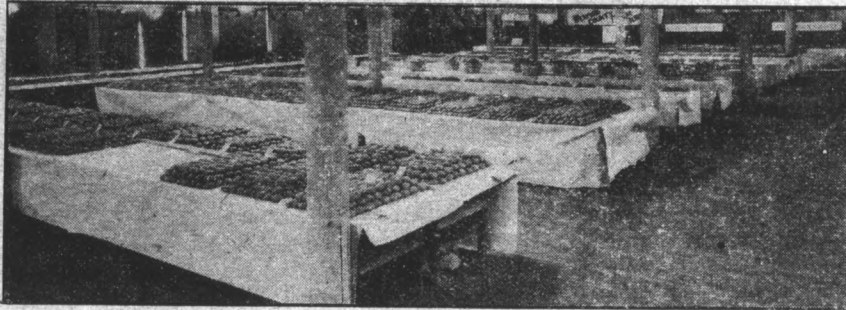
Rigid requirements were made of those who applied for the inspection and certification service. Some of these requirements were the planting of high-grade seed; seed treatment

with corrosive sublimate; systematic crop rotation; thorough high-pressure spraying with Bordeaux and arsenicals and the constant improvement of their own seed by means of hill selection.

All fields listed for certification were inspected at least twice during the growing season. These inspections being made by men who were well trained in potato diseases and practical potato culture. Fields showing varietal

called "running out" of potatoes. It is quite common to find fields planted with ordinary seed that show from twenty to seventy per cent of the plants, dwarfed or having rolled or mottled leaves indicating that they are victims of mosaic or leaf-roll. Such plants generally produce a very poor yield of inferior quality potatoes.

Fields listed for inspection that show more than two per cent of mosaic or leaf-roll are disqualified. All



Michigan Certified Seed Potatoes Make as Good Showing as Any in Country.

mixture, poor cultural conditions or serious diseases were disqualified. The detection of diseases is one of the most important phases of the potato inspection system. Growers do not realize the big part played by diseases in reducing yields. In 1921 it was estimated that the potato yield of Michigan was reduced thirty-five per cent by diseases. Some diseases, such as late blight, early blight and tip-burn can be controlled by spraying. Scab, black scurf and black leg can be very largely controlled by seed-treatment, but there are very serious diseases that can be controlled only by planting disease-free seed. These diseases are mosaic, leaf-roll, and spindling sprout. Each year they cause enormous losses. These are the troubles that are most responsible for the so-

fields that pass the inspection are very carefully rogued, that is, the fields are gone over, row by row, and all hills that are off-type or that show disease symptoms are removed.

The standards maintained in the inspection and certification work are very high. Approximately twenty-five per cent of the fields listed for inspection in 1922 did not come up to the standard and were disqualified.

A bin inspection is made of all the stock that passes the field inspections. In order to pass the bin inspection the potatoes must be true to type, comparatively smooth and free from blemishes, and serious mechanical injuries. Stocks showing any varietal mixtures or any late blight are disqualified. The tolerance allowed for scab and black leaf scurf is ten per cent for each.

If the potatoes pass the bin inspection they are certified and the grower receives a certificate of inspection issued by the Michigan Potato Producers' Association.

All potatoes offered for sale as certified seed must be carefully graded over a one and seven-eighths-inch mesh screen. They must be placed in new sacks containing 150 pounds. Each sack is sealed with a lead and wire seal which bears the official green tag of the Michigan Potato Producers' Association. The tag gives the name and address of the grower, his certificate number and the name of the variety.

Carlot shipments of the Michigan certified seed potatoes are inspected at time of loading, by an official inspector of the Michigan Potato Producers' Association. This inspection insures that only the carefully graded, high-quality potatoes are sold as certified seed.

### Results Secured with Michigan Certified Seed Potatoes.

The success of the potato certification work depends upon the results secured by the buyer of the certified seed. Complete records are kept showing the origin and destination of all certified seed potato shipments. At the end of each growing season information is obtained from the purchasers as to the quality, yield, percentage of disease of the crop grown from Michigan certified seed.

Accurate data was thus secured on 57,000 bushels of the 1921 seed crop, which amount was approximately seventy-two per cent of the certified seed sold in the season 1921-1922. The conclusion drawn from the careful study of the data was that the Michigan stock was remarkably free from disease and that it gave very satisfactory yields. In many cases growers compared the Michigan certified seed with seed of their own, or seed from other courses.

(Continued on page 184).

# More Pears for Western Michigan

*Observations Show that Ideal Conditions Prevail for Pear Growing*

By Stanley Johnston

*Supt. South Haven Experiment Station*

**R**ECENT government reports show that Michigan ranks a poor fifth among the pear-producing states of the country. In all 17,722,000 bushels were produced this past season in the United States. The leading states rank as follows:

	Bushels.
California	5,000,000
New York	2,800,000
Washington	1,760,000
Oregon	935,000
Michigan	672,000

New Jersey, Pennsylvania, Ohio, Missouri and Illinois all produced about a half-million bushels each. Michigan outranks these states by only a small margin.

It is very hard for some horticultural experts to understand why Michigan is not nearer the top among the pear-producing states. Prof. C. E. Lewis, an observer of wide experience, has emphasized this point more than once. During the horticultural society tour last summer he was very much impressed with our possibilities in raising a large amount of the higher quality pears.

Professor Reimer, of the Experiment Station, at Talent, Oregon, who is one of the best authorities in the country on pears, and particularly on pear blight, visited the South Haven Experiment Station in October. After going over the pear situation rather carefully and talking with some of our best growers of pears he said that in his

opinion western Michigan was splendidly endowed by nature for the raising of pears.

These experts of broad experience and other investigators and growers who have traveled through the pear-growing regions of the west are almost unanimous in the opinion that we have less blight in western Michigan than practically any other district they have been in. They also agree that a more consistent program of blight control must be followed out before we can

hope to get the best results, even though our particular section is more favorably endowed by nature. By far too many methods are being used at the present time in fighting blight. In fact, it is almost impossible to find two growers who will agree entirely on the subject.

There is good reason to believe that before long a definite program of blight control will be worked out and given to the growers, which at least the greater part of them will follow

out consistently. Then with heavier plantings and with more attention being paid to the marketing of pears—sending them out in boxes and fancier packages—western Michigan should leave its present position of fifth and move on up the line.

### Pear Varieties.

Pear plantings are being largely confined at the present time to the varieties recommended by the State Horticultural Society, namely: Bartlett, Clapp's Favorite, Seckel, Howell and Bosc.

Clapp's Favorite is a splendid pear. It is acceptable to a high degree on the market. It produces abundantly and is a vigorous grower. However, it blights so badly that the growers are afraid to plant it as a rule. Probably Clapp's is the hardest hit of any standard variety by blight. It ripens about ten days ahead of the Bartlett.

Bartlett is the most generally grown and probably the best known pear in the state. It is a vigorous grower, a good producer, and is well-liked, both for shipping and canning. The canning factories like both the Clapp's and the Bartlett because they are of high quality and can up perfectly white. They never turn pink after canning as some varieties do—for instance, the Flemish Beauty. Bartlett blights in a varying degree. In some cases it is badly attacked while in oth-

(Continued on page 180).



Prof. Spragg, Plant Expert at M. A. C., Showing His New Creations.

# Senator Capper's Washington Letter

**D**ESPITE his disparaging remarks about congress, and especially middle western and western members, Sir Stanley Baldwin, British chancellor of the exchequer, and the British cabinet, have accepted the American terms for a settlement of Great Britain's nearly \$5,000,000,000 debt to American taxpayers.

President Harding is expected to appear before congress to outline officially the benefits of and to urge approval of the settlement.

Unless obtrusive tactics are adopted by some congressmen and senators the agreement will be approved, but the task would have been easier had not Mr. Baldwin seen fit to indulge in unnecessary and unjustifiable complaint.

The debt has gotten upon American nerves, as a matter of fact, but it has done so because of the continuous impression in England and continental Europe that the United States is a "land of milk and honey" whose residents have no appreciation of the value of a dollar.

Nearly ten billion dollars of money obtained through Liberty Bond issues were loaned to European nations during the war. The United States at no time had any thought that it was giv-

ing this money to Europe. It refuses to think so now.

But Europe seems to think so, and the truth is that European nations literally want to play with us for the proverbial easy mark.

Some influential English taxpayers are no exception.

Unless, however, the agreement is approved there is the possibility that England, despite the pledges of some of its responsible officials, will indefinitely delay further payments.

This will be making even worse a bad bargain.

It is better for the United States to collect annually interest on England's debt—even though at a reduced rate—and look forward to payments on the principal than to face the future with no assurance of payment.

For the coming fiscal year American taxpayers have been assessed \$950,000,000 to pay interest on the bonds issued during the war.

Any substantial payments by England will greatly relieve this burden.

This is well worth remembering.

## Railroad Managers Might Look Ahead.

Railroad managers and bankers who dictate the policies of these managers might do well to read carefully

the remarkable speech made in Philadelphia recently by James Couzens, junior republican senator from Michigan.

Government ownership, in his opinion, is the only solution of present railroad difficulties.

Federal ownership, Senator Couzens explains, does not necessarily mean government operation but government control through regulation and management.

Heading off criticism he points out that interference from so-called "politicians at Washington" is now exemplified in a worse degree by the "interference of bankers who must get their rake-off regardless of public service or the treatment of the men who operate the railroads."

Mind you, this is not William Gibbs McAdoo speaking in defense of what he did during the war. It is an outstanding republican who as mayor of Detroit demonstrated that the municipality can operate its street car system and give the public better service at less money than private owners.

Senator Couzens emphasizes that government ownership will guarantee efficiency and service to the public at less cost—neither of which the public is now getting.

Great Britain has just consolidated all of the railroads of England, Wales, and Scotland into four great systems. Eighteen large and many small lines were included.

Cables declare that all Britain—the public, the railroad workers and the operators—is lauding the new law. It is claimed to be the most enlightened and progressive railroad bill ever authorized by a modern government.

The English plan eliminates wasteful competition—cost of which is paid by the public—and gives control so as to provide economy and better service.

In the meantime the patience of the American farmer and all other shippers is about exhausted. Freight rates continue high and service gets worse.

Unless early relief comes the American public, in self defense, will be forced to adopt something like the English plan—or seriously consider what Senator Couzens advocates.

Transportation will be the biggest question in the next congress. It is certain congress will of a necessity probe deep into the railroad problem to find a solution.

*Arthur Capper*

WASHINGTON, D. C.

## Comments from the State Capital

### By Our Lansing Correspondent

**A**LTHOUGH a proposal for a constitutional amendment to limit legislative sessions to ninety days has been introduced, there is little likelihood of a short session this year. Bills, new and old, continue to appear in surprising numbers, eighty-seven new measures being proposed during the past week.

One of the most far-reaching issues from the farmer's standpoint is, no doubt, that of reapportioning the state senatorial and representative districts in accordance with the 1920 census as required by the state constitution.

Wayne members are pushing the fight for greatly increased representation which they claim is due them because of Detroit's great growth in population. Bills which they have introduced would increase the number of Wayne senators from five to nine and the representatives from fourteen to twenty-four. This would necessitate a decrease in representation for the rural districts. The redistricting fight is now being waged in the apportionment committees of both houses. It will probably be one of the hottest battles of the session.

There is still no harmony of opinion in regard to proposed tax changes. Important public hearings were held during the week on the proposed two-cent gasoline tax and various contemplated changes to the corporation franchise tax law. Various bills to amend this law by removing or changing the upper and lower tax limits and lowering the rates have been introduced. Considerable sentiment is being manifested not to lower the rates, but rather to raise them if they are altered at all.

The importance of highway problems was called forcibly to the attention of the law-makers during the week. Representative Peter Lennon, of Genesee, well-known champion of the farmer's cause, presented a bill to call a two-year halt in the issuance of state highway bonds. It is understood that the state highway department had planned to issue additional bonds to the extent of \$10,000,000 this year.

Representative Lennon evidently agrees with the "pay as you go" policy advocated by the State Grange and feels with Governor Groesbeck, that

the state requires a "breathing spell" in the matter of further expenditures.

State control of bus lines and commercial trucks operated for profit on the public highways outside of the corporate limits of any city or village is proposed in a series of bills by Representative William O. Lee, of Port Huron, who seeks to regulate motor transportation to protect the highways

from excessive loads and provide funds for highway purposes.

Representative Crowe, of Camden, would require the state highway department to stand the entire expense of construction, maintenance and repair of all trunk line highways and bridges at state expense without any local or county aid.

Suitable, though somewhat shop-

## News of the Week

Wednesday, January 31.

**T**HE treasury department says that the government deficit is \$250,000,000 and the officials believe this will be wiped out by June 30.—The secretary of state has collected over \$8,000,000 for registration of motor vehicles and chauffeurs' licenses.—Mrs. John Smither, of LaPorte, Indiana, finished a quilt with 2,115 pieces in it, which she started twenty-five years ago.

Thursday, February 1.

**R**EPORTS indicate that Berlin is isolated from the Ruhr district and that the rail traffic is dead.—Charlie Chaplin and Pola Negri, the European movie star, recently announced their engagement.—Representative Rogers, of Massachusetts, claims that booze is coming into this country from the Bahama Islands at the rate of 1,200,000 gallons annually.

Friday, February 2.

**T**WENTY Germans were killed by French soldiers who had to protect themselves in a violent nationalist demonstration in the Ruhr district.—Twelve boys in a Chicago public school went on strike because a pretty young lady succeeded a fifty-year-old man as their teacher.

Saturday, February 3.

**I**T is rumored that Henry Ford will buy the Famous Hog Island ship-building plant.—Henry Clews, known as the dean of Wall Street, died at his New York home after fifty years' service in finance.—The strong note

equivalent to an ultimatum was sent by the council of ambassadors to Lithuania demanding that the Lithuanian troops be withdrawn from the Baltic district.

Sunday, February 4.

**O**VER 4,000 Michigan men were among the victims of the Community Finance Company, a bankrupt blind pool stock concern.—The judge of the United States District Court issued a permanent injunction restraining members of the Glass Manufacturers' Association and the glass workers in continuing their wage agreement. This is one of the hardest blows ever delivered against union labor.

Monday, February 5.

**T**HE last citizen of Bald Mountain, Colorado, was buried recently. In twenty-seven years this town changed from a place of 15,000 population to a deserted village.—A fourteen-year-old boy was to be given a public whipping by a Kansas City judge, but he promised to behave before the performance started.

Tuesday, February 6.

**R**EPORTS from Houston, Texas, indicate that Sunday they had in the Rio Grande Valley the first snow storm in twenty years.—The Turkish peace parley at Lausanne, Switzerland, breaks up in failure.—President Harding has indicated his willingness to present the British debt settlement plan to congress.—The French kill nine Germans and seize three more towns in the Ruhr district.

worn, subject matter for sensational debates is accumulating. Among the perennial issues already introduced which are expected to arouse controversial consideration are:

Capital punishment, government operation of coal mines, movie censorship, constitutional limitation of the length of the legislative session, unpaid soldiers' bonus claims, eight-hour labor day, eugenic marriage and divorce laws, a "full-crew" bill, and a raise in pay for the lieutenant-governor.

### FIFTY-FIFTY BEET CONTRACT ACCEPTED BY OWOSSO COMPANY.

**T**HE "fifty-fifty contract has been accepted by the Owosso Sugar Company as the basis for handling the 160,000 tons of beets to be used by them during the 1923 season. Thus cooperation is displacing the hostility which has existed between the growers and the sugar companies and which threatened the annihilation of the sugar beet industry in Michigan.

Mr. Pitcairn, president of the Owosso Sugar Company, which operates large plants at Owosso and Lansing, recently appeared before the federated legislative committee, representing all the farm organizations of the state, and presented his proposal contract for 1923.

The contract provides the so-called fifty-fifty basis, specifying that the grower will receive one-half of the value of the sugar extracted from his beets. Returns to the grower will be based on the average price for October, November and December of 1923, and January of 1924. A substantial payment is to be made on the fifteenth of each month for all beets delivered the previous month and final settlement will be made February 15. The grower can take all the sugar he wishes of the price on which the settlement is based.

President Pitcairn stated that it was the purpose of the Owosso Sugar Company to develop the greatest degree of cooperation possible with the growers in order to secure sufficient beet acreage to keep both their plants op-

(Continued on page 207).

# Alfalfa Seed for Michigan

*Good Seed is an Important Factor in the Development of Alfalfa Farming*

THE alfalfa program for Michigan, which bulks large in the plans of President David Friday, of M. A. C., is reaching beyond the confines of the state and across the continent to a sound source of seed of dependable hardy variety.

Prof. J. F. Cox, head of the farm crop department, in company with Clark Brody, secretary of the Michigan State Farm Bureau, and J. W. Nicolson, head of the farm bureau seed department, has just returned from a journey to western states, where 350,000 pounds of Utah common seed and 250,000 pounds of Grimm were purchased for distribution to Michigan farmers.

Besides the supply already secured, another 1,000,000 or 1,500,000 pounds may be obtained if the demand should warrant. The State Farm Bureau distributes only a portion of the alfalfa seed used by Michigan growers. It has set the pace for private seed dealers, however, so that within the last three years the quality of seed sown on the average Michigan farm has been greatly improved.

The alfalfa program calls for 2,000,000 acres by 1927. Acreage in the state has increased from 78,000 in 1919 to

expects ten bushels during its third year. The average of Millard county, Utah, the highest seed-yielding area in the United States, is approximately eight bushels per acre, while in southern Idaho, the average last season was slightly more than two bushels, and in the Dakotas the average was still less.

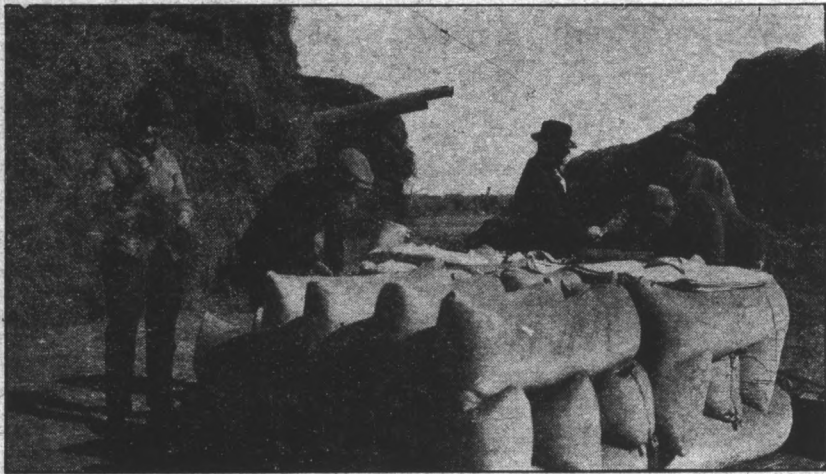
Hardigan alfalfa covering 150 acres is being grown by members of the Michigan Crop Improvement Association and will come into its second year next season. A substantial increase in the supply of Michigan grown seed is thus insured. Within another year it will be possible to determine how much seed per acre may be expected as an average in this state.

"Sound seed is the foundation of the alfalfa movement," said Mr. Cox, "and Michigan is doing an unusual piece of work in going to the source to secure a dependable supply of seed."

F. W. Henshaw.

## TOP-OF-MICHIGAN POTATO SHOW PLANNED.

THE business men and supervisors of Otsego county propose to have a "Top-of-Michigan" potato show at Gaylord next fall, the dates being No-



Messrs. Cox, Brody and Nicolson inspect Alfalfa Seed as it Comes from the Threshers on Western Farms.

348,000 in 1922, and the new seedings will give a crop of 500,000 acres next year.

"It's a sure crop if properly adapted seed is planted," said Professor Cox, "but it's a precarious crop if the source of the seed is unknown, because large supplies of seed from Texas, California, Arizona, Peru, Argentine, Arabia and Turkestan are annually distributed in the United States. The man who buys blindly takes a great risk."

"Tests made by experts at the college have shown that imported seed doesn't stand the Michigan winters. Grimm and northwestern grown common are more hardy and far more superior for planting in Michigan. Last year more Grimm was used by Michigan than by all the other states combined. Michigan alone planted 280,000 pounds of Grimm and nearly 1,000,000 pounds of northwestern grown common, distributed by the farm bureau from regions that approximate Michigan in climate."

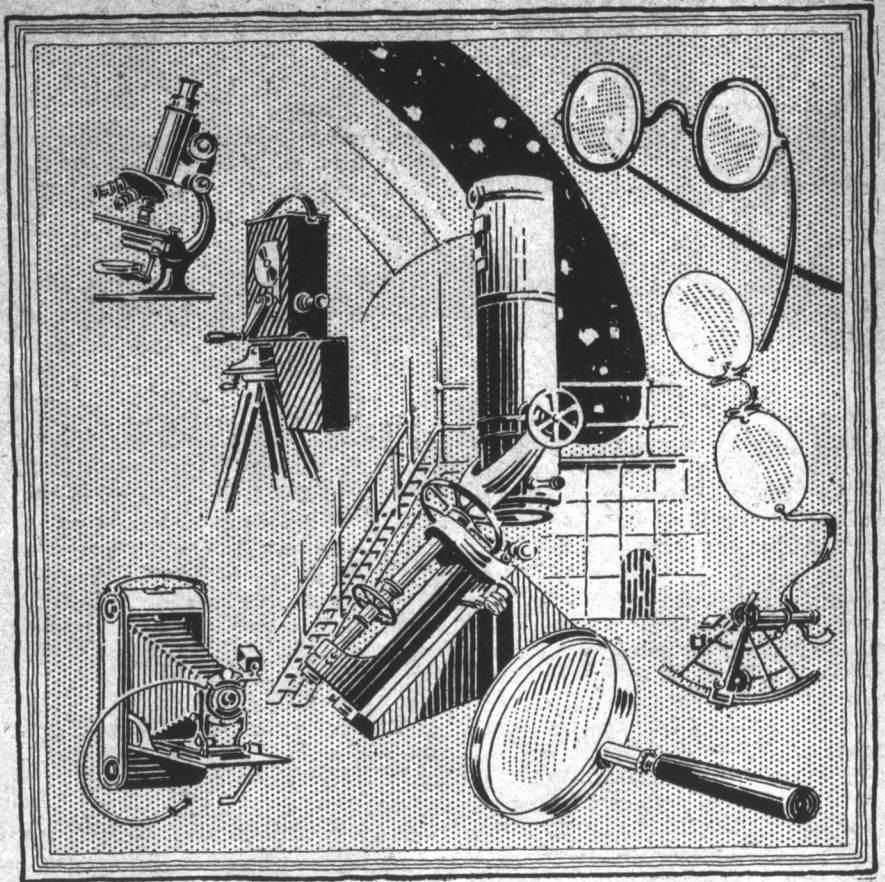
Within a few years it is entirely possible that Michigan grown seed will supplant the northwestern varieties. The farm bureau this year will offer 150,000 bushels and the seed companies as much more. M. A. C. leaders are encouraging the use of Hardigan alfalfa, developed by Professor F.A. Spragg, plant breeder, after fourteen years of effort. Seed yields from the Hardigan are comparable to those from the best western areas. Olaf Nelson, of Aloha, Cheboygan county, secured more than eight bushels from one two-year-old acre of Hardigan. He

expects ten bushels during its third year. The average of Millard county, Utah, the highest seed-yielding area in the United States, is approximately eight bushels per acre, while in southern Idaho, the average last season was slightly more than two bushels, and in the Dakotas the average was still less.

The show is being arranged to handle only exhibits from Cheboygan, Presque Isle, Montmorency, Otsego, Alpena, Crawford, Oscoda, Alcona, Iosco, Ogemaw, Gladwin, Arenac and Roscommon counties and will have the earnest cooperation of the Northeastern Michigan Development Bureau, which will offer special prizes, as well as of the potato growers and buyers and the boards of commerce in the principal cities of the district.—Mills.

## PURE-BRED SIRE LAW.

THERE is much agitation in late years for a pure-bred sire law. President David Friday's extension program aims at the elimination of scrub sires through the formation of bull associations, cow-testing associations, culling demonstrations, etc. The state-wide campaign for the elimination of tuberculosis and hog cholera is placing Michigan herds and flocks in the vanguard of the breeding stock market. Farm Agent D. L. Hagerman thinks that although many people are already sold to the idea, the right arm of the law would bring thousands now breeding scrubs over to the pure-bred side. He says that the Virginia law works well and that Oregon is satisfied with her pure-bred sire laws.



# How lead helps you see

THE use of lead in lens-making has made the planets in the universe objects as familiar to astronomers as are the chickens in a barn-yard to a farmer's wife.

The microscope lens, containing lead, has enabled science to count and classify bacteria so small that millions can live in a drop of milk.

There is lead in the telescopic lens of the sextant with which the navigating officer determines his latitude and longitude and plots the course of his ship.

Lead gives to glass the quality necessary for properly bending the rays of light, so that the magnifying power of the glass lens is enormously increased.

Thus with the help of lead the courses of stars and comets are revealed. The length of days and seasons, even the weather, can be known in advance. With the help of magnifying lenses man has developed the serums that protect humanity against diphtheria, typhoid, and other diseases.

## Lead in other lenses

The same lead is used in making the moving picture lens through which you see the countries and peoples of the world. It is in the glass lenses of ordinary cameras, and also in those of spectacles, eyeglasses and reading glasses.

## Paint needs lead

The most widely known use of lead and its products is, however, in making paint. It is white-lead that gives to good paint its ability to last long and adequately protect the surface. The quality of any paint depends largely upon the amount of white-lead it contains.

## Property needs paint

Until recently many people did not realize as fully as they should that by keeping the natural destroyers away from their property they prolonged its life. Today, however, they are acknowledging the wisdom of the phrase, "Save the surface and you save all." And they are saving the surface by painting with white-lead paint.

## What the Dutch Boy means

National Lead Company makes white-lead and sells it, mixed with pure linseed oil, under the name and trademark of Dutch Boy White-Lead. The figure of the Dutch Boy you see here is reproduced on every keg of white-lead and is a guarantee of exceptional purity.



Dutch Boy products also include red-lead, linseed oil, flating oil, babbitt metals, and solder.

Among hundreds of other products manufactured by the National Lead Company are battery litharge, battery red-lead, pressure die castings, cinch expansion bolts, sheet lead, and Hoyt Hardlead products for buildings.

## More about lead

If you use lead, or think you might use it in any form, write to us for specific information; or, if you have a general academic interest in this fascinating subject and desire to pursue it further, we will send on request a list of books which describe this metal and its service to the civilized world.

Save the surface and you save all. — Dutch Boy

**NATIONAL LEAD COMPANY**

New York    Boston    Cincinnati    San Francisco  
 Cleveland    Buffalo    Chicago    St. Louis

JOHN T. LEWIS & BROS. CO., Philadelphia  
 NATIONAL LEAD & OIL CO., Pittsburgh

# If You Planted Each Grain by Hand



No matter how much time and painstaking effort you spent, you couldn't possibly improve on the work of SUPERIOR DRILLS.

If you were to take the time to place each seed in the soil by hand—at a carefully measured depth—and at exactly the right spot to assure uniform sowing—You would be doing the very thing that is done better—and a thousand times faster—by

## Superior Grain Drills

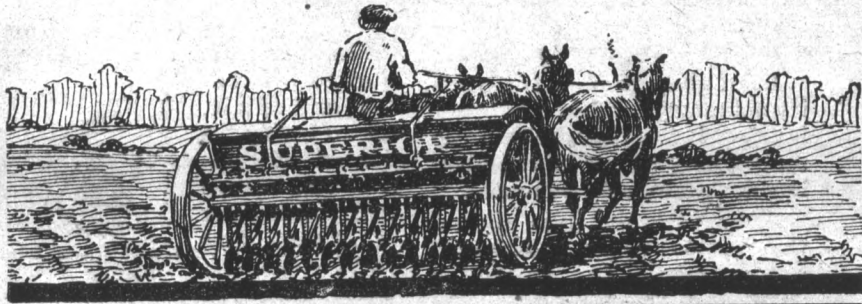
For Team or Any Tractor

For more than fifty years Superior Seeding has meant better seeding. And today these world-famous drills save so much time, labor and seed—and increase harvest profits so surely through bettered quality and quantity—that no farmer who grows grain can afford not to own a Superior.



Get the whole story of better seeding—in this interesting book which is yours for the asking. Write today.

The American Seeding-Machine Co., Inc.  
Springfield, Ohio



## Crop Improvers Meet

Michigan Men Discuss Better Production of Staple Crops  
By H. C. Rather

MODERATELY smooth glossy ears, bright oily kernels free of starchiness, and a clean bright shank free of pink or brownish discolorations which indicate disease, these are the characteristics of corn of the greatest productivity in contradistinction to the rough hack berry and starchy kernalled features of old-fashioned show corn."

Such was the message brought to Michigan farmers by J. C. Hackleman, of the University of Illinois, speaking before the twelfth annual meeting of the Michigan Crop Improvement Association.

Not satisfied with yields being secured from the old-fashioned rough type of show corn, farmers in Illinois led by J. R. Reed and Eugene Funck, insisted on the merits of the smoother corn. This brought out investigational work by the Universities of Illinois and Nebraska, which very materially substantiated the believers in this newer type. Extensive experiments were carried on with corn of moderate indentation carrying a horny kernel and bright glossy germ as compared to the starchy corn which usually was more dull in appearance. Differences in yield of as high as thirty-six per cent in favor of the smooth corn were recorded and in every instance the starchy corn was more susceptible to disease, particularly the root rots so prevalent in the corn belt.

The wide influence of the Michigan Agricultural College on the agricultural education of the country was illustrated by Mr. Hackleman's unusual experience of having served under six different deans of agriculture throughout the middle west, every one of whom was a graduate of M. A. C.

Professor Cox, head of the Farm Crops Department of the Michigan Agricultural College, told of the great strides Michigan farmers were making with alfalfa growing, the acreage having sprung from 18,000 in 1919 to one-half million seeded in Michigan today. The speaker did not believe the campaign for 2,000,000 acres of alfalfa in Michigan would ever mean over-production because of the many uses for alfalfa, and because the excessive freight rates acted as a virtual tariff barring from competition with Michigan farmers the alfalfa hay producers of the west.

"The 300,000 additional acres of alfalfa planted in the past three years," said Mr. Cox, "because of the producing ability of the alfalfa and the enhanced value of the land meant an added wealth to the state of at least \$6,000,000." Mr. Cox emphasized the use of mature northern-grown seed, especially Grimm, in successful alfalfa growing, and told of the nine carloads of Michigan-grown seed of excellent quality produced in Monroe county.

Professor F. A. Spragg famous M. A. C. plant breeder, took up the development of the Robust bean, a variety which means as much to the Michigan bean growers because of its productivity. Numbers of growers testify to increased profits of \$10 to \$50 per acre because of the use of this variety. Professor Spragg selected the Robust bean because of its inherent disease resistance and vigor and last spring there was released through the Michigan Crop Improvement Association a quantity of an improved strain of this seed which is now being produced under the association inspection system.

The weakness of Italian-grown clover seed and the value of Michigan-grown seed was brought out in forage experiments conducted and explained by C. R. Megee, M. A. C. forage crops specialist. Where Michigan-grown clo-

ver had wintered successfully the crop grown from Italian seed killed down to less than fifty per cent of a stand and disease was much more prevalent.

In the alfalfa plots the Grimm and New Hardigan, an M. A. C. development, were best followed closely by the northern-grown common strains in which seed from Michigan ranked high.

J. R. Duncan, corn breeder at the agricultural college, told of the work in bringing out the Duncan corn, a variety for southern Michigan, the Improved Golden Glow, an early variety for the north, and the M. A. C. Yellow Dent, a cross between the two which has yielded remarkably in central Michigan during the past season.

H. C. Moore, secretary of the Michigan Potato Producers' Association, told of certified seed work with that crop and urged strongly the using of the 300,000 bushels of certified seed available this year within the state, rather than letting it go outside, where the real advantages of such seed would accrue to Michigan's competitors in the potato market.

D. F. Rainey explained the system of variety testing on Michigan farms, which he has been conducting for the college for the past three seasons.

After the morning session members of the Michigan Crop Improvement Association adjourned to the pool room of the gymnasium, where a joint luncheon was held with the Lansing Exchange Club. A wholesome friendliness between farmer and business man was here engendered, and all enjoyed a splendid swimming demonstration by the M. A. C. varsity swimming and diving.

### TO FIT THE COLLAR.

THIS cannot be done successfully from measurements alone; the collar should be tried on. It should lie easily on the animal's shoulders and should require no force to push it into place as this would indicate that the collar is too narrow; injury to the neck would no doubt result from the use of such a collar. The collar should not permit of any see-saw motion. The top of the collar should rest lightly on the neck. Between the sides there should be just enough room so the ends of the fingers can be pushed up and down between the neck and the inside of the collar; this space, while all right at the top may not be enough at the bottom of the neck, and vice versa. Take hold of the collar at the top and press it against the side of the neck; with the other hand grasp it firmly by the bottom, moving it from side to side, holding it firmly against the shoulders while moving it. If the movement above the shoulder joints is more than two inches the collar is too big. In some cases it will be two or three times as much. When the horse's head is held naturally there should be enough space between the bottom of the neck and the bottom of the collar so the flat hand can be inserted. The secret in fitting the horse's collar is to prevent the lateral or see-saw motion which produces the sore shoulders. In breaking in the new collar it may be soaked for two or three hours in cold water. When taken off the horse it should be laid on a flat surface or it will warp.—Dr. G. H. Conn.

A complete power laundry can be had for the price of a binder, and will be used fifty times as often.

Space to a newspaper is as shoes to a shoe dealer; it is the sole stock in trade. One must pay for news space in news values, and for advertising.

**SAVE BIG MONEY**

I guarantee you a clear saving of 25 to 30% on Fence, Roofing and Paints and I pay the freight. Get my **CUT PRICE CATALOG** Learn how half a million farmers save big money by buying their Fence, Roofing and Paints direct from my big factories at prices way below others—send for catalog NOW—You'll save money.

THE BROWN FENCE & WIRE CO. Dept. 2808 CLEVELAND, OHIO

FENCE GATES POSTS ROOFING PAINT

**Eureka**

**Potato Planter**

OPENS FURROW, DROPS FERTILIZER, DROPS SEED AND COVERS — ALL IN ONE OPERATION

MORE bushels per acre and less cost per acre result with use of Eureka One-Man Planters. This double profit increase pays for the machine many times. Over 22 years of success. One man and team opens furrow, drops seed any distance or depth, drops fertilizer if desired, covers, and marks next row. Furrow opens and seed drops in plain sight. Better start, bigger yields. Operates in any soil.

Write today for catalogue describing largest line of planters made. Sizes for 1 and 2 rows, with or without fertilizer attachment. Special attachments for unusual soil or field conditions. In stock near you.

**EUREKA MOWER CO.**  
Box 332, Utica, N. Y.

**HEROLD-BERTSCH**

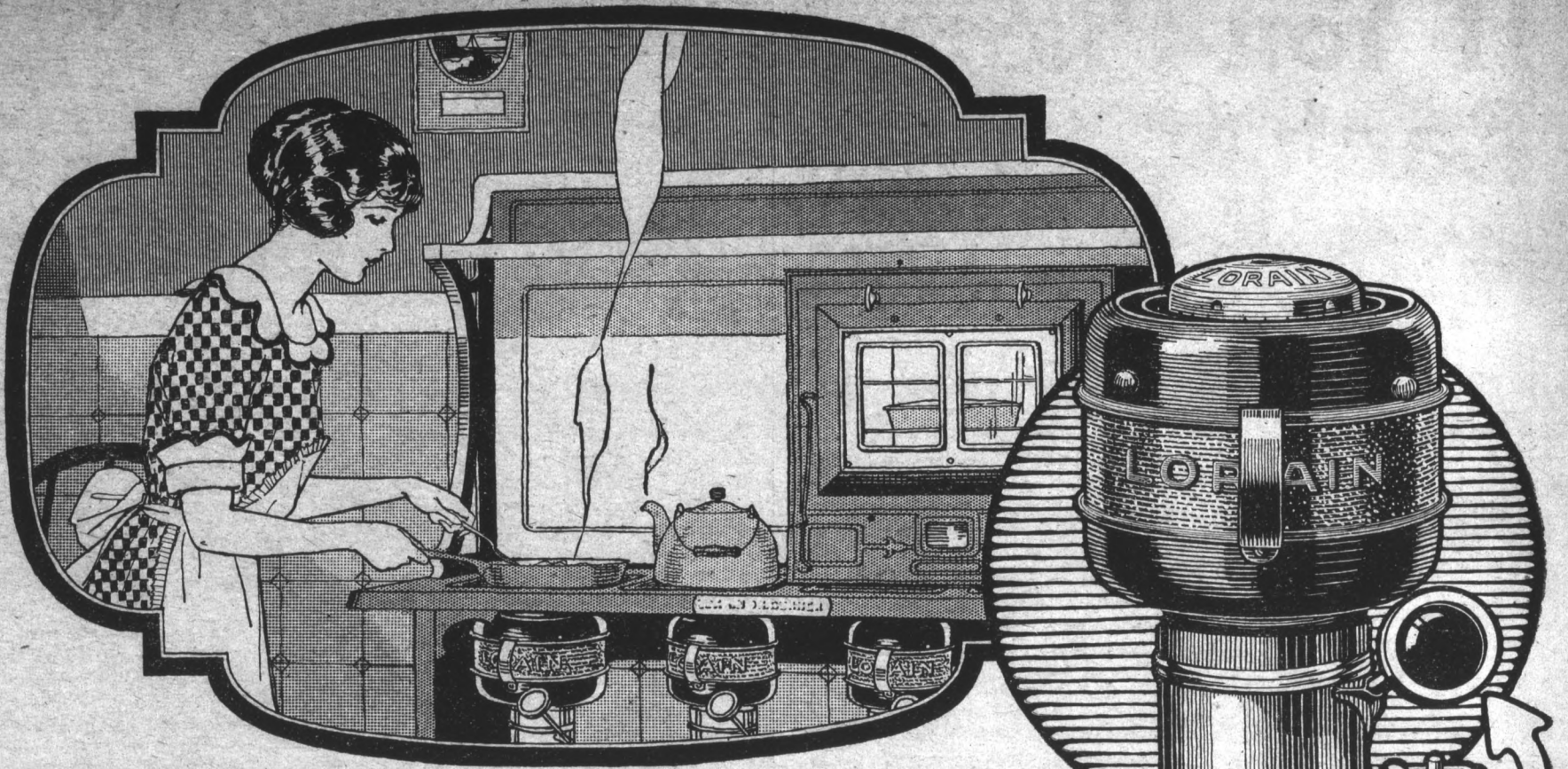
MICHIGAN MADE SHOES

Ask your shoe store to show you these roomy, comfortable, stylish oxfords and shoes for men and boys. Genuine high quality all leather throughout.

**\$5 to \$6**

**AGRICULTURAL LIME**

The strongest in Ohio. Free Booklet and Sample upon request. THE SCIOTO LIME & STONE CO., DELAWARE, OHIO.



## For Quick Meals Cooked Perfectly use Lorain High Speed Oil Burners

READ the  
Lorain Burner  
GUARANTEE

LOOK  
for the  
RED WHEEL

WHERE gas is not available, there is no fuel more convenient, economical and satisfactory for cooking purposes than oil—provided you own an oil cook stove equipped with a good burner.

Of the many types of oil burners on the market, the short chimney type is admittedly far superior. First, because it generates a clean, odorless, blue flame of intense heat. Second, because this intense heat comes in direct contact with the cooking utensil.

In the Lorain High Speed Oil Burner, American Stove Company firmly believes it has developed the short chimney type to its highest efficiency. For more than ten years stoves equipped with this burner have been in use in thousands upon thousands of homes, and all are giving perfect satisfaction.

The Lorain High Speed Oil Burner is thought to be the best of all short chimney burners because of the intensity of its heat—because it is easy to operate—because of the extreme simplicity of its construction—because it does not easily get out of order—and, because it is durable. Read the Guarantee.

The Lorain High Speed Oil Burner has many distinctive features. Its vital part, the inner combustion tube, is not affected by the intense heat.

The burner is constructed to prevent “boil-overs” from reaching the wick, and thereby causing wick-sticking. A patented wick-stop, that is always in adjustment, stops the wick at just the correct height for lighting and burning. The oil-chamber is constructed to prevent wick-sticking, and to make re-wicking easy. Only Lorain Wicks are used. They give extremely long life, a steady flame, and seldom require trimming.

Many famous makes of oil cook stoves now use the Lorain High Speed Burner as standard equipment. These stoves are made of the finest materials, and in most every desired size, style and color. Dealers all over the United States sell Lorain-equipped Oil Stoves. If you cannot locate a dealer near-by please advise us by post card.

BECAUSE the short chimney oil stove burner produces an intense flame which strikes directly on the bottom of the cooking utensil, the heat generated has, in the past, caused the early destruction of its vital part, the inner combustion tube.

This fault has been completely eliminated in the Lorain High Speed Oil Burner by making the inner combustion tube of “Vesuvius Metal” which is not affected by the destructive action of this intense heat.

Therefore, American Stove Company now gives the following unconditional guarantee with each Lorain Oil Burner.

### GUARANTEE

Should the inner combustion tube of the Lorain High Speed Oil Burner burn out within 10 years from date of purchase, replacement will be made entirely free of charge.

### IMPORTANT

Every oil cook stove equipped with the Lorain High Speed Burner has one interchangeable Giant Chimney which makes any standard Lorain Burner a Super-heating Giant Burner—an entirely new principle in Oil Cook Stove Construction.

Many famous makes of Oil Cook Stoves are now equipped with the Lorain High Speed Burner, including

- NEW PROCESS—  
New Process Stove Co. Div., Cleveland, O.
- QUICK MEAL—  
Quick Meal Stove Co. Div., St. Louis, Mo.
- CLARK JEWEL—  
George M. Clark & Co. Div., Chicago, Ill.
- DANGLER—  
Dangler Stove Co. Div., Cleveland, Ohio
- DIRECT ACTION—  
National Stove Co. Div., Lorain, Ohio

IF GAS is available you'll find no cooking appliance to compare with Lorain-equipped Gas Ranges. One easy turn of the Lorain Red Wheel gives you a choice of 44 measured and controlled oven heats for any kind of oven cooking or baking.

**LORAIN**  
OVEN HEAT REGULATOR

AMERICAN STOVE COMPANY  
ST. LOUIS, MO.

Sole Manufacturers of Gas Ranges Equipped with the Lorain Oven Heat Regulator  
World's Largest Manufacturers of Cooking Appliances

**LORAIN**  
HIGH SPEED  
**OIL BURNER**

# FOLKS

with cold bed-rooms  
please write

**D**OWNSTAIRS, the home of Frank Vohs in Missouri was fairly warm. Upstairs, the bed-rooms were cold.

Then came the Heating Contractor who installed ARCOLA in the kitchen, connecting it by small pipes with an American Radiator in every room. At the end of the second winter Mrs. Vohs wrote:

"We actually use less fuel to heat the whole house than we formerly used to heat the first floor."

In other words, ARCOLA with American Radiators, has made the whole home livable, and is paying back

a part of its cost every year in the saving in fuel.

Life is very short. Too short for the agony of getting up in cold bed-rooms; too short for the discomfort of breakfast in cold dining rooms; too short for the unhappiness of huddling around a stove or hot-air register in the evening.

### Send for this free book

An illustrated book tells how any home—no matter how small—can have radiator warmth from ARCOLA. And how the small initial cost is paid back in fuel saving year by year. Send to either address below for your copy today.

## AMERICAN RADIATOR COMPANY

IDEAL Boilers and AMERICAN Radiators for every heating need

104 West 42nd St. Dept. F13  
New York



816 So. Mich. Ave., Dept. F13  
Chicago

### We Want Your Cow or Horse Hide

and we will tan and make you a Beautiful Coat, Robe or Mittens to order. We make and remodel ladies' furs. Prices reasonable. Samples and Price List FREE.

Galloway Coats and Robes for Sale at Wholesale Prices

All Work Guaranteed  
Reference: Citizens' State Bank  
Milford, Ind.

Milford Robe & Tanning Co.  
183 Elm Street, Milford, Indiana



### WE TAN

and make to your order from your cattle, horse and all kinds of hides and furs, men's fur coats, robes, caps, gloves, and mittens, ladies' fur coats and fur sets. Remodeling and repairing in latest styles. Ship us your work and save one-half. New Galloway coats, robes, gloves and mittens for sale. We are the oldest

Galloway tanners; 34 years continuous business. Free style catalog, prices and samples. Don't ship your hides and furs elsewhere until you get our proposition.

HILLSDALE ROBE & TANNING CO., Hillsdale, Mich.

### Maple Syrup Cans

SQUARE cans with 1 1/2" screw cap. Gallon size \$3.50 for carton of 50. Half gallon size, \$12.00 for carton of 84 Quarts, \$7.00 for carton of 90. Add 10% to rate in less than carton lots, or deduct 10% in five carton lots. Prices f. o. b. cars Lansing. Immediate delivery.

M. H. HUNT & SON  
Box 525, Lansing, Mich.

**PATENTS** Write today for free instruction book and "Evidence of Conception" blank. Send sketch or model for personal opinion CLARENCE O'BRIEN, REGISTERED PATENT LAWYER, 952 Southern Bldg., Washington, D. C.

Lake Land Fur Exchange  
Salem, Mich.  
Write for four grade list of advanced prices just out.

Please Mention The Michigan Farmer when writing to advertisers

### No Other Mixer Like It

**a Batch a Minute**  
As pioneer mixer manufacturers we have developed two features that put the Gilson Mixer in a class of its own. It is the only mixer with Patent-  
**Reverse Unloading Gear and Curved Mixing Blades**, insuring thorough mixing in shortest time. Loads on one side, dumps on the other side.

**Gilson 30 Days FREE**  
Concrete Mixer Easy Terms  
Due to the special Curved Mixing Blades the Gilson thoroughly mixes in 1/2 the time required by the ordinary type of mixer. Handles 2 1/2 to 3 cubic feet of concrete at one time at the rate of one batch per minute. Turns out 34 cubic yards in ten hours. Mixes perfectly concrete, mortar or plaster. Any I. H. P. Engine turns it easily.

**Only \$43.50 DIRECT TO YOU**  
The lowest priced, practical, improved mixer made. Built of iron and steel—lasts a lifetime. Ideal for farmer or contractor. Mixes concrete that requires no replacements, no repairs. Use this mixer 30 days at our risk. We guarantee it exactly as represented. Send your name today and get full description of this, the only Reverse Unloading Gear Mixer, and easy payment plan.

**FREE Circular Explains Two Greatest Mixer Improvements of the Age**  
Gilson Mixer Co.  
725 7th Avenue  
West Bend, Wisconsin



### TANNERS

of CATTLE, HORSE, CALF, COON, FOX, SKUNK, MINK, MUSKRAT, WOODCHUCK, DOG, CAT and RABBIT SKINS.

What kind of skins have you? We make up and line Men's & Ladies' Fur Coats, Scarfs, Muffs, Capes, Collars, Robes and Mittens from raw skins. Circulars Free. Use plenty of salt on green hides.  
W. W. Weaver, Reading, Mich.  
Custom Tanner, 30 yrs. Experience.

## The Handy Man's Corner

### Caring for the Hogs

OUR readers sent in some very interesting letters on their methods of feeding and caring for the hogs. From these, five have been chosen to receive combination pliers, as promised in our announcement. We are including with these letters as an introduction one which tells in an entertaining way, the popular method of feeding hogs. This letter brings back past experiences.—The Handy Man.

#### SLOPPING THE HOGS.

IN a recent issue I read the question, "Do You Feed the Hogs?" I sure do! The only way to slop hogs is to have a lot of handy swing gates and turn-over troughs so that Mr. Farmer can pour the feed into the troughs without getting into the pen with the pigs. By using up-to-date equipment it is possible for one to slop hogs without getting one's overalls more than half covered. Alas, we have no such equipment.

When I slop the hogs I do a daredevil stunt which is well worth a small price of admission. I take a full bucket of milk and middlings slop in each hand. I open the gate with my foot, my elbow or my teeth, and shriek at the top of my voice for the pigs to stand back. This they do not do. They run over my feet, under my feet and all around my feet. Literally, I wade through them. If I reach the trough I place one pail of the feed on the top of a large post which happens to be there. With the other bucket of feed in my hand I mutter a few words to myself and take a position facing the rising sun, with my right foot in the hog trough. Then with lightninglike speed I move backward, keeping my foot in the trough to clear it of pigs and to make room for the slop which I spread as I go.

This feat requires considerable dexterity and agility and should not be attempted by a novice if any of the neighbors happen to be present to witness his downfall.

If successful, the second pail of the feed may be distributed in like manner. Durn good pigs can be grown by this method.—Clifford Froh.

#### EASILY FILLED TROUGH.

AS a hog trough is about the most used thing in a hog house, it ought to be made so that it can be filled easily.

Set 2x4 studding for your partition between the hog pen and the feeding alley, right in your hog trough, edge-ways close to the feeding alley side of the trough. Eight inches above the trough on the pen side of the 2x4's, commence nailing on the partition boards as high as desired, then on the alleyway side of the partition studding, nail a wedge-shaped two-inch piece, two or three inches thick at the uppermost end, running to a point at the lower end. Let the lower end of this wedge run to the upper edge of trough. To these pieces nail one 12-inch board. This forms a continuous funnel the entire length of trough, and the hogs cannot bother you while you are feeding them, or get in the trough.—D. B. Shepherd.

#### BOTTOMLESS HOG CRATE.

THE handiest thing we have around the hog end of our farm is a bottomless hog crate. The one we have is four feet long, thirty-two inches wide by thirty-eight inches high, has

an ordinary "slip" door in one end. In making the crate let a board extend about eight inches on both sides and on each end of the crate. These make convenient handles. When mistress hog refuses to enter the crate just slip it over the top of her, and there you have the most stubborn hog in the crate without the loss of any valuable time and patience. Now, with the aid of a couple of planks you can load and unload the heaviest hog without any heavy lifting. If "piggy" does not like to walk the straight and narrow path forward, why just turn them around and, hog-fashion, they will always go backwards.

After the cattle and hogs are loaded it is well to tie the crate fast to the wagon box.—Ray R. Hudson.

#### SALT BOX.

DESIRING to add my quota to statement of farm conveniences, I will describe a salt box which I made and attached to the side of one of my barns nearly, or quite, forty years ago, and it looks as though it might do service for another forty years.

The box is made of good oak material, sixteen inches square, the roof is made with the proper slant and projects an inch over the ends and front side. The door is a little smaller than front side of box and is hung on hinges which permits it to be pushed within the box when the animal pushes the door with its nose to get the salt inside of the box. Across the bottom of front side is nailed a strip two or three inches in width, and lower corners of door are sawed off and the pieces nailed to the box, thereby preventing the salt from being thrown out by the animals.

Several of my neighbors have, after seeing the box, made for their stock a similar box.—J. T. Daniells.

#### HOG WATERER.

I PROCURED a steel oil barrel with a large opening in the head and a small three-quarter-inch hole in the side of barrel near bottom. Then I screwed a three-quarter-inch street elbow in small hole and a three-quarter-inch pipe three inches long in elbow.

I set barrel on trough with about a foot of trough extending through the fence into hog lot. Put a cork in pipe and fill barrel, screw in bung air-tight, take out cork and hogs will have water when they want it, as the water will come as high as pipe and no more, until it is lowered in trough.—R. L. Overmire.

#### PORTABLE FENCE PANEL.

ONE of the most handy things I have used about the hog lot is a portable fence panel.

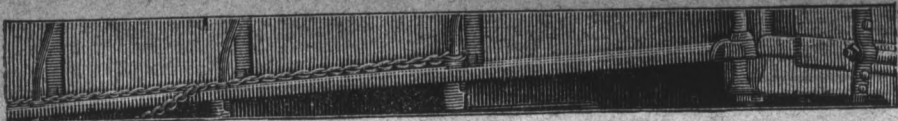
Take four six-inch boards, twelve feet long, and place them on ground parallel with each other, the first two four inches apart, five inches between the second and third, and six inches between the third and top boards. Nail a good four-inch strip across at each end flush with ends of plank, then one in the center. This will make a panel three feet three inches high when stood up on edge. As many of these can be made as desired.

Three of these can be set up in front of the individual hog house at farrowing time to make a pen for the sow until the pigs are large enough to follow into larger range. The ends of (Continued on page 184).

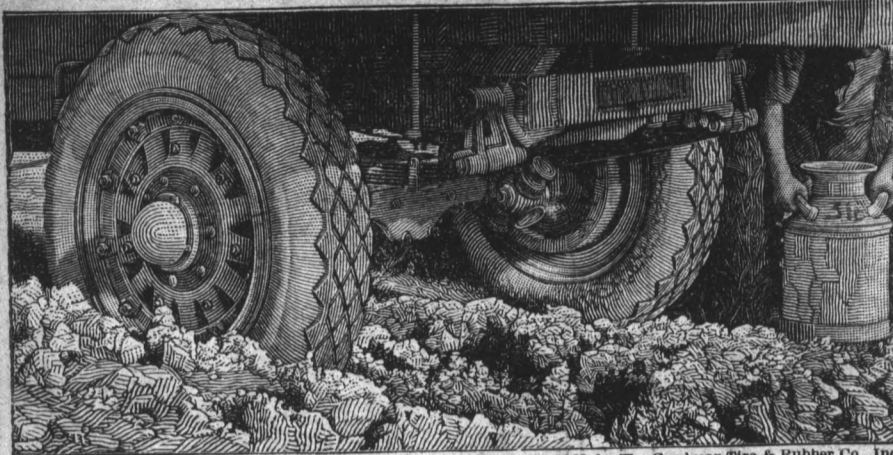




**“Standard”**  
PLUMBING FIXTURES  
Standard Sanitary Mfg. Co., Pittsburgh  
*Write for Catalogue*



**GOODYEAR MEANS GOOD WEAR**



Copyright 1923, by The Goodyear Tire & Rubber Co., Inc.

"Our Goodyear Cords have given us as high as 21,000 miles over bad roads at all seasons of the year . the only equipment that has been able to withstand these conditions."—C. W. KAYLOR, The Helvetia Company, Mulvane, Kansas, Manufacturers of Pet Milk.

**YOU** want the wearing quality that lasts for thousands of miles, the extra thick sidewall that resists the ruts, the cushioning resilience that protects the truck and load, and the All-Weather Tread that holds the road. Because you want these things, you want the Goodyear Cord Truck Tire.

The new beveled All-Weather Tread Cord Tire is made in all sizes for trucks and passenger cars



Save Money on Gates Built in the World's Largest Gate Factory



**New GATE BOOK FREE**



Alvin V. Rowe, Pres.

I want every farm owner to have a copy of my big new Gate Book—free postpaid. Shows all styles and sizes of the famous Can't-Sag Gates at prices less than you can build heavy all-wood gates at home. Can't-Sag Gates are a happy combination of wood and steel. Every board is double bolted—not nailed—between 4 pairs of angle steel uprights. They can never sag, drag, warp or twist out of shape. They always hang true and plumb—swing freely in either direction.

**"Can't-Sag" Gates** Cost less than all Wood—Last Five Times as Long

They give under pressure but don't break. Top hinge is self-locking when gate is closed. Hogs can't root them off hinges. Elevating attachment can be furnished to let small stock pass under.

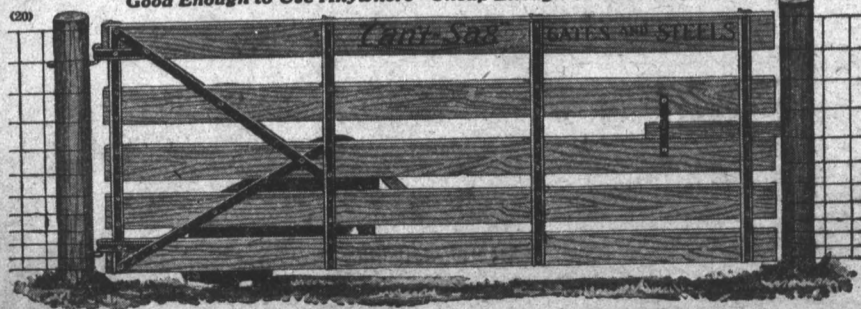
**I'll Furnish Complete Gates or Just the Steels**

My free Gate Book shows complete Can't-Sag Gates painted, ready to hang with your name or name of your farm, or "No Hunting" sign lettered on boards. Or if you prefer I'll furnish everything but the boards and you can build your own Can't-Sag Gates at home and save still more money.

Write for My Free Book. Get my new low prices. See for yourself why Can't-Sag Gates are "Everywhere in America". More than a million in use. It does not pay to build or buy any other Gate. Free book proves my claim. Write for it today.

ALVIN V. ROWE, President  
**ROWE MANUFACTURING COMPANY, 1020 Adams Street, Galesburg, Illinois**

"Good Enough to Use Anywhere—Cheap Enough to Use Everywhere"



Please Mention The Michigan Farmer When Writing to Advertisers

**OUR SERVICE DEPARTMENT**

Always Give Name and Address When Sending Inquiries as Satisfactory Service Cannot be Given to Unsigned Letters

**NITRATE OF SODA.**

Is nitrate of soda a good fertilizer for corn and bean crop? If so, how much do they sow per acre? And where could it be purchased? And how much per ton, sacked?—H. G.

Nitrate of soda is considered one of the very best sources of nitrogen, and is good for any crop and soil that needs nitrogen.

Few people use nitrate of soda alone. It is usually mixed with acid phosphate and potash, forming a complete fertilizer.

It can, however, and is, used alone for top-dressing for backward wheat in the spring and also for top-dressing meadows. When used for this purpose, 100 pounds per acre is a fair application.

Used in the hill for corn or beans, twenty-five pounds per acre is enough to give the plants a start. A phosphate fertilizer, or at least a complete fertilizer would be considered better for both corn and beans than nitrate of soda alone.

**LINE TREES.**

On the west side of my property there stands three shade trees. I am using my property for garden. The roots from the trees come through onto my ground and the afternoon shade from same lessens my crop by a half for two rods from the fence. Can I cut part of trees? Where will I go to get the authority for same?—F. E. B.

As the trunks of the trees stand on the neighbor's land, the trees belong to him. F. E. B. may trim off branches or roots coming onto his side of the line. No authority is needed to do that.—Rood.

**RATION FOR COWS.**

Will you please tell me a ration for milch cows? I am feeding good clover hay, good oat straw, bean pods and silage, corn and oats for grain. What else should I get to balance the ration?—W. J. A.

If you have plenty of silage, feed all the cows will eat up clean twice per day. If you haven't silage in abundance, you can get along very well on one feed a day. The cows should have all the clover hay, bean pods, and oat straw they will eat.

The corn and oats, mixed equal parts by weight, lack sufficient protein to have the cows do their best. The ration would be much improved by adding two pounds of cottonseed or two pounds of oil meal per day.

The rule is to feed one pound of grain for every four pounds of milk produced if the milk tests no more than 3.5 per cent, or four per cent, and one pound of grain for every three pounds of milk if it tests around five per cent. If a cow gives thirty pounds of five per cent milk, she should have ten pounds of grain, eight pounds of corn and oats and two pounds of either cottonseed meal or oil meal.

If you would feed bran with the corn and oats, equal parts of each, you could drop one pound of the oil meal, and feed nine pounds of the mixture and one pound of cottonseed or oil meal.

**DAIRY RATION.**

I have a herd of good Holstein cows. They are in a very good condition. I am feeding corn silage twice a day and dry cornstalks at noon. I would like a good dairy ration. I am now feeding 100 pounds of oil meal, 100 pounds of cornmeal, 100 pounds of cottonseed meal, and 300 pounds ground oats. What do you think of the ration just described? Here is another dairy ration, 200 pounds of cornmeal, 260

pounds of cottonseed meal, 240 pounds of oilmeal, 100 pounds of peanut meal, 500 pounds gluten feed, 100 pounds of yellow hominy, 100 pounds of ground oats, 200 pounds of wheat bran, 100 pounds of middlings, 100 pounds of molasses cane, 20 pounds of salt, and 20 pounds calcium carbonate. This ration is sold by grain dealers.—H. R.

It is regrettable that you haven't clover hay to feed as part of the dry roughage. Cornstalks alone is not sufficient variety for best results.

However, corn silage is first-class, and the grain ration you are feeding is hard to beat, if you feed it in liberal quantities.

If you will feed one pound of grain for every four pounds of milk produced; that is, if your cow gives thirty-two pounds of milk per day, she should have eight pounds of grain; and give them all the silage and cornstalks they will eat, you ought to get good profitable results.

It is doubtful if the other ration mentioned would give you any better results than the one which you are now feeding.

Of course, you should feed your cows salt, about two ounces per day per cow.

**FENCE POSTS.**

Would it be advisable to set tamarack fence posts, and about how long would they last? Does a dry post last longer than the green?—C. F.

Very few people know anything about the lasting qualities of tamarack when used for fence posts. Some people, however, say that it will even outlast cedar.

The consensus of opinion is that well-seasoned fence posts will outlast those that are set while green.

**LIVE STOCK QUESTIONS.**

I have a fine wool ram which has sore feet in front. It is not foot-rot; his feet do not smell, but are very dry and he has a fever in his feet. What can I do for him? Also have a ewe which is very thin, has been for some time. Had her in with my fattening lambs and she gained a little. She has a slight cold. Can not see anything wrong. Her teeth are good. Do you know anything I can do for her? What is good for worms in hogs, also for a dog with worms.—H. J. D.

If you will apply one part boric acid and eight parts lanolin (wool-fat) to ram's hoofs twice a day it should soon make him some better and soften his toes.

Give your thin ewe a teaspoon of turpentine, one ounce of raw linseed oil and four ounces (quarter pint) at a dose as a drench twice a week for two weeks.

This same treatment will do for wormy hogs, but a teaspoon for every eighty or 100 pounds of weight is the proper dose, and besides it is good practice to give a dose daily until three doses have been given.

**REPUDIATION OF CONTRACT.**

I have ordered fruit trees which were to be delivered this spring. Being short of money I wrote the company, asking them to cancel the order. They wrote saying that I would have to take the trees. Can they force me to take them? I did not sign any contract.—G. S.

G. S. cannot be required to take the trees. He is merely liable for the damage suffered by the breach of his contract, which is presumably nearly the value of the trees, as the expenses of selling take a large part of the proceeds of the sale, and most nurserymen have stock left over unsold each year. Such contracts do not have to be in writing.—Rood.

**RAW PEAT SELDOM SATISFACTORY.**

PEAT in its raw, or natural, state is seldom satisfactory for use as a fertilizer, and from the standpoint of economy, the commercial brands of chemically treated peat can not as yet be recommended for fertilizer purposes. The best means of taking advantage of the inert valuable qualities of peat is through composting. The use of peat for composting with other materials has resulted in greatly increasing the yield of crops and in improving the character of the soil. Directions for composting with manure, sewage, fish scrap, and other materials are given in Department of Agriculture Circular 252, and just published.

**ANOTHER SIDELINE FOR FARMERS.**

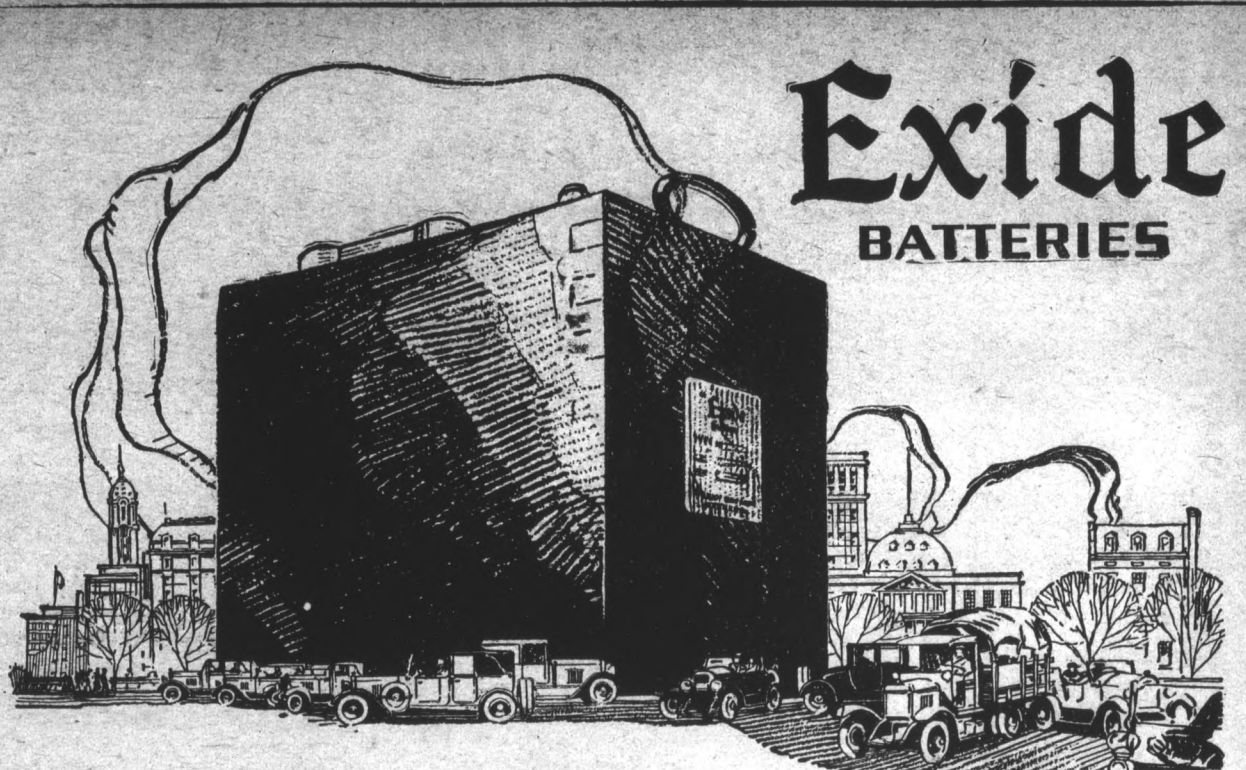
OUR Japanese friends are seeking out every little scheme for making their small territory contribute its maximum to the support of a dense population. Now we get this authentic news: A shipment of bullfrogs have been made from America for the purpose of providing the Japanese farmers with another sideline and at the same time provide for the destruction of many of the insects troubling in the paddy fields and truck gardens. There could be no good reason advanced why this line of production should not be encouraged in many localities right here in Michigan. Any person who has spent a single spring near some of our swamps, will swear that conditions here are favorable.

**VALUABLE TIMBER LAND.**

THERE are possibly 12,000,000 acres of land in Michigan which are not suitable for agricultural development but which have produced and should still be producing valuable timber. Much of this area is waste land which is abandoned and the state is gradually acquiring title to it under the state tax law. In its present condition, the land is worth possibly \$1.00 per acre. Mr. Schaaf, state forester, submitted a report in 1917 outlining a forest policy to cover about 540,000 acres of waste timberlands which the state had acquired up to that time. Half of this area was considered to be reforesting naturally; the other 270,000 acres naturally would have to be replanted. His estimate called for an annual expenditure of \$155,000 during the first thirty years, \$217,000 during the second thirty years, \$273,750 for the third thirty years, and \$358,125 for the last thirty years. At the end of this 120-year period, the state would have advanced a total of \$30,132,250 and as a result would have on hand timber to repay this amount at three per cent interest and provide in addition a perpetual annual net income of \$2,250,000. This estimate was based on a stumpage price of \$10 per thousand in the year 2037, an estimate undoubtedly too low. The estimated receipts could safely be increased considerably.

**WORLD WHEAT PRODUCTION SHORT.**

IT is calculated that the acreage of wheat in seven principal wheat-producing countries is about a million acres short of that sown the preceding year. These reports cover the American continent and the present important European producing countries. Conditions are reported generally good.



**Exide BATTERIES**

**The stone in the middle of the road**

Do you see the road ahead sharply when you are driving at night? Or do you first notice obstructions when you run over them?

Comfort in night driving, not to speak of safety, depends on the lasting power of your battery. This, in turn, is not a matter of luck, but rests on your choice of battery in the first place.

You have a right to demand three things of a battery, the three things that millions of motorists have learned they can be sure of in Exide Batteries:

1. Plenty of Power
2. Rugged dependability
3. Long life

An Exide means not only comfort, safety, care-free satisfaction and the minimum of repair bills, but it means actual economy, because the Exide lasts so much longer than other batteries.

Promise yourself an Exide when you have to replace your present battery. You can get one the right size for your car at the nearest Exide Service Station.

**The Electric Storage Battery Co., Philadelphia**

*Oldest and largest manufacturers in the world of storage batteries for every purpose*

**For farm power and light**  
A great majority of all farm power and light plants have Exide Batteries. Make sure that yours is a long-life Exide.



Look for this sign. Wherever you see it you can get a new Exide for your car or competent repair work on any make of battery.

**RADIO** For your radio set get an Exide Radio Battery.

**THE LONG-LIFE BATTERY FOR YOUR CAR**

**STRAWBERRY PLANTS** The new Cooper Strawberry, largest, sweetest and most productive berry known. One berry makes a big mouthful, 9 berries make a layer in a quart box, 400 crates per acre. Sells for a third more than other varieties. A full assortment of other kinds of small fruit plants. Prices greatly reduced. Wholesale prices on large amounts. Our free catalog shows the Cooper and ten other kinds in their natural colors. Write for it today.  
**A. R. WESTON & CO., R. D. No. 6, Bridgman, Mich.**

**STRAWBERRY PLANTS \$3.50 & Up**  
Hardy, Northern grown, best stock. Also fine line Raspberry, Blackberry, Dewberry Plants. Large stock Grape Vines and Fruit trees. At lowest prices. Plants are large, heavily rooted and thrive readily. Produce big yield of choicest fruit. You can make up to \$1000 an acre from these plants. Write for free catalog and prices. Don't delay: write today.  
**DASS NURSERY CO., RR. 3, Bridgman, Michigan**

**CHOICE STRAWBERRY PLANTS** \$3.75 per 1000 varieties at \$3.75. Guaranteed first class or money refunded. Cat'g. Mrs. Filena Woolf. Allegan, Mich.

**GOOD SEEDS**  
Grown From Select Stock - None Better - 53 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. Big free catalogue has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses.  
**R. H. SHUMWAY, Rockford, Ill**

# "Dow" Spray Materials for Orchard, Garden and Farm

## "DOW" Powdered Lime Sulphur The Modern Lime Sulphur Spray



**Dow Powdered Lime Sulphur** is first made in the well known form of **Dow Lime Sulphur Solution**. Then, the "DOW" Chemists use a specially designed apparatus to remove the water, leaving the Dry Lime Sulphur in effective chemical combination. Again, special "DOW" equipment reduces the material to a finely-divided, bright yellow powder—uniform and without lumps. This assures even working of the sprayer. The physical and chemical properties of **Dow Powdered Lime sulphur** are guaranteed by the "DOW" Trademark. Be sure to look for it.

### INSECTICIDES and FUNGICIDES

**Dow Powdered Lime Sulphur.** A genuine Lime Sulphur in powder form as effective as solution, but easier to handle and more satisfactory to use and store.

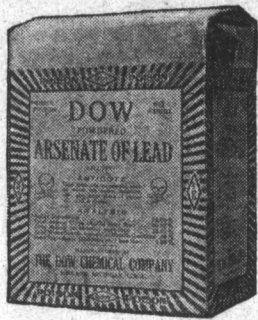
**Dow Powdered Lead Arsenate.** The standard poisonous spray for killing external leaf-eating and chewing insects, bugs, worms, etc., on foliage of trees, vines, shrubs and vegetables.

**Dowco.** A double-purpose combined insecticide and fungicide where one spray is used for both bugs and blights.

**Calcium Arsenate.** To kill Boll Weevil on cotton and for vegetable and plant dusting.

**Bordow.** A copper fungicide—ready to use in control of various blights and fungus.

All "DOW" Sprays are of highest standard—finely divided, easily mixed and adhere most tenaciously. "DOW" shipping service, too, is accurate and prompt.



Write for Free Spray Calendar

THE DOW CHEMICAL COMPANY  Midland Mich. U.S.A.

# Fruit Industry Comes Back

Fertilizer Helps Southern Ohio Fruit Growers to Success

By Prof. Roy E. Marshall

**P**ERHAPS the most interesting case where commercial fertilizers played the role of re-establishing an apparently lost fruit industry is to be found in the Southern Ohio fruit districts where some ten or twelve years ago the fruit growers were about to abandon a once profitable industry because the soils had been allowed to run down, and as a result the trees had become less productive and were less vigorous, as indicated by the feeble twig growth and light green or yellowish color of the foliage. This decline in apple production was said to be due to the effects of late frosts, lack of cross-pollination, running out of varieties, change of climate and various other factors; but the Ohio Experiment Station suspected that the unprofitable production was due to a lack of fertility and at once started several fertilizer tests in orchards of seventeen to twenty years of age in that section.

The experiments included tests of nitrogen, phosphorus, and potash, applied singly and in combination with each other, and of stable manure, together with various cultural treatment. The plots where nitrate of soda had been applied began to respond to the treatment in two weeks and the trees continued to improve in twig growth, color of foliage and development of conspicuous robust fruit buds throughout the season. At the end of the first five years of the experiments the plots on which nitrate of soda was used at the rate of five pounds per tree, either alone or in combination with acid phosphate, muriate of potash, or both, returned average annual cash gains per acre of \$112.75, \$118 and \$146.50 in three orchards.

Stable manure gave indifferent and inconsistent results and furthermore, proved to be expensive when it was possible to obtain it. Acid phosphate alone seemed to produce no effect, but when used in conjunction with nitrate of soda the results were often better than where the nitrogen carrier was used alone. Muriate of potash was not profitable. Bone meal and tankage were slow in bettering the yields, but after the first five years of application gave somewhat better results.

These results have shown that nitrogen, in a quickly available form, should be applied two to three weeks before blossoming. Little nitrification takes place in the soil at this season and unless nitrogen is applied, the tree must rely upon that stored up in its parts during the past season and this amount is insufficient in trees growing under such conditions. The nitrogen applied to the soil in early spring is soon carried to the fruit spurs and seems to aid fruit setting or to prevent the tiny fruits from withering, and consequently dropping. Early applications are also essential in promoting a satisfactory fruit spur growth for the next year's crop.

The sod mulch system is usually practiced in the hill orchards of south-eastern Ohio, and a rank growth of grass is essential to the formation of a mulch that will conserve the moisture. Where fertilizers were not applied a sparse growth of poverty grass resulted, but where nitrate of soda was applied and where both nitrogen and phosphorus were applied a good mixture of all developed and some orchards produced as much as 3,500 pounds of sun-dried mulching material per acre under this treatment.

It is recommended that the trees in Ohio, twenty to twenty-five feet in height, receive about five pounds of nitrate per tree, and trees of other sizes receive amounts in proportion; the

materials to be applied about two to three weeks before blossoming, broadcasting the fertilizer over all the land area except that close to the tree trunks, if the roots are thought to fill inter-row spaces or underneath the drip of the branches if the trees are younger. Acid phosphate should be applied at the same time and in the same manner along with the nitrogen carrier because of the better grass growth.

Prof. R. B. Cruickshank, of Ohio State University, says that Ohio fruit growers used 508 tons of quickly available nitrogenous fertilizers in 1919, 1,115 tons in 1920 and 1,523 tons in 1921. The last amount was enough to fertilize about 1,000,000 trees. Fruit growers in twenty-two counties used nitrogenous fertilizers in 1919 and its use spread to fifty-nine counties in 1921.

### MORE PEARS FOR WESTERN MICHIGAN.

(Continued from page 171).

ers it is rather immune. The season in the South Haven district is normally the last of August and the first of September.

Seckel is an old and well-known variety. It is very small in size and is considered the standard quality among pears. Its high quality keeps it much in demand as a dessert fruit. It is also liked for pickling. The trees are very vigorous and variable in productiveness. This rather uncertain bearing habit, together with the small size of the fruit, are rather objectionable characters. The variety is the most blight-resistant of our high quality pears. The fruit brings top prices as a rule. Season, the first part of September.

The Bosc is a very high quality dessert pear. The tree is a strong grower although somewhat willowy. The fruit is nearly entirely covered with russet and has a peculiar long curved neck. It is necessary to top-work the Bosc or if the trees are received from the nursery they are usually double-worked. The Bosc itself makes a poor trunk. The variety is very popular on the market and as a rule brings good prices. Many growers complain that the variety does not bear heavily enough but practically all concede that it is a reliable bearer. The season is approximately the twentieth of September.

The Howell is well liked around the Fennville district but is not so generally grown elsewhere. The tree is vigorous, productive and not very susceptible to blight. However, the psylla is very fond of this variety. The fruit is a clear yellow when ripe and on well-colored specimens a pretty pink cheek is evident. As a rule it does not sell as high as the other varieties mentioned, although growers claim that the variety is profitable. This variety is especially well adapted as a pollinizer for other sorts. Season, the first part of September between the Bartlett and Bosc.

With the exception of a late winter pear these five varieties should fill all of our needs at the present time. If future plantings are restricted to these varieties it will not be many years before Michigan will have a splendid reputation for producing large quantities of high-quality pears.

Deqatur is rapidly developing as a celery center. For instance, during the past season there was shipped from that point over thirteen million pounds of celery, much of which has been handled by the Farm Bureau Produce Exchange at Detroit.

**Ready Now**  
**Get Your Copy**

With prices where they are, only a bumper crop can make the farm pay a good return this year—and the first essential of a big profitable harvest is **Hardy, Big-Yielding, Michigan-Grown**

## Isbell's Seeds

"As They Grow Their Fame Grows"

Your name and address on a post card will bring you this valuable book—this Guide to Better Crops. It describes the best in seeds—gives cultural directions—shows how Isbell seeds are grown and quotes direct prices. It is one of the most helpful catalogs in America. And samples showing quality of Field Seeds in which you are interested will be sent free on request. Send today—It's Free.

**S. M. ISBELL & COMPANY**  
715 Mechanic St. (48) Jackson, Mich.

### Big Profits To Cantaloupe Growers

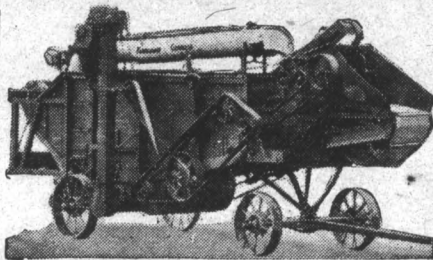
Who raise the famous GOLDEN CHAMPLAIN melon. Why spend all your time raising profitless crops? Our plan tells you how to make good profits growing the cantaloupe which always sells at a high price. Earliest, 57 days, finest flavor, biggest yielder, hardiest vines. Write for prices and full information at once on our Originator's seed; supply limited.  
H. J. WALRATH, R. 1, CONNEAUT, OHIO

### Glass Cloth

a transparent waterproof fabric as efficient as glass for hotbeds, poultry houses, etc. Sample 3x9 ft. P.P. \$1. Cat. Free. **TURNER BROS.**, Desk 22 Bladon, Neb.

**Concord Grape Vines** 1 yr. No. 1, \$40 per 1000. Fruit trees, Berry Plants and Shrubbery. Write for free catalogue today. **FEATHER'S NURSERIES**, Baroda, Michigan

**TRY a Michigan Farmer-Classified Liner. They bring results.**



## FARQUHAR THRESHERS SAVE ALL THE GRAIN

The modern 1923 Farquhar Thresher is the perfect result of 67 years' experience gained from making farm threshing machinery.

The patented grain saving device at the bottom of the windstacker prevents any grain from being blown out and lost. The gearless windstacker never chokes; it puts the straw exactly where it is wanted without any hand labor. Self-feeder eliminates the work of one man and keeps thresher working at full capacity at all times. Automatl weigher and bagger do away with hand labor. In fact, the Farquhar Thresher is practically automatic in action, requiring only half of crew needed on old type threshers. Threshes all kinds of grain, including cow peas and soy beans. Also comes with clover hulling and rice attachment if so desired.

The truck is strong, yet light and easy running; built to make sharp turns. All parts of thresher can be oiled from the floor. All Farquhar Threshers are guaranteed. Ruggedly and perfectly built to give lasting satisfaction. Write for catalog today.

**A. B. FARQUHAR CO., Limited**  
Box 512, York, Pa.

Also manufacturers of Steam Engines, and Boilers, Sawmills and Farm Implements. Write for catalog

### PEACH TREES, 20c

Apple Trees 25c each Postpaid. Send for 1923 Bargain Catalog of Fruit Trees, Plants, Vines, Shrubs, Guaranteed Garden and Flower Seeds. Special prices to large planters. **ALLEN NURSERY & SEED HOUSE**, Geneva, Ohio

### One Public School

Jimmie Goes to School.

JIM stood on the front porch and waved a fond good-bye to his "big boy" who, leading the way and tugging at his mother's hand, was being escorted to school on this, the opening day. A strange lump came up in Jim's throat. Across the street he saw Frank, the twenty-three-year-old son of his neighbor, shamble languidly and shiftlessly down the front steps, light a cigarette and climbing into a smart sport car speed away. This Frank had been through it all. For seventeen years he had attended school. He had finished high school and college and now stood at the end of the path where Jimmie was starting this morning. Last June Jim had sat on the porch across the way with Frank the elder and Frank the younger on the first evening after the latter, graduating from college had returned home, and Jim was amazed at this unfinished product of the higher institutions of learning. Now Jim was not a college man; nevertheless Jim knew from experiences in life that facts and knowledge really do not constitute wisdom. A boy may be well versed in Latin conjugations, know the exact ratios in Mendell's law, and be familiar with the theory of Relativity and still be poorly equipped for life. Jim knew that consideration for others, a passion for justice, a sane patriotism and an appreciation of beauty are all essential elements of a well-rounded life and he felt that Frank, Jr., was lacking in these qualities.

The old man's fault, thought Jim, as he watched the car disappear. He signed the checks, asked no questions, worried about his business and hoped for a miracle in the boy which never came, and now the college turns back the son, utterly lacking in wisdom and at a total loss as to how to tackle the problems of life.

I'll not make that mistake, thought Jim. I'll do my part. I'll go along with Jimmie. The teacher can't do it all. I'll show him the relation of facts to life. I'll take an interest in his school and his teachers. I'll help in transmuting little Jim's knowledge into wisdom. It's going to take a lot of time and patience, but I'll do it.

And then Jim looked ahead to that evening seventeen years away when he and his son should sit together on the front porch in the fading light. "Well, Jim." "Well, Dad." A clear-eyed boy with a purpose in life and a well-defined sense of justice. A boy who would be an asset to any family and any community.

It's up to me, thought Jim. My job and the teacher's. We'll both begin today.—E. V. Root.

#### FARMER MUST KNOW HIS BUSINESS.

FOLKS are coming to the idea that if we farmers are going to get in better financial shape financially, we must work out our own salvation. From a business standpoint we are manufacturers. We make raw materials for the public. As such we should know what the consumer needs. We should also know how to produce what the consumer needs. Then in addition we should know how this material can be placed at the consumer's disposal at the least cost and in the best condition. Many of the problems of the farmer can be worked out by the individual farmer himself. Others will require the united efforts of many farmers. The fact remains that we must work together.—L. S. Tenny.

Says Sam: It's always the fellow who has most to do that is willing to take on a little more, and to get it done.



Rosenthal Special 4 Corn Husker and Shredder. Easily handled by 10 to 15 H P. A big money-maker with surprisingly high capacity.

## The "Story" a Dry Fall Told

IT was dry last Fall—unusually dry. Even owners of Rosenthal Corn Huskers and Shredders feared the weather. Even men who had never seen a Rosenthal that wouldn't husk fast and clean—with stalks in almost any condition—wondered if they weren't facing the impossible.

And we, too, wondered—waited to see which would win—weather or machine.

First came a letter from Ohio, then one from Michigan—and then letters from farmers in every state where corn is husked and shredded by power. One after another, Rosenthal owners volunteered the news that once more their machine operated perfectly in the face of a supreme test.

Rosenthal machines "whipped" the dry weather last Fall—just as easily as they handle frozen stalks in bitter cold. So last Fall carried with it a big message to the far sighted farmer who wants a corn husker and shredder that will do the work—and do it right in any weather.

### Why This is the Time to Investigate!

Right now—when you are deciding your corn acreage—is the time to look ahead to the way you will use your crop. Authorities state that 63% of corn's nutriment is in the ears and the remaining 37% is in the stalk. A Rosenthal makes this 37% available. Supplies roughage so essential to a balanced dairy ration. Does it more economically and more profitably.

Make money doing custom work, too. Shredding comes at a time when your tractor might otherwise be idle. With a Rosenthal you can take a good substantial profit out of ordinarily dull months. Scores of Rosenthal owners are doing it. Many pay for their machine in a single season.

Write at once for completely illustrated 48 page catalog in colors describing complete line of four sizes of Corn Huskers and Shredders. Also three sizes of Ensilage Cutters. Useful souvenir FREE.

ROSENTHAL CORN HUSKER CO. Box 2 Milwaukee, Wis.

# ROSENTHAL CORN HUSKERS and SHREDDERS

## 10 Cents



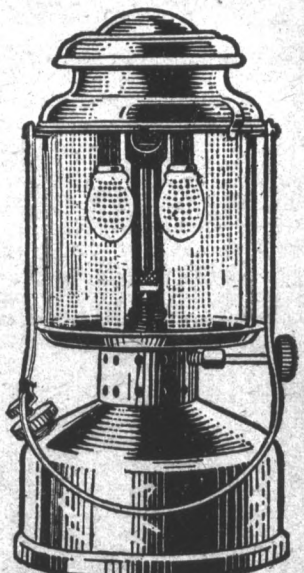
No Wicks  
No Smoke  
No Smell

worth of common kerosene or coal oil will keep this Sunray lamp or lantern in operation for 30 hours. Produces 300 candle power of the purest, whitest and best light known to science. Nothing to wear; simple; safe; 15 Days' Trial.

### FREE-300 Candle Lantern

As a special introductory offer, we will give you a 300 Candle Power Sunray Lantern FREE with the first purchase of a Sunray Lamp. Lights up the yard or barn like a search light. Write today for full information and agency proposition.

Knight Light Co., Dept. 3102, Chicago, Ill.



### "Sweetest Corn in the World"

Sonderogger's Golden. The originator says it is the sweetest corn in the world and I think he is right. I have never found one sweeter and I advise everyone to try it. It contains about 5 per cent more sugar and 5 per cent less starch than the early white varieties. Price, 10c per packet. (25)  
THE GOLDEN WINESAP—most wonderful apple. It has the juicy tartness of Jonathan, beauty of Winter Banana, golden color of Grapes and keeping qualities of Gen Davis. Bears young. Hardy everywhere.  
Write for large free catalog of Trees and Seeds that Grow.  
Sonderogger Nurseries & Seed House  
59 Court Street, BEATRICE, NEB. Carl Sonderogger, Prop.

Save Your Barns, fences, posts, rope, etc. Merck PRESERVER. Prevents rot. Gallon \$1.00. HOME PRODUCTS INC., Rahway, New Jersey

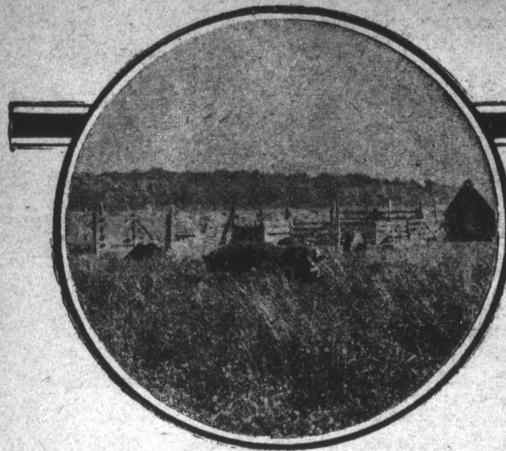
STRAWBERRY PLANTS \$3 per 1000, history and valuable illustrated book free. You will learn. Address MAYERS PLANT NURSERY, Merrill, Mich.

STRAWBERRY and Raspberry Plants 17. Years' experience. Prices Reasonable. Catalog Free. J. E. HAMPTON & SON R. BANGOR, MICH.

### SEED CORN

Ear or Shelled  
I sell seed corn ear or shelled or any other old way. It's all tested and proven and sold on approval. If you don't like it we trade back. Samples free, also advice such as it is. We can furnish seed corn to fit your climate. Write today for free seed corn samples, seed book and "Seed Sense".  
HENRY FIELD SEED CO., Dpt. 7 Shenandoah, Iowa





Michigan Farm Bureau Brands include the Best varieties of alfalfa, clover, seed grains and other field and grass seeds. Their Vitality, Description and Purity are guaranteed to be as represented to the full amount of the Purchase Price.

### Genuine Grimm Alfalfa Seed

Farm Bureau Brand Grimm, Scarified and Recleaned, requires less seed per acre. For purity of strain, germination, hardiness, tonnage, high feeding value and soil improvement it is the best.

Seed of unknown adaptation often fails. Can you afford to take the chances with your investment in seed, labor, and land? Farm Bureau Grimm is certified in the fields and after threshing and is adapted to this climate.

Grimm Seed costs more per pound than Common. It's worth the price if you get Genuine Grimm. Buy Farm Bureau Brand and know it's right.

Buy Grimm Alfalfa and all your other seeds from your local CO-OPERATIVE ASSOCIATION demanding that every bag be Farm Bureau Brand, tagged with our analysis and guarantee, which covers the full amount of the purchase price.

If you can't get this service locally, write to the

### Seed Department

## MICHIGAN STATE FARM BUREAU

LANSING, MICHIGAN



### AUCTION SALE

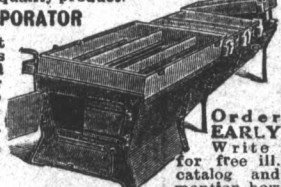
On the 13th and 14th of February, 1923, I will sell at public auction all the personal property of the late Frank R. Smith, Somerset, Hillsdale County, Mich., consisting of: A Herd of 17 registered and eligible to register Ayrshire Cows and heifers and one Bull. (Catalogue on request.) Eleven Head of Extra Good Grade Holstein Cows, Fifteen Head of Grade Holstein Young Cattle, Fourteen Head of Good Work Horses, Ten Large Type Poland China Bred Sows from registered stock. And the entire lot of Farm Tools, ranging from automobiles and Fordson Tractor, one 12 Horse Power Gasoline Engine, one Hinman Milking Machine, down to Forks and Hoes. The Tools will be sold on Feb. 13. The Live Stock will be sold on Feb. 14. Ayrshire Cattle will be sold between 11:00 A. M. and 1:30 P. M. Somerset is located on NYR R. R. Ypsilanti and Hillsdale Branch Trains arrive and depart from the East 10:37 A. M. and 4:00 P. M. From the West, 8:57 A. M. and 1:45 P. M. Good Hotel accommodations here if desired. Terms of sale: All sums of \$10.00 and under cash, over that amount 5 months' credit, with good Bankable Notes at 7% interest. Auctioneers—John T. Hoffman, Andy Adams, Fred S. Smith, Administrator, J. D. McLouth, Clerk.

### SAVE YOUR MAPLE TREES

Earn money by making maple syrup. Great demand for quality product.

#### CHAMPION EVAPORATOR

Produces finest quality. Saves time, fuel and labor. Pays for itself in a couple of seasons—lasts for many years. Sap Spouts, Tanks, Full Line of Sugar Maker's Supplies.



Order EARLY Write for free ill. catalog, and mention how many trees you tap.

Champion Evaporator Co., Hudson, Ohio

### Maple Syrup Makers

Profit by adopting the GRIMM SYSTEM Sectional pans with high partitions. Light and heavy cannot intermix, insuring highest quality with least fuel and labor. 22 different sizes.

Write for catalog and state number of trees you tap. We also manufacture I. X. L. evaporators and can furnish repairs for same. GRIMM MFG. CO., 370 East 93rd St. Cleveland, O.



### FRUITS-SHRUBS TREES-FLOWERS ORNAMENTALS SEEDS

LOW PRICES Bargains in everything that grows. Introductory proposition better than anything ever offered. Prices way down on Alfalfa, Clover, Timothy, Hubam, New freight saving plan. Write for wholesale price list, also complete catalog that tells 18 ways of making money in 1923.

Galloway Bros. Co. Dept. 187 Waterloo, Iowa

**5 CHERRY TREES** Popular varieties, heavy fruit, well branched. \$1.49 special advertised price.

**12 APPLE TREES** Standard varieties. Average 8 won't \$3.15. Perfect bargain at.

**PLANT NOW PRICES DOWN** My direct from nursery to you plan means saving of 50 per cent. On top of that my best rock prices give you more real dollar value, more quality than you ever bought before. Now is the time to do that planting of small fruit, shrubs, fruit trees, to improve that city, town or country lot. Finest varieties, highest quality, lowest prices in years.

**EVERGREENS At Lowest Prices** For ornamental planting—cost very little—show up big. A few of them add considerable beauty to home grounds—increase value of property hundreds of dollars. All varieties—all sizes.

Also all varieties of evergreens for windbreaks to shelter farm homes and to increase farm value. Prices from \$2.50 per 100 up—depending upon size and variety.

**FREE BARGAINS** Shows fruit trees, small fruits, shrubs, evergreens—of all varieties—in actual colors, landscape sketches and color photographs. A book beautifying your property. A book full of nursery stock bargains from growers—direct to you at big saving.

Strawberry 100 plants, choice of 4 varieties, \$1.00  
Red or Black Raspberries, 20 plants, choice of 4 varieties, \$1.00  
Grapes 12 for \$1.00  
Blackberries for \$1.00  
Nectarine Grapes (white) 1 yr. 6 for \$1.00  
Spiraea Van Houttei (white) 1 yr. 6 for \$1.00  
Snow berry 1 yr. 6 for \$1.00  
Indian Currant, 1 yr. 6 for \$1.00  
S. Hardy 1 yr. 6 for \$1.00  
choice 8 varieties for \$1.00  
Peonies—choice of red, white or pink. 6 for \$1.00  
Glaucous holly, assorted, 20 for \$1.00  
Many other bargains in catalog.

East Ferris Nursery Co.  
505 Bridge St.,  
Hampton, Iowa

### For Healthy Orchards Plant Michigan Grown Trees

Buy handsome, thrifty trees, grapevines, berry bushes, roses and shrubs from your own state and insure prompt receipt in vigorous condition. Kalamazoo County is famous for hardy, well-rooted stock. We guarantee healthy and true to name. You ought to plant more fruit trees this season. Special rates if you order now. Our handsome catalog of dependable trees, free for the asking.

CELESTY CITY NURSERIES Box 200, Kalamazoo, Mich.

Direct to You. At Wholesale Prices

## Opinions & Comments From Michigan Farmer Readers

### ISLE ROYALE.

I HAVE today received your editorial of January 13 on Isle Royale. I have, also, today received notice from the New York Conservation Commission of the completion by purchase in December 26, 1922, of the new Victory Park, 200,000 acres, including forty of the forty-two highest mountains in the Adirondacks, heavily timbered with spruce, at a cost of \$2,672,844. This park, though nearly twice the size of Isle Royale, is the second in size and embraces only about one-eleventh of the total area of New York's magnificent park system, now amounting to more than two and a quarter million acres. More than eighty per cent of this vast area was acquired by purchase, entirely unmarked by the exhibition of rag-chewing and hot air shooting that has characterized the attempt to save 112,000 acres of Michigan in the condition in which the Creator and Nature left it. You suggested that your readers form their own opinions, but you gave them no data upon which to base opinions. You called their attention to the Isle Royale propaganda but said nothing about the "Commercial Forestry" propaganda which has cluttered the pages of the daily press of Michigan for every inch of the Isle Royale stuff. Believe me, this commercial forestry matter concerns intimately the question of whether or not the people of this state need a system of public parks for rest, recreation and sport.

What have we at present? This stupendous public park system, of which we hear so much, contains less than six thousand acres, in small parcels scattered over the state. In these you may camp and fish, but not shoot. The military reservation at Grayling is also open for camping and fishing when not in use by the national guard. This gives a total of approximately 21,000 acres, or less than 1-100 part of the area of New York's parks.

We have also a forest reserve of approximately 275,000 acres, located principally in the northeastern part of the lower and the eastern part of the Upper Peninsula. The forest reserve is open to campers and hunters, but the facilities for fishing are decidedly limited because of the scarcity of lakes and streams. In addition to this we have (April, 1922) about 375,000 acres of public domain, principally jackpine and scrub oak "plains."

Pennsylvania has already purchased for its forestry reserve 1,150,000 acres, with an objective of 5,000,000 acres. From no game at all twenty-five years ago she is today one of the heaviest game-producing states in America, exceeding Michigan by about 400 per cent.

The idea of purchasing Isle Royale originated with conservationists in this state a dozen years ago. We wanted to preserve one place in Michigan nearly in its primeval form, with as few of the so-called improvements and adjuncts of modern civilization as possible and as far from the sound of Henry Ford and the smell of John D. as we could get.

For years we were told we could not buy Isle Royale because of its copper lodes. Now we are told that it is the copper interests who want to sell. We believe that the main obstacle is the loads of brass behind the engineers of commercial forestry. We have been told that it was to create a recreation place for the rich. Our answer is that

the existing game preserves are sufficient evidence of the rich man's ability and inclination to furnish his own resorts uncurbed, and if the state does not buy the island now, it will never get another chance. We were told that the island has no harbors or anchorages. We answer that there are none better in the state, and one of them will float the American navy. They tell us that the island is barren of trees and game. We say that it is one of four places in the United States where the moose and woodland caribou exist, and that these animals can not exist without forests. Naturalists tell us that it contains more birds and small animals than any other part of Michigan. No one has asked \$4,000,000 for Isle Royale; no one expects half of that sum and no price has been fixed.

The only objection yet advanced that has an iota of truth in it is, that it is fifty miles from the main land. The thousands of hay-fever subjects who throng the northern part of the state annually would consider that an asset. The 9,546 auto parties who crossed the Straits of Mackinaw by car ferry in 1922 would not consider it much of a hardship, nor would the thousands of people who go into the wilds of Ontario, beyond the "Soo" and the Nipigon. There is no record in the history of American transportation where a large number of people have wanted to go, that the means for going was not provided. The fact that more than 150,000 autos from east of the Mississippi pass through the Rocky Mountain National Park, (Colorado), annually is pretty conclusive proof that latter-day Americans, even less than the pioneers of the Oregon Trail, are deterred by distance.—Edward E. Evans.

### CAN MICHIGAN FARMING BE MADE MORE PROFITABLE?

FARMING, generally speaking, as carried on in Michigan, follows very closely on the methods used here by the old settlers at a time when there was no market for farm produce and each family tried as nearly as possible to raise everything which was necessary for food and comfort—this was at a time when nearly all the work was done by hand or with crude machinery; but with the present demand for all farm products and the improved machinery for the handling of each crop, the question arises as to whether the old plan of raising a little of everything with no special study or facilities for handling any of them is longer the most profitable method.

Why not, instead of the old method, pick out some particular line which is adapted to our soil and market conditions and make a specialty of it? By doing this and using the most prolific seeds, more thorough cultural methods, better machinery for planting and harvesting, and more care in marketing our profits would be greater and farming would change from a drudgery to a profession.

Let's forget about the legislative cure-alls that we read so much about, some of which will probably be of some benefit to us if we secure them, others which may be of no value to us even if we do get them, and instead start the year with a determination to grow some particular thing good enough and with a method efficient enough so that we can meet all competition and still make a profit?—W. S. Fletcher.

**ANOTHER SYSTEM OF CATTLE IDENTIFICATION.**

MICHIGAN cows bent on wrong doing had better beware. The Bertillon system of identification is going to be applied to them. Cows have no fingers, you say. True, they have not, but they have noses, and no two cows have noses alike. So hereafter, any venturesome heifer that is planning depredations on the neighbor's cornfield had better be careful not to leave any nose prints lying around loose—they may be used against her in court.

The nose print system of identification is being introduced at M. A. C. by C. F. Huffman of the dairy department. It was originally suggested by O. H. Baker, secretary of the American Jersey Cattle Club, in October, 1921, and was worked out by W. E. Peterson, of the University of Minnesota.

Peterson found that, as with fingers, no two nose prints are alike and that the pattern does not change with age. Thus it is possible to take the nose of a calf and verify its identity years later by taking another one.

The nose print system will be particularly valuable for such solid-colored breeds as Brown Swiss, Red Poll



Nose Prints May Take the Place of Ear Tags to Identify Bossy.

and Milking Shorthorns. Associations of breeders now require no artificial markings for registry, so that animals may be substituted. If a registered animal dies, it may easily be replaced with a high "grade." It is also possible to fake production records by substitution, since the tester cannot identify the cow.

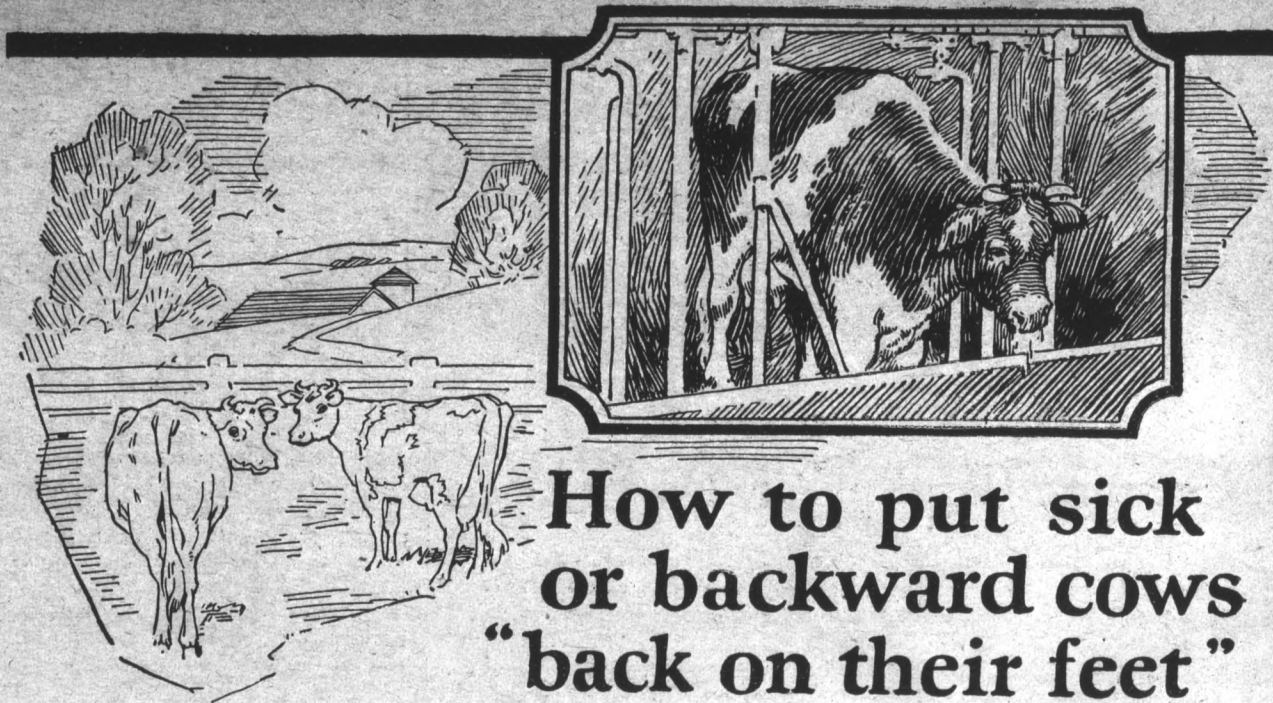
For the other breeds the system will have distinct advantages. Jersey breeders use tattoo marks, which may be altered. Associations of men interested in the broken-colored breeds—Ayrshire, Holstein and Guernsey—require a sketch of the animal with the registration papers. The nose prints will be easier to make and easier to distinguish.

In Minnesota a nose print of every Jersey cow on test is taken each month and the print is sent with the tester's report to the secretary of the American Jersey Cattle Club.

Making the nose print is fairly simple, according to Mr. Huffman. When the animal is in the stanchion, one man may perform the operation by holding the animal's head under one arm and taking the print with the free hand. Following is the method as he explains it:

"Wipe the nose dry with a cloth before applying ink by means of a stamp pad. The print is then taken on a mimeograph news print sheet, attached to a small board. Press it firmly against the inked nose, beginning with the lower edge of the paper at the base of the upper lip and rolling toward the face. Prints must be taken quickly after the nose has been dried, since moisture exudes from the pores in a short time. When the nose is smooth, do not press the ink pad against it too hard, for the print will be smeared if the grooves become filled with ink."—F. W. Henshaw.

When cutting in the woodlot, think twenty years ahead.



**How to put sick or backward cows "back on their feet"**

**FREE BOOK**

Just a post-card request will bring you this valuable cow book. We ask only that you give us the name of your dealer when you write

**THINK BACKWARD**—how many times would you not have given almost anything to know just what to do to save a sick cow. Or perhaps a cow did not seem exactly sick, but without apparent reason the milk pail brought its daily disappointment.

In order that cow owners may have at their finger tips authoritative information on the symptoms, causes and home treatment of the most common cow ailments we publish and distribute free our famous book,—"The Home Cow Doctor."

Besides a wealth of useful general information it will tell you about the wonderful cow medicine, KOW-KARE and its use in the treatment of *Barrenness, Abortion, Retained Afterbirth, Scours, Bunches, Milk Fever, Loss of Appetite*, etc. The book also explains how cows can produce vigorous calves and remain strong and healthy. Just two tablespoonfuls of KOW-KARE two weeks before and two weeks after calving does wonders in building the perfect milk-making machine.

**Increase the Milk Yield**

Every added pint is sure profit. Try KOW-KARE on your cows one week each month and the results will surprise you. Its toning, strengthening effect on the milk-producing organs is positive and promptly visible.

Give Kow-Kare a trial on backward milkers. Feed dealers, general stores and druggists sell the large package, for \$1.25; medium size 65c. If dealer is not supplied, we mail, postpaid, on receipt of price.

DAIRY ASSOCIATION CO., Inc. Lyndonville, Vt.



**Best Locking Device Ever Made**



**West Bend BARN EQUIPMENT**

An improvement found only on West Bend Barn Equipment. One lever locks in or releases from 2 to 50 cows instantly, and also operates cow-stops. Saves thousands of steps. Simple, practical and indestructible. Used on the best dairy farms everywhere. Our steel stalls, mangers, pens, litter carriers, ventilators, water bowls and other dairy barn necessities are your best investment. Get our

**Big, FREE Barn Equipment Book**  
Explains entire line, also our special FREE service to farmers building new or equipping old barns with the best labor-saving devices. Blue prints furnished. Drop us a postal for full information. We are helping thousands of farmers make more profit out of their barns. Why not you?  
Write TODAY  
WEST BEND EQUIPMENT CO.  
280 South Water Street WEST BEND WIS.

**LAXOTONIC**  
Will prevent and overcome bloat, stoppage and paralysis of the bowels in cattle. Salts or Oil are Dangerous.  
**Never Drench Cattle**  
Give Dr. David Roberts Laxotonic dry on the tongue. For sale by dealers or postpaid 50c. Ask for FREE copy of The Cattle Specialist and how to get The Practical Home Veterinarian without cost.  
Veterinary Advice Free  
Dr. David Roberts Veterinary Co.  
124 Grand Av., Waukesha, Wis.

**BARREN COWS**—are the results of **CONTAGIOUS ABORTION**  
Prevent this by using **ABORNO**. Easily administered by hypodermic syringe. Kills abortion germs quickly without harming cow. Write for booklet with letters from users and full details of Money-Back Guarantee.  
**ABORNO LABORATORY**  
44 Jeff St. Lancaster, Wis.

Please Mention The Michigan Farmer When Writing to Advertisers

# U.S. WAR DEPT GOODS

## Now sold by mail!!

**SEND NO MONEY**—Pay when goods arrive. Just write your name and address on a post-card or in a letter and tell us what articles you want. When goods arrive, pay postman our price and the postage. **But if you send remittance with order we pay postage.**

**Army Wool Shirt**  
No. 403—Government Flannel. Wool Worsted, double stitched lined bosom, double elbows. Best shirt money can buy. Sizes, 14½ to 17. Not more than two shirts to each customer.

**\$2.69**

**Army Leather Mitts**  
No. 130—Practical and serviceable. Will give unusual satisfaction. Brand new and perfect. All sizes. Not more than three pair of Army Mitts to each customer.

**39c**

**Army 4 Buckle Cloth Arctics**  
No. 332X—Waterproof, snowproof, heavy friction lining. Reclaimed, but every pair guaranteed practically new. Worth twice the price. Sizes, 7 to 10. Not more than two pair to each customer.

**\$1.29**

**Navy Pea Coat**  
ALL-WOOL  
No. 552—Heavy blue all-wool melton. Brand-new and perfect. Sizes, 36 to 44. Not more than two coats to each customer.

**\$7.98**

**Mens Socks**  
No. 815—A good heavy pair of cotton socks for 2c. All sizes. Not more than two pair to a customer. On account of the very low price of 2c, we cannot pay postage on this item unless socks are included in an order for other goods for \$1 or more.

**2c**

**Army Work Suit**  
No. 524—Heavy weight brown or blue army denim. Reclaimed but good as new. CLEAN AND SANITARY. Sizes: Jumpers, 34 to 46; Pants, 30 to 42 waist. Not more than two suits to each customer.

**85c**

**Army Leather Vest**  
No. 515—Finest quality soft leather. Wool lining. Warm and comfortable. Durable. Brand new; perfect. Sizes, 38 to 46. Not more than two vests to each customer.

**\$2.99**

**Army Blankets**  
No. 786—Brand-new heavy cotton blankets, average weight about four pounds. Size 50x84 inches. Sells regularly at more than twice our price. This is the kind soldiers used in the trenches overseas. Not more than two blankets to each customer.

**\$1.79**

No. 752—Army O. D. Wool Blankets. Slightly used, but Clean and Sanitary. Not more than two to each customer.

**\$2.95**

**Gas Mask Cloth Raincoats**  
No. 501—Absolutely waterproof non-porous. Inside silky pure gum rubber. Outside finest grade twill. Sizes 34 to 48. Not more than two coats to each customer.

**\$2.99**

**U. S. Army Sheep Lined Coat**  
No. 558x—Wide beaver-lined shawl collar. Closely woven water repellent moleskin, lined with sheared sheep—skin pelts. Sizes, 40 to 46, only. Not more than two coats to each customer.

**\$7.95**

**Army Trench Shoe**  
No. 321—Regulation U. S. Army Trench Shoe. Munsou last. Uppers of Cordovan leather. Smooth inside. Solid leather inner soles and counter. Soft Army toe. Sizes: 6, 6½, 7, 7½, 8, 8½, 9, 9½, 10, 10½, 11, 11½, 12. B. E. EE. Not more than two pair Trench Shoes to each customer.

**\$2.85**

**Army Overcoats**  
No. 564—Genuine Army All-wool Overcoat. Have been reclaimed by Government and are clean, sanitary and practically as good as new. Sizes 36 to 42 only. Not more than two coats to each customer.

**\$3.95**

**FREE CATALOG**  
Just write your name and address on a Post Card and we will send our free illustrated book. It shows many big bargains as wonderful as these. Most of them are U. S. Army goods which we bought from the Government at enormously reduced sacrificed prices. Send for your copy.

**FREE DELIVERY**—We pay postage if you remit with order. You pay postage if sent C. O. D. Send all orders and requests for catalogs to Barney's Stores, Dept. 150 St. Louis, Mo.

**GUARANTEE**—We guarantee goods exactly as represented and will promptly refund your money if you are not satisfied in every respect.

**Army Wool Sox**  
No. 419—New. Heavy. Perfect. Sizes 10 to 12.

**19c**

**Army Wool Gloves**  
No. 103—Regulation. Strong. Brand new.

**19c**

**Army Overseas Caps**  
No. 101—Wool. New, Perfect. Warm. State size.

**19c**

**BARNEY'S STORES, DEPT. 150, ST. LOUIS, MO.**

# Certified Seed Potatoes

(Continued from page 171).

The following are a few of the results obtained:  
Thirty Michigan growers reported an average increased yield per acre in favor of certified seed of 73.8 bushels. Reports from twelve growers in Ohio showed that the Michigan seed outyielded home-grown seed by 59.5 bushels per acre.  
On sixty-four farms in Butler county, Pennsylvania, Michigan seed outyielded other stock 39.5 per cent.

Two thousand acres planted to Michigan certified seed in various sections of Pennsylvania gave an increase of fifty per cent over home-grown seed. Tests conducted by Mr. C. M. Kidman, county agricultural agent of St. Clair county, Michigan, with Michigan certified seed on forty-five farms gave an average increased yield per acre of forty-one bushels in favor of the certified stock.

Mr. K. K. Vining, county agricultural agent of Kent county, Michigan, distributed a quantity of certified seed potatoes among his growers and reports as follows: "Eight hundred and fifty bushels of certified seed were distributed in lots of one bushel to forty bushels. The results obtained with this seed were very good. In every case the seed made a quicker start than the home-grown seed, and showed up well in the growing season. In a large number of cases the northern-grown certified seed was more resistant to leaf-hoppers and did not seem to be as easy a prey to early blight. This I attributed to the fact that the seed being healthy and vigorous and grown under favorable conditions was better able to withstand disease and insect pests. The yields in many cases under observation went from fifty to 100 bushels per acre over the local seed. In addition to the increase in yield, there was a marked improvement in the quality and uniformity of seed."

In a test conducted by Mr. O. I. Gregg, of Wayne county, in 1921, cost records were kept. The following is a summary of the results obtained in comparing crops from certified and home-grown seed:

Receipts from certified seed	\$288.00
Cost of production	122.80

Net receipts	\$165.20
Receipts, home-grown seed	\$229.40
Cost of production	108.40

Net receipts	\$121.00
Net gain per acre from certified seed	\$44.20

In 1921 Michigan farmers bought only twenty-two per cent of the Michigan certified seed that was sold. Seventy-eight per cent of the stock sold went out of the state. If the inspection and certification service is to accomplish the most good for Michigan potato growers, it is estimated that a larger percentage of the certified seed remain in the state. This season, Pennsylvania has already bought approximately 70,000 bushels of certified seed from Michigan. It is expected that Ohio and Indiana will require approximately 100,000 bushels. Demonstrations with certified seed were conducted in sixteen states last season with very satisfactory results; many of these states, it is believed, will procure Michigan seed this year.

Michigan growers should study the seed potato problem carefully. This is an exceptionally good year to procure certified seed, for the price is comparatively low. Growers can obtain full information relative to certified seed potatoes by consulting their county agricultural agent, by writing to the secretary of the Michigan Potato Producers' Association, East Lansing, Michigan.

If certified seed is bought in carlots much money can be saved on the cost of the potatoes and in freight charges. In any community growers wishing certified seed can combine their orders and thus buy to the best advantage. The official selling agencies for the Michigan certified seed potatoes are the seed department of the Michigan State Farm Bureau, Lansing, Michigan, and the Michigan Potato Growers' Exchange, Cadillac, Michigan. These two farmer-owned organizations are adequately equipped to handle the certified seed in a creditable manner. The price at which certified seed is sold is set by the Michigan Potato Producers' Association.

### PORTABLE FENCE PANEL.

(Continued from page 176).

The panels are fastened together where they form the corners, with the ever-ready baling wire, and by nailing a strip on the corners of the hog house the ends of panels can be wired to the house. I have used these panels to excellent advantage where I had five portable hog houses. I set the five houses in a row far enough apart so that one panel would reach from one house to the other, and the five houses were placed far enough from a permanent fence so that one panel would reach from a house to the fence, thereby making a partition at each house. The panels were wired to the fence and also to the house by means of a four-inch strip nailed to the house, the edge of strip projecting an inch or more and holes bored through it where I wanted to run my wires. This whole arrangement can be put in place ready to receive the prospective mothers in less than two hours' time.

Another great advantage of the portable fence panel is building temporary fences about the hog lot. Just set them up, worm fashion, like we used to build rail fences, and wire them together at the corners and you have a good fence which only required a few minutes to build. It also has the advantage of being easily opened at any of the corners, for admitting or letting out the hog.—E. G. Storm.

### TO PUT SURPLUS PLUMS INTO JAM.

**EXPERIMENTS** made this year in the handling of surplus fruit will go far toward helping the fruit growers of northern Michigan to make an additional profit on the growing of their fruits, is the opinion of E. O. Ladd, of Old Mission, one of the pioneer fruit growers of the north Lake Michigan shore.

Last year one of the factories of the district called upon Mr. Ladd early in the plum season for a load of plums for certain experimental attempts. From this experiment the plant making the test found it could produce a plum jam that would be commercially profitable, because of the lower cost of sugar content under the new system. It previously had been unprofitable to preserve plums because of the cost of sweetening. Toward the end of the plum season, according to Mr. Ladd, other experiments were made along the same lines with the result that he has been assured that there will be a market for surplus fruit for jam making at at least one point in the north Michigan district.

Grand Traverse county is one of the large fruit producers of that part of the state. According to the 1922 census it has almost 200,000 apple trees of bearing age, 6,000 peach trees, 15,000 pear trees, 160,000 cherry trees and 14,000 grape vines. Mr. Ladd himself is an extensive grower of cherries.—M.

**KITSELMAN FENCE**  
GET IT FROM THE FACTORY DIRECT These Michigan Men Save  
"I saved one-third," declares Wm. B. Lee, Stanton, Michigan.  
"I saved one-half by ordering from you," says Elmore Parski, Kearsarge, Rough-ton County, Michigan.  
Direct from Factory to Farm  
You, too, can save money. Our thousands upon thousands of regular customers are cutting their fence costs to the very bone by buying direct from us at Lowest Factory Prices. The quality of Kitseلمان Fence was never higher; prices are way down. Buy now and keep the difference in your own pocket.  
We Pay the Freight  
Let us send you our Free 100-page Catalog of Farm, Poultry and Lawn Fence, Gates, Posts, and Barbed Wire. Write today for this money-saving book.  
KITSELMAN BROS., Dept. 278 MUNCIE, INDIANA.  
America's Oldest Fence Manufacturers.

**Square Deal Fence**  
Farmers who know how to save money buy Square Deal Fence and get the many years of extra service Square Deal gives. Stiff, picket-like stay wires make fewer posts necessary; wavy or crimped strand wires provide springiness and keep the fence tight and trim; the famous Square Deal Knot holds stay and strand wires in a vise-like grip without cutting, breaking or slipping; extra heavy galvanizing prevents rust and insures longest wear.  
FREE To Land Owners  
Ropp's New Calculator—the most valuable farm book ever published. Instantly figures the cash value of your crops; capacity of cribs, bins, silos, barns; answers 75,000 farm problems; prevents errors; saves figuring; every land owner needs Ropp's Calculator or daily. Write for it. Post card will do. Send no postage. Get this 50c book and Square Deal catalog. Merely mention on card when you expect to buy more woven wire fence.  
KEystone STEEL & WIRE CO. 4918 Industrial St., Peoria, Ill.

**Peerless Fence**  
Now Sold Direct from Factory  
Here's good news for farmers—the famous Peerless Fence can now be purchased direct from factory at Lowest Prices Ever Quoted  
on Peerless fence. Write for free 104 page catalog giving new low prices on Fencing—Barb Wire—Steel Posts—Gates—Roofing and Paint. Save 40%. Satisfaction guaranteed.  
PEERLESS WIRE & FENCE CO.  
Dept. 2807 Cleveland, Ohio  
Factories at CLEVELAND, OHIO  
ADRIAN, MICH. MEMPHIS, TENN.



LAMBS AT \$15.50 AGAIN.

LAMB prices advanced to \$15.50 at Chicago last week, which is within ten cents of the high point of the season. Dressed lamb trade has not been so brisk, however, and prices on the hoof lost much of their advance before the close. Receipts at leading markets are running about equal to those of last year or to the average for this time of year. Most of the supply is now in Colorado feedlots and adjacent states and is strongly held. It is apt to be fed on the market uniformly in such a way as to support prices and possibly bring a moderate advance, but the total supply is large enough to prevent any pyrotechnics.

The sheep population on January 1, 1923, according to the official estimate was 37,209,000 head, an increase of 2.4 per cent over last year but with this exception the smallest in a quarter of a century. The industry has made but a small start toward restocking. Average farm prices show a sharp advance from \$4.80 per head a year ago to \$7.50 per head this year.

ANOTHER DIP IN THE HOG MARKET.

RECEIPTS of hogs at the leading market expanded again last week and prices dropped to the \$8 level at Chicago once more. Large packers are fighting all advances and eastern shipping demand, crippled by a snowstorm in the east, has not been broad enough to dominate.

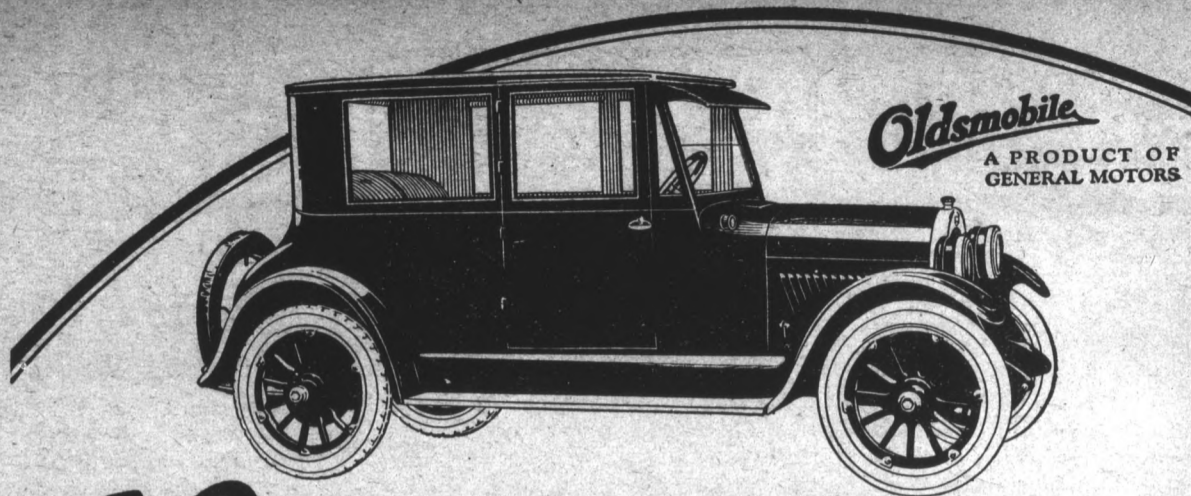
It is possible that conditions in Europe will compel some revision in opinions as to hog market prospects but domestic consumption remains unusually heavy and thus far clearances for export have not subsided materially, although packers report but little new buying. With a decrease of twenty-five to thirty-five per cent in weekly receipts due in the next eight or ten weeks an advance above \$9 in average values at Chicago appears to be a reasonable assumption.

The hog population on farms on January 1, 1923, as estimated by the department of agriculture was 63,424,000 head, or 9.7 per cent more than a year ago. Unfortunately the composition of the population is unknown but it is a reasonable assumption that much of the increase consisted of fall pigs, the number of which as shown by a previous report, was about twenty per cent larger than a year ago.

BARRED ROCK WINS CANADIAN HONORS.

CANADA'S blue ribbon hen, a Barred Rock, has just finished up at the second New Brunswick egg-laying contest with a credit of 247 eggs. Two hundred birds were in the contest, covering a period of fifty-two weeks and making an average of 139.49 eggs, as compared with an average of 152.13 for the previous year.

The best pen in the contest, says Consul Rasmusen, was of the Barred Rocks, with a credit of 2,143 eggs for the fifty-two weeks, and was the only pen which showed an average of over 200 eggs per hen. Six of the birds in this pen laid over 200 eggs, and the lowest one had a record of 171. The 200 hens consumed 11,672 pounds of mixed grains, 7,790 pounds of mash, 8,930 pounds of skim-milk 585 pounds of grit 682 pounds of shell, a small quantity of charcoal, and a liberal amount of green feed during the year. The total cost of this feed was \$515.15 and the value of the eggs sold was \$902.27, leaving a balance of \$386.89 to cover the cost of labor and housing—Mills.



Now—the Kind of a Closed Car You Farmers need  
5 Passenger Brougham \$1375

Here's what you have been waiting for in a closed car—a strong durable body, paneled with steel from floor to roof. (No composition materials used.)

There are 97 cubic feet of space inside the Brougham, providing room for five grown-up people. Or when you go to town there is room for all the supplies you want to carry. And the compartment under the rear deck holds ample luggage for touring.

When you buy a closed car you shouldn't have to take it to an accessory store and spend money

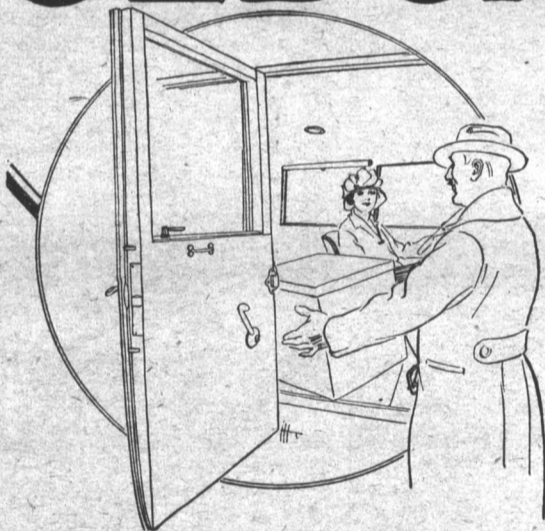
for heater, wind shield wiper, transmission lock, etc. Only the Oldsmobile Brougham gives you all the equipment so necessary on a farmer's car.

See the completely equipped Brougham at our nearest dealer's show room today and you will realize that Oldsmobile, with the co-operation of the great General Motors Corporation, offers you the finest closed car value for your money.

Write us for handsomely illustrated Brougham Booklet.

OLDS MOTOR WORKS, LANSING, MICHIGAN  
Division of General Motors Corporation

OLDSMOBILE



The Doors are 29" Wide

Easy for passengers to enter rear compartment, and easy to load in bulky packages, for trips to and from town.

You can walk right into the Brougham carrying a large box or a bushel of groceries without striking your knuckles on either doorsill.

White Light FREE!  
Beats Gas or Electric

Make your home bright and cheerful and SAVE ONE-HALF on oil. Tests by Government and leading Universities prove this wonderful new Aladdin is nearly five times as efficient as the best round wick flame lamps. BURNS 50 HOURS on ONE GALLON common kerosene. No odor, smoke or noise; no pumping up; easy to operate; won't explode. Won GOLD MEDAL. Guaranteed.



Get Yours FREE

We want one user in each locality to whom we can refer customers. In that way you may get your own without cost. Be the first to write quick for 10-DAY FREE TRIAL OFFER and learn how to get one FREE.

Make Money Spare or Full Time

No previous experience necessary. Many spare time workers earning \$50 per month, full time workers from \$200 to \$500. Our trial delivery plan makes it easy. NO MONEY NECESSARY. We start you. Samples sent for ten days' trial and GIVEN FREE when you become a distributor.

THE MANTLE LAMP COMPANY, 280 Aladdin Bldg., Chicago, Illinois—Largest Coal Oil Mantle Lamp House in the World  
ALSO WAREHOUSES AT PHILADELPHIA; PORTLAND, ORE.; MONTREAL; WINNIPEG; LONDON, ENGLAND

FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free. Electric Wheel Co., 35 Elm St., Quincy, Ill.

DOGS

AIREDALE PUPS. Sired by son of Champion Tintern Tip Top. From registered stock. Make fine watchdogs for farm homes and poultry. Males \$15. Females \$10. R. G. Kirby, R. 1, East Lansing, Mich.  
Fox Hounds, Rabbit and Skunk dogs. All ages. Coon Hound Pups. W. E. LEOKY, Holmesville, Ohio

SEEDS FOR YOUR GARDEN THAT GROW BIG CROPS...

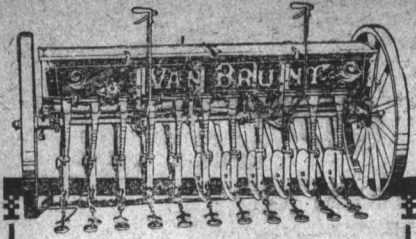
HAVE YOU GOT TO BE SHOWED? All right, I live close to the Missouri line and I can show you on anything in the seed line, Seed book and "Seed Sense" free. Also samples and advice (such as it is). I can send you seeds that will really grow. Write today for free books and samples.  
HENRY FIELD SEED CO., Dept. 7 Shenandoah, Iowa



Good Farms At Small Cost

Virginia Farm lands can be bought for the interest many pay on mortgages. Mild climate, good soil, and nearby markets. (Save freight) Write for new Handbook which gives details of opportunities for Stock Raising, Dairying, Fruit Growing, Poultry Raising, and General Farming.  
G. W. KOINER, Com. of Agr. Room 134 Capital Bldg., Richmond, Va.

TRY a Michigan Farmer Liner, they bring results.



### Drills Seed and Fertilizer

In one trip over the field this drill helps to pulverize the soil, makes the seed furrows, drops and covers both seed and fertilizer, and, besides, increases the crop yield because it drills the seed uniformly.

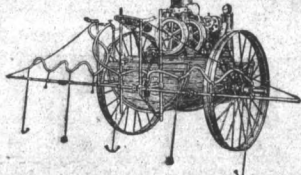
#### Van Brunt Grain and Fertilizer Drill

Equipped with the famous Van Brunt patented, adjustable gate force-feed, which compels seed to flow from grain box in even, continuous streams—no bridging or clogging; no seed or ground wasted. Metal tubes and closed delivery disc boots protect seed until it reaches bottom of seed furrow. Scrapers keep discs clean—no choking up in mud, gumbo, trashy or sticky soil. Fertilizer handled just as positively.

**FREE BOOKS.** Write today for booklet describing Van Brunt Drills. Tell us what other implements you are interested in and we will also send you "Bookkeeping on the Farm," just the book you need for your records. Address John Deere, Moline, Ill., and ask for Package VX-6 22.



### COMBINATION Potato and Orchard SPRAYER



Grow more and better potatoes by spraying with a dependable power outfit. It pays! The Bean Combination Sprayer, shown above, will take care of your potato and truck crops perfectly, and in 5 minutes can be made ready for orchard work. Just remove the boom and add hose and gun or rods. Low-down and compact. Makes very short turns. Easy to pull. High clearance. Adjustable to any rows. Steady high pressure insures thorough covering of plants. Strong and rigid, and will stand up under hardest work. Equipped with Porcelain-lined Cylinders, which are not affected by Bordeaux or other sprays; complete Rotary Agitator and other reliable Bean features developed thru 38 years of experience. Send the coupon.

Gentlemen: Send me your new catalog and full details of the Bean Combination Sprayer.

Name \_\_\_\_\_  
Address \_\_\_\_\_

### The Bean Spray Pump Co.

31 Hosmer Street Lansing, Mich. 251 W. Julian Street San Jose, Cal.

### NEW HUCKLEBERRY

The Garden Variety that grows from seed the first year. A Huckleberry that thrives in all climates and on all kinds of soil; remarkably prolific, yielding an immense crop of fruit.

**EXTRA LARGE**  
You will be astonished at the unusual size of the fruit and the rapid, easy growth. A great berry for jelly, pies and preserves.

**SEND FOR SEED TODAY**

Simply mail us 25c in coin or stamps, and we will at once send you, postpaid, three full size packets of seed, and also give you a three months subscription to a big Fruit and Garden Magazine.

NOVELTY GARDEN CLUB  
7042 CAMPAU BLDG. GRAND RAPIDS, MICHIGAN

**For BIG CROPS**

Grow Watson's Prolific Everbearing

Of luscious Strawberries, also standard varieties, 100 each Profitic and Gibson, \$2 cash postpaid. 1 Spirea or 2 Concord Grapes with every order of \$5 or more. We also save you money on thrifty Fruit Trees, Shrubs and Ornamentals. Write for prices. Watson's Strawberry Acres, R. 8, Box 54, Grand Rapids, Mich.

#### Strawberries Plants

Prices as low as \$2.75 a thousand. Raspberries, Blackberries, Currant, Asparagus, Grape Plants, etc. For sale by the 100 or more. Sawyer Nurseries, Sawyer, Mich., Box 108.

## Cloverland News

By L. A. Chase

### CHIPPEWA COUNTY GETS FAIR PROPERTY.

THE Chippewa County Fair Association has voted to turn its fair property over to the county, which will supervise the operations of the fair association hereafter through a committee of three, as a condition of the county's financing the fair.

### PREDATORY ANIMAL HUNTING.

THE Monthly News Letter of the State Department of Conservation states that during the month of November twenty-nine hunters were employed by the department in predatory animal control, who secured a total of eighty predatory animals, including eleven timber wolves, twenty-seven coyotes, thirty-eight foxes and four bobcats.

### SUPERIOR IRON PRODUCTION.

I HAVE just received from the United States Geological Survey statistics of iron ore production in the United States in 1922. People probably do not realize that eighty-six per cent of the iron ore shipped last year—which is a good average—came from the mines adjacent to Lake Superior. This amounted to over 43,000,000 tons. This was a considerable increase of tonnage over the previous year. This Lake Superior ore was valued at above \$145,000,000. Nearly all this ore went out by water. It may also be of interest to learn that the per ton value of iron ore at the mines was \$3.75. The mines of Minnesota contributed seventy per cent of the iron ore shipped from this district and sixty per cent of the total United States output. The Michigan mines shipped twenty-nine per cent of the lake shipments and twenty-five per cent of the United States total.

### POTATOES FOR STOCK FEEDING.

MR. T. R. SHANE, county agricultural agent of Schoolcraft county, has brought to the attention of his farmers the practicability of using the county's surplus potato crop as stock food. He quotes Mr. J. W. Weston, potato specialist of the Michigan Agricultural College, who points to the very large use of potatoes in European countries where at times considerably more are devoted to animal than to human consumption. He recommends starting with culls and saving the marketable varieties for the spring trade as far as possible. The starch of the potatoes is excellent for fattening but potatoes should be mixed with nitrogenous food. Four bushels of cooked potatoes are considered as equivalent to one bushel of corn for hog feeding. Milch cows should not be fed more than twenty-five or thirty pounds of raw potatoes per day for each 1,000 pounds of live weight. Larger amounts may injure the butter. Potatoes are as good for cow feed as corn silage, ton for ton. Potatoes should be chopped before feeding. For hogs potatoes should be combined with protein food such as cooked culled beans or middlings. When combined with barley, corn or rye, potatoes should be combined with skim-milk or a small amount of oilmeal. Horses may be fed fifteen pounds of raw potatoes daily but should not be watered immediately after feeding. Twelve pounds is a good average. With due consideration of the factors involved potatoes may assist in a good poultry ration.



## These Names are the Foundation of "A A Quality"

BRADLEY'S  
BOWKER'S  
STOCKBRIDGES  
E. FRANK COE'S  
LISTER'S  
CROCKER'S  
DETRICK'S  
ZELL'S  
HESS'  
EMPIRE  
HOMESTEAD  
HORSESHOE  
CLEVELAND  
DRYER  
PATAPSCO  
ASHEPOO



SINCE you can't see quality in fertilizers, your best guide is the reputation of the people who make them.

Consider the famous pioneers associated with the history of this organization and its predecessors—men whose life-work has been the study and manufacture of plant foods; and whose achievements are summed up in fertilizer brands widely known for upwards of half a century or more.\*

"A A Quality" Fertilizers are based on the experience of all these men. They combine the best qualities of all their time-proved products. They offer you the greatest value for your fertilizer dollar you can get anywhere.

\*Many A A C Fertilizers are still sold under original brand names, but with all the advantages of improved A A C manufacture.

#### THE AMERICAN AGRICULTURAL CHEMICAL CO.

Alexandria, Va.	Cleveland	Henderson, N. C.	Norfolk
Atlanta	Columbia, S. C.	Jacksonville	Philadelphia
Baltimore	Charleston, S. C.	Los Angeles	Raleigh
Boston	Spartanburg, S. C.	Montgomery	St. Louis
Buffalo	Detroit	New Haven	Savannah
Cincinnati	Greensboro, N. C.	New York	Etc.

Address nearest office



WRITE for the A A C agency if we have no dealer near you

### Get the Right Fertilizers for Your Soil and Crops

An important part of this organization is its Agricultural Service Bureau, conducted by Dr. H. J. Wheeler, formerly Director Rhode Island State Experiment Station. This Bureau carries on practical experimental work in all sections of the country, to determine just what fertilizers are best adapted to each crop and soil.

WRITE to this Bureau, in care of the A A C office nearest to you, for suggestions on the crops you are planning. No charge or obligation.

WRITE for this free booklet:

"How to Get the Most Out of Fertilizers"

## ORDER BY MAIL!!

Army Feed Bags

Auto Tow Lines



39c

79c



Patented Government bags of khaki canvas; reinforced bottom with feed reservoir. Cost the government \$1.65.

Six times stronger than ordinary rope; 25 feet long, of Russian hemp, with steel snaps on both ends.

SALE PRICES INCLUDE POSTAGE

## PETERS' BARGAIN HOUSE

44-46 CADILLAC SQUARE DETROIT, MICH.

# WORLD EVENTS IN PICTURES



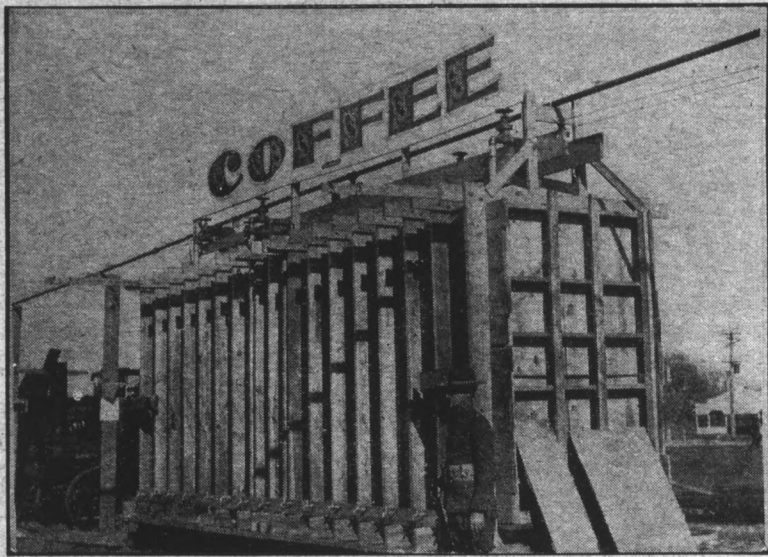
In this beautiful American home "The Colonial Terrace," lives Edward Clarke, who is the head of the Ku Klux Klan.



Miss Florence Heywood is only woman lecturer at the great Louvre art museum in Paris.



Queen Victoria of Spain recently paid a visit to children's free hospital in Madrid for the purpose of cheering the little "shut-ins."



One of the three 10,000 gallon coffee urns from which the steaming "java" was poured at the record-breaking barbecue, in Oklahoma City, when "Jack" Walton was inaugurated as governor.



A general view at the coal mines in the Ruhr district where the French are on guard, holding the mines because of Germany's default in its reparations agreement.



Rosetta Zimmerman, of Ohio, is the only woman officer in Ohio State Fish and Game Dept.



Hundred of homes were completely inundated at Oregon City, Oregon, in a general flood that swept the Willamette Valley, destroying a large amount of property.



When success turned against Asta Mober, prima donna, she became a happy chambermaid.



Charles Jewtraw set another world's record when he won the 220-yard dash in the Adirondacks gold cup ice skating championship series at Plattsburgh, New York.



Mayor Frederick Martin, of Montreal, declared a civic half-holiday and, wearing the chain of office with all the dignity of the Lord Mayor of London, headed the winter sports carnival.

# The Adventures of Hiram Masters

By LEROY W. SNELL

**AND** thus Hiram Masters came to dwell in the little white cottage in the village. Homesick and heartsick he was at first, but as the summer slipped past, week by week, new thoughts and new interests drove the gloom away.

The story of Hiram's adventure with his two neighbors, the Widdy Brown and Judge Slade, I am going to tell you in Masters' own words, just as he told it to me one evening as we sat smoking on his spacious vine-shaded porch. We had become fast friends, Masters and I; and it was on this same porch, and upon the shaded banks of the little river that flowed just south of the village where, with fish poles stuck fast into the soft sod of the bank, and bobbers afloat on the sluggish waters, we lounged lazily in the shade and talked of many things; that Masters related to me his many adventures which I have, in my poor way, been trying to set down.

Upon this evening, as with pipes freshly filled, we watched the big harvest moon creep up over the tree tops and climb majestically into the heavens, silvering the branches of the pine tree by the gate, and picking holes in the cucumber vine which overhung the porch, I reminded Masters of the story which he had long promised me and, after a few moments of meditation, he began:

"The Widdy Brown was a mighty likely looking woman, if I do say so. Plump and rosy-cheeked, fer all of her being mighty nigh onto fifty, and a widdy fer seven or eight years. Her hair was silver white and just a proper settin' fer them rosy cheeks an' dark eyes o' hers. She was pretty well fixed, it seemed, too; in her little white cottage with its green lawn and boxwood hedge in front and the roses and posy beds in back. And the smells that came from the kitchen on a bake-day—they beat the perfume of the posies all holler, at least to an old retired farmer like me a batching it next door.

"But I never could see no sense in her conversin' with Judge Slade over the back fence so much, him not a regular judge, just a little town justice with not enough law to try out lard.

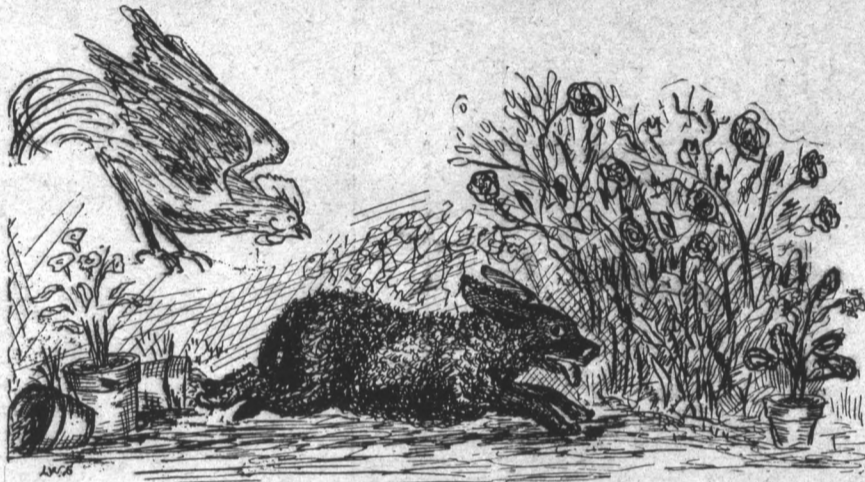
"It seemed like the widdy'd no more'n get to fussin' among her posies of a summer afternoon though, than, before I could saunter out casual like among my termaters, the Judge'd come a puffin' down his poultry yard, white vested and with his black tie a flying, some corn in his hand fer that piratin' crew o' scare-crow Leghorns

o' his, then, soon's he'd git to the fence, he' take off that broad-brimmed hat o' his and say:

"Ahem! Mrs. Brown! how purty the sweet peas be a lookin' this evening, the pink ones among 'em most as fresh and dainty as yer own cheeks."

"Did ye ever see such a dumb, fool talk? And it got me that as sensible a woman as Widdy Brown was, would listen to such truck, not only that but, blame me if she wouldn't sidle over to that 'ere back fence and fix a posy in the old fool's buttonhole, not even seeing me and the basket o' garden sass I'd be trying to pass over to her.

"Well, things went along like this



"That Durned Rooster Sailed Right Down After Mrs. Brown's Curly Poodle."

fer quite a spell, me contributing garden sass now and then, while the judge reaped most of the smiles and posies and he donating nothing whatsoever, but his smooth talk and now and then a chicken that he'd fattened on my garden.

"Them pesky Leghorns was made holler, seems like, and they et everything in sight 'cept the worms and bugs that they'd order of eaten. They kept me busy raisin' enough vegetables to keep up my little presents to the widdy, to say nothing of gettin' something to eat myself. The dirty white crows would flop over the fence the minute my back was turned. They tore up the lettuce, ate the tops off the carrots, stripped the pea vines and scratched up the sweet corn seed.

"They didn't bother the widdy none, however. She kept one o' them cute little curly-haired dogs, pretty fat and slow as to action, but strong on the yap end, and that seemed to keep the dummed chickens out o' her posies.

"As the summer wore on into August, there came an evening, soft and cool like, with the moon just a peepin'

up over the orchard trees to the eastwards, follerin' close the settin' o' the sun on t'other side, I was a passin' a basket o' sweet corn over the fence an' a feelin' sort o' romantic fer an old feller I guess, when my hand slipped like and I caught the widdy's plump little fist fer a second, then things boiled inside me like a soda fizz and I says:

"Sarah! Sarah, darlin'," says I.

"Why, Mr. Masters," says she. "What did you say?"

"I—I'd like," says I, blurtin' it out, 'to raise sweet corn fer you all my life,' says I.

"She started away and fer a minute

"Damm!" says I, and I stomped right down through the garden into the house, kicked over a couple of chairs and went to bed.

"There's no fool like an old fool," says I, 'and what the widdy can see in that old sinner beats me.'"

CHAPTER V.

**T**HE next morning I was up early, not having slept very well on account of the heat. But those tarnel chickens had beat me and were out pecking the insides out o' my ripe termaters.

"Tarnation!" says I, fer I was riled, 'If I've got ter feed ye I will,' says I.

"With that I went down cellar, pulled out the loose stone in the wall and fetched out a bottle o' regular, that I'd been savin' fer sickness or a weddin' er somethin'.

"If Mr. Volstead sees this," says I, 'he'd raise a rumpus, so I might's well throw it away first as last.'

"So I took the stuff up stairs, poured it out into a basin of corn and let it set until it was all soaked up. Then, long late in the afternoon, just before it was time fer the judge to start his sparkin' over the fence, I took the corn out and chucked it over to the chickens, and how them hungry Leghorns did go fer it.

"Eat it," I says, 'or drink it, darn ye, anyway.'

"Then I slipped back into the kitchen where I could look out without being seen.

"And laugh; well, say! you'd a died to see them gobble down the hull mess without tastin' it, but when it was gone, you never see such a sight in yer life. The hens commenced staggering around the yard, a kicking up something scandalous and every dumb-ed pullet in the lot a trying to crow.

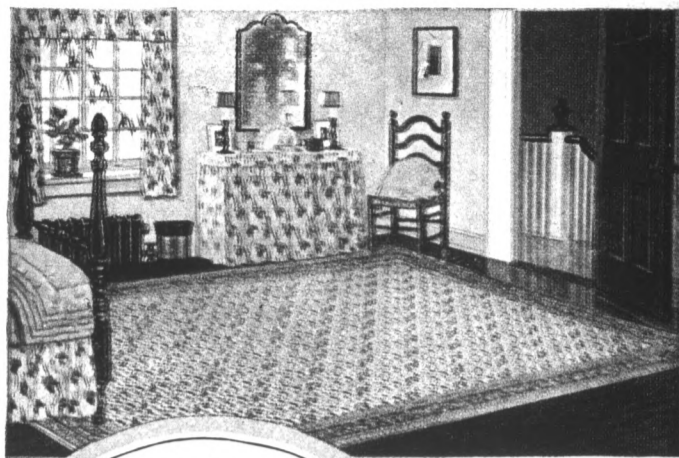
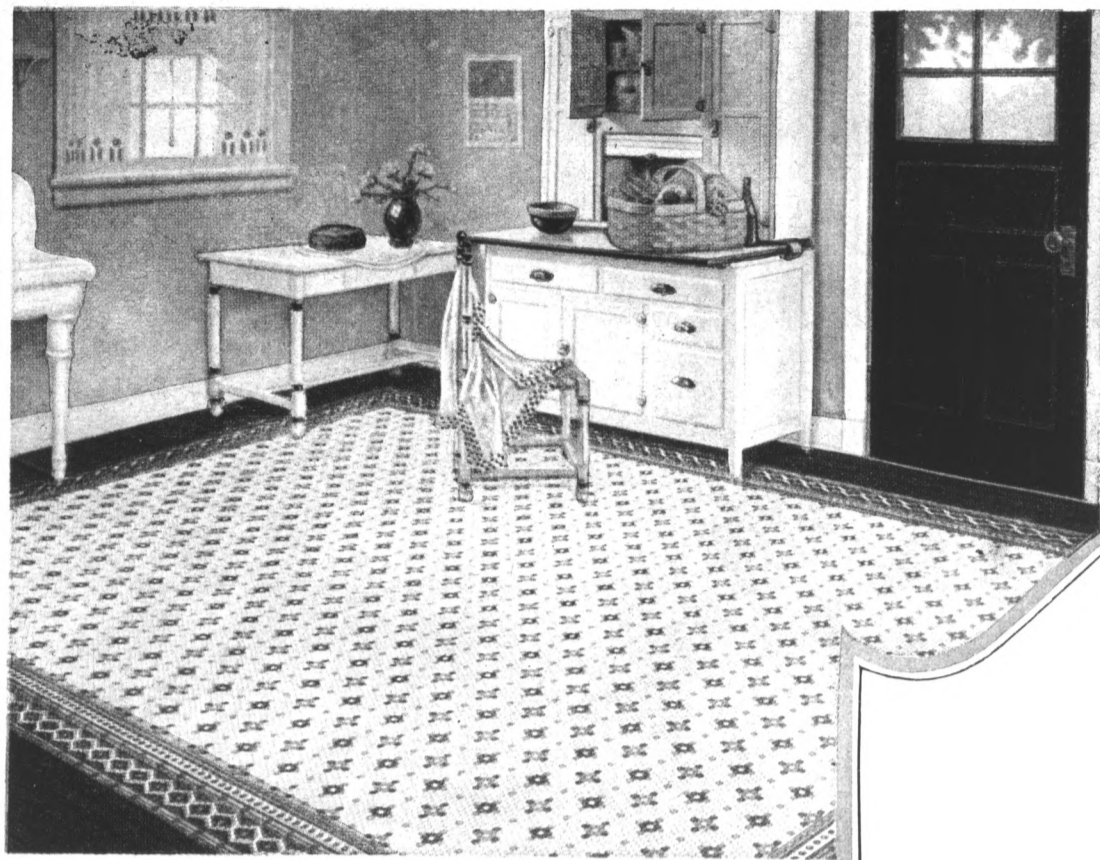
"The old rooster, though, was the sight; he cocked his head on one side, threw out his chest and went a reelin' down across the yard like a schooner in a heavy sea. At the gate he met the judge. He settled back onto his tail feathers, crowed, flapped his wings and before the judge could make out what ailed him, he give a jump and landed on the judge's shoulder, grabbed an ear in his beak and commenced beating the judge in the face with his wings. The judge, blinded, run in a circle, tripped over the water jug and fell in the dirt, rolling over and over.

"But the old cock never fell with him. As the judge tripped, the bird (Continued on page 189).

AT ACRES—It's a good thing Slim Didn't Park Mrs. Goat in the Garage

—By Frank R. Lee.





The rug shown above is  
Gold-Seal Rug  
No. 378.

**GOLD SEAL**  
**CONGOLEUM**  
**GUARANTEE**

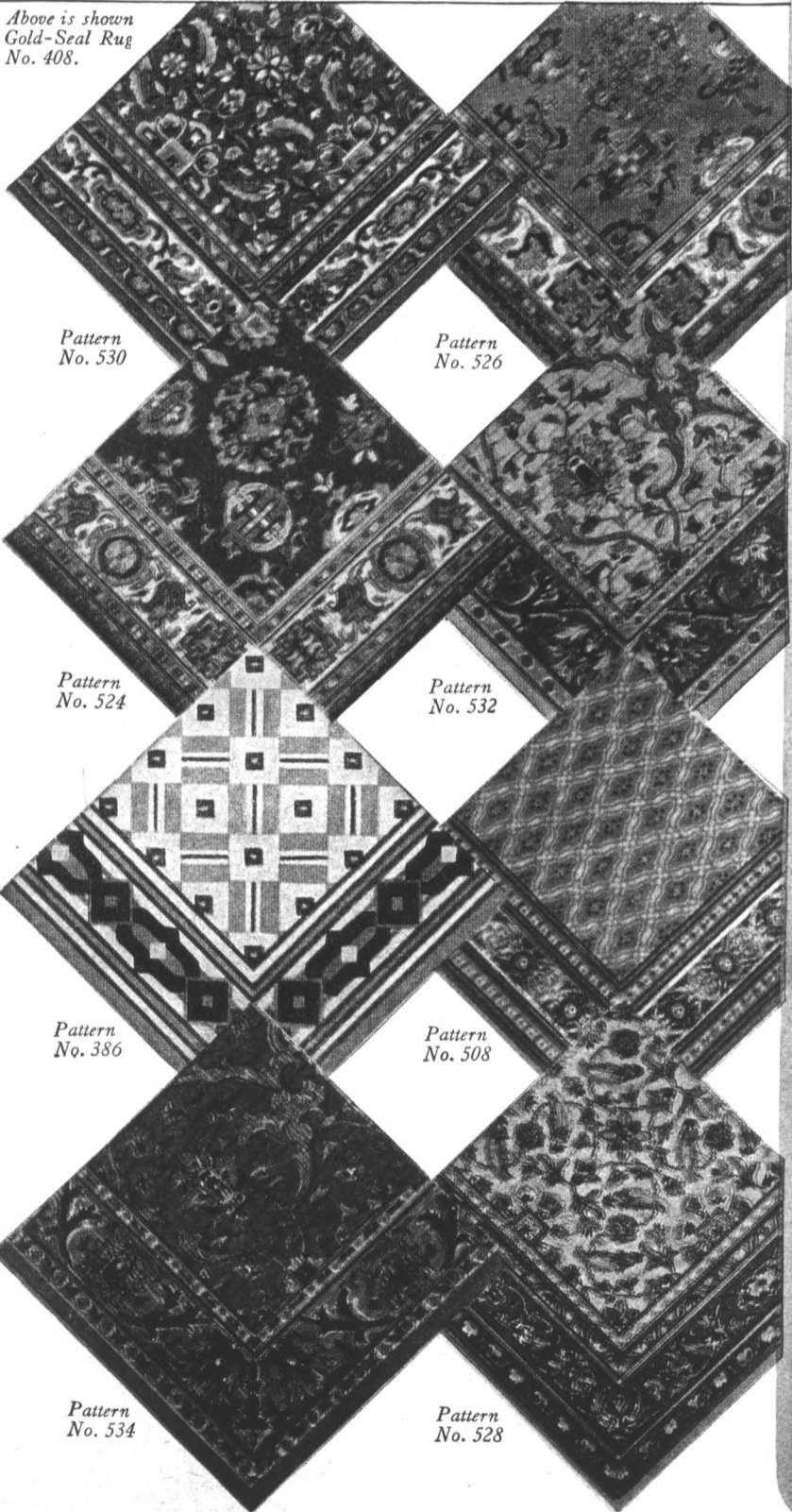
SATISFACTION GUARANTEED  
OR YOUR MONEY BACK

REMOVE SEAL WITH  
DAMP CLOTH

COPYRIGHT 1917 AND 1920. CONGOLEUM COMPANY, INC.

Facsimile of the famous  
Gold Seal which is pasted  
on every genuine Gold-  
Seal Congoleum Rug.

Above is shown  
Gold-Seal Rug  
No. 408.



## Designs of Rare Beauty!

Gold-Seal Congoleum Rugs have long been famous for the rare beauty of their designs. As the eight patterns at the left will show, these modern floor-coverings possess an artistry of patterning and color that is usually found only in rugs many times their price.

Unequaled beauty is but one of the many superiorities of Gold-Seal Congoleum Rugs. They are wonderfully economical and durable. They lie flat without fastening. The firm, sanitary surface is very easy to clean—a quick light mopping being all that is ever required. Modern housekeepers prefer these attractive, sanitary rugs to dust-collecting, woven floor-coverings. Remember too that Gold-Seal Congoleum Rugs are unconditionally guaranteed to satisfy.

Any Congoleum dealer in your town will gladly show you these beautiful designs, as well as many other attractive patterns suitable for every room in the house.

### Note the Very Low Prices

6 x 9 feet \$ 8.10	Patterns No. 386 and 408	1½ x 3 feet \$ .50
7½ x 9 feet 10.10	(illustrated) are made in all	3 x 3 feet 1.00
9 x 9 feet 12.15	sizes. The other eight patterns	3 x 4½ feet 1.50
9 x 10½ feet 14.15	illustrated are made in the five	3 x 6 feet 2.00
9 x 12 feet 16.20	large sizes only.	

Owing to freight rates, prices in the South, west of the Mississippi and in Canada are higher than those quoted

There is only one genuine Congoleum and that is Gold-Seal Congoleum identified by the Gold Seal shown above. It is your protection against imitations and gives you the assurance of our money-back guarantee. Don't fail to look for it when you buy.

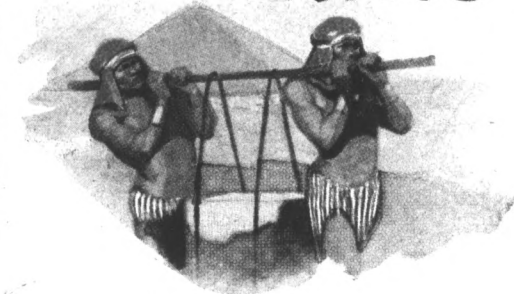
CONGOLEUM COMPANY

INCORPORATED

Philadelphia New York Boston Chicago San Francisco  
Kansas City Minneapolis Atlanta Dallas Pittsburgh Montreal

Gold Seal  
**CONGOLEUM**  
RUGS

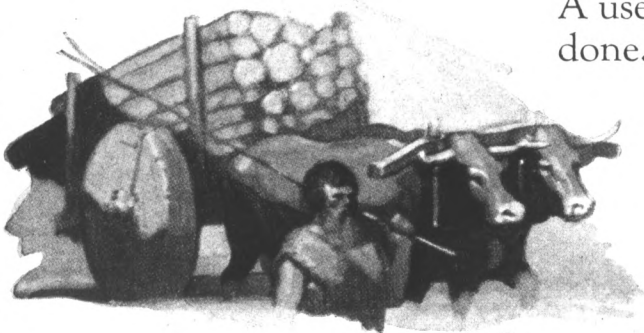
# Man's Conquest of Time



The progress of mankind, from the earliest recorded ages, has been marked by a ceaseless struggle against the limitations of time and space.

Civilization is mutual interchange of thought and the product of thought. This interchange demands transportation, hence the development of civilization has paralleled the improvements in transportation.

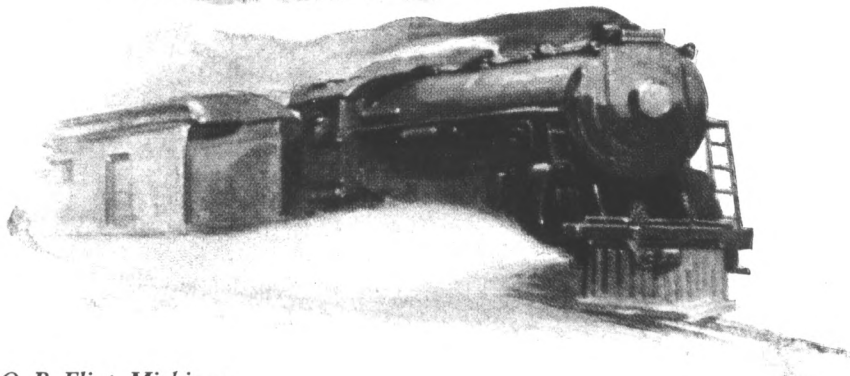
A useful lifetime should not be measured in hours lived, but in deeds done. Doubling man's productive capacity offers the same net result as doubling his period of usefulness or doubling the number of producers.



More than any other single factor of civilization, the automobile has multiplied the producing power of man by decimating time and distance, and by providing a broad and flexible means for the transportation of men and their products.



The amazing growth of the automobile industry could not have been, had not the automobile more than justified itself as an economizer of man-power, a stimulator of production and a creator of wealth.



*for Economical Transportation*



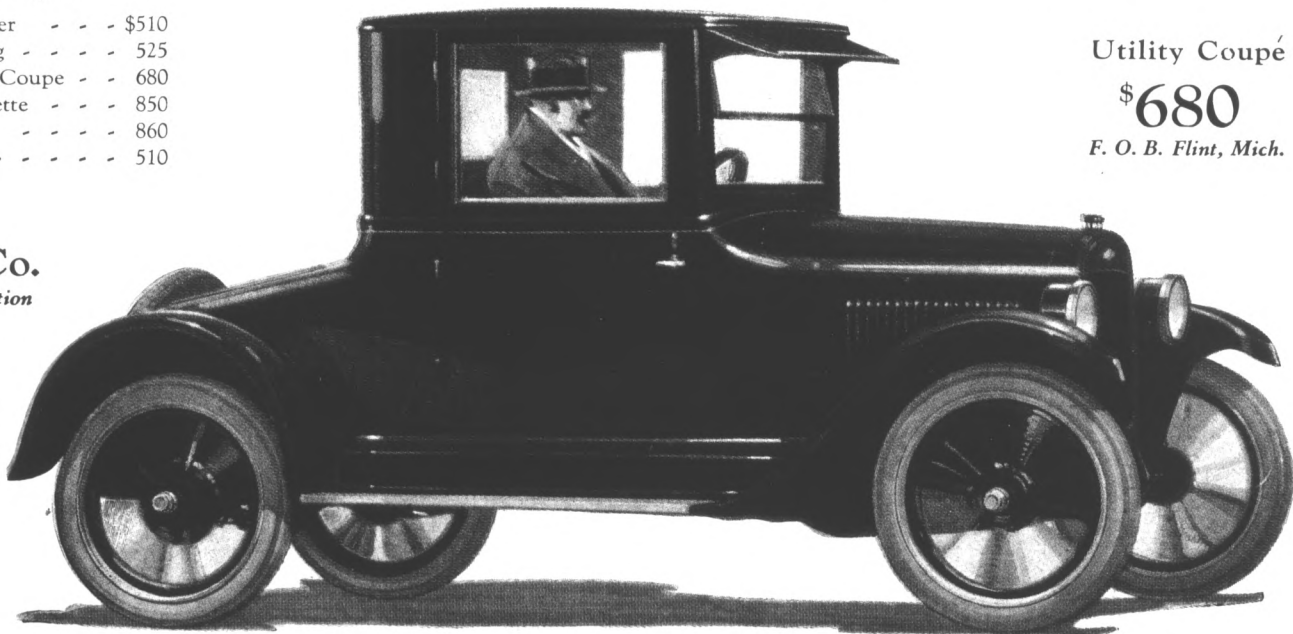
epitomizes the progress of the industry to date along the line of maximum economy consistent with modern requirements as to engineering efficiency and satisfactory quality. The wonderful increase in our sales proves that Chevrolet is leading in the evolution of individual transportation which measures and records the progress of civilization.

*Prices F. O. B. Flint, Michigan*

SUPERIOR Two Passenger Roadster	- - -	\$510
SUPERIOR Five Passenger Touring	- - -	525
SUPERIOR Two Passenger Utility Coupe	- - -	680
SUPERIOR Four Passenger Sedanette	- - -	850
SUPERIOR Five Passenger Sedan	- - -	860
SUPERIOR Light Delivery Car	- - -	510

**Chevrolet Motor Co.**  
*Division of General Motors Corporation*  
 Detroit, Michigan

There are 10,000 Chevrolet Dealers and Service Stations. Applications will be considered from high-grade dealers in territory not adequately covered.



Utility Coupé

**\$680**

*F. O. B. Flint, Mich.*

widdy's back fence where she, hands wide-spread and eyes full of horror, was watching the proceedings.

"I don't suppose the old bird aimed fer him. I doubt if he could have steered where he aimed anyway, but blame me! I'll be shot if that durned rooster didn't sail down kerplup astraddle o' Mrs. Brown's fat curly poodle, skeering that beast out o' his wits. The rooster's feet or his spurs caught in the long curly hair and there he flopped and hung. The dog stuck his tail between his hind legs and went a ki-yip and a ki-yip through the nasturtiums, and zinnias, overturning the flower pots and a smashing down the posies, with the rooster a flapping and a swaying and a crowing upon his back, like a trick rider to a circus, as round and round the garden they circled.

"Laugh! Well, say! I nearly split myself. What with the dog and the rooster, and then the judge, all messed up, a peering through the poultry wire, eyes sticking out and knees a knocking together 'sif he'd seen a ghost.

"I couldn't stand it inside any longer and legged it out of the kitchen and over to the fence and was just agoin' to let out another rip o' laughter when I spied the widdy, and durn me! I felt cheap. There she stood as purty as a picture, the big tears a rolling down her cheeks out o' them dark eyes o' hern, and she was wringing her hands that helpless like. I say I felt cheap, and grabbing up a basket o' ripe tomatoes, that I had been picking fer her, I climber over the fence and, after one or two wide shots, one of which happened to ketch the judge in the ear, I knocked the rooster off the poor little poodle.

"I picked curly up, the poor little cuss was a shivering and a shaking, most scared to death, and I follered the widdy into the kitchen with him, her still weeping.

"Then I couldn't stand it any longer. "Darlin' Sarah!" says I, 'Here's Curly all safe and sound, just scared a little,' says I, 'but won't you please take both o' us?'

"You brave, noble man," says she, a flinging herself into my arms, just like that.

"Well, after a while we noticed that someone was a calling from the back, so we looked out o' the window and there was the judge fishing in his ear fer tomatoer sauce.

"Tell Mrs. Brown," says he, 'tell Mrs. Brown that, as soon as I get cleaned up a bit, I'll be over to apologize fer that heathen rooster of mine. I don't know what got into him,' says he.

"Don't hurry judge," says I, 'Don't hurry; but when you do come, bring yer book along. We want a weddin' performed,' says I.

"The judge's goatee dropped down onto his mussed up shirt bosom.

"Wha-what-what?" says he. 'Is that so, Sarah?' he called.

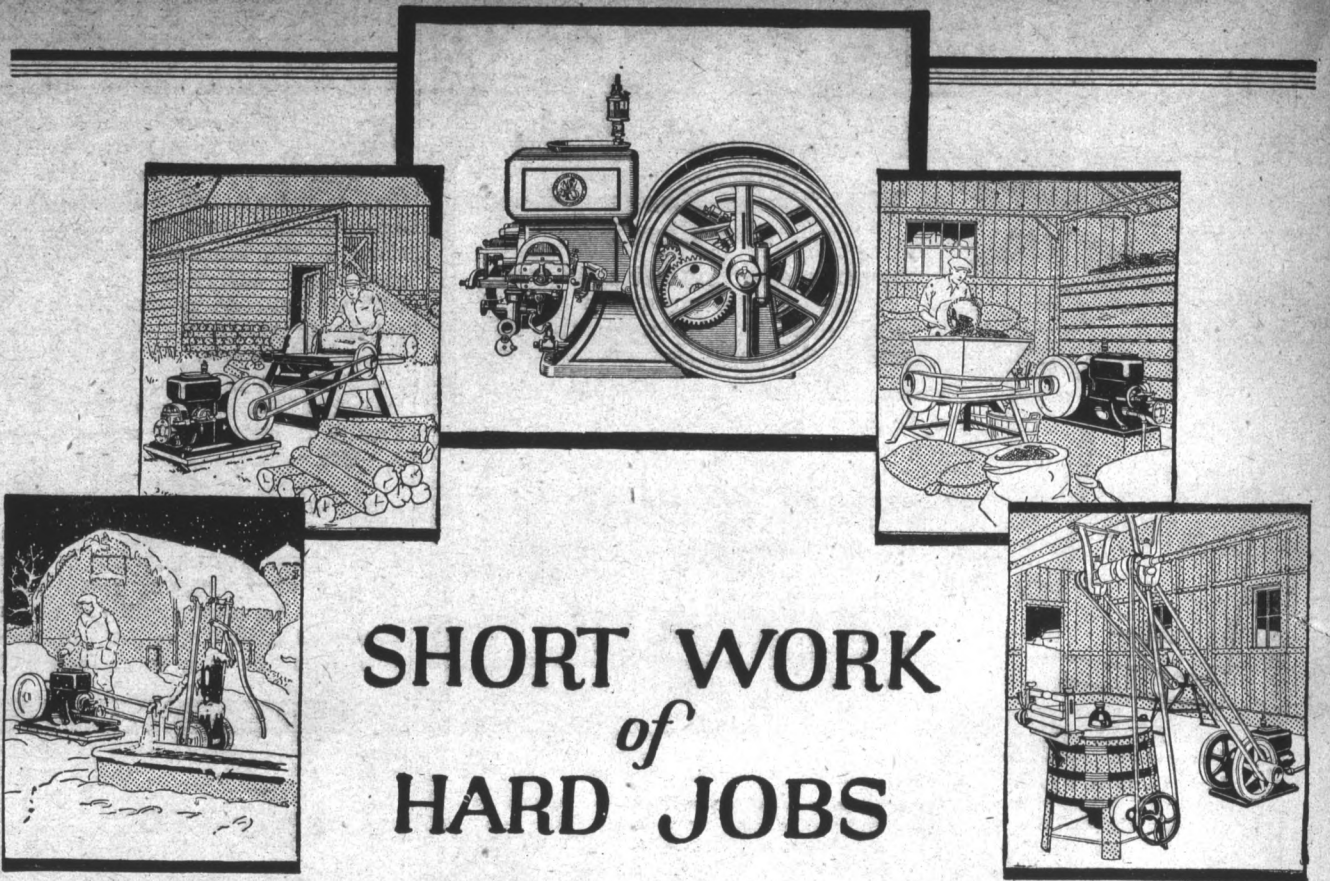
"Fer answer Sarah laid her head over again my shoulder and blushed as she looked up at me, soft like.

"Sarah," says I, 'yer cheeks are as sweet and as purty as a ripe tomatoer,' says I, which I admits goes the judge one better as to language. Then I reached up and pulled down the shade."

(Continued next week).



The world is full of babbling and words, and I never saw a man that doth not rather speak more than he ought, than less.—Montaigne.



## SHORT WORK of HARD JOBS

ON more than three hundred and fifty thousand farms, the Hercules Engine is doing the drudgery. It saws the wood, grinds the feed, runs the washing machine and the workshop, turns the grindstone, pumps the water—does all the wearing work that costs so much in effort and wages.

An all-weather engine is the Hercules. Winter and summer, day in and day out, it sticks to the job—consistently, uncomplainingly—until the work is done.

The Hercules is equipped with latest type of magneto. Out-of-doors in rain or snow it keeps the engine at work. A stream of water directly

on the magneto will not affect its efficiency.

Whatever the size of your farm, whatever the work that you have for an engine to do, there is a Hercules for the job. They range in size from 1½ to 12 H. P., both gasoline and kerosene. Each one of them is the same in sturdy construction and excellence of workmanship—each backed by the five-year guarantee.

It costs you no more to own a Hercules. In fact, the initial cost is less than that of most standard makes of engines.

There is a dealer near you who will gladly show you the Hercules and explain it. Write us about your power problems.

THE HERCULES CORPORATION  
Engine Division  
Evansville, Indiana

# HERCULES ENGINES

### The Real Estate Market Place

#### RATES

For Real Estate Advertising  
On This Page

35c a line per issue on 4 time orders

40c a line per issue on 1 time orders

Special discount given when used in combination with 7 other Capper Publications. Write for special real estate advertising rates on these papers which reach over a million and a half families

**PAY NO ADVANCE FEE;** don't give option of tie up real-estate for any kind of contract without first knowing those you are dealing with are absolutely honorable, responsible and reliable.

#### 80 Acres Handy Detroit 3 Horses, 4 Cattle, 50 Hens

Corn, potatoes, oats, fodder, hay, brood sow, full implements included if taken immediately; you should prosper from first day here; on State Highway, convenient depot; stores, creamery, schools, churches; 60 acres productive fields, 20-cow spring-watered pasture, wood, timber; variety fruit; good 2-story 8-room house, large barn, corn crib, garage, poultry house. Because of domestic reasons, \$8,000 gets all, only \$2,000 needed. Details page 66 Atlas Catalog Bargains 33 States. Copy free. STROUT FARM AGENCY, 427KH Marquette Bldg., Chicago, Ill.

#### \$1,000.00 Secures 60 Acres 4 Cows, 2 Horses

3 brood sows, 75 hens, heavy harness, farm tools, etc.; 46 acres rich productive dark loam tillage, 14 acres pasture and woodlot, in beautiful farming district, 3½ miles to town with all advantages, mail delivered, telephone, cream collected at door, fruit home use, comfortable 2 story 8 room house, painted, good condition, well water pumped by windmill, maple shade, barn ties 8 head, half basement, cemented, 2 poultry houses, hog house, granary, toolshed. Make this your farm home and enjoy prosperity and contentment. Price \$5000. only \$1000.00 down, balance easy terms. Shown by Ray I. Thompson, Charlotte, Mich., or see Michigan Farm Agency, 628 Ford Bldg., Detroit, Mich.

#### RANCH FOR SALE

1720 acres, Southwestern part of Ness County, Kans. 6 mi. South Beeler on Santa Fe; close to good schools, telephone and rural delivery, lots of smooth lands; 85% can be cultivated; plenty of good water; fair improvements. 260 A. wheat. Splendid opportunity for man wanting combination stock and grain ranch, good terms. Price \$30 per acre. S. J. Brown, Owner 1300 Kialto Bldg., Kansas City, Mo.

**45 Acres** Choice Pennsylvania farm, fine location. Good buildings, good seven-room frame house. Two miles to live railroad town, good markets. Price \$3,500. Owner J. C. McClurg, Geneva, Crawford Co., Pa.

**Good 80 Acre** Farm for sale. Nearly level heavy soil on main road. Bargain. LEA SEATON, Fenton, Mich.

**FOR SALE**—Improved stock and grain farm of 160 acres, all level, some timber. Best of soil, 1½ miles from good railroad town on State Pike. 2½ story house, furnace, toilet, bath. Large bank barn, other buildings, all fenced. Young orchard. Near school. No encumbrance. A. J. BRENNER, Onaway, Michigan.

**\$100 DOWN**, balance ten years, pays itself. Choice Wisconsin for home. Big market, sure crops, grain, clover, fruit, garden, dairy. No drouth, sand, swamp, rock. Free fuel. Health pure water. Write now. Owner, Loveland, Plymouth Bldg., Minneapolis, Minn.

**For Sale** 94 acre fruit and stock farm, 2 miles from city, stone road. Stock, implements. Great opportunity. Write for description. Frank Schunacher, R. R. 2, South Haven, Mich.

**For Sale** 500 acres in Lake Co., Mich. 100 improved, 2,500 cords of wood. House, barn, silo, fine for cattle or sheep. Well watered. \$7,500. F. P. Arthur, Ann Arbor, Mich.

**Wyoming Agency** Dry and Irrigated Ranches, Chicken, Dairy and Stock Farms, Homestead Relinquishments Cheap. Trades, City Lots, Stores, Summer Homes, 16 Mi. Mts. Licensed and Bonded Dealer, Glendo, Wyo.

**For Sale** 40 Acres part timber on mud Street forty rods off Telegraph road, good drainage. Fred Trosin, Romulus, Mich., R. F. D. No. 2, Box 62.

**Buy a Farm** in the great fruit and farming country of Northwest Arkansas where land is cheap and terms are reasonable. For free literature and list of farms write J. M. Doyel Mountainburg, Arkansas.

**Sell your property quickly** for cash, no matter where located. Particulars free. Real Estate Salesman Co., 515 Brownell, Lincoln, Neb.

**Poor Man's Chance** \$5 down, \$5 monthly buys 40 acres productive land near town. Some timber. Price \$225-Other bargains. Box 425-Z, Carthage, Mo.

**80 Acres Improved** \$65 per acre \$1000 cash. 160 acres improved \$67.50 per acre \$1000 cash. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

**Want to hear from party having farm for sale** Give particulars and lowest price. JOHN J. BLACK, Capper St., Chippewa Falls, Wis.

**We Have Cash Buyers** for farms at real bargain prices. Describe fully. Central Land Bureau, New Franklin, Mo.

**Sell Your Farm** by my quick and easy method. It brings cash buyers. Send for particulars. Albert Shirley, 703 South Rose Street, Kalamazoo, Michigan

**CASH YOUR PROPERTY QUICKLY**, location immaterial. Give best price. Universal Sales Agency, Box 43, N. Topeka, Kans.

**Farms Wanted** sell your farm quick for cash. New Method, small expense. Weaver Sales Co., Congress Bldg., Dept. 6, Detroit

**I Want Farms** in Mich. for cash buyers. Describe and state price. R. A. McNow, 324 Wilkinson Bldg., Omaha, Neb.

**Wanted** To hear from owner of land for sale O. K. HAWLEY, Baldwin, Wisconsin

**Listen** 40 A. imp. farm \$1200. Good terms. Other farms. McGrath, Mountain View, Mo.

**Farm Wanted** Give description, cash price. R. E. LEADERBRAND, Cimarron, Kans.

**50 Good Farms** Write for free list. DeCoudres Bloomingdale, Mich.

When writing to advertisers please mention the Michigan Farmer.

**IF you have a Farm or Farm Land for sale, let the Michigan Farmer find you a buyer through an advertisement in these columns.**

# Profits at Stake —Weather Won't Wait



## Will Your Horses Meet the Test?

YOU'RE gambling high stakes, with only half a chance to win, if you work your horses in the old-style collar again this year.

An ordinary collar will fit—at first. But the FITZALL is the only collar that will always rest smooth and snug when the horse loses flesh. Four perfect-fitting sizes in each FITZALL. When the horse gets thin just shorten the collar. Easier to adjust than a belly band.



Get this Valuable Horse Book FREE! Your name on a post card will bring you this remarkable book which describes and illustrates each style of FITZALL and tells how sore shoulders can be prevented. Write—today.

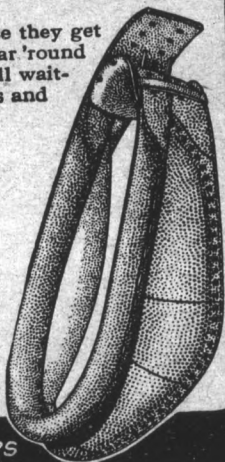
Save doctoring, medicine and cost of sweat pads. (FITZALLS are scientifically correct to begin with and require no sweat-pads.)

Save money because you never have to discard a FITZALL if horse dies or is sold. You don't need a collar for every horse—one for each harness is enough.

Make money for you because they get full-power from horses the year 'round—do not keep them in the stall waiting for neck sores, galls, boils and sweeney to cure.

# FITZALL

ADJUSTABLE HORSE COLLAR



30 DAYS' TRIAL—Your Dealer is authorized to refund your money if not satisfied after 30 days' trial. Insist on the FITZALL collar. There are no substitutes as the FITZALL is fully patented. If your dealer cannot supply you, write us.

NICHOLS-BIEHL CO., Milwaukee, Wis.

309 4th Street

Also Manufacturers of "Master Brand" Harness—America's Best

Instantly Adjustable to 4 Perfect Fitting Sizes

# From Our Oldest Readers

Some Interesting Incidents as Told by Some Old-Time Subscribers

A SHORT time ago we requested those who have been readers of the Michigan Farmer for a long time, to write us and tell of their early experiences as well as their recollections of the Michigan Farmer as it used to be. Quite a few have complied with this request by sending us interesting letters. A few of these letters are printed below. Others who have knowledge of the early history of the Michigan Farmer would please us greatly if they would write us about it.—Eds.

his father did not take the paper. My uncle also was a great admirer of the Michigan Farmer, and I have in my possession a bound volume of the years 1850-1855, when R. F. Johnstone edited the paper. At that time the Michigan Farmer was a monthly magazine. I also have a copy dated July 9, 1859, Vol. 1, No. 28, where, under Mr. Johnstone's direction the paper became a weekly.—Mrs. James S. Adams, Oxford, Mich., R. 3.

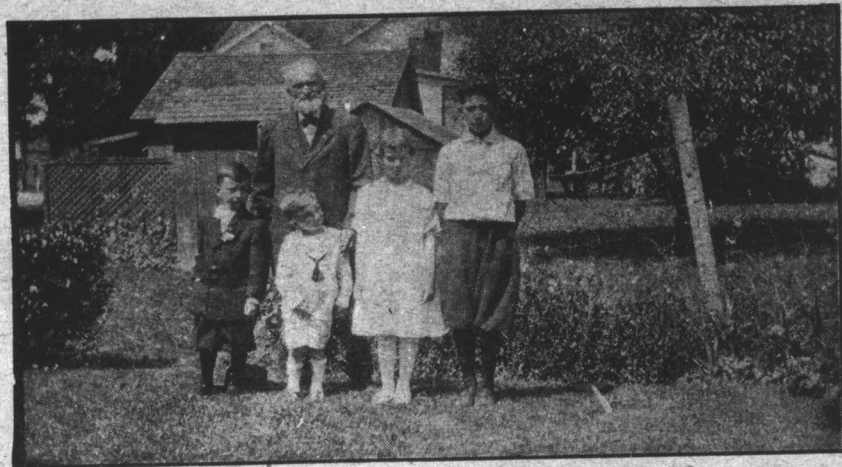
### Read Farmer Since Edited.

The gentleman shown in the picture on this page is John Walsh, of Chelsea, Washtenaw county. He lived at Chelsea for seventy years, which dates back to before Chelsea existed. He has been a reader of the Michigan Farmer since it was edited.

When he first arrived in the Chelsea

### Ninety-two Years Young.

I saw in a late issue of the Michigan Farmer your wish to get track of some of the oldest readers of the Michigan Farmer. I will say that my father, Absalom Traver, of Ann Arbor, was one of the early subscribers to the



John Walsh, of Chelsea, and Grandchildren.

Michigan Farmer, so I commenced reading it when I was about fourteen years old and have been a reader ever since.

I was born in New York City on July 15, 1831, and in the early spring of 1832 my parents moved from New York to Michigan, settling in Ann Arbor when I was not quite one year old. So you can see I am getting somewhat advanced in years, being ninety-two years old.—George Traver, Sr., Williamston, Mich., R. 5.

district, it was all woods and people had to make their own roads by cutting trails. He and his father helped build the Michigan Central Railroad and also the Lake Shore & Michigan Southern from Manchester to Jackson. Mr. Walsh is now eighty-five years old and is still active on the farm. He and his family still work the farm that he and his father worked. He is a great sheep man and still insists that no one can take care of the sheep as well as he. Last year he put in eighteen acres of alfalfa and followed the team daily.

### Old Way of Setting Clocks.

I see by your paper you ask some of your oldest readers to write to you. I don't remember just when I commenced to read the Michigan Farmer, but some time before the summer of 1861 or 1862, when I was in Detroit and went into the Michigan Farmer office.

N. F. Lewis was editor. As I remember him he was a tall, slim, youngish looking man with very light hair. They had just been putting in a larger press. He took me into the pressroom and showed me how they printed the paper. Then, from the office window he called my attention to a gilded ball on top of a flagstaff on one of the tall buildings, I think on the court house. He said to watch it and in a few minutes I would see it fall, as it was controlled from the observatory at Ann Arbor. When the sun got on the meridian of Detroit at noon the ball would fall and the clocks in Detroit were set by it.—W. N. DeVine, Morgan, Mich.

### Troubles of Editor in Early Days.

In regard to the oldest reader of the Michigan Farmer, will say that I am sure you can get this information from Mr. J. J. Daniels, R. F. D. 5, Jackson, Mich.

Mr. Daniels, besides showing me a year's subscription to the Michigan Farmer, seventy-one years old, (his father taking the paper at that time, and also before), told me about some of the struggles the editor of the paper, (I do not remember his name), went through, among which were soliciting his own subscriptions and then returning to Detroit and publishing his paper. The Michigan Farmer has been a weekly visitor in the Daniels home ever since.

The only illustrated advertisement in these papers was of one of the old-fashioned wood beam walking plows.—H. J. O'Neil.

### A Reader for Fifty-five Years.

In reply to your inquiry as to who is the oldest subscriber of the Michigan Farmer, I wish to let you know I have read your paper ever since 1868. I remember the year as my father was taking it and the teacher at school selected a poem from one of the numbers, to be spoken at some entertainment. My father was a subscriber from 1868 to 1889 and from that time on I have been one of your number, so that makes fifty-five years your paper has been coming here.—Samuel W. Sherwood, Oxford, Mich.

Send for 1923 MAULE SEED BOOK Today FREE Wm. Henry Maule, Inc. 2168 Arch St., Phila., Pa.

### YARD LONG BEANS

This is an excellent variety, as well as being an interesting curiosity. The vines are rampant growers and produce an enormous crop of long, slender pods, many of which grow to three feet or more in length, having the thickness of a lead pencil. Produce late in the summer, very productive, excellent quality for snap beans, tender and of fine flavor. Packet of seed, 10c; 3 for 25c.

Japanese Giant Radish, 10 to 30 lbs. each; Mammoth Prize Watermelon, 50 to 150 lbs. each; Jumbo Pumpkin, 100 to 300 lbs.; Vine Peach, fine for canning, ripe fruit in 80 days after seed is planted; Garden Huckleberry, a big crop of fruit the same season seed is planted; Grown diamonds, delicious coconut flavor, grow anywhere, plant in spring or early summer and harvest a big crop of nuts the following September; Early Giant Rhubarb, produces large, marketable size stalks next year after planting; Japanese Climbing Cucumber, fine variety that can be trained to fence, trellis or poles and save garden space; Chinese Celery Cabbage, celery flavored, fine for salads; String Peas, cook like string or snap beans; Burgess' Earliest and Best Tomato, earliest and best tomato on earth, large, smooth, free from blight and the equal of any late variety; Giant Ostrich Feather Aster, handsome, large, fluffy flowers; Giant Ruffled Spencer Sweet Peas, finest sweet peas grown; Red Sunflower, very attractive.

Take your choice of these varieties at 10c per packet; 3 for 25c; 7 for 50c; or 15 for \$1.00, postpaid.

FREE With each order we will give a free trial package of our wonderful Lima Peas (similar in shape and as large as Lima Beans) and a copy of our new book, which tells all about other rare, scarce, curious and valuable fruits, vegetables and flowers and medicinal plant crops that yield from \$8,000.00 to \$20,000.00 per acre.

GRAPE VINE OF HANDSOME EVERBLOOMING HARDY ROSE BUSH FREE with every dollar order. State your choice. Order today. BURGESS SEED & PLANT CO., 212 Floral St., Galesburg, Mich.

### FREE! TWO SEED BOOKS

Contain a lot of information about seeds. They're my own actual experiences, and might help you. They have helped thousands of my customers to make more money out of their gardens, and field crops. Absolutely free. Don't cost a cent. Send your name. Let me mail them to you.

HENRY FIELD SEED CO., Dept. 7 Shenandoah, Iowa

### TREES & PLANTS THAT GROW CATALOG FREE

Great Bargains, Standard Varieties, Best Quality, Low Prices. Satisfaction or money refunded. 70 years in business proof of our responsibility. Write for Nursery and Seed catalog.

PETER BOHLENDER & SONS  
Spring Hill Nurseries  
Box 211 Tippecanoe City, (Miami Co.) Ohio

### EVERGREENS Hill's Hardy Tested Varieties

Fine for windbreaks, hedges and lawn planting. All hardy, vigorous and well rooted. We ship everywhere. Write for free Evergreen book. Beautiful Evergreen Trees at moderate prices. B. Hill Nursery Co., Box 230, Dundee, Ill.

### GARDEN SEED

Isbell's Bell Brand Garden Seeds are Michigan-grown—hardiness and early maturity are bred into them through 44 years of selection and development. Planting Isbell's seeds is the first step toward a big profitable garden.

Catalog Free Isbell's 1923 Seed Annual—giving valuable information about seeds and gardening, and quoting direct-from-grower prices, sent free on request.

S. M. Isbell & Company  
716 Mechanic St. (40) Jackson, Mich.



# Does It Pay to Pray?

Our Weekly Sermon—By N. A. McCune

HERE has been a great deal written about prayer in the past few years. I couldn't begin to name all the books. The interest in the subject of prayer grows greater rather than less. Some people have said that science would gradually supplant prayer, because science would teach us the cause and effect of everything, hence we would not need to pray. But the facts do not point that way. Science can only go about so far. Back of science lies the Great Cause—God. Science deals with the relations of forces, but not with the ultimate cause. That is for philosophy, religion.

The facts are that scientific men are very often men of prayer. In fact, a larger per cent of men of science are religious men than is the case with the general run of the people. Looking over some of the eminent American men of science, for example, you will find that they were by no means all sceptics, or indifferent to religion. There was

Agassiz. He was a very devout man. Whittier has a poem, "The Prayer of Agassiz," written of an occasion when he led his students in silent prayer. Asa Gray, the colleague and friend of Agassiz, was America's first and most distinguished botanist. Gray was a religious man. Joseph Henry was the first secretary of the Smithsonian Institution, at Washington. His faith was as the faith of a little child. His statements of his belief in Providence sound like some old prayer meeting saint, testifying in meeting.

WHEN you turn to Europe it is the same. The greatest Frenchman of the past century, according to the French people themselves, was Pasteur. The French by a large vote put him above Napoleon. He was the father of modern bacteriology. He was a Roman Catholic, and was a man of simple piety and deep devotion. As he put it, (I do not have the exact words before me), "The great truths of the gospel have never been far from my mind." Lord Kelvin, the famous Scotchman, called the world's first electrical engineer, always began his classes in the university by reciting one of the prayers from the prayer book of the Church of Scotland. When he was cruising in his private yacht, in the summer, he always put into port Saturday, so that family and crew might attend church the following day. John Dalton, whose name in chemistry is immortal as the discoverer of the atomic principle, was the most religious of men. He was a quaker. I do not mean to say that all scientists have been or are, religious men. That would be claiming too much. But a large proportion of them are.

Much has been made by a certain class of people, of the irreligion of Darwin. He is held up as an example of the depravity to which science leads. That is unfair, however. Darwin was not a religious man and that is a great pity. He did what men in your community and mine are doing all the time, namely, he allowed his daily toil to absorb all his time and energy, so that he gave no thought, or not much thought, to religion. He never had any intention of doing harm to Christianity. His friend, George J. Romanes, began life as a Christian, but gave it all up, as he advanced in his study of science. But as time went on, Ro-

manes noticed that something was the matter. Life did not have the promise and freshness it had once for him. He began to examine his inner state, and concluded that he had made the mistake of his life in supposing that science can take the place of belief in God, in prayer and immortality. He also came to the conclusion that belief in science can live side by side in the same heart with belief in Christianity. And gradually Romanes came back to the religion he had abandoned, and to the church, and died in that faith.

BUT to come back to the point whence we started. Let us note a few facts about prayer. People so often discuss the things they don't understand, or don't believe, that they forget the things they do believe. First, Jesus Christ prayed. It is well to be reminded of that. The Master of men prayed. He must have been helped by prayer, else he would not have practiced it. You never find Him doing anything simply for form's sake, or because he didn't know what else to do. Note that he prayed when he was tired (Mark 6:46). When he had an important decision to make (Luke 6:12,13), He prayed for other people, that they might be strong to resist temptation (Luke 22:32, John 17:9). He said that energy was produced by prayer, or words to that effect, (Mark 9:29). And finally he prayed when in intense distress of mind, as in the agony of Gethsemane. In addition to all this he taught over and over that his followers should pray. He tried by every device in his teaching to create the desire and to foster the habit of prayer, in those who followed Him. The parable of the poor widow constitutes part of today's lesson was one of the instances in which he sought to create belief in the efficacy of prayer. Christ practiced prayer, and he taught others to practice it. That is point one.

Point two. Men who have been, or are, consistent practitioners of prayer, possess strength which others do not. Says Dr. Samuel McComb, "We cannot conceive of Martin Luther, or General Gordon, or Mr. Gladstone, would have been the men they were, or would have left the mark they did, had they not been men of prayer. The Master of prayer seems to have been most impressed by its quality as an energizing principle in human nature. There has come down to us a great mystical saying of his, 'This kind goeth not out save by prayer.'" And Dr. Sherwood Eddy, world traveler and authority on international labor problems says: "Men of prayer are men of God. There is a power, a peace in their lives which the prayerless do not know. The early apostles had found in prayer a power which transformed them."

AT this point I hear voices in protest. You have known such and such a man who could pray loud and long at prayer meeting who was not highly regarded by his neighbors, as an honest and dependable person. But we are not talking about people who pray in meetings, though public prayer is a splendid gift, one not to be lightly regarded. We are speaking of folk who have cultivated the practice of prayer as a daily habit, and who may possibly never be heard at church meetings of any sort.

### SUNDAY SCHOOL LESSON FOR FEBRUARY 11.

SUBJECT:—The Spirit of Prayer: Luke 18.  
GOLDEN TEXT:—The sacrifices of God are a broken spirit; a broken and a contrite heart, O God, thou wilt not despise. Ps. 51:17.



## Invest in a McCormick-Deering Manure Spreader for More Profitable Farming

The basis of profitable farming is a fertile soil. In farming, as in other businesses, there are poor years and good ones, but the farmer who keeps up the productivity of his soil will forge ahead.

No method of maintaining soil fertility has proved so efficient as the proper application of barnyard manure. It is a foresighted policy to build up crop yields with a McCormick-Deering Manure Spreader. Put manure on your fields finely, evenly, uniformly, and economically; the extra fertility will in a short time pay for the McCormick-Deering spreader.

- Note again these features in McCormick-Deering construction:
1. Power delivered from both wheels.
  2. Double ratchet drive with six feed speeds.
  3. Short-turn front axle—no pole whipping.
  4. Rear wheels track with front wheels.
  5. Tight bottom.
  6. Two beaters and wide-spread spiral.
  7. All-steel main frame.

### INTERNATIONAL HARVESTER COMPANY

Chicago of America USA  
(Incorporated)  
93 Branch Houses and 15,000 Dealers in the United States

## GOVERNMENT MERCHANDISE!

### S-M-A-S-H-E-D P-R-I-C-E-S!

Here is a sale of real bargains—the biggest snaps we have ever offered. Freight rates are now reduced—buy today. These prices are guaranteed for 60 days and these offers are in effect only while this stock lasts. So don't delay—buy direct from this "ad."

 <p><b>INCUBATOR \$5.25</b> 70 EGG SIZE No. PN 168—Only a few left. Practically all steel. Round like a nest. No cold corners. Big Hatch always. Capacity, 70 eggs. Each ..... \$5.25</p>	<p><b>GOV'T BARBED WIRE!</b> Bought by us at less than cost of manufacturing. Made under rigid government inspection. 12 gauge open hearth steel wire with 4 point barbs 6-8 inches long spaced 3 inches apart. 68 pound reels contain 700 feet. Coated with special formula weather resisting paint. Lot Number PN 200. Price per reel..... \$1.15</p> 
--	---

<p><b>POULTRY NETTING!</b> Made for government under rigid inspection of 19 gauge Bessemer steel wire heavily galvanized; 2 inch mesh in 2 heights. Bales contain 150 lineal ft. 36 inches high; \$2.40 per ball..... Lot No. PN300, 72 inches high; \$4.75 per ball.....</p> 	<p><b>Mixed CORRUGATED SHEETS!</b> A recent big purchase from the government brought us a large quantity of 22 gauge, new 2 1/2 inch corrugated metal sheets of heavy weight. All perfect stock in splendid condition. Size of sheets 27 1/2 inches wide, 84 inches long. Excellent for roofs and all siding purposes. Lot No. PN 400, per 100 pound keg,.... \$1.95 Lot No. PN 500, price per square..... \$2.65</p> 
---	---

<p><b>WATTS CORN SHELLERS!</b> 75 to 125 Bushels per hour Buy a genuine Watts corn sheller, the world's best at big reduced prices now. Most popular sizes. Lot No. PN1. Capacity 50-75 bushels per hour with 3 H. P. engine..... \$2250 Lot No. PN4. Watts corn sheller with cleaning system, cob stacker, and grain elevator. 75-125 bushels per hour with 4-5 H. P. engine..... \$4900 Lot No. PN4X. Watts corn sheller with cleaning system, cob stacker, grain elevator and automatic feeder. 75-125 bushels per hour. 4-6 H. P. engine..... \$6500</p> 	<p><b>ALLIS-CHALMERS TRACTORS!</b> \$295 10-18 Horse Power Famous Allis-Chalmers farm tractors purchased by us at big reduced prices and offered now at lowest price ever made. Built to give best service under all conditions. Lot No. PN 600, genuine Allis-Chalmers farm tractor, 10-18 H. P. Sale price, each..... \$295.00</p> 
--	--

Most of the items above in stock now at 4 points. Shipment will be made from point nearest you. Above prices are f. o. b. Chicago, Ill.

Write for Special Bargain List No. PN-42  
**HARRIS BROTHERS CO.** 1349-1525 West 35th St. CHICAGO

When You Write to Advertisers Please Say "I Saw Your Ad. in The Michigan Farmer."

### Don't Send 1 Penny

**Just SEND your name and address, give size and color, and I will send this sweater and plaid skirt to you.**  
 You don't pay one penny until they are delivered at your door by the postman.



**Skirt and Sweater**

**Both for \$2.98**

The Skirt is made of worsted woven plaid material which will give excellent wear. Newest plaid colors. Full box pleated all around. Separate belt. **COLORS: Blue - and - Green or Tan-and-Brown.** Sizes: 22 to 34 inch waist measure; 34 to 40 length.

Sweater is knitted of mercerized yarn. Looks like a ratine cloth. Slip-over style. Deep armholes and V neck. Very stylish. **COLORS: Red or Navy Blue.** Sizes: 32 to 44 bust.

**Delivery Free** Just send your name and address, no money. Be sure to give size and color. When the skirt and sweater are delivered at your door by the postman, pay him \$2.98 for them. We have paid the delivery charges. Wear both articles. If you do not find them better than you expected, return them and we will cheerfully refund your money at once. Order by No. 51. **WALTER FIELD CO., Dept. X 2101 CHICAGO**

### Head off that Croup with Musterole

Keep the little white jar of Musterole handy on your bathroom shelf and you can easily head off croupy colds before they get beyond control.

The moment you hear that warning cough, get out the good old Musterole and rub this soothing ointment gently on the chest and throat.

Made from pure oil of mustard and other simple ingredients, Musterole penetrates right through the skin and breaks up the cold by relieving the congestion.

Musterole does its good work without blistering the skin like the old-fashioned mustard plaster. Use it for treating tonsillitis, rheumatism, neuralgia, chilblains, colds and croup.

Sold by all druggists, in tubes and jars, 35c and 65c; hospital size, \$3.

The Musterole Co., Cleveland, Ohio **BETTER THAN A MUSTARD PLASTER**



**PROFIT SHARING SALE**

**FREE To You**

Book of Factory Bargains in Stoves, Ranges, Furnaces, Furniture, Refrigerators, Farm and Home Needs.

Let me send you my new free catalog and show you how to make great savings at wholesale—direct from factory, at money saving prices. Everything guaranteed—set in your home on 30 Days Trial—Don't Risk a Penny Your money back without question or quibble. More than 500,000 satisfied customers.

Easy Terms—Write at Once Just send name and address. A postal will do. W. C. Dewing, "The Stove Man."

**Kalamazoo Stove Company**  
 7113 Rochester Ave.  
 Kalamazoo, Mich.

**A Kalamazoo Direct to You**

Mention The Michigan Farmer When Writing Advertisers

# Woman's Interests

## Hats that You Can Easily Make

*Latest Spring Models that are Very Attractive and Pleasing*

THE last decade has witnessed many changes—none more revolutionary than the styles in women's hats. A few years ago women's hats were adorned with huge plumes, great bunches of feathers or flowers and ribbons in almost limitless profusion. Today the most desirable hats are the neat, simple hand finished ones with relatively little ornamentation. By the very nature of the styles in hats the most important single consideration is the cleverness and originality of the design. Given the correct design—and the material cut to size, the making of even the finest tailored hat becomes a simple matter of adjusting material to a frame, neatly stitching the pieces together and attaching the trim. In the hands of an expert milliner, a length of buckram, a little wire, a remnant of velvet and a bit of lace is quickly changed into the most desirable of millinery creations. To the uninitiated, the converting of these stray bits of material into a hat savors of black magic; a task to be undertaken only by the professional. The facts are that the actual making of the hat is generally less difficult than the plain sewing or fancy work undertaken, without hesitancy, by the average housewife. With the assistance of a Michigan Farmer Hat Pattern, any woman who does plain sewing can accurately reproduce any of the models shown here. The instructions that accompany the pattern detail, step by step, the cutting, the adjusting, the sewing together and the arranging of the trim. The making of one of these hats provides the most fascinating needlework is no more difficult than the making of simple garments.

No. 3000—The model for Hat Pattern No. 3000 has all the charm of the picture hat modernized by the practical use of a rolled short back and deep soft crown. There can be no better combination of good points in one hat for the girl with a wide face. The necessary materials are: half yard of elastic net or willow, one and one-quarter yards of eighteen-inch material, flowers, one lining, two and one-half yards of brace wire, seventeen inch square of facing material, one soft crown.

No. 3002—Hat Pattern No. 3002 has the advantage both of individuality and novelty. The corded section which runs from side to side, gives charming width for the girl or young woman who has wide, high cheek bones. The necessary materials are: One soft crown, one lining, half-yard of willow or buckram, three and one-half yards of brace wire, two and one-half yards of eighteen-inch material.

No. 3003—The model for Hat Pattern No. 3003 is designed particularly for the girl from twelve to fifteen years. The stitched soft brim has only the finest of wires to hold it in shape and may be bent in lines suitable to the face. The hat pattern includes diagram and directions for making the flat fruits used as trimming.

No. 3005—This number has been specially planned for the small girl who cannot wear a turban or turned up brim. The line of the brim, the style of the crown, the placement of the trimming give height without any obvious effort at doing so. Any woman who can follow the directions given needed roll in the brim, is becoming

for a plain dress pattern can easily make this model with the aid of the pattern and directions. No. 3005. Materials, practically the same as for No. 3000.

No. 3008—Hat Pattern No. 3008 is for girls from eight to fourteen years of age. The crown and brim are cut in sections which need only be sewn up and slipped over a crown or head-size band. The rolled brim is soft and may be adjusted at a suitable time for the child's face. Can be finished with odd pieces from the scrap bag.

No. 3007—Hat Pattern No. 3007, because it has just the exact amount of

3004 presents a charming model. This hat may be made of silver cloth, brocade or satin. Flowers of silk or velvet or a combination of the two make an effective trimming. The necessary materials are practically the same as for No. 3006.

No. 3006—Both the flowers and hat are easily made, being merely a matter of neat stitches, attractive coloring and following simple directions. Each step in the construction of the hat is clearly and definitely worked out. The necessary materials are: Half yard of willow or buckram, one yard of thirty-six-inch material, three and one-half



to many types of faces. Made in solid black or navy, it is very tailored. Made in these same colors with brightly colored flowers, it is a semi-dress hat. When pastel shades, as orchid, French blue or rose are used with assorted flowers, it becomes a dress model. The necessary materials are: One soft crown, three yards of brace wire, five yards of one-inch straw braid, one lining, half-yard of elastic net or willow, five-eighths yard of thirty-six-inch material, ten yards of narrow ribbon.

No. 3011—Any mother can make this mesaline or crepe bonnet with its tiny rosettes. In Pattern No. 3011, plain directions are given for the making, which is quite simple. So little material is required that odd lengths left from other garments may be utilized.

No. 3010—Model 3010 has all the requisite qualities for the young girl's dress hat. The construction is very simple and is fully explained in Pattern No. 3010. Materials required are practically the same as for No. 3006.

No. 3004—For the many people who must have a brim hat, Pattern No. 3004 has all the necessary materials, one yard of thirty-six-inch material, three and one-half

soft crown, silk scraps for flowers. The hat patterns are all simple in construction and contain definite directions how to make each one. Just send twenty-five cents for each pattern to The Michigan Farmer Hat Pattern Department, Detroit, Michigan, with your name and address plainly written and the pattern will be forwarded to you directly.

### ESCALLOPED MEAT.

Three-fourths cup rice, one and half cup tomato juice, 1 cup bread crumbs, 3 tablespoons fat, 3 tablespoons flour, 1½ cup meat chopped or ground, salt and pepper. Cook rice until tender in plenty of boiling salted water. Prepare tomato sauce of the tomato juice, flour, fat, salt and pepper in the same manner as white sauce. (The stock could be used in place of the tomato.) Fill a baking dish with alternate layers of rice (or macaroni) and chopped or ground meat. Pour tomato sauce (or gravy) over each layer. Cover with buttered crumbs and bake until crumbs are brown.

## Hints from Our Readers

**U**NLIKE the business woman of the city, the busy woman of the rural home always has a task ahead of her to be accomplished and is not afraid of losing her job. Sometimes these tasks become so numerous that her leisure time is entirely occupied with their execution.

There are many practical hints for doing the housework by just a little easier method, which we are each working out for ourselves. These suggestions have been submitted by our readers because they have helped them on their busy days.

### First Prize.

Mrs. A. H., Conway, Michigan.

I am sending you a few practical household hints.

Brushing over the upper crust of pies with milk before placing them in the oven, will make them brown nicely.

Moisten the edge of the lower crust with milk before placing on the upper crust to prevent the juice boiling out.

Vinegar put into a bottle of glue that has become dried and useless will make it like new again.

A few drops of molasses added to the stove blacking will make it adhere more readily to the reddened corners.

A half-cup of flour added to a quart of meal when making mush for frying will prevent it breaking and crumbling.

For cleansing zinc take a thick slice of lemon and rub the zinc with it, allow it to stand for a short time, then wash it thoroughly and it will be as bright as new.

### Second Prize.

Mrs. S. R. B., Montgomery, Michigan.

When one wishes to roll doughnuts in sugar put half a cup of sugar in a paper sack, drop in cakes, twist sack, and shake. Sugar, as well as time, are thus saved.

If fried cakes are put in a sack and laid on top grate in oven for a few minutes before serving, they are as nice as when freshly made. Biscuit and rolls can be quickly dipped in water and placed in a sack in oven when reheated.

A pinch of baking powder added to mashed potatoes and then whipped in thoroughly and set in oven for ten minutes before serving are white and fluffy.

A tablespoon of corn starch added to cakes or cookies improves the fineness of the grain.

If potatoes are parboiled for five or ten minutes before baking, then greased, they are much quicker to bake and flavor is not harmed in the least.

Circles cut from waxed paper and put in top of fruit cans when canning are a help as when mold gathers it will stick to paper and be easily removed when opening the fruit.

### Third Prize.

Mrs. F. C., Ravenna, Michigan.

I find a reference sheet hanging on my washroom wall a great help on blue Monday. I clip from my Michigan Farmer and other papers, anything that will help make work easier. All pertaining to the laundry I paste on an old calendar and hang in my washroom.

If you will try rubbing your hot iron on a sprig of cedar you will discard all ironing waxes. The cedar polishes the iron and imparts a refreshing odor to the clothes which makes ironing a pleasure.

I like to bind the tops of my com-

forters with a length of goods having the binding about fourteen inches on each side. This is basted on and when soiled is easily ripped off, washed and placed back.

Try washing your dustless mop in hot water ammonia and washing powder.

### Fourth Prize.

Mrs. S. H., Carson City, Michigan.

For cleaning white paint, use enough spirits of ammonia to soften the water, and ordinary hard soap. This mixture will make the paint look white and clean with only about one-half as much labor as any other method. Care should be taken, however, not to use too much ammonia or the paint will be injured.

Grease spots which occasionally get on rugs about the table may sometimes be removed by sponging off the spot with one part salt to four parts alcohol. Rub the spot hard.

For ink stains on the rug or carpet, cover the spot at once with salt, remove it when it turns black and apply another layer. Repeat until the salt no longer changes color.

To make eggs beat quickly add a tiny pinch of salt to the whites before beginning to beat them. This will cause them to beat much easier and in less time than if no salt is added.

### Fifth Prize.

Mrs. L. K., Kinde, Michigan.

If dumplings are cooked in the oven they never fall. Have stock in which they are to be cooked boiling. Also have oven hot. Put dumplings in kettle and put in oven and cook the usual time. Dumplings are also nice when cooked with a roast.

I use linseed oil on all my floors. Boil one gallon of oil with five cents worth of yellow ochre and apply with mop. It lasts quite a while, is not expensive and is easily kept clean. I put on fresh two or three times a year.

For curtains I use bleached cheesecloth. It makes dainty curtains and is easily laundered. I have used mine for four years and they are not much worn.

## THE HOUSEWIVES' CONGRESS.

**F**ULL of health, inspiration, practical suggestions, and a jolly good visit," was the way one busy housewife from Allegan county characterized the congress.

The housewives' congress, that important part of every Farmers' Week program, opened Tuesday morning in the auditorium of the People's Church. Dean Louise Campbell gave a very interesting talk at this gathering on the aims of the home economics department.

Miss Grace Frysinger, field agent of the United States Department of Agriculture, presented some inspiring ideas on the farm home as a fountain head of the social and economical development of the nation.

Miss Bess Rowe discussed the question, "Why I want my Daughter to Marry a Farmer." Dr. Marie Dye gave a very understandable discussion of some nutritional problems. The exhibits in the Women's Building gave a very comprehensive idea of the work carried on by the Home Economics Department of the college.

Further details of the congress will appear next week.



Had Your Iron Today?



## Right Foods

### -a Special Need on Farms

**F**EBRUARY meals on farms should be different from those served in May or April.

For these are work-months—at the plow and elsewhere. Men then take healthful exercise.

But February is more or less inactive, and so are men. That means some inaction of important organs of the body that mainly control health.

Then certain foods are needed to take the place of exercise.

Raisins are one of them.

The practically predigested, pure fruit sugar and the bulk and roughage of the skins furnish natural stimulation in a most delightful way.

Raisin foods—always delicious—are, therefore, ideal February foods.

Try in bread, or with oatmeal. Serve in pudding and in pie.

Make luscious stewed raisins your regular morning dish. Try it for ten days and note results.

In addition, raisins supply food-iron of the most assimilable kind—fine food for the blood.

You'll benefit in several ways, therefore, by serving more of this good fruit.



### Another Luscious Way

Another way to get the benefit of raisins is to serve them stewed, with cream as a regular breakfast dish.

Try this way, too, and note the results in ten days.

### Sun-Maid Raisin Bread

Three cups flour, 4 teaspoons baking powder, 1 teaspoon salt, 3/4 cup sugar, 1 cup Sun-Maid Seeded Raisins cut in pieces, 1 egg 1 cup milk

Soak raisins in boiling water for 15 minutes. Drain and dry. Sift flour, baking powder, salt and sugar together. Add raisins. Mix beaten egg with milk and add to flour, stirring constantly. Pour into greased bread pans. Let stand for 10 minutes and bake in moderate oven for 40 to 45 minutes.

This makes two small loaves or one large loaf.

All measurements for this recipe are level.



Blue Package (Seeded) Best for pie and bread.

## Sun-Maid Raisins

Insist on Sun-Maid Raisins, the kind you know are good.

Your retailer should sell you Sun-Maid Seeded Raisins for not more than the following prices:

Sun-Maid Seeded (15 oz. blue pkg.)—20c  
Sun-Maid Seedless (15 oz. red pkg.)—18c  
Sun-Maid Seeded or Seedless (11 oz. pkgs.)—15c  
Seeded in Tins: (12 oz.), 20c; (8 oz.), 15c

Mail coupon for free book of tested Sun-Maid recipes.

Sun-Maid Raisin Growers

Membership 14,000

Dept. B-2502, Fresno, California.

CUT THIS OUT AND SEND IT

Sun-Maid Raisin Growers,  
Dept. B-2502, Fresno, Calif.  
Please send me copy of your free book, "Recipes with Raisins."

NAME.....  
STREET.....  
CITY..... STATE.....





**A necessary part  
of your diet**

**VARIETY** in foods is essential, of course, but in providing variety do not overlook the importance of *nourishment*.

Crisp, delicious Grape-Nuts is a highly nourishing cereal food in unusually compact form. It supplies the rich nutrition of wheat and malted barley, including the mineral elements of these splendid grains, without which health and strength cannot be maintained.

Grape-Nuts, with good milk, is a complete food. Economical, too, because a moderate amount provides unusual nourishment.

*Sold by Grocers Everywhere!*

**Grape-Nuts**

THE BODY BUILDER

**"There's a Reason"**

Made by Postum Cereal Company, Inc.  
Battle Creek, Michigan



**82¢ Buys All the  
Wall Paper  
for An Entire Room**

Here is a big Montgomery Ward offer! A DOUBLE LENGTH roll of wall paper for only 6c. Enough to paper an entire room 10x12 for as little as 82¢! This includes side wall, border and ceiling paper.

Send for our new book of Wall Paper Samples and see the MANY OTHER big values we have ready for you. It shows you our complete new assortment—grass-cloths, tapestries, oatmeal papers, leather patterns, fabrics. And all at prices to suit your pocketbook. Among the better grades, we have a big variety for only 50¢ and up per DOUBLE LENGTH roll. And remember, you get twice as much wall paper in one of our 16-yard DOUBLE LENGTH rolls as in the ordinary 8-yard single roll.

**This Wall Paper Book FREE**

Contains over 100 Actual Samples

Be sure to get a copy of this book before planning your Spring decorating. It is made up of actual large-sized samples. With each side wall is shown a sample of the border to match. Easy and pleasant to select your wall paper this way.

Send for this interesting and valuable book today. Ask for Wall Paper Sample Book, No. 1923 W Address our House nearest you.

**Montgomery Ward & Co.**  
CHICAGO FORT WORTH KANSAS CITY PORTLAND ORE. SAINT PAUL

**Victory Plants**

Trees, Vines, Shrubs, Evergreens, Flowers, Michigan Plants for Michigan People

100 everbearing and 100 Gibson strawberry plants, post paid for \$2.00. 1 Spirea or 2 Concord grape vines free with every order for \$4.00 or more. 25 choice mixed gladioli bulbs for \$1.00. 1000 choice strawberry plants, our selection, for \$3.50. 1000 fine Concord grape vines for \$4.00. Bargains in peach and cherry trees. Live and let live prices on everything to plant. Free catalogue, worth seeing, too. Order now—  
The Allegan Nursery, Allegan, Mich

**STRAWBERRY PLANTS**

\$3.50 Per Thousand, and up. Our strong, tremendous bearing plants guarantee big crops of luscious berries. Best varieties for all kinds of soils. Many new varieties such as Eaton, Bun Special, Premier, Marvel, and Cooper. The world's greatest new Everbearing Strawberry CHAMPION. Full line of Raspberries, Blackberries and Asparagus. Greatly Reduced Prices. Our customers are making up to \$1200.00 per acre from small fruits. Large stock of good Grape Plants at \$35.00 per thousand.

Beautiful new color catalog free. Write Today  
BRIDGMAN NURSERY CO., Box 25, Bridgman, Michigan

**GROW THE NEW MAMMOTH Cooper**

**Big In Size & Yield**

The big, healthy, vigorous strawberry without a fault. Gives lasting satisfaction. Nets many of our customers \$1500.00 an acre. Beautiful color, and a flavor you can't forget. 17 to 35 fill a quart. Resists drought. Bears early and late. Many growers will discard all other kinds. We also save you money on the most thrifty and profitable varieties of Strawberry, Grape, Raspberry, Blackberry and Dewberry plants. Grown in the famous Michigan Fruit Belt. Packed to reach you fresh and vigorous. We ship direct to you at wholesale prices. Special rates if you order now. Our liberal guarantee and long experience protect you. Prepare now, and you will reap big profits next year from the growing demand for good berries. Our valuable catalog, with color illustrations, tells the whole story. Write for your copy tonight.

Stevensville Nurseries, Box 58, Stevensville, Mich.

**For More Berry Money**

**STRAWBERRY PLANTS**

Priced as low as \$3.00 a thousand. Raspberries, Grapes, Currants, etc. 30 years' experience. A complete line. All plants inspected, guaranteed. Write today for free illustrated catalog.

J. N. ROSELY & SON, Rt. 6, BRIDGMAN, MICH.

**Fondant for Cookies**

**M**OST housewives are familiar with the time-honored adage, "The way to a man's heart is through his stomach." If you feed him wholesome light bread, real cake, and cookies like grandmother used to make, he will stay at home every night.

When you feed him soggy bread, potatoes with a bone in their interior, pie that has a crust that is first cousin to a board, he will be captious, cross and crabby.

And, too, it is quite the same if you feed him the same ration, day in and day out. For him, as for the rest of us, "Variety is the spice of life." Variety to the daily menu gives as much spice to it as do the spices which it contains in fact.

Unless the family is large one bake of cookies become quite tasteless before the cookie jar is again empty. The following is a basic recipe for cookies. If the variations are used the last ones will taste as good as the first.

Take one cupful of fine sugar, one teaspoonful of salt, two-thirds of a cupful of shortening, two teaspoons of baking powder, two beaten eggs and one and one-half pints of flour. Add milk or flour, whichever is necessary to allow the dough to roll thin. Take a portion of the dough for each kind of cookie you wish to make; choose the kind of flavoring and filling that you want from the list given below, and mix each kind of cookie in a separate bowl. Roll all the cookies very thin, and be careful not to burn them when baking. In a hot oven they will bake in a very few minutes.

The icing for these cookies and wafers is made by adding light cream or milk to pulverized sugar and flavoring it. Marshmallows should be put on the wafers before they are baked. If some of the white of the egg is saved, more varieties can be made by beating white sugar into it and putting some

of it inside or on top of the cookies. They should not be baked too hard.

Add vanilla flavoring to the plain dough; roll it thin and cut it into rounds.

Add vanilla and cocoanut and white vanilla icing, and make the cookies oblong.

Add lemon extract and peanuts chopped fine; cut dough into squares.

Add vanilla and chopped walnuts and vanilla icing, and putting a nut on top of each cake.

Flavor with lemon, and add lemon juice or a bit of citric acid to the top of each cookie.

Use orange extract; color the icing orange and cut the cookies in strips.

Add chopped raisins; put icing on or put a raisin in the top.

Chop some nuts and raisins together, and cut the dough in oval form. icing.

Add some chopped citron, and put bits of citron in the icing which should be colored light green.

Roll the dough extra thin; put chopped figs or dates between two cookies; fasten them together by putting drops of milk around the edges.

Flavor with lemon; put a square of jelly on top, with half a marshmallow over the jelly.

Put preserved fruit between two thin cookies; crimp the edges.

Add melted chocolate; roll thin; cut into squares and roll it up.

Cut some chocolate cookies star shaped and ice them with chocolate.

Add cinnamon to the dough; cut into very thin squares; roll them up and dip the ends in icing.

Add ginger; roll the cakes into small round sticks, like bread sticks.

Add mixed spices; cut the dough into triangles and put currants on top.

Put two chocolate wafers together with a marshmallow.

Add rose extract; color icing pink and cut the cookies in crescent shapes.

**Household Service**

Use this Department to Help Solve Your Household Problems. Address all Letters to Martha Cole, Michigan Farmer, Detroit, Mich.

**TO REDUCE WEIGHT.**

What foods should be eaten to avoid getting too fat? I am five feet ten inches in height, weigh 220 pounds, and am forty-nine years old. How much overweight am I? At the age of thirty I weighed 105 pounds.—Mrs. C. C. J.

If you wish to reduce your weight, avoid such foods as cream, fat meats, gravies, sugar; all starchy foods should be eaten sparingly, and all rich pastry and candy avoided.

Bulky foods which satisfy and yet do not add weight, such as raw cabbage, spinach, lettuce, vegetables of all kinds, and fruits may be eaten in abundance. Considerable lean meat may be taken if plenty of vegetables and fruits are eaten also. Skim-milk, buttermilk or fruit juices between meals often satisfy the hunger and yet do not add flesh.

According to the table of average weights and heights of women, you should weigh about one hundred and seventy pounds.

**BREAD RECIPES.**

Can you tell me how to make bread with liquid yeast? Also send a recipe for salt-rising bread.—Mrs. H. S.

To make bread with liquid yeast, cook potatoes enough to make one cup when mashed; use the water the potatoes were boiled in and add enough lukewarm water to make three pints; add one tablespoon of salt and one tablespoon of sugar, one-half cup of

liquid yeast and thicken quite stiff with flour. Let sponge rise all night in warm place; in the morning add flour enough to make stiff. Put in a warm place until light. Knead into loaves, using some lard on the molding board but no flour. Let rise and bake.

Salt-rising Bread:—In the evening take three tablespoons of cornmeal, one-half spoon of sugar, one-half spoon of salt, one-half of a raw potato scraped fine, and scald with enough water to make quite a thin mush; set in a warm place until morning; then take a pint of flour, one-half teaspoon of salt, and enough lukewarm water to make a thick batter; then add the mush made the night before, and stir briskly for a minute or two. Set in a warm place; when light, stir down and let rise a second time. When risen, put four or five quarts of flour in a bread bowl, make a hole in the center, and pour in three pints of warm water. Then add your rising; knead, and when light mix in loaves. When risen to top of pan, bake. This will make three loaves.

For burns use equal parts kerosene and sweet oil with all the camphor it will cut. If a bottle of this is kept in the house, much suffering will be saved from burns.—M. B. M.

Ill-made or badly hung curtains are as fatal to the appearance of a house as a mutilated or distorted face to the appearance of a person.

New electrical conveniences are being contrived by inventors as a substitute for manual labor in the routine home duties.

Please Mention The Michigan Farmer When Writing to Advertisers!

# Rural Health

By Dr. C. H. Lerrigo

## HOW LARGE IS YOUR HEAD?

A SUBSCRIBER who is very much interested in the brain wants to know what is meant by the "little brain," why it is that some very clever people who might be supposed to possess massive brains have very commonplace heads; and if there is anything in the science of phrenology.

I am not sure that I can answer these questions to the entire satisfaction of heads of all sizes, but I can give my views. The cerebellum is sometimes spoken of as the "little brain;" in fact, that is the meaning of the word. There seems to be no very definite relation between the cerebellum and man's higher mentality. Its function seems to be to control muscular action. It has much to do with the balancing power of the body. A drunken man goes "beaucoup zigzag" because he has poisoned his cerebellum. Involuntary actions, such as are performed without conscious effort are controlled by it. This may explain the instances of splendid athletes apparently quite devoid of gray matter.

Our actual brain cells are not in the cerebellum, but form a layer on the surface of the cerebrum. They are gray, whence comes the term "gray matter." This important surface of the brain, which controls all our perceptions and originates all thought and impulse, does not lie round and smooth like the top of a bald head. It has many tucks and gathers, deep valleys here and there, and a definite pattern of convolutions that tremendously increases its capacity.

If the brain surface could be stretched out to its full extent it would seem quite impossible that so much material could be crowded into the skull. One might well imagine that a brain of unusual power must magnify itself, to the extent of producing bumps and protrusions that would show in the cranial contour.

Instead of this, however, the excess brain cells dip down into crevices and valleys and are so tucked away as to allow enormous increase of the brain capacity without requiring expansion of the skull.

It is true that some great men do have massive skulls adorned with many knobs and bumps. So do some idiots. The consensus of present-day opinion is that phrenology has failed to demonstrate its bumps.

## TO OVERCOME TOBACCO HABIT.

My husband uses tobacco, both chewing and smoking, to such an extent that it is really hard to live with him, and I believe it affects the health of the children. Please tell me something that I may put in his food to break him of it.—S. A.

I do not know of anything that you can use without his knowledge that would be at all likely to break the habit. Even if it succeeded temporarily he would go back to it. The thing you should and must do is to show him how greatly this disturbs the health and peace of the family, and get him to undertake the cure of his own will. In such an event I can tell you of some helpful drugs to use.

## RED HANDS.

What can be done for red hands, and what makes them feel as if they were swelled in the evening?—W. J.

It depends entirely upon the cause of the redness. If you have a feeling that the hands are swelled at night it is likely that your trouble is due to

defective circulation. This may be an indication of some trouble that should get definite attention while it is still incipient. I suggest a careful examination of the heart action and blood pressure.

## GALL BLADDER INFLAMED.

Can inflammation of the gall bladder be cured without an operation? I was operated on ten months ago for adhesions of the liver. The gall bladder was pushed downward and grown to the upper bowel. Inflammation set in. My liver hurts me clear through to my back. My whole liver feels as though it were sore. Is there danger of it turning to cancer?—Mrs. H. L.

I do not think you should contemplate anything further in the way of operation. Careful diet, rest, and especial attention to elimination by the bowels and kidneys will help you. I do not think there is danger of cancer.

## CHILDREN EXPOSED TO DIPHTHERIA.

When a child has diphtheria and there are other children in the house would it not be best for the doctor to give the other children the preventive known as toxin-antitoxin? I know of a case where the doctor would not give it.—M. L.

The doctor was right in not giving the toxin-antitoxin in a family in which the other children had already been exposed. They should have been given preventive doses of anti-diphtheritic serum instead. The toxin-antitoxin is to use in immunizing children who have not yet been exposed. Its action is too slow in cases where exposure has already occurred and it might even be dangerous, in case the subject was already sickening with the disease.

## COCOA FOR CHILD.

I would like to know if cocoa is all right to give a child two years old. He gets all the milk he wants but likes cocoa for a change. I would also like to know if raisins are all right. I always thought that they would be good for the bowels, as all other fruits are. Our little boy just loves them and asks for them often. I get the seedless kind.—Mrs. J. C. T.

Cocoa in which there is much milk and little cocoa is all right, even for a child of two. It is possible to use cocoa to excess, but when used with good judgment is quite harmless and a good way to persuade a child to drink milk. The same principle is true of the raisins. They are good food if used in moderation.

## KIDNEY TROUBLE.

I have a kidney stone in my left kidney for one year and three months since I discovered it by the X-Ray. I have taken twenty chiropractic adjustments and have been waiting for results. But no relief so far. It pains me on and off when I do work bending over. Is there any medicine, to your knowledge, that will dissolve that stone. I also have itching piles. They bother me always in the evening. Are they forerunners of the more serious kinds of piles? Please give me remedy for same.—M. A. B.

I know of no medicine that will dissolve kidney stones. Not infrequently they pass without help. It depends upon the size and the measure of interference with the kidney function whether you should get surgical help or adopt passive measures. Such piles as you have may often be cleared up by the liberal use of cold cream in the rectum, both before and after stool, together with care to avoid constipation.

# Sailing Under False Colors

SENATOR YOUNG has introduced Senate Bill No. 62 in the Michigan Legislature, known as the "full crew law." Under the guise of a Safety measure, it means really—

An additional tax of \$1,500,000 at least to the users of Transportation in Michigan.

The creation of an artificial demand for more labor.

Waste in man power.

Greater hazards to the men, it is designed to protect, since it divides responsibility.

THERE is another phase to the issue: In the event of a strike, such as the "outlaw switchmen's strike" of three years ago, complete paralysis of the transportation system will follow, because one clause of that measure makes experience mandatory upon the newest recruit to the train crew—the flagman. Had such a law been in full force and effect when the strike referred to occurred, there would have been a complete tie-up of not alone the railroads, but of every factory in the country. Not a pound of farm produce could have been transported to market, nor a ton of coal brought from the mines by rail. There would have followed in its wake greater misery, greater chaos, greater general suffering upon all who are dependent upon transportation—and profiteering on a scale the like of which the country had never seen!

This bill would give to organized labor in times of peace what the country reluctantly gives to the general in the field in times of war.

SENATOR GANNSEY'S bill No. 72, requiring automatic fire doors installed on all locomotives means the scrapping of a number of serviceable engines. This bill, too, means higher transportation costs to you, who "pay the shot" eventually.

Send your local representatives a "cuss card" today telling him that these measures are uneconomic, unreasonable, unnecessary and un-American.

*Frank H. Alfred*

President and General Manager.

Detroit, Mich., February 4, 1923.

# Pere Marquette Railway

# Good Chicks--Fair Prices



Pedigreed and Utility Grades on Barron Type White Leghorns, also Barred Rocks and S. C. R. I. Reds. Customers report Pullets laying at 4 months and 20 days. Pedigreed Chicks from flocks headed by males bred by Mich. Ag. College from trapped hens of 200 to 300 egg record. Leghorns, 25 \$5.50; 50, \$10; 100, \$20. Rocks and Reds, 25, \$6.75; 50, \$12.75; 100, \$25. Utility Chicks from selected, free range flocks, purebred, heavy egg strain hens. Great value in Medium Priced Chicks. White Leghorns, 25, \$4; 50, \$7.50; 100, \$15; 500, \$70; 1,000, \$136. Barred Rocks & Reds, 25, \$5; 50, \$9; 100, \$18; 500, \$88. All prices hold until May 1st, discount of one cent per chick on all orders placed before March 1st. 97% live delivery guaranteed by prepaid Parcel Post. Instructive catalog free. Bank Reference.

Michigan Hatchery & Poultry Farms, Box C, Holland, Mich.

## POULTRY

### Pioneer BABY CHICKS

Pure breed, Tom Barron, English White Leghorns and Barred Rocks. Chicks that satisfy, 100% live delivery guaranteed with right prices. Send for our illustrated catalogue and price list before ordering. We save you money. PIONEER POULTRY FARM & HATCHERY, Box A, R. 10, Holland, Mich.

### BABY CHICKS

Chicks with Vigor and Pep from heavy laying strains.

#### PRICES FOR FEBRUARY

	Per 100	Per 1000
R. I. Reds	\$15.00	\$145.00
Barred Rocks	15.00	145.00
White Leghorns	12.00	110.00
Anconas	13.00	125.00

A. D. RICHARDSON HATCHERY, Dundee, Michigan

### BABY CHICKS

8 leading varieties; free range, pure bred stock, 100% live delivery guaranteed. Postage prepaid. Catalog and price list free. Scott Bros. Hatchery, Edison, Ohio.

### S. C. White Leghorns

Attention, Northern Michigan Breeders! Eggs \$1.00 per 15, \$6.00 per 100. Orders filled as booked. High fertility and satisfaction guaranteed. W. G. PARKER, Charlevoix, Mich.



CHICKS \$10.50 AND UP. From Hogan tested hens. Wh. Br & Buff Leghorns, 50, \$7; 100, \$13; 500, \$82.50. Bar. Rocks, Anconas, 50, \$7.50; 100, \$14; 500, \$87.50. Reds, Wh. Rocks, Minorcas, 50, \$8; 100, \$15; 500, \$72.50. Buff Orpingtons, Wh. Wyandottes, 50, \$9; 100, \$17; 500, \$82.50. Mixed, 100, \$11; 500, \$52.50. Order now. Catalog Free. Eggs for Hatching, Ref. 4 Banks. Tri-State Hatcheries, Box 512, Archbold, Ohio



CHICKS THAT MAKE PROFITS. Strong, vigorous, well hatched from leading breeds of heavy layers. Moderate prices, 100% live delivery guaranteed. Postpaid. Catalog giving full particulars free. Bank reference. BLUFFTON HATCHERY, Box M, Bluffton, Ohio.

### CHICKS

We ship everywhere. Safe arrival guaranteed. 20 thoroughbred varieties. Hatched right. Member Int. Baby Chick Assn. Catalog free. Mammoth Hatchery, R. F. D. 30, Glen Ellyn, Ill.

#### 5 to 6 lb. White Leghorns

Larger hens, better winter layers. Send for free catalog full of information. A. W. WAUCHEK, Gobleville, Mich.

### BABY CHICKS

Healthy, range flocks. Culled and tested. 12 breeds. 100% delivery guaranteed. Free catalogue. SMITH BABY CHICK CO., Dept. M, Bryan, Ohio.

### White Holland Turkeys

Toulouse geese A-1 stock. AL DEN WHITCOMB, Byron Center, Mich.

"Ringlet" Barred Rock cockerels, extra fine, from prize winners also hatching eggs. EARL MURPHY, Britton, Mich.

Barred Rocks egg contest winners, eggs from a rain with records to 290 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

# GUARANTEED

The Strongest Built Work Shoe in the World

Many of Our Customers Wear this Wonder Shoe A FULL YEAR!

\$2.95



Don't Send One Penny!

Positively \$6.00 value—the most wonderful work shoe ever designed and offered here at a sensational cut price. Just tell us your size and when shoes arrive judge the value yourself. Only once in a life time, men, does such an opportunity offer. Send quick—while stock lasts.

## Regulation U.S. Army Field Shoe

Wonderful quality leather throughout. Rough suede finished waterproof grain leather uppers. Regular sole leather insole. 2 full double heavy outsoles and an extra top sole. Bellows tongue; solid leather counter; solid leather heel with heavy steel rim all around edge. Sewed throughout with heavy waxed-linen thread; seams brass riveted. Practically indestructible. Sizes 7 to 12. Order No. 001005. Bargain price, \$2.95 and postage. Give size wanted.

**Now!** Don't put off ordering. Don't risk disappointment. Send now, while size assortments are complete. Just your name, address and size on a post-card or letter. No money now. When shoes arrive pay postman only the smashed price, \$2.95 and postage. Then, if not convinced that you've saved several dollars, return shoes and we will refund your money instantly. Order today—NOW!

CHASE SHOE CO. Dept. 96 Minneapolis, Minn.

### POULTRY

## HIGHEST QUALITY CHICKS

Michigan's Old Reliable Hatchery

(The most modern and best equipped Hatchery in the state)

Pure Bred English and American S. C. W. Leghorns; S. C. Anconas; Barred Plymouth Rocks and B. I. Reds. Strong, well hatched chicks from tested Hoganized free range stock that make wonderful winter layers. Chicks sent by Insured Parcel Post Prepaid to your door. 100% live delivery guaranteed. Fifteen years of experience in producing and shipping chicks has given absolute satisfaction to thousands. Write for illustrated free catalog and price list. Get lowest price on best quality chicks before you buy.

W. VAN APPELDORN, R. 7, Holland, Mich.

## Egg-Bred Chicks

ENGLISH type White Leghorns, Brown Leghorns. From wonderful layers. 11 years of breeding for egg production. Breeders headed by large vigorous males from high record hens. Large combed deep bodied type. You will be proud to own a flock of these Leghorns. Live delivery guaranteed. Illustrated catalog free. Write today. Royal Hatchery & Farms, R. 2, Zeeland, Mich.

## B-A-B-Y C-H-I-X

Order Now For 1923

WHITE LEGHORNS AND MOTTLED ANCONAS Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. C. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hoganized flocks on free range on separate farms. Send for Price List.

CRESCENT EGG COMPANY, Aliegan Michigan

## JUST-RITE LOOK! Baby Chicks

A Hatch Every Week All Year

POSTAGE PAID, 95¢ live arrival guaranteed. MONTH'S FEED FREE with each order 40 Breeds chicks, 4 breeds ducklings, select and exhibition grades. Catalog free, stamps appreciated.

NABOB HATCHERY, Dept. 15, Gambier, O.

**GUARANTEED BABY CHICKS** From World's Champion Layers. Certified, Trap-Neated, Pedigreed, Snowden's English White Leghorns, 250-251 Egg records! Shop-card's 331 Egg strain Anconas. Guaranteed strong healthy chicks. Real money makers. Beautiful Catalog FREE. FRANK A. VAN BREE, Box 32, Zeeland, Mich.

# Our Boys' and Girls' Department

## Club Workers Experiences' Helpful

There are Other Things to Win Besides Blue Ribbons

By Johnny

ONE of the most successful men among stock farmers and ranchers of the west, a man of great means, force and ability, worked without salary for five best years of his early life, preparing himself for his life work. He regards the long hours which he spent working without pay, and then working after his regular hours to earn his living expenses, to have a great effect upon his later life, even though his life work was not the one for which he had prepared himself by such apprenticeship.

judge at the exhibits without a whimper, all have their place in a project. No matter in what work you later engage, these experiences, providing you have given yourself to the work and done your best, you never will be sorry for your efforts spent in the raising of a pig, an acre of corn or the sewing of a seam.

By winning a prize in competition with other boys and girls who think as you do, a trip to a fair or stock

would join your Merry Circle and start the New Year in this way.

I am fourteen years old and am in the eighth grade. I was a member of a pig club this year and also a judging team. I went to the state fair and judged live stock there. I like club work fine. There were only three girls in the stock judging team and about ten boys, and there were two girls and one boy who went on the team to Detroit.

Boys may be boys, but it looks like girls could make pretty good ones sometimes. Ha! Ha! You could not tell us girls from boys if we had our hair bobbed for we both wore knickers. Well, I must close as this letter is getting quite long.—Your niece, Iva May Paquette, Alanson, Mich., R. 1, Box 64.

Good for you for winning out on that judging team. One boy wrote that girls' knickers made him snicker. But I think they are sensible.

Dear Uncle Frank:

Surprises sure are great when you come home from school and find a nice map waiting for you. It came in perfect condition, not torn a bit. The prize, even if it was third, seemed better to me than the pencil box or pencil. I don't know why, but guess it is because I like to look at maps.

Many times I wrote and every time it went hard against my fate, but at last I won. Oh, my! it surely is worth trying for. The motto which is now and shall be mine is, "If at first you don't succeed, try, try again."

Well, I must close.—Your niece, Goldie Kleinhort, 3944 Mt. Elliott Avenue, Detroit, Mich.

I am glad my city niece has found that her determination was successful. You were due the prize you got.

Dear Uncle Frank:

I will enter the Merry Circle again with a contest. I sincerely hope I win this time or get a Merry Circle button. Maybe I won't get either one, for all I know, but I will try, try again.

Well, Uncle Frank, I think some of the drawings were good of you but I haven't seen your real picture yet, but I am waiting for it to show up.

Well, as my letter is getting long I will close.—From a nephew, Lester McConnell, Sturgis, Mich., R. 3, Box 75.

That's right, keep trying. It's awful hard to get that picture of me to show up in the paper, isn't it? Never mind, maybe some day I'll surprise you.

Dear Uncle Frank:

This is the second time I have written.

We live back in the woods and our nearest neighbors live three quarters of a mile from us. We live three miles from a store and post office, and live two miles from a school house. We have no church in our neighborhood. I have not been to church in nearly eight years. I used to go to church before we moved here, and surely miss going.

We own 160 acres of land, ten head of cows and calves, two horses, two hogs and about fifty chickens.

Well, as my letter is getting long I will close, hoping to hear from some of the boys and girls.—Your new niece, Zetta Graves, Billings, Mich.

It must be nice to live in the woods. With an auto the distances you mention are short. Write again, Zetta.

Dear Uncle Frank:

This is the fourth letter I have written and I hope it escapes the waste paper basket.

My name is Robert, but they all call me "Bob." Sometimes the teacher makes a mistake and calls me "Bob," too. Then we all laugh.—Yours sincerely, Robert Burke, Galien, Mich., R. 3.

Say, Bob, if everybody else calls you Bob, why shouldn't the teacher? It looks as if you got your wish this time.



Iloe Light's Picture of Her Brothers, Sisters and Pet Lambs.

Club work offers financial rewards, but to those who are willing to give it a trial it offers many things of greater value than money. It is rather hard to explain what, but there is an atmosphere of helpfulness about it which helps make one during the "molding stage." Wealth is not measured by the size of the pocketbook, but by contentment.

The ways which we live during the early part of our lives is very likely to be the ways in which we will continue to live. Therefore the better our early training and environment, the more difficulties we are called on to conquer and if we succeed in conquering them, the more chances we have for success. It is the penny that makes the dollar; twigs make the tree. Without the little, but important things, we can not hope to make much progress. The sparkplug is small in size, when compared with the engine, yet no gas engine will run without ignition. Who can live without a heart? Do your work to the minutest detail and you will not be sorry.

To keep records, to figure costs and expenses, to make your project successful and accept the decision of the

show in a large city, you are given the chance of coming in contact with other people. It encourages broad citizenship and develops the ambition to become an artist in your particular line.

We learn to apply in a business fashion the theoretical lesson taught in the class room and gives us a chance to make use of the ideas of youth in a useful manner.

The boy or girl who will grasp the opportunities as they are presented, no matter in how small or humble a manner, is following the real course of nature. New seed for thought is being furnished, which will grow and mature into real life and progress. As one club worker states it, do your best, strive to win the blue ribbon, whether it is your lot to be at the head of your class or not, you win whether you get the blue or not. It's the building of a character including true companionship, devotion, honesty, strength of character, and a desire to leave footprints on the sands of time, after all, for which everyone of us is working. When we overlook and forget everything but the blue ribbon we are not only doing ourselves a great injustice, but all concerned.

## Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

Say, maybe you think I wasn't tickled Saturday when I received my map. Well, I surely send a thousand thanks for it. I have got my little brother real interested in geography with it, so you see it is going to be used all O. K.

It will surely seem like a Merry Circle when we get our club buttons. Won't it, I can hardly wait until I can be a fortunate one, and then, Oh, Boy! I will make good music.

I have almost forgotten that my letter was getting, oh, ever so long, and

without a doubt it is getting ready for that troublesome waste basket. So I guess I won't waste any more ink until I see where this goes to.

—With love, a niece and cousin, Lola Court, Allen, Mich., R. 1.

I would like to hear you button music when you get the Merry Circle pin. Once in a while a letter escapes that dreadful waste basket, doesn't it?

Dear Uncle Frank:

As I was a club girl I thought I

# About Several Things

By Uncle Frank

YOU are getting extra time on the valentine contest, and for that reason we will not announce a contest this week. Next week we will announce a George Washington contest. So, when you study about the father of our country, I would advise you to keep the facts in mind, as you may be able to use them in this contest.

After the Washington contest we will have the contests every other week, at least we will try it that way for a while to see how you like it. I am doing this to give me more space to use some of the good stuff which has come in from other contests. I get some real good papers which I can not use because of the lack of space, and I think by this arrangement I can use more. After we work this scheme a while, let me know what you think of it.

I certainly appreciate all the nice letters I am receiving. I just wish I had about five pages a week to print and answer them all. They don't go unread, but often are read twice, so don't fear that the horrid old waste basket will get them before I read them. The reading of these letters is one of the most enjoyable parts of my activities with this department.

Once in a while I make a mistake. For instance, in the announcement of the Read-and-Win Contest of January 6, I had question number two, "How much longer was the number of sheep and lambs on feed in December than a year ago?" Many noticed this and mentioned it in their letters. That is what I like. Whenever you find anything wrong in these columns, I wish you would let me know about it.

The girls and boys who have received the Merry Circle buttons and membership cards are writing me that they are pleased with them. I hope that all who get them will wear the buttons and also keep in mind what the circle colors signify.

Uncle Frank's Picture Will Appear. About every other letter I get mentions a desire to see my picture. I really don't see what my looks has to do with the fun we have in this department. But apparently there is a natural curiosity about this that I have to satisfy. And the only way I can do it is to run my picture. So, next week I am going to run in these columns one of the best pictures I ever had taken. I hope you will not be disappointed in it.

Just "Josh" wrote me again. He, or she, sent in a dandy poem. Josh asked the age limit for those taking part in the Merry Circle and other activities of this department. Those over eighteen years can not take part in the contests or Merry Circle, but that is no reason why I am not mighty glad to hear from them.

## THE LUCKY TEN.

HERE are the ones who had the most neatly arranged correct answers to the Ad-Reading-Contest. Besides the prizes they won they will also get a Merry Circle Button and membership card. Many others will receive Merry Circle Buttons for getting the answers correct.

### Pencil Box.

- Robert Bruce, Bark River, Mich., R. 1, Box 1.
- Margaret Thompson, Paris, Mich., R. 1.

### Pencil.

- Mildred Dempsey, Elkhart, Ind., R. 3, Box 76.
- Edith E. Chew, Bay Shore, Mich.
- Carrie Bowman, East Saugatuck, Mich., R. 1.

### Maps.

- Violet A. Swanson, Muskegon, Mich., R. 6.
- Lorna Lange, Sebawaing, Mich.

Justin Langdon, Alanson, Mich.  
John A. O'Lesky, Norway, Mich.  
Victor Pearson, LeRoy, Mich.

## THE AD. ANSWERS.

HERE are the correct answers to the Ad. Reading Contest, which appeared in our issue of January 27:

1. The Handy Fastener—Page 9-105.
2. The privilege of selling Goodyear Tires—122-6.
3. The Redhead—118-22.
4. London steel stalls and stanchions—11-107.
5. Two pounds—11-107.
6. American Poultry Journal—120-24.
7. Light House Coffee—116-20.
8. Montgomery Ward & Co., 5-101.
9. Albion windmill—13-109.
10. Sharood—98-2.

## PRIZE POEMS.

### OUR FARM.

We live upon a farm,  
The dearest place it is.  
We have a dog named Laddie  
Who always knows his biz.

Chickens, too, and rabbits,  
All about the place,  
And some little kittens  
Laddie likes to chase.

We have some nice white pigeons  
That fly from house to barn,  
And a creek down by the woods  
We like to skate upon.

When winter days are stormy,  
And we have to stay indoors,  
We bring apples, nuts and popcorn,  
From out our winter store.

And sit around the fireside  
And laugh and sing and eat.  
Oh! the dear old farm's a jolly place,  
No city home can beat.

We romp around the dooryard,  
We play around the barn,  
One month in the city  
Ain't worth one day on the farm.  
By Evelyn Stevens, Atkins, Michigan.

### JUST BABY.

I know the cutest little baby,  
With great big shiny eyes,  
And a smile across his whole dear mouth,

Which no one could despise.  
His little pinkish rompers—  
And his shiny colored hair,  
Makes you want to give this baby  
Your heart's bound tender care.  
His little pink toes wiggle  
And his bare and dimpled knees  
Makes you want to tickle—

And with them try to tease.  
He always gives the sweetest smile  
With his dimpled face so merry,  
Who couldn't but love this baby,  
Even if it is (sometimes) contrary.  
In the morning when he gets up,  
With his baby coo,  
Makes you stop your work and love it  
That it always sure does do.  
A baby is a baby, but I think this one  
more true,  
Because I think it loves me,  
And because it's my nephew.

—By Goldie Klemhart, Detroit, Mich.

## WANT TO CORRESPOND.

THE following boys and girls would like to correspond with others interested in the activities of this department:

- Lucille Gilbert, Portland, Mich.
- Leo Gilbert, Portland, Mich.
- Alice Rood, Lansing, Mich., R. 6.
- Alice Bela Holcomb, Oak Grove, Mich.
- Stella Adolph, Yale, Mich., R. 5.
- Ruth M. Balbreath, Fernville, Mich., R. 4.

- Marion Weekes Lowell, Mich.
- May Ellen Bronson, New Lothrop, Mich., R. 2.
- Florence Graves, Billings, Mich.
- Mildred Farler, Mikado, Mich., R. 1.
- Netta Brown, North Star Mich.
- Frances Sheldon, Blanchard, Mich., R. 1.

- Marguerette Van Alsberg, Holland, Mich., R. 4.
- Charles Levett, Byron Center, Mich., R. 3.
- Wayne Douglas, Lawton, Mich.

## Make Big Money Raising Poultry

**With A Champion Belle City**

**The Hatching Outfit that has brought success and big cash profits to over a million satisfied users everywhere.**

My new Free Poultry Book "Hatching Facts" tells how. Write for it today. Get into this interesting, profit-paying way of raising poultry now—You can't lose when you use my

# \$13.95 140-Egg Champion Belle City Incubator

With Fibre-Board Double-Walled Construction used for over eighteen years—Copper Hot-Water Tank—Self-Regulated Safety Lamp—Thermometer and Holder—Deep Chick Nursery—Egg Tester.

**Express Prepaid**

East of Rockies and allowed to points West. Gets shipment to you in 2 to 5 days. With this Guaranteed Hatching Outfit you'll get biggest hatches of

**\$6.95 buys 140 Chick Hot-Water, Double-Walled Belle City Brooder—Guaranteed to raise the chicks. You save \$1.95 ordering both together a complete Hatching Outfit for only \$18.95**

**strongest chicks—with least effort and at lowest cost. Save time—thousands order direct from my advertisements. Order now and share in my**

**\$1000 in Prizes**

Or write me today for Free Book "Hatching Facts" and get all the particulars. It contains practical, money-making suggestions about poultry raising that will start you right.

Jim Rohan, Pres.  
**Belle City Incubator Co.,**  
Box 14 Racine, Wis.

## Egg Bred BABY CHICKS

**The Best Laying Strains on Earth**

Barron English White Leghorns, Brown Leghorns, and Anconas. During 1923 we will sell 30,000 strong, healthy, super-hatched chicks weekly, bred from strains backed by 18 years of actual egg breeding on our Farms. The enormous output of these quality chicks enables us to sell these money-makers at a price unequalled. Our flocks are culled annually by poultry experts and are mated to large, vigorous 260-283 egg Pedigreed Males from Funk Farm direct.

**Hundreds of Customers Report Big Profits**

E. I. Beebe, St. Charles, Mich. writes: My 100 hens laid 193 eggs each and I made over \$300.00 clear profit last year.

Wm. Vivant, Harbor Spring, Mich. writes: We got 3528 eggs in January from 180 pullets.

A. Dall, Port Huron, Mich. The pullets began to lay at 4 1/2 months old and averaged 23 1/2 eggs each for one month.

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

**Raise Good Stock and Reap a Golden Harvest**

We don't boast on a few high record birds but our extraordinary flock's average has attained our present high standard. Intelligent chick buyers look for these qualities and we assure you we have them. Get our 1923 large catalog now, it's free.

**Wingarden Hatchery, Box M, Zeeland, Michigan**

## WISCONSIN

**Express Paid Only \$8.95 and up**

(10)

Wisconsin Colony Brooders are the "last word" in brooder construction. Compare our prices and see if you can get (for the same money) a Wickless Colony Brooder like the Wisconsin which has automatic Oil Control—can't go out—won't overflow—has no wicks—burns a steady, gas-like flame that stays just where you put it, day and night—no valves to set—no wicks to trim—no danger from fire—no smoke. Guaranteed—30 days trial—money back if not satisfied.

**Why Pay More?** Our prices express prepaid anywhere East of Rockies.

- 22 in. Canopy, 100 chick, only \$ 8.95
- 32 in. Canopy, 300 chick, only 15.55
- 42 in. Canopy, 500 chick, only 17.75
- 52 in. Canopy, 1000 chick, only 19.75

Order direct from this ad. You take no risk, or send for free Catalog. Shipped by Express prepaid the day order is received.

**WISCONSIN INCUBATOR CO. Box 614, Racine, Wis.**

## QUALITY CHICKS 8 1-2c up.

Barron English White and Br. Leg. and Anconas. Strong, sturdy chicks from scientifically culled M. A. C. Inspected free range breeders. Ten years of consistent breeding for heavy egg production. Wonderful winter layers. Winners at leading shows. Buy direct from Modern 65 acre poultry farm. Shipped postpaid. 100% live arrival and absolute satisfaction guaranteed. Illustrated Cat. free. Write today. **Townline Poultry Farm, Dept. M., Zeeland, R. I., Mich.**

**Make Money** Returns commence on your investment in 4 1/2 to 5 months from the time you receive your strong pure bred chicks from our own free range farms of S. C. English White Leghorns, Banded Rocks, Anconas. All breeders inspected and approved. Years of good egg breeding back of them. Our catalog for terms, guarantee, delivery, etc. It's free. Write today. **RIVERVIEW POULTRY FARM, R. 2, Box M, Zeeland, Mich.**

## BABY CHICKS

Quality chicks from carefully culled, pure bred egg type birds. Our prices will surprise you. Banded Plymouth Rocks, Rhode Island Reds, White Wyandottes and White Leghorns.

**THE MILAN HATCHERY**  
MILAN, MICHIGAN Box 4

## You Take No Chances on a KLONDIKE

Easiest to Operate Safest to Use

The Klondike Incubator is built for women, who raise 90% of the nation's poultry. The Klondike is easy to operate. It has a perfect heating system and positive heat control. It is supplied with "handy-to-handle" egg trays and Redwood nursery trays. And it stays right year after year.

**Ask Your Dealer**

to show you the Klondike. If he hasn't them in stock he can wire at our expense and get you a Klondike immediately. Write today for our FREE CATALOG. Full of helpful information for all incubator users. Just drop us a postal and we will send it to you without obligation.

**Klondike Incubator Co.**  
239 S. W. 9th St.  
Des Moines, Iowa

Pedigreed State Approved **S. C. W. Leghorn CHIX**  
**American--English Strain**

Are you going to buy them from a hatchery or from a BREEDER? Buy from Michigan's Largest Leghorn Farm and insure success. We hatch our own eggs only. Supply limited. Prices reasonable. Satisfaction guaranteed. Descriptive circular tells all about them. It's free.

**Simon Harkema & Son, R. 1, Holland, Mich.**

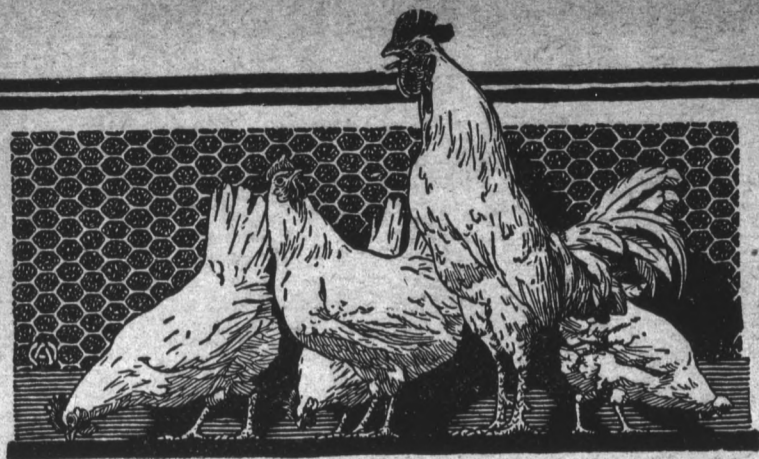
## Sturdy Michigan Chicks

From the largest baby chicks center in the world. White Leghorns exclusively. Get our low prices. Safe arrival guaranteed. We put all our effort into one breed. Write today. **Suburban Hatchery, Zeeland, Michigan.**

**Barred Plymouth Rock** Cockerels \$5.00 each. Price winning laying strain.  
**J. A. BARNUM, Union City, Mich.**

# February Poultry Notes

By R. G. Kirby



## VIGOROUS BREEDERS STRONG CHICKS



Mating time is the time that your breeders should be in the pink of condition

—so that they can impart health and vigor to their offspring—the chicks.

Begin now to condition your breeders.

### Feed

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



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

Then you get chicks that are strong and livable.

Chicks that can resist the attacks of disease—the little-chick ailments.

Pan-a-ce-a is not a stimulant, mark you—it's a tonic that does its good work nature's way. It insures fertile eggs for hatching.

Tell your dealer how many hens you have. There's a right-size package for every flock.  
100 hens, the 12-lb. pkg. 200 hens, the 25-lb. pail  
500 hens, the 5-lb. pkg. 500 hens, the 100-lb. drum  
For fewer hens, there is a smaller package.

GUARANTEED

DR. HESS & CLARK Ashland, O.

## Dr. Hess Instant Louse Killer Kills Lice

### POULTRY

## BABY CHICKS



**Bargain Prices—Write Quick. Best paying, highest quality.** Pure Bred Tom Barron and Hollywood White Leghorns—Egg Records 270 to 300 eggs in one year—Brown Leghorns, Anconas, Barred Rocks, Rhode Island Reds, White Wyandottes. Book orders now—get liberal discount. Valuable catalog free.

**We guarantee to save you money—**give you strong, healthy, perfect chicks, the best that money can buy, guarantee live delivery, and absolute satisfaction. **Write today sure.**

**SUPERIOR POULTRY FARMS**  
Box 101 Zeeland, Michigan

## Whittaker's R.I. Reds

Michigan's greatest color and egg strain. Bred from winter layers for thirteen years. Customers report flock average of 24 eggs per hen for January, 2 pound broilers at 7 weeks, 2½ pound broilers at 9 weeks. Write for free catalog quoting prices on eggs and chicks. Rose and Single Combs.

**INTERLAKES FARMS**  
Box 39, Lawrence, Mich.

## Big Value Baby Chicks

Are Guaranteed to Live. 12 popular breeds—easy to raise, husky, healthy, vigorous. Write today for free catalog showing many breeds in full colors.

**OHLS POULTRY YARDS and HATCHERY**  
Box G, Marion, Ohio

## CHICKS 12 Leading Breeds

Free range, purebred, heavy laying flocks. Instructive catalog free. Prices right.  
**Ransom Farms, Box 6, Geneva, O.**

THINK OF IT  
140 EGG  
**Ironclad**  
FOR ONLY \$13.85  
THE IRON COVERED INCUBATOR  
THE BIGGEST  
FREIGHT PAID EAST OF ROCKIES

**Hatching Value We Ever Offered**  
Incubator made of California Redwood, covered with galvanized iron, double walls, air space between, hot water heat, copper tank and boiler, self-regulating. Shipped complete with fixtures, set up, ready to use. The biggest bargain on the market. 30 days' trial. Money back if not satisfied. Absolutely no risk when you buy Ironclads. Or we will ship you this 140-Egg Incubator and 140 Chick Hot Water Brooder, both for only \$19.75—freight paid east of Rockies.

**Both for \$19.75**  
140 Egg Incubator  
30 Days TRIAL MONEY BACK IF NOT SATISFIED

This big capacity hot water incubator and hot water brooder, built of materials that will last for years, at a price that is a real bargain. Both incubator and brooder have copper tanks and boilers. Guaranteed to please or your money back. If you prefer a larger outfit, order our

260 Egg Incubator \$23.50  
260 Egg incubator with Brooder \$32.90  
Freight paid. This incubator has two doors and two egg trays. Order direct from this ad and save time, or send for free catalog today.

**IRONCLAD INCUBATOR CO. Box 91 Racine, Wis.**

## Free—Conkey's Poultry Book

80 pages chock full of information about the feeding and rearing of chicks, culling of hens, etc. Tells how to keep chickens healthy and how to make them pay. Whether a beginner or a professional, Conkey's Book is worth dollars to you. Sent for 6 cents in stamps to pay postage.  
**THE G. E. CONKEY CO. 6514 Broadway, Cleveland, Ohio**

**POULTRY, PIGEONS and BABY CHICKS for PROFIT** Foy's big book—an Encyclopedia of Poultry information. Many colored plates. Written by a man who knows. Low prices on Incubators, Brooders, Baby Chicks. Fowls and Eggs for Hatching. Write. Sent for 5 cents.  
**FRANK FOY Box 104, Clinton, Iowa**

**Poultry Book** Latest and best yet! 144 pages, 215 beautiful pictures, hatching, rearing, feeding and disease information. Big Successful Poultry Farm handling 53 pure-bred varieties and BABY CHICKS. Tells how to choose fowls, eggs, incubators, sprouters. Mailed for 10 cents.  
**Berry's Poultry Farm, Box 132, Clarinda, Iowa**

**E**XPERIENCED poultrymen figure that it takes close to five hatching eggs for every pullet that reaches maturity. Beginners might safely figure on six or seven eggs per pullet. If a surplus is produced they will find a ready market. And that is more profitable than purchasing pullets to fill out the laying quarters.

Using five eggs for each pullet needed gives the farmer a chance to figure the necessary incubator capacity. If you wish 100 pullets a 250-egg incubator used twice per season should produce the required number of birds. It is economical to bring out all the chicks with one hatch from a large machine. But it is not practical to use a machine so large that eggs must be saved much longer than a week before starting incubation.

Early hatching places a poultry business on a safer basis because you have returns from eggs during the fall and early winter when they are scarce and high. Equipment for artificial hatching and brooding is necessary. There will not be enough hens setting in February and March. Even if you have many broody hens at that season you do not wish to waste the time of winter layers for hatching and brooding work.

If you have coal-burning brooder stoves it is none too early to line up a supply of hard coal. There is some coming into the state but not much. Possibly your local dealer will arrange to give you some preference on a few tons if the need is made known at once. There is nothing as satisfactory as hard coal for brooding chicks. Even coke burns too fast and may make a hot fire half the night and then die out before morning.

### Feeding the Early Chicks.

It is fine to advise turning the chicks out on the ground in early spring to prevent leg weakness. But supposing icy winds are blowing a gale and the snow and ice are thick for several weeks. Then you have to keep the chicks in the brooder house, but leg weakness can usually be prevented with proper care. Cut a few sods if you have to do it with an axe. Place them by the brooder stove. The chicks will soon dig in the muddy earth and it seems to benefit them. As the ground outdoors becomes green, cut a sod for each brooder house every day.

Running over the earth in the brooder house seems to develop sturdy legs on the chicks. They obtain bits of green material and also fine grit. Plenty of clean scratching material around the brooder helps to develop chicks and keep down leg weakness. Chicks that are busy do not sleep away their life while pressing tight to the warm brooder stove.

Sprouted oats and finely chopped vegetables are fine for brooder chicks. We always save a few mangels for the brooder chicks and they will fight for the bits of succulent material and chase each other all around the house. It helps to bring outdoor conditions into the brooder house on windy winter days.

A roll of inch mesh wire is of great help in controlling the chicks when they are first turned down the track from the brooder house. Tack one end

of the wire to a side of the track. Run the wire around as far as it will go and come back to the other side of the track. This furnishes a small fenced yard which the chickens cannot leave. It is easy to drive them back up the track. When they learn to go in and out without assistance the wire can be taken down and the chicks given their freedom.

Some poultrymen only give milk as a drink for young chicks. I think water is also necessary after the third day. It is very warm and dry in a brooder house and I have noticed that sour milk does not seem to quench the thirst of the chicks as quickly as water. In my experience the chicks have seemed to thrive best with plenty of sour milk and also fresh clean water from which the chill has been taken.

### Chicks Need Grit.

Chicks need grit but I sometimes think the fine commercial chick grit is rather sharp for the tender digestive system of a chick. I have seemed to have better luck when using sand or earth as a source of grit. The bits of hard material gathered from such a source have their edges slightly dulled by the action of nature. The grit does not have edges like broken glass. I have dissected a chick and found the crop and gizzard crammed full of sharp glass-like commercial grit but containing little else. Even a chick can probably get too much of a good thing.

If you do not have time to mix a dry mash for the chicks it will pay to buy some commercial brand. A hundred pounds will place a lot of bone, blood and feather-making material in a flock of young brooder chicks. A hopper of the balanced mash near the brooder guarantees every thrifty chick a chance at the growing rations.

Toe-picking and cannibalism are habits of idle chicks. Opening day-old chick boxes and allowing the chicks to see each other before the brooder is ready will encourage the habit. The young chicks instinctively have the picking habit and there is nothing but chick feet to attract their attention. Place them around the brooder and get them interested in the feed and they soon forget each other's feet.

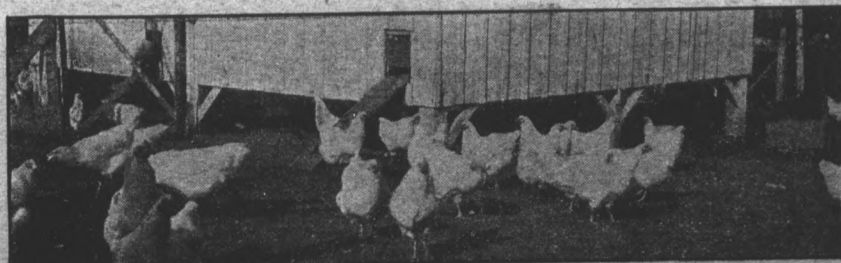
When egg prices begin to drop in the spring many prospective poultrymen lose their nerve and stop planning to enlarge their flocks. This is a factor that will help prevent over-production. I do not believe there will ever be a great surplus of strictly fresh eggs in the fall and early winter and that is encouraging to poultrymen who are willing to work. Most of the poultry keepers who are only in the business for easy money soon find that money comes easier in several other lines of business.

### A FEW POULTRY DON'T'S.

**D**ON'T think that good chicks can be obtained from poor stock. Don't forget that grit is the hen's teeth.

Don't forget that a broody hen setting a few hours on fertile eggs spoils them for market and eating.

Don't forget that eggs are porous.





**\$13<sup>25</sup>** Don't take any chances find out what an incubator is made of before you buy. Wisconsin are made of Genuine California Redwood. We give 30 Days' Trial 10-year guarantee. This famous 140-Egg Incubator only \$13.25. With Hot Air Brooder both only **\$17.75** Freight paid out of pocket.

**WHY PAY MORE 30 DAYS TRIAL**

180 Egg Size \$15.75, with Brooder \$22.00  
250 Egg Size \$22.75, with Brooder \$31.00

Incubators have double walls, air space between, double glass doors, hot water, copper tanks, self-regulating. Shipped complete with thermometers, egg tester, lamps, etc. Set up ready to run. Order direct or send for our new 1923 catalog, free—postpaid.

Wisconsin Incubator Co. **MONEY BACK IF NOT SATISFIED**  
Box 116 Racine, Wis.

**POULTRY**

**BABY CHICKS**

Hardy free range stock—a Pure Bred Practical Poultry especially adapted to the farmer poultryman stock that has proved of exceptional practical value on Michigan farms.

**PULLETS**  
A limited number of S. C. White and R. C. Brown Leghorns, and White Rocks; also pen of fine Anconas. Write for quotations.

STATE FARMS ASSOCIATION  
201 Chase Block, Kalamazoo, Michigan.

**BABY CHICKS of SUPERIOR QUALITY**

From 12 select heavy laying varieties of Standardbred poultry, free range and Hogan tested. \$12 per 100 up. Full value for your money. Shipped by prepaid parcel post and 100% live delivery guaranteed. Send for free catalogue and prices.

Bowling Green Hatchery & Breeding Co.  
Box 115M. Bowling Green, Ohio

**Day Old Chicks**

Strong, sturdy, S. C. White Leghorns (English Strain) from large, vigorous, yearling Hens, raised on our own farms, that Lay and Pay. Barred Rocks and Rhode Island Reds from best laying strain. Send for our illustrated catalog free.

Hillcrest Poultry Farms & Hatchery,  
R. 2, Holland, Mich.

**WOLVERINE BABY CHICKS**

Are chicks that satisfy.  
Bred for egg production 13 years. We hatched and shipped chicks for 12 years. This assures you success. English type white and brown Leghorns. 100% safe arrival guaranteed. Write for catalogue. Its free.

WOLVERINE HATCHERY  
ZEELAND, MICH. R 2

**Baby Chicks for 1923**

From our high producing English American S. C. White Leghorns. From 910 pullets we averaged 178½ eggs per bird for the year. Be sure and get some of our chicks for 1923 from our high record hens. Send for price list. LAROS POULTRY FARM, Hart, Mich.

**DAY OLD CHICKS**  
Best Paying, Heavy Laying, Pure Bred Tom Barren English White Leghorns, Rhode Island Red, Barred Rocks, Strong healthy chicks from State Inspected and Approved Stock. Order now at new low prices. Instructive catalog FREE.  
Brunner's Poultry Farm, Box 20 Holland, Michigan

**CHICKS**  
S. C. WHITE LEGHORNS, English and American strains. Strong vigorous fellows that will develop into fine winter layers. 10% discount on all orders received before Feb. 15th. Write today for circular. CUMINGS WHITE LEGHORN FARM, Box R. Otter Lake, Mich.

**BABY CHICKS**  
White English Leghorns, Tom Barron strain; White and Barred Plymouth Rocks; S. C. R. I. Reds; Buff Orpingtons. All pure bred from selected stock. Live arrival guaranteed postage paid. We do custom hatching. Durand Hatchery, Fenton, Mich.

**BRED-TO-LAY CHICKS**  
S. C. WHITE LEGHORNS, English and American strains. Strong vigorous fellows that will develop into fine winter layers. 10% discount on all orders received before Feb. 15th. Write today for circular. CUMINGS WHITE LEGHORN FARM, Box R. Otter Lake, Mich.

**64 BREEDS** Most Profitable chickens, ducks, turkeys and geese. Choice, pure-bred northern raised. Fowls, eggs, incubators at reduced prices. America's great poultry farm. 30th year. Valuable new 100-page book and catalog free.  
R.F. NEUBERT Co., Box 314 Mankato, Minn.

**Baby Chicks \$12.00 per 100 and up**  
Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are listing 17 varieties of pure bred fowls; Chickens, Geese, Ducks & Guineas, also breeding stock. Send for prices and circular. Booking now for early delivery. CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.

**PERFECT WHITE LEGHORNS** FREE  
Lay 265 to 301 eggs per year. Winners at 50 shows. Chicks, eggs, pullets, hens and males shipped C.O.D. at low prices. Write today for catalog and complete information to the World's Largest Leghorn Farms.  
GEO. B. FERRIS, 934 UNION, GRAND RAPIDS, MICH.

**Look** 75,000 Hi-Grade Chicks 12c and up. 10 varieties. Best ever produced. Hatching eggs. Circular. Lawrence Poultry Farm, R. 7, Grand Rapids, Mich.

Additional Poultry Ads. on Page 203

and will absorb bad flavors if they are placed near them.

Don't think that spoiled feed can be fed to laying hens and still have good flavored eggs.

Don't feed poultry at irregular times.

Don't keep a male bird with hens not intended for breeding.

Don't blame the incubator for poor hatches when the breeding stock lacks in vitality.

Don't waste good eating eggs in an incubator if you are not reasonably sure they are fertile. Test them and know.

Don't fail to keep the poultry house clean, dry and sanitary.

Don't have filthy nest boxes, see that they are cleaned and have fresh litter when needed.

Don't let any of the stock get lousy. Keep them free from lice.

Don't keep the loafers, they make better soup than feed-soppers.

Don't nail roosts to the wall. Have them so they can be removed for cleaning the droppings boards.

Don't forget to keep a record of your operations.

Don't fail to let plenty of sunlight into the poultry house.

Don't say your chicks died of white diarrhoea when it was your carelessness that killed them.

Don't buy a cheap incubator and think it should hatch every egg—even any egg.

Don't blame the weather man when you find that leaky brooders are full of dead chicks. That's your own fault.

Don't leave repairs to the incubator and brooder until eggs and chicks are ready to go into them.

Don't think that you can make a success of poultry if you have failed in everything else.

Don't give up hope, however, without a fair trial, it may be just where you belong.—E. G.

**MINERALS IN POULTRY RATION.**


A LARGE number of nutritional experiments that are being conducted by agricultural experiment stations brings to light some interesting facts. We thought some time ago, when we were talking balanced rations, that we had solved the feeding problem, but today we are increasing our knowledge and the field for experiment research along this line is as large and productive as ever.

Purdue University has always recommended a very simple mash usually containing middlings, bran, and some form of animal protein, such as, meat scrap or tankage. The college is experimenting with soy-beans because of their high protein analysis. The great trouble in feeding soy-beans is due to their lack of palatability and we are looking for ways and means of including this feed without destroying the palatability of the mash. The beans are ground with bran and middlings. The Ontario station has fairly satisfactory results in feeding soy-beans in a moist mash mixed with molasses. We are not ready to recommend soy-bean meal because vegetable proteins have not the same feeding value as animal proteins and until we can find something that will counteract the unpalatability of the soy-bean meal we shall not recommend including it in the mash for production.

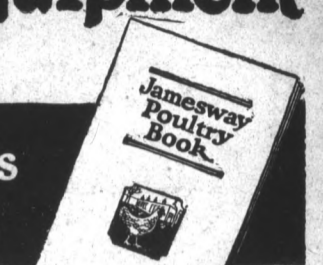
The soluble bone referred to is ordinary granulated or ground bone which contains a high percentage of phosphate. This product can usually be purchased from any feed dealer. Green cut bone will, of course, contain the same elements and will serve exactly the same purpose.

This ration is almost universally adopted and is being used with but slight variation in practically all laying contests.—E. C. Foreman.

**Get Big Egg Yields with Jamesway Poultry Equipment**



**Let Us Send You This Helpful Book FREE**



"One hundred eggs from 150 pullets in February and March," writes C. D. McLean—a Jamesway user.

"Pullets laid 68%—never a frosted window, never a frozen comb, never a disease from cold in a flock of 365 hens," writes C. R. Misner.

"A pleasure to see my 250 White Leghorns busy and contented in a tight warm house," writes another, Mrs. Paul C. Raborg from blizzardy Wyoming.

From Jamesway users on all sides come stories of bigger poultry profits. And all due to the Jamesway methods described in this book.

This book tells how to eliminate guess work and put poultry raising on a surer, bigger, profit-paying basis. It tells how to take care of large flocks at low cost—how to keep poultry healthy—how to save time, labor, feed. Tells how to save on material if you are building a new poultry house or remodeling your old one. Most important of all, it explains how big egg yields are secured in cold weather when egg prices are highest.

The Jamesway Farm Engineers, who have done so much in the development of profitable housing and equipment for dairy cows, beef cattle, horses, hogs, sheep, etc., are now devoting their energies to the interests of poultry raisers as well. Results of their latest work are set forth in this free Jamesway Book.

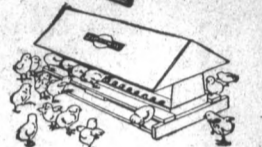
No matter where you live—no matter what may be your poultry problem, the Jamesway Engineers are glad to help you. If you live in territory covered by one of our traveling Jamesway-men, we shall be pleased to have him call and offer helpful ideas—without obligation to you.

Write for this book and let the Jamesway Engineers enable you to make more money on poultry just as they are now doing for thousands of satisfied Jamesway customers everywhere.

Ask for Book No. 75-A

**The Jamesway Farm Engineers**  
**JAMES MANUFACTURING COMPANY**  
Elmira, N. Y. Ft. Atkinson, Wis. Minneapolis, Minn.

**Jamesway**  
FARM ENGINEERING SERVICE



**Jamesway Bungalow Baby Chick Feeder**  
Gives chicks right start. Keeps feed sweet and clean, provides plenty of feed at all times. Prevents waste; is best help to prevent disease.



**Jamesway Brooder Stove**  
Unquestionably the most dependable, convenient and easily operated brooder in the market. Many new and exclusive features.



**Jamesway 5-in-1 Feeder**  
Keeps egg mash, charcoal, grit, oyster shell and meat scrap before your hens all the time. Everything kept clean too, and positively no waste.

**BABY CHICKS Pure Bred for 1923**

Bred to lay from carefully mated Flocks, of standard Quality and for Egg Production. We offer you exceptional values in the breeds, Leghorns, Rocks, Reds, W. Wyandottes, Orpingtons, Minorcas and Anconas. Our prices are right when Quality is in consideration. This should be the main point in view. For success, get our Big Catalog of Chicks and Brooders, we have a special offer for you, also how to care for your chicks after you have them. It is Free.

**Wolf Hatching & Breeding Co. Dept. 10, Gibsonburg, Ohio**

**BUY HUBER'S RELIABLE CHICKS**

**Our 14th Year 1,000,000 For 1923**

By Parcel Post Prepaid. 100% Live Delivery. Give us your order for some of Our Reliable Chicks and we will prove that we give you better chicks for the money than you can get elsewhere. Combination offers and Specials offered. Order early. Write for prices and Free Illustrated Catalog.

**HUBER'S RELIABLE HATCHERY, East High Street, FOSTORIA, OHIO**

**BABY CHICKS**

GUARANTEED CHICKS FROM SELECT APPROVED FLOCKS. Kept on free range. Carefully feed and cared for to insure the best of health and vigor.

WHITE & BROWN LEGHORNS, ANCONAS, 50, \$7.50; 100, \$14; 500, \$65.  
BARRED ROCKS, 50, \$8.50; 100, \$16; 500, \$75 Write for prices on 1,000 or more EXTRA SELECT from Approved Flocks \$2 per 100 higher.

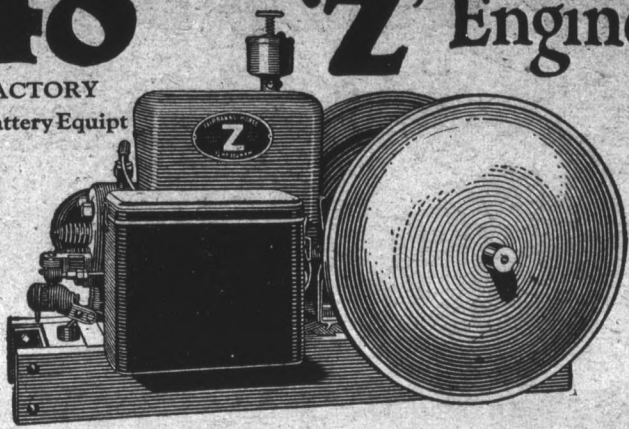
Postpaid to your door, full live count guaranteed. Bank References. Free catalog. We want your business not only for this year but for years to come and we will certainly endeavor to handle your orders so as to merit your continued patronage. Colonial Poultry Farms, Box C. Zeeland, Michigan.

**GUARANTEED RURAL CHICKS**

EXCEPTIONAL VALUES IN HIGHEST QUALITY, PROVEN LAYERS  
PURE BRED S. C. English White Leghorns, Heavy Laying Brown Leg., Selected Anconas, Heavy winter layers. Result of constant breeding for high flock averages. Large modern hatchery and 70 acre poultry farm. We guarantee absolute satisfaction and live delivery of strong healthy chicks. Sent postpaid. LIBERAL DISCOUNT ON ALL ORDERS BOOKED NOW. Write at once for our fine new catalog. Its free. Ref. Zeeland State Bank. **RURAL POULTRY FARM, R. 1, Dept. M, Zeeland, Mich.**

only \$48 for a FAIRBANKS-MORSE 'Z' Engine

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



Increase your farm profits!

Here's a helper that will do a hundred jobs around your farm; save time and money all day long every day; do more work for less money than any other aid you can employ.

The Fairbanks-Morse "Z" Engine is helping more than 350,000 farmers increase their farm profits. Instead of wasting their own valuable time and strength, or employing high-priced labor, they are turning the time-killing drudgery jobs over to a tireless, willing "Z" Engine.

The 1 1/2 H. P. Battery Equipt Engine uses gasoline alone. Has high-tension battery ignition, hit-and-miss governor and balanced

safety flywheels. Control lever gives six speed changes. Carburetor requires no adjusting. A remarkable value.

The magneto equipt 1 1/2 H. P., 3 H. P., and 6 H. P. are real kerosene engines, but operate equally well on gasoline. Have simple high-tension oscillating magneto. Throttling governor assures steady speed. Prices F.O.B. Factory. Add freight to your town.

1 1/2 H. P. \$71 3 H. P. \$105 6 H. P. \$168  
Other "Z" Engines up to 20 H. P.

Write for complete details. See the engines at your dealer's.

FAIRBANKS, MORSE & CO.  
Manufacturers Chicago

Lowest Prices Ever Offered on Famous  
**Empire Baltic**  
Cream Separator—Direct to You

Write for  
**FREE**  
Book  
Now

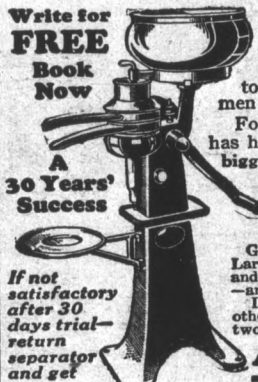
A  
30 Years'  
Success

If not  
satisfactory  
after 30  
days trial—  
return  
separator  
and get  
your money  
back

Big Catalog  
and Full Particulars  
**FREE**

Write today. Investigate.  
Postal will do. Address:

Baltic Sales Co. [Not Inc.] Distributors 105 South La Salle St. CHICAGO Dept. E



An astounding offer—The World-Famous EMPIRE-BALTIC Cream Separator—at a price that will put thousands of these wonderful separators into the hands of farmers and dairymen everywhere.

For over 30 years the EMPIRE-BALTIC has had a never failing record for bringing bigger cream checks to users. It is

The Cream Separator  
With the "Million Dollar Bowl"

Gets more cream because of best—most efficient—bowl ever invented. Larger profits assured. Greater satisfaction because of ease in operation and simplicity. Quietly cleaned. Ratchet Coupling eliminates jerks, noise and adds to life of separator.

Don't postpone this matter. Write today for particulars, like hundreds of others. Get this superior Cream Separator—for little money. Everyone with two or more cows should own one.

All Carrying Charges PREPAID

Get FREE Information First  
Good discount for cash, or pay only \$5 down, balance easy payments to suit you. Write today for both plans. Send no money with inquiry.

by us to nearest Express or Freight office. Get your EMPIRE-BALTIC Cream Separator without delay. Your machine shipped within 48 hours after order is received. Write today. Low Prices effective for this special sale only.

Separators Shipped COMPLETE with tools, oil, brushes, etc. Satisfaction Guaranteed.

From  
**\$22.25**  
UP  
140 lbs.  
Capacity

Dairy Farming

Skim Milk on the Farm

A Valuable Feed for the Farmer Who Has Poultry, Swine or Cattle to Grow

SKIM-MILK is not as fully appreciated on the farm as it should be. At a cream-buying station a few days ago I heard several farmers discussing whether it was more profitable to sell milk or separate and feed the skim-milk to calves, hogs and poultry on the farm. One farmer asserted that he did not consider skim-milk worth, for feeding purposes, the gasoline it took to separate it.

For twenty-five years and more we have been engaged in dairying. On our farm we have quite thoroughly tried out several methods of disposing of our dairy products. We have sold whole milk direct to the shipping station, sold to the retail trade, to the creamery and also to a custom trade in the city with satisfactory results. We made the most profit making butter for a custom trade. We received two cents per pound above the market price, and besides had the skim and buttermilk on the farm for feeding purposes.

On account of the large amount of labor involved, we gave up the custom business and, since then, we have been separating our milk and selling cream. I know our cream check is not quite as large as when we made butter or sold the whole milk; but we raise several calves each year, a bunch of hogs and keep a good-sized farm flock, consequently have good use for the skim-milk. Experiment stations differ somewhat as to the relative value of skim-milk for feeding purposes, but we consider it practically indispensable for growing calves, pigs and poultry.

Skim-milk is especially rich in the muscle and bone-forming substances, known as protein, which is a difficult nutrient to obtain on the farm, and which is most lacking in the ordinary foods. I have raised calves and pigs without skim-milk, but I believe skim-milk is far ahead and much cheaper than substitutes. I have tried blood meal and tankage for the growing pigs with splendid results, but it is a great deal more costly than skim-milk. For laying hens I consider skim-milk the cheapest and most valuable food available.

The farmer who skims his milk on the farm and uses it as a food for the growing animals and laying hens, is following what I consider the most practical method of farming. Selling butter-fat is a profitable source of the dairy income, and if the skim-milk is kept upon the farm and judiciously fed to farm live stock, very little of the fertility of the land will be removed and, at the same time, under wise management, the annual production of the soil can be improved.

At "Forest Grove Farm" we do our separating with gasoline power, belted to a line-shaft with a governor pulley so that the separator runs at an even speed. We have been using this method for several years and it has not cost us a dollar to operate except for gaso-

line and oil. Our belts are all leather. We have never encountered any serious trouble with the gas engine and it is generally ready to work. It makes the separating very easy and satisfactory.—Leo C. Reynolds.

AMERICAN CANNED MILK FOR HUNGARY.

REPORTS have come to us from Hungary that merchants in that country are now becoming interested in canned milk and that the American brands are in special favor. A severe shortage of fresh milk is responsible for these people taking to the canned goods. There is a likelihood that the business will expand as time goes on.

WILL RECOGNIZE ALL HIGH-PRODUCING COWS.

DOWN in Missouri a register of production has been worked out and adopted by the dairymen of that state. The idea is this: Any cow which produces over 300 pounds of butter-fat in a year, as shown by the reports of the cow-testing associations and meeting other rules, is eligible to registration. A year-book will be published annually giving the names of the cows registered and the name of the owner.

HAND-BOOK ON DAIRY INDUSTRY.

THERE is a good demand for the little hand-book on dairying which the department of agriculture is getting out. This book contains statistics on the dairy industry, with charts and graphs showing the trend of the dairy cattle, butter and cheese trades. These books are procurable from the Department of Agriculture at Washington.

STATES TO PROTECT DAIRY BUSINESS.

FILLED milk and false advertising bills will be introduced in eighteen state legislatures this winter, according to the Holstein-Friesian Association of America. The filled milk bills prohibit the manufacture and sale of filled milk within the state, and the false advertising bills prohibit the use of dairy terms, dairy cow pictures and the names of dairy cattle breeds in the advertising of butter substitutes.

States in which the two bills will be introduced are Connecticut, Illinois, Indiana, Kansas, Maine, Massachusetts, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, South Dakota, Vermont and West Virginia. Wisconsin, Ohio and New York have enacted filled milk bills, and Iowa, Michigan and Pennsylvania have enacted butter advertising bills.

Agricultural commissioners, state dairy associations and farm bureaus of the various states favor this legislation. The Federal Voight bill, which

\$24.95 Sent on Trial  
Upward *American* Cream  
**SEPARATOR**

Thousands in Use giving splendid satisfaction justifies investigating our wonderful offer: a brand new, well made, easy running, easily cleaned, perfect skimming separator only \$24.95. Skims warm or cold milk closely. Makes thick or thin cream. Different from picture, which illustrates our low priced, large capacity machines. Bowl is a sanitary marvel and embodies all our latest improvements. Our Absolute Guarantee Protects you. Besides wonderfully low prices and generous trial terms, our offer includes our—

Easy Monthly Payment Plan

Whether dairy is large or small, do not fail to get our great offer. Our richly illustrated catalog, sent free on request, is a most complete, elaborate and interesting book on cream separators. Western orders filled from Western points. Write today for catalog and see our big money saving proposition.

American Separator Co., Box 1061, Bainbridge, N.Y.



Make the First Cost the Only Cost

The value of a good silo reaches its greatest height in a Kalamazoo Glazed Tile Silo because the superior quality of Kalamazoo Tile means perfect ensilage. Stock raising and dairying are by far the most profitable types of farming, and silage is unquestionably the most economical feed for livestock and dairy cattle.



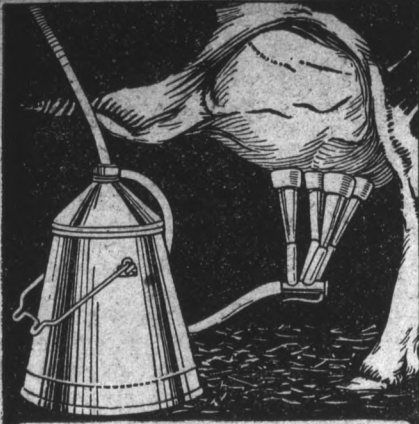
Kalamazoo Tile and Wood Silos

Our Glazed Tile silos are everlasting—decay-proof, storm-proof, vermin-proof; will not burn or blow down; save repair and paint bills. Three dead air spaces make perfect insulation against cold, heat, dampness. Kalamazoo Tile is made from selected quality clay in our own plant located in the center of the finest tile clay district. Our Wood Stave Silos have stood the test of 30 years. We are America's pioneer silo builders. All Kalamazoo Silos are fitted with continuous door frames of galvanized angle steel. Send for our free book of silo information.

The Kalamazoo Plan

Get the facts about Kalamazoo Tile and our building service—drawings and blue prints to fit requirements. Write for beautifully colored illustration of the Modern Kalamazoo Plan. Address Building Plan Department, KALAMAZOO TANK & SILO CO., Dept. 223 Kalamazoo, Mich.





### Clean Milk at Lowest Cost

Hundreds of Hinman Milker users are producers of certified milk. They get extra money for extra low bacteria count.

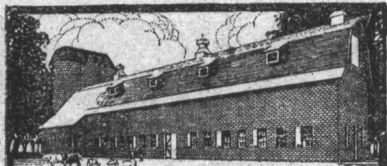
Clean milk with a Hinman Milker is natural, because the Hinman is so simple it is easy to keep clean.

Hinman Milkers cost less to buy, next to nothing to keep in repair, and very little to keep clean. They cut milking time to one-third, reduce labor to one-third of that required by hand milking.

Get the Hinman Catalog, which shows why the Hinman is the most practical milker that produces clean milk and is in use in most of the famous dairies of prize cows.

**HINMAN MILKING MACHINE CO.**  
Sixth Street  
Oneida, N. Y.

## HINMAN MILKER



### Bigger Profits

You get more milk and more beef with less feed from stock comfortably housed in a dry, sanitary, vermin-proof, properly ventilated barn of Natco Glazed Hollow Tile. Easily erected, reasonable first cost, no upkeep expense. Write for your copy of the new Natco on the Farm Book.

### NATCO DOUBLE SHELL TILE

NATIONAL FIRE-PROOFING COMPANY  
1101 FULTON BUILDING :: PITTSBURGH, PA.

**FARMERS SAVE TIME & MONEY BY DOING BLACKSMITHING AND REPAIRING AT HOME USED AND INDORSED BY FARMERS IN EVERY STATE**

WILL LAST A LIFE TIME WILL WELD A 4 IN. WAGON TIRE IN 15 MINUTES  
POSITIVELY GUARANTEED TO EQUAL ANY \$15 FORGE ON THE MARKET

Saves expensive blacksmith bills. Ideal for garage and shop repair work. Soon pays for itself. Price only \$6.85. Orders shipped promptly. Send for catalog.

**C. A. S. FORGE WORKS**  
Box 420 Saranac, Mich.

Mention The Michigan Farmer When Writing Advertisers

has passed the house and is now in the senate, prohibits the shipment of filled milk in interstate commerce and forbids the manufacture and sale in the District of Columbia only.

### TREATING SCOURS IN CALVES.

TWO kinds of scours affect young calves—common scours, which are caused by indigestion, and white scours or calf cholera.

Calf cholera is contagious, but if a calf gets the disease, it will occur a few days after birth, unless the older calves are kept in a dirty pen or stall.

If calf pens are kept clean, there is not much danger from this disease usually. Stalls used for calving purposes should be carefully disinfected after a calf is born.

Common scours, which are caused by indigestion, are much more common. The indigestion may be traced to faulty methods of feeding, the most common of which are: Overfeeding, cold milk, sour milk, irregular feeding, dirty stables, and dirty pails. Calves need a comfortable bed of dry straw or litter to lie on.

When a calf shows signs of the scours, the milk supply should be reduced one-half and the amount gradually increased as the calf shows signs of improvement. This usually will cure them, but if it does not, feed about a tablespoon of soluble dried blood, and stir in well with the milk. Dried blood not only acts as a tonic, but it has some food value, and is often fed, even when calves do not have the scours.

If calves have the scours very bad, the formalin treatment is good. Use one-half ounce of formalin to fifteen ounces of distilled water to make the solution. Then add one teaspoon of this mixture to each pint of milk that is fed. This method is very effective.

—W. E. McMullen.

### COW-TESTING ASSOCIATIONS INCREASING.

WITH the realization of the fact that they are caring for boarder cows, the farmers of this state have become anxious to join cow-testing associations and new associations are being formed as rapidly as testers can be found for them.

Since last July the number of associations have increased from fifteen to twenty-seven and the number of cows under association test increased from 3,898 to 7,222. Dairy leaders say that by the end of this year there will be close to one hundred associations with about 30,000 cows under test.

The average production of 7,222 cows for December was 530.8 pounds of milk, and 21.63 pounds of butter-fat, or seventeen pounds of milk and 0.7 pounds of butter-fat per cow per day. With cows milking eleven months this would average 6,728.6 pounds of milk and 234.5 pounds of butter-fat for the year. The census shows that the average production for the state is 3,918 pounds of milk and 150 pounds of butter-fat. This shows 84.5 pounds of butter-fat difference between the association average and that of the state. The 7,222 cows therefore produced about \$244,103 worth more of butter-fat than the same number of average cows. This increase was made at an expense of \$27,000 for operating the cow-testing associations.

Is it necessary to ask the question, does cow-testing pay?

DURING the month of January milk prices, according to federal data in the major cities of the state were around the \$3.00 mark for milk f. o. b. city points. This was the figure for milk delivered at Battle Creek and Detroit. In Kalamazoo the price was \$3.20, while in Grand Rapids it was \$2.60 and in Lansing \$2.40.



## There are now more than 10,000 De Laval Milkers in use

in the United States and Canada, and it is doubtful if any group of users of any kind of equipment is more satisfied.

This is a remarkable record in view of the fact that these milkers were introduced and sold during the worst financial depression the country has ever known—when no equipment of any kind was purchased except that which was absolutely necessary, and which would make and save money.

The De Laval Milker has proved in a striking way that it is a necessity on every farm where ten or more cows are milked, and that it will save and make enough money to pay for itself in a short time.

Many cows milked the De Laval way have made splendid records, most notable of which is Orndyke Pietertje Korndyke, owned by

Mr. R. R. Stevens of Bowmanville, Ontario, who has just recently made a world's record in the 305-day class. Owners, almost without exception, state they get more milk with a De Laval, with the same cows and feed, than with any other method of milking, either hand or machine.

More than this, some of the best certified milk today is being produced with a De Laval, proving that it is capable of producing the highest grade of milk.

The De Laval Milker has proved beyond question of doubt that it can produce more and cleaner milk, at great saving in time and labor. It increases production and cuts the cost of production. It is bound to make more profit and put more satisfaction in the dairy business. Sold on easy terms. Write for complete information.

### The De Laval Separator Co.

NEW YORK CHICAGO SAN FRANCISCO  
165 Broadway 29 E. Madison St. 61 Beale St.



Sooner or later you will use a **De Laval** Milker and Cream Separator

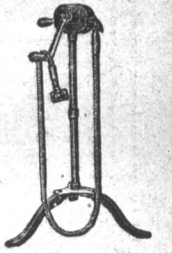


## 6 lbs. more milk a day

So writes Thomas Sebion, Wisconsin farmer, since clipping his cows. Clipping cows pays big with more milk—richer milk. Milk from clipped cows stays sweet longer. Young clipped stock grows faster. "Adds at least 10% to sale value," writes Paul Bjerkeng, Beldenville, Wisconsin. Clipped cows easily kept clean. Makes healthy skin—healthier general condition.

No trouble at all with a Stewart No. 1 Clipping Machine. Just as good for horses. They work better—easier. Keep healthier. Get a Stewart No. 1 Clipping Machine today. Complete, ready for a lifetime of service, only \$10.75 at your dealer's, (\$12.75 Denver West) or send \$2. pay balance on arrival. Fully guaranteed. World's standard.

CHICAGO FLEXIBLE SHAFT COMPANY  
5576 Roosevelt Road, Chicago, U. S. A.  
World's largest makers of clipping and shearing machines. A full line of electric clipping machines, any voltage



**\$7.50 After 30 Days Free Trial**

The Belgian Melotte Separator—w/it the wonderful Self-Balancing Bowl. No other like it.

30 days' free trial—then, if satisfied, only \$7.50 and a few easy payments—AND—the wonderful Belgian Melotte Separator is YOURS.

**No Money Down!**  
Catalog tells all—write. **Caution!** U. S. Bulletin 201 shows that vibration of the bowl causes cream waste! The Melotte bowl is self-balancing. Positively cannot get out of balance therefore cannot vibrate. Can't remix cream with milk. The Melotte has won 24 Grand and International Prizes.

**Catalog FREE**  
Write for new Melotte catalog containing full description of the wonderful cream separator and the story of M. Jules Melotte, its inventor. Don't buy any separator until you have found out all you can about the Melotte and details of our 15-year guarantee which is infinitely stronger than any separator guarantee. Write TODAY.

The Melotte Separator, H. B. Babson, U.S. Mgr. Dept. 9102 2843 W. 19th Street, Chicago, Ill.

**Big Book FREE**

What to Seed  
What to Feed

Full of valuable information every farmer should have. Tells how I manage big 1500 acre farm. Beautiful illustrations—our pedigreed herds and seed crops. Information worth \$500.00 but costs nothing. Tells how to double farm profits—what to feed and seed. Write today—sure. 6-23

Murphy Products Co.  
Box 66 Delavan, Wis.

**CRAFTS MEDICINE FOR DISTEMPER**

The standard preparation for Coughs, Colds, Distemper. All Druggists. Write for FREE Book on Horse Diseases. WELLS MEDICINE CO., Lafayette, Ind.

I will condition a Horse or Cow in twelve days.

Put flesh on its bones. Give it life and vigor. Can add 50% to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer.

P. M. FAUST, BRYN MAWR, PA.

**MICHIGAN FARMER**  
Classified Liners bring results. They cost little. Try one.

# Stock Farming

## Ensilage for Pregnant Ewes

FOR feeding pregnant ewes as a part of the roughage ration, ensilage has won incomparative favor with flock owners. They consider it one of the cheapest and most valuable of roughage feeds. Ensilage is found to successfully take the place of roots and when care is exercised not to overfeed, digestive disorders seldom occur. In years past I have fed ensilage to both fattening lambs and breeding ewes during pregnancy and have found it a most excellent feed. The animals soon become extremely fond of it, and especially during the winter when confined to dry feed. Years ago before ensilage came into general favor as a feed for breeding ewes we always encountered much trouble with grade Merino ewes at lambing and in rearing the lambs on account of the ewes not having sufficient nourishment for their newly-born young. The first winter we had ensilage to feed, the ewes were given about a half ration twice daily and the

lamb. Pregnant ewes naturally require some succulence in their daily diet to assist digestion and reproduction. English flock owners depend very largely upon roots to supply this essential succulence in the ration. In years past the English flock owner has had plenty of cheap labor and could produce roots cheaply and feed them abundantly. This is one of the chief factors that has enabled him to develop live stock of all kinds to such a high plane of perfection and induce American live stock lovers to become heavy importers. However, the average American flock owner does not take favorably to growing roots, as the crop involves a great deal of hard labor which in return makes the source of succulence too expensive and laborious. Ensilage is the cheapest and most valuable succulence for feeding farm animals.

Ensilage should not be fed to pregnant ewes as a sole ration. In physical character ensilage is bulky and



former trouble practically ceased. We have been feeding ensilage to sheep both fattening and for breeding purposes for the past thirty years and always with splendid results. Quite frequently objection is advanced by flock owners that ensilage contains so much acid it is harmful to pregnant ewes and should not be fed. I do not believe there is any foundation for this opinion. Of course, ensilage made from too green corn contains a higher percentage of acid than that made from well-matured corn and some harmful effects might result from feeding heavily on ensilage of this quality. However, after thirty years' experience in feeding ensilage to all kinds of live stock I do not think we have ever encountered any harmful results. Some years ago we filled our silo with large western corn that had not matured. We began feeding the ensilage as usual to the pregnant ewes but we soon noticed that some of the ewes were scouring, so we cut down on the silage and began feeding dry corn stover and the trouble soon disappeared. We had similar trouble that winter from feeding the ensilage to dairy cows and I think it was caused from siloing the corn crop before it came to maturity. There is good and poor ensilage the same as good and poor hay, but the consensus of evidence points to the fact that good silage is very beneficial in promoting the function of digestion, as an appetizer and general tonic. Experiments conclusively establish the fact that ensilage does not affect adversely, milk products nor harmfully interfere with the nourishing of young.

**A Word of Caution.**  
Judicious feeding of ensilage to the pregnant ewes determines in a large measure its success. Sour, moldy or stale ensilage should never be fed to sheep under any conditions. During severe winter weather ensilage is likely to become frozen in the silo or after being removed. Never feed frozen ensilage to pregnant ewes. Some means should be devised during the severe weather to prevent the ensilage from freezing or care exercised to take the silage fed the ewes from far enough below the surface to insure fresh silage. In my stable the ensilage is thrown down into the basement, a feed or two ahead, and where it does not freeze. Sour, moldy or frozen ensilage, if fed to pregnant ewes is likely to cause scouring, digestive disorders and not infrequently abortion.

Ensilage contains a large per cent of carbohydrate or fat-forming elements. If pregnant ewes are fed too liberally on ensilage they take on flesh rapidly and soon become sluggish and inactive. This is a dangerous condition for pregnant ewes as it tends to weaken the growth and development of the embryo which results in lambs coming low in vitality and the ewes lacking in sufficient nourishment for their newly-born young. Ensilage will not take the place of the grain ration. Feed plenty of clover hay or other leguminous roughage with ensilage for the best results.—Leo C. Reynolds.

### Be Sure You Get Genuine Osborne Repairs

When you buy repairs for Osborne Binders, Reapers, Mowers or Rakes insist on *genuine* parts made by the manufacturer of Osborne machines. Every repair part made by us has the initials **EB** plainly visible.

Genuine E-B Osborne repair parts are exact duplicates of the originals, so they always fit. Do not accept imitation Osborne repairs. It costs no more to get *genuine* "E-B" repairs for Osborne machines—and you are sure of getting better and longer service.

The maker of bogus repairs is only concerned in selling repairs. We are interested in giving you good repair parts so that Osborne machines will continue to please you.

Insist that **EB** must be on every Osborne repair part you buy—then you know it is *genuine*. If your E-B dealer cannot supply you, write us.

Emerson-Brantingham Implement Co.  
INCORPORATED  
Business Founded 1852 ROCKFORD, ILLINOIS



### GOOD FARMING PAYS

Every farmer wants to save labor, time, seed, horse-power, and raise bigger crops. The WESTERN, 3 machines in 1, will do all of this. It has proven it to thousands. It pulverizes and packs as deep as plowed, leaves a loose mulch on top, makes a perfect seed bed in one operation. Get 5 to 10 bushels per acre more by rolling winter wheat and other growing grain in the Spring, whether soil is loose or hard crusted and cracked. The WESTERN has no equal for this work or for covering clover and grass seed.

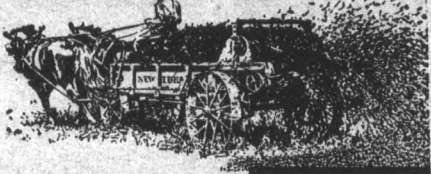
MADE IN 13 SIZES, IN 3 SECTIONS



Get a FREE Catalog. It proves our statements, explains construction and work why it produces better results than any other roller. Contains letters from farmers using it and other valuable information. "Worth its weight in gold." Our low price direct will surprise you. Write today for book and price, freight paid.

WESTERN LAND ROLLER CO., Box 132 HASTINGS, NEBR.

## Get a Genuine NEW IDEA SPREADER



WRITE today for money-saving prices on the world's foremost manure spreader. Play safe. Steer clear of imitations! Get the *genuine*

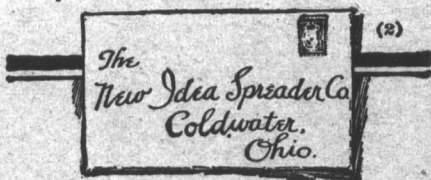
### NEW IDEA

Original Wide Spreading Spreader

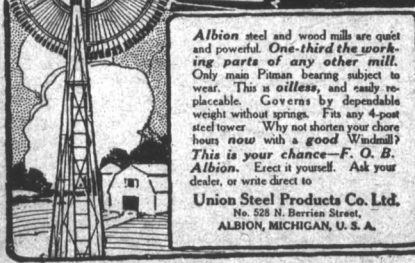
—the product of "Spreader Specialists" and in every way the superior of all other spreaders on the market.

A good spreader saves time—builds up your soil—puts more bushels in the bins—more money in the bank.

Get the complete story now—direct from spreader headquarters. Address card or envelope as shown below.



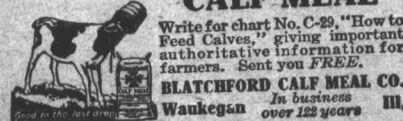
### Why Not PUT THIS NEW MILL ON YOUR OLD TOWER



Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main Patent bearing subject to wear. This is oilless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chow hours now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to Union Steel Products Co. Ltd. No. 525 N. Berrien Street, ALBION, MICHIGAN, U. S. A.

**Andy Adams**  
LITCHFIELD, MICHIGAN.  
Michigan's Leading Line  
Stock Auctioneer  
DATES and TERMS on APPLICATION

### Blatchford's CALF MEAL



Write for chart No. C-29, "How to Feed Calves," giving important authoritative information for farmers. Sent you FREE. BLATCHFORD CALF MEAL CO. Waukegan In business over 125 years Ill.

### SEED BEANS

FANCY STOCK. Both Red Kidney and White Pea. Also garden sorts. Buy at once, and insure fancy seed. A. H. FOSTER CO., Allegan, Mich.

## Corrugated Metal ROOFING

Think of it. We can now sell Excell Metal Roofing, 28 gauge corrugated at only \$3.10 per 100 sq. ft. painted. Galvanized, roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Ridging, Ceiling, etc., will save you money. PREPARED ROOFING ONLY \$1.05 Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today. The United Factories Co., 304 Marion Bldg., Cleveland, Ohio





test, he told of one county where the first test showed one to three per cent reactors, the record test found but 0.6 of one per cent of the cattle reacting, and that of 50,000 cattle condemned, lesions of the disease were easily found in ninety-three per cent of them. He tells us that the eastern states require hundreds of thousands of fresh cows annually to replace reactors and they are going to buy them in clean territory, so we can draw the conclusion that it is to our advantage to clean up.

Resolutions were passed endorsing President Friday's extension program, the building program for the agricultural college, and the plans for improving the college herds and flocks, commending the governor and administrative board for their aid and support of the college and its interests, and recommending the eradication of tuberculosis from the cattle of the state, the work of the State Department of Agriculture and the passage of the filled milk bill.

The officers for the ensuing year are as follows: President, H. H. Halladay, of Clinton; vice-president, Jacob DeGeus, of Alicia; secretary, George A. Brown, East Lansing; assistant secretary, W. E. J. Edwards, East Lansing; treasurer, J. K. Maystead, Hillsdale. Executive committee, J.-F. Lessiter, of Clarkston; E. C. McCarty, Bad Axe; Alexander Munty, of Ionia; W. E. Livingston, Parma; W. H. Norton, Jr., of Lansing.

## Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

**Lumpy Jaw.**—I have a three-year-old heifer which I believe has lumpy jaw; the bunch is on lower jaw, and is the size of a man's fist. Can she be cured? P. S., Jenison, Mich.—Superficial actinomycomas are best treated surgically by extirpation and subsequent cauterization, or tincture of iodine applied to the wound. Bone enlargements are usually incurable.

**Vaginitis.**—I have a mare bred August 24, 1922, that has discharge ever since. The discharge is lumpy, much like curdled milk. What can I do for her? The mare's appetite is good and her coat is sleek. G. W. E., Clinton, Mich.—The vagina should be flushed out with a luke-warm solution of baking soda (two per cent), or lysol solution (one per cent). Use a fountain syringe and treat her twice a day. Give her one dram of sulphate of iron at a dose in feed two or three times a day. The dried sulphate is the best kind to use in medicating her.

**Loss of Appetite.**—One of my horses took sick lately, seems to have lost his appetite, groans while breathing, and is very weak. E. A., Rock, Mich. Doubtless he suffers from stomach trouble and congestion of the lungs. Rub mustard and water on chest and sides back of shoulders daily for three days. Give him thirty drops of fluid extract of nux vomica at a dose four times a day, also give a teaspoon of nitrate of potash in drinking water three times daily.

**Eczema.**—My horse is troubled with an itchy condition of the skin, mostly affecting his hind quarters. He is fed equal parts of corn and oats. R. B., Rapid City, Mich.—Apply one part of lysol and thirty-five parts water to the itchy parts twice a day. Feed him some roots. Groom him twice a day.

**Thick Urine.**—Have horse ten years old that passes thick water which has a sediment. Have given both juniper berries and buchu leaves, but he is no better. What is the cause of his ailment? V. N. P., Holly, Mich.—Feeding same kind of food, or perhaps badly cured fodder, too much feed, not enough exercise, drinking too little water, and not enough exercise would have a tendency to change his urine. Give him teaspoon of acetate of potash and a tablespoon of baking soda in feed or in drinking water three times a day.

**Warts on Teats.**—We have a cow

that is milking, but one teat is covered with small warts which seem to get sore. Can they be taken off? T. W., Yale, Mich.—After each milking, apply olive oil. Why don't you clip or cut off those which have neck? This is the best treatment.

### HORSE BREEDERS' SESSION.

THE fifteenth annual meeting of the Michigan Horse Breeders' Association was held at Michigan Agricultural College on Wednesday, January 31, in conjunction with the annual Farmers' Week.

A parade of prize-winning horses owned at the college was the first event. This was followed by a judging contest in which the breeders of the state participated.

In the stallion foal class, first, second and third went to G. M. Hicks & Son, of Williamston, Michigan, and fourth to M. A. C. In the yearling class, first went to M. A. C., second to M. A. Hatch, of Okemos; third to L. D. Cook, of Williamston, Michigan, and fourth to M. A. C. John Sharkey, of Bellevue, tied the ribbons.

A meeting of the association followed the horse show. President Ray Whitney, Onondago, presided. Dean Shaw gave the address of welcome. F. T. Riddell, of the Farm Management Department, M. A. C., followed with a talk on "The Results of a Survey of Michigan Farms to Determine the Status of the Horse and Tractor Situation." Addresses by John Sharkey, of Bellevue, and John Jacobs, of Lansing, on "The Supply and Market for Work Horses," was followed by Jacob DeGeus, who spoke on "The Supply and Market in Registered Belgians." An explanation of the changes in the stallion law was given. All made up a program of unusual interest. The meeting was unique in that no outside talent was used and yet one of the most inspiring meetings ever put on by the association. The meeting adjourned until 1:30 when, after dinner with the Exchange Club of Lansing, the meeting was again called to order for the business session.

Upon motion of John Sharkey, of Bellevue, a rising vote of appreciation was extended Superintendent Hudson and college authorities for the splendid improvement and work being done with college horses.

Following the reading of the minutes and treasurer's report, officers were elected as follows:

President, John Jacobs, of St. Johns; vice-president, Jacob DeGeus, Alicia; secretary-treasurer, R. S. Hudson, of East Lansing. Executive board, John Sharkey, of Bellevue; O. E. Belle, of Mason; L. C. Hunt, of Eaton Rapids; R. E. Whitney, of Onondago; William Bird, of St. Johns.

Favorable action was taken upon the following matters:

1. A resolution requesting the state board to make premiums in horse classes uniform, i. e., giving as large a premium for young animals as for old, making a class for brood mares and colts, and putting the book on a par with that of other states.
  2. A request that the extension division of the college, through the state club leader, give some attention to the formation of colt clubs, as well as pigs and calves.
  3. The discontinuance of the small premium offered at the State Fair by the Association and the money used in club work if necessary.
  4. To accept the invitation of Jacob DeGeus to visit the Prairie Farm, the date to be set by the executive board, working with Mr. DeGeus.
  5. To put on a banquet in connection with next year's meeting.
- Meeting adjourned, attendance fifty.
- Drain tile prevents wet feet in the plants.

# BRED SOW SALE

43 HEAD LARGE TYPE POLAND CHINAS  
CHOLERA IMMUNE

Thursday, February 22, 1923

At Farm 3½ miles west and 1½ miles north of  
Manchester, Mich.

Bred to Foxy Clansman, Grand Champion 1922 at Mich. State Fair  
F's Clansman Grand Champion in 1920.  
F's Big Orange Reconstruction Giant Again  
Bob Clansman and Buster.

WRITE FOR CATALOGUE

AUCTIONEERS: Andy Adams, F. D. Merithew and F. E. Haynes  
A. A. FELDKAMP, Manchester, Mich.

Michigan Farmer Representative, P. P. Pope

## Big Type Poland Chinas

At Auction

February 17, 1923

40 HEAD

40 HEAD

A Boar by the \$30,000 Designer Sign a Check. A Giantess Boar by Chess, Big Timber. One of the greatest sales of the season. Sons in the 500 lb. class. Gilts from 300 to 400 lbs. Sired by The Herald, Mountain Bill, Jr., Aviation, Prairie Giant Cavalier 3rd, Chess and a son of Peter Pan. Dams by The Clansman, Giant Buster, The Harvester, Prairie Grant, Rump's Wonder, Gladiator and Louck's Big Bob. 3 Spring Boars, 1 by Chess, 2 by The Herald. Sell. Sign a Check is the greatest yearling boar we ever owned, a show hog, a boar in the 1200 lb. class. Get in boys, this will be a bargain sale. Sows bred to these great boars will be better than a Gold Bond investment. Do not forget to be with us on day of sale. Bids sent to Col. Earl Kertz, Ligonier, Ind., in care of Big Type Poland Farm, will be handled strictly honest. You will get them for just what they bring. Catalogue mailed by request. Sale held indoors.

Otis Baker  
Prop.

Big Type Poland Farm  
LIGONIER, IND.

## N. F. BORNOR

Announces Sale of Top Notch

POLAND CHINA BRED SOWS

Parma, Michigan

Wednesday, February 21, 1923

See next weeks issue for particulars

Write for catalog.

### HOGS

#### SPOTTED POLAND BRED SOW SALE

February 14, 1923

WRITE FOR CATALOGUE

G. S. COFFMAN Coldwater, Mich

#### Large Type Poland China BRED SOW SALE

FEBRUARY 22, 1923

Write for Catalogue

A. A. FELDKAMP, Manchester, Mich

Bred Sow Sale 45 head Duroc Jerseys, Feb. 12, 1923. Write for catalogue.  
L. A. BURHANS, R. 1, Lyons, Mich.

Leonard's Big Type P. C. gilts sired by Leonard's Liberator and Orange Clansman and fall Pigs at bargain prices. E. R. LEONARD, St. Louis, Mich

Saginaw Valley Herd of O. I. C. & Chester White Swine. 40 Bred Gilts, sired by C. O. Mich. Boy and Selection 1st, bred to Jumbo's Giant 1st, son of Grand Champion Boar at Mich. State Fair. Photos on request. John Gibson, Posters Mich., R. 2.

Boars at Half Price From Mich. Pioneer herd of Big Type Poland Chinas We have been breeding them big for 30 years. Our hogs represent the blood lines of Giant Buster, The Clansman, Liberator, The Yankee, Big Bob, etc. Write for what you want.  
J. N. C. BUTLER, Portland, Mich.

Chester Whites, We are offering some bred sows and gilts. Prices reasonable. Weber Bros. 10 Mile and Ridge Rds, Royal Oak, Mich.

Big Type P. C. some very choice boars double im mune, out 1100 lb. sire and mammoth sows from Iowa's greatest herds, E. J. Mathewson, Burr Oak, Mich

### BIG TYPE POLANDS

spring boars all sold, fall pigs either sex at farmers' prices. Tuscola Clansman is our young herd sire, first prize pig at Mich. State Fair Litter from him will improve your herd. Public sale Feb. 1. Write today for catalog. DORUS HOVER, Akron, Mich.

L. T. P. C. Gilts bred or open, two good boars left. They have always made good, and will again. Write for my plan of selling.  
M. M. PATRICK, Gd. Ledge, Mich.

Walnut Alley Big Type P. C. gilts now ready to ship they are bred to the best boar I have seen this fall. A. D. GREGORY, R. 3, Ionia, Mich.

Additional Stock Ads. on Page 207

## Write Your Advertisement Here

Mail To

## THE MICHIGAN FARMER

1632 Lafayette Boulevard

Detroit, Mich.

Rate: 8 cents a word on single insertion; 6 cents a word if ordered 4 or more consecutive issues.

Count initial or abbreviations as words

USE THIS FORM---IT SAVES DELAY

Your Name

Route

Town

State

NOTE: Count every word in the above spaces except printed words in heavy type

### FILL THIS, PLEASE

Your Count of Ad.....Words

No. Times to Run.....

Amount Enclosed.....

Classification.....





**MICHIGAN FARM BUSINESS IMPROVES.**

THE crop output for the farms of Michigan in 1922 aggregated \$215,000,000, an increase of seventeen per cent over 1921, when the valuation dropped to \$184,000,000. The complete annual report of the Michigan Cooperative Crop Reporting Service is now in the hands of the printer and will be ready for mailing within a short time, according to Verne H. Church, agricultural statistician. The report further states that each of the grain crops, together with beans, clover seed and sugar beets, were bringing better prices on December 1, 1922, than on the corresponding date of the previous year, and that a larger monetary return per acre was derived from all crops except wheat, buckwheat, potatoes and wild hay. The fruit crops, potatoes and hay were less in price than one year ago.

It is asserted that the figures indicate that the low point has been passed and farm financial conditions are beginning to improve with favorable prospects for the future. Michigan's important position as a dairy state and the diversified nature of her crops have lessened the severity of the depression and are aiding in the recovery from it, in comparison with other states that suffered the greater distress caused by inflated land values.

The combined yields of all crops in the state were 7.4 per cent better than the average of recent past years. This is an exceptional showing as only four other important crop states made as good a record. While the state generally leads in the yields of one or more crops, it is unusual to attain this high average for all crops.

The best crop of the year was hay, although corn, potatoes, clover seed and most of the fruits yielded above the average. The poorest crops were winter wheat and rye, although these were fair in both yield and quality for the state as a whole. All main crops were larger in volume than last year except corn, rye and sugar beets, and all had a greater total value except potatoes, sugar beets and clover seed.

**FIFTY-FIFTY BEET CONTRACT ACCEPTED BY OWOSSO COMPANY.**

(Continued from page 172).  
erating to the limit of their capacity. Requirements for the Owosso factory will be about 100,000 tons of beets, while at Lansing 60,000 tons are needed, he stated. The output of the two plants is expected to total 40,000,000 pounds of refined sugar.

The fifty-fifty contract is not compulsory to the growers, as the old form of contract is to be left optional with them.

The federated legislative committee after going into the proposition very thoroughly with Mr. Pitcairn, unanimously adopted following resolutions:

Whereas, The beet growers of Michigan have for some time been contending for a contract with manufacturers of sugar which will give them for their beets one-half the value of the sugar extracted therefrom,

And Whereas, The Owosso Sugar Company has stated to the federated legislative committee of the Michigan farm organizations that they are now prepared to make such contracts with growers;

Therefore Be It Resolved, That we commend this company for its spirit of fairness and recommend to the beet growers of central Michigan that they give this proffered contract favorable consideration.

Unanimously approved by the committee.

The resolution was signed by representatives of the Michigan State Farm Bureau, the Grange, the Gleaners and the Affiliated Farmers Clubs.

**Holmes, Stuve Co., 2429 Riopelle St.**  
Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank. Bradstreet. Detroit, Mich. Cherry 7554

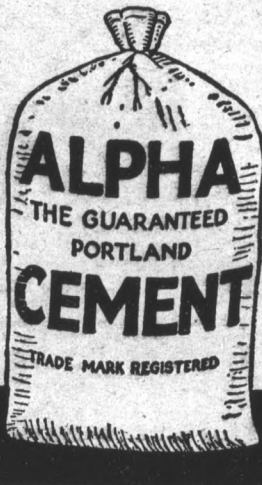
**See the local ALPHA dealer about Winter cement work**



**Make Permanent Posts**

for setting in Spring. Cement posts can't rot or burn. They get stronger with age; make your property impressive. Mold them in your spare time.

The ALPHA dealer will give you, with our compliments, "ALPHA CEMENT—How to Use It," a practical, 104-page, illustrated handbook. Tells about post-molding and scores of permanent, attractive cement improvements.



**Alpha Portland Cement Co.**

140 South Dearborn St., CHICAGO, ILL.  
EASTON, PA.

Battle Creek, Mich. Ironton, Ohio St. Louis, Mo.  
New York Boston Philadelphia  
Pittsburgh Baltimore

Plants at: Bellevue, Mich. La Salle, Ill.  
Ironton, Ohio St. Louis, Mo. Alpha, N. J.  
Martins Creek, Pa. Cementon, N. Y.  
Jamesville, N. Y. Manheim, W. Va.

**use Alpha Cement**

**SALE**

**30 Registered Duroc-Jersey Sows and Gilts  
43 Registered Shropshire Ewes  
at FAIR GROUNDS, HILLSDALE, MICH.  
WED. FEB. 21, 1923 at 12:30 P. M.**

The only chance to buy some sows bred to the 1922 Grand Champion at Mich. State Fair. This offering of sows is intensely Orion Cherry King bred. And ewes include Imported and Canadian blood. A grand chance to secure best of blood and good individuals. Don't delay! Send for catalogue and plan to attend. This sale follows the Branch Co. Duroc Sale, Feb. 20, 1923.

**CLYDE GODFREY, Jonesville, Mich.**

Cols. F. W. BUSCHE, J. I. POST, F. E. HAYNES, Auctioneers



**BABY CHICKS—\$12 per 100 AND UP**

From selected, heavy-laying, vigorous hens. White and Brown Leghorns, Anconas, 50, \$7; 100, \$13; 500, \$60. Barred Rocks, 50, \$8.50; 100, \$16; 500, \$75. Extra Select \$2 per 100 higher. Mixed Chicks 50, \$9; 100, \$12; 500, \$55. Well hatched in modern machines. Carefully and correctly packed and shipped. Postpaid, full live arrival guaranteed. Bank reference and this guarantee makes you perfectly safe in ordering direct from this ad. NOW. Get them when you want them. All orders have our careful personal attention. WE WANT YOUR BUSINESS. Catalog Free.

WINSTROM FARM & HATCHERIES, Box H-6, ZEELAND, MICHIGAN

**MEADOW BROOK FARM**



**CHICKS** ENGLISH WHITE LEGHORNS, BROWN LEGHORNS (Holland Importation Strain) 50, \$7; 100, \$13; 500, \$62.50; 1000, \$120. BARRED ROCKS; REDS, BUFF LEGHORNS, 50, \$8; 100, \$15; 500, \$72.50; 1000, \$140. WHITE WYANDOTTES (Heavy Laying Flocks) 50, \$9; 100, \$17. Postpaid, full live delivery guaranteed. All flocks composed of Selected Heavy Layers. Order now from this advertisement and get them when you want them. I have been producing good Chicks successfully for the past 20 years and KNOW HOW. I want your business and will try hard to please you. Free Catalog. Bank Reference. Meadow Brook Farm, Henry De Pree, Proprietor, Route 1M, Holland, Mich. Member Mich. B. C. A.

**POULTRY**

**Baby Chicks** Selected chicks from the heart of the baby-chick industry. Leading pure breeds from heavy egg producing strains. Alive delivery guaranteed. \*Send for catalogue and prices. L. Van Hoven & Bro., Zeeland, Mich.

**S. C. W. Leghorn Baby Chicks,** From large type American Strain of heavy winter egg producers. All eggs set produced by our own breeding pens. Price \$12 per 100. Gruse & Warner, Hudson, Mich.



**TIMMER'S HATCHERY**

Hardy, healthy Chicks from selected heavy laying flocks. Wh. & Br. Leghorns, 50, \$7; 100, \$13; 500, \$62.50. Anconas, 50, \$7.50; 100, \$14; 500, \$67.50. Barred Rocks and Reds, 50, \$8.50; 100, \$16.50; 500, \$80; postpaid, full live delivery. Bank Reference. Free Catalog.

TIMMER'S HATCHERY, Route 3B, Holland, Michigan

**BABY CHICKS**



Tom Barron Imported White Leghorns

Sheppards 331 Egg Strain Anconas

World's Famous Layers.

Flocks culled by poultry experts and headed by vigorous pedigreed males. Silver Ward Chicks will start you right. Let us book your order now. Fine, Illustrated CATALOG Free. Write today.

SILVER WARD HATCHERY: Box 30, Zeeland, Mich

**QUALITY CHICKS AT LIVE AND LET LIVE PRICES \$10. PER 100 AND UP**



From Excellent Paring, Heavy Laying flocks unlimited range. Well-Hatched, Sturdy Healthy Chicks in following varieties: Tom Barron English White Leghorns, 50, \$7; 100, \$13.00; 500, \$62.50. Park's Barred Rocks and Rhode Island Reds, 50, \$8; 100, \$15; 500, \$72.50. From Extra Select flocks headed by Mich. Ag. College cockerels (Dams records from 230 to 270.) Wh. Leghorns, 50, \$8; 100, \$15; 500, \$72.50. Rocks and Reds, 50, \$9; 100, \$17; 500, \$82.50. Delivered Right to Your Door by Insured Parcel Post, 100% live delivery guaranteed. Order Now and from this ad as many were disappointed last year. Profitable Catalog Free. Bank Reference. Lakeview Poultry Farm, Route 8, Box 5, Holland, Mich.

**Rosewood Farm Healthy, Hardy Chicks**

Well-hatched, carefully packed, and shipped.



Select, heavy laying WHITE LEGHORNS, 50, \$7; 100, \$13; 500, \$62.50; 1000, \$120. Select ANCONAS, 50, \$7.50; 100, \$14; 500, \$67.50. Select BARRED ROCKS, 50, \$8.50; 100, \$16.50; 500, \$80. Postpaid, full live delivery guaranteed. Our Chicks will render you the best of satisfaction and you will COME BACK TO US. We have had our experience in producing good Chicks and our flocks are second to none. Catalog Free. Rosewood Farm, R. 12B, Holland, Mich.

**STAR HATCHERY BABY CHICKS**



From Select, Vigorous, Approved, Heavy Laying Breeding stock. White & Brown Leghorns & Anconas, 50, \$7; 100, \$14; 500, \$65; 1000, \$125. Single Comb Reds, 50, \$8; 100, \$16; 500, \$75. Hatched by modern methods in best machines under our personal supervision. Carefully packed and sent Postpaid and 100% live delivery guaranteed. Bank reference. You take no chances in ordering STAR BABY CHICKS. Place your order now and get them when you want them. Star Hatchery, Box O, Holland, Michigan

**HOGS**

**50 HEAD 50**

**Registered Poland Chinas BRED SOW SALE**

**Saturday, Feb. 17, 1923**

at the Fair Grounds, Adrian, Mich.

Best sale in Michigan this winter. Best breeding to be found in America. No better individuals will be sold anywhere. Write for catalog.

**WITT BROS., Jasper, Mich.**

P. J. P. Pope, Michigan Farmer Representative

Profitable, Practical Poland Chinas, bred gilts.—Blood-lines Dishier's Giant, Big Bob, Yankee. JAS G. TAYLOR, Belding, Mich.

**Big Type Poland Chinas**

G. A. BAUMGARDNER, R. 2, Middleville, Mich

For Sale—Choice Poland China fall boar pigs by Emancipator 2nd. dam by Checkers also can spare a few bred sows and gilts from herd. WESLEY HILE, Ionia, Mich.

Large Type Poland China Gilts sired by Mich Liberator, & Big Checkers, Bred to model Giant and Mich. Liberator 2d. for March & April farrow. George F. Aldrich, R. 6 Ionia, Mich.

Lone Maple Farm Big Type Poland Chinas Nothing for sale at present. F. R. DAVIS & SON, Belding, Mich.

Hampshires spring boars and bred gilts from order now or you may be too late, 10th year. JOHN W. BNYDER, R. 4, St. Johns, Mich.

Hampshire Bred gilts \$20, \$25; bred sows \$30. \$50. Guarantee safe delivery, registered free. G. F. LUCKHARD, Bach, Mich.

HAMPSHIRE: Gilts and bred sows, sired by son of Cherokee Roller. Cholera Immuned. Priced to sell. EARL THROOP, Ray, Ind.

**SHEEP**

**800 BRED EWES FOR SALE**

in lots of 50 or more, black faced, from 1 to 4 yrs old; no broken mouths, in good condition, bred to Shropshire and Oxford rams to lamb May first. Located 22 miles S.W. of Detroit on Detroit and Toledo electric and Dixie Highway. Telegraph address, Rockwood. Almond B. Chapman, So. Rockwood, Mich.

50 Head High Class, bred, Registered Shropshire ewes 1 to 4 yrs. old. Large, well covered. Flock established 1890. C. Lemen & Sons, Dexter, Mich.

Reg. Delaine ewes and ewe lambs for sale. CALHOON BROS., Bronson, Mich

FOR SALE 35 Head of Registered Hampshire Ewes. Must be sold before March 1st. Your opportunity. HULL BROS., 401 American State Savings Bank, Lansing, Mich.

# OPPORTUNITY SALE

# NOW IN FULL SWING

## Pick Your Bargains - Quick!



Two Pretty Aprons  
For The Price Of  
One

Two for  
**79c**

Send no money. Favorite Polly Prim Apron. One apron is of rich checked material and the other of a very pretty striped pattern. Both have long flowing sashes, two pockets. Trimmed throughout with rick-rack. A wonderful bargain that you could not duplicate if you tried to make these aprons yourself. Sizes Small, Medium and Large. Order the combination, two aprons as illustrated, by No. 18E5092. Send no money. Pay only 79c and postage on arrival.

Don't Send One Cent. Just Letter or Postcard

brings you any of these smashed price bargains. Merely give name and number of each article you want. Also state size and write name and address plainly to avoid delay. Pay nothing till goods arrive—then only the amazing bargain price and postage. If you are not delighted with your bargain return the goods and your money will be cheerfully refunded. ORDER NOW.

"Stylish Stout" Garbardine Dress  
**\$3.98**

Women of large figure will see in this new model their ideal dress. This is a special design. Planned to give long slendering line to stout figures. Note how the collar reverses and panels carry out the long effect. Note, too, the attractive embroidery on sleeves, vestee and panels. The self-material belt ties at back. In three popular shades. Sizes 29 to 33. Order by No. 18E5470. Black by No. 18E5471. Brown by No. 18E5472. Send no money. Pay \$3.98 and postage for any color on arrival. State size.



Women's Patent Leather Brown Calf Finish Pumps

**\$1.98**



State Size

This smart pump in sizes 2 1/2 to 8, in black patent leather or Brown Calf finish—a stunning one-strap model with imitation shield tip medallion, effectively perforated. Has medium rubber heel. Order Patent by No. 18A72. Order Brown by No. 18A73. Send no money. Pay \$1.98 and postage on arrival.

Rich Black Sateen Apron

**\$1.79**

The material is an excellent soft, lustrous black sateen with collar, cuffs and pockets of good grade fancy cretonne. Pockets are a novelty basket design with applique flower trimming. The same effect is carried out on one side of waist. A full cut, comfortable garment, which is just the thing for morning wear at home. Designed with wide self-material sash belt all around. Sizes small, medium and large. Big value. Order by No. 18E5098. Send no money. Pay \$1.79 and postage on arrival. Money back if not satisfied.



**\$1.98**

Women's Stitchdown Popular Dark Brown Oxfords



Classy stitch-down Oxford for women. Wonderfully comfortable and stylish. Uppers of dark mahogany leather. Smooth leather insoles. Flexible stitched-down oak

soles. Low rubber heels. Size 2 1/2 to 8. Wide widths. Order by No. 18A268. Send no money. Pay only \$1.98 and postage on arrival.

Women's Patent Gun Metal or Calf Finished Leather Oxfords  
**\$1.98**

Made with imitation shield tip and medallion perforated vamp, perforated lace stay and circular foxing. Has medium rubber heel and medium pointed toe. Sizes 2 1/2 to 8, wide widths. Order Patent by No. 18A64. Order brown by No. 18A69. Order gun metal by No. 18A70. Send no money. Pay \$1.98 and postage on arrival.



Be sure to state size.

Soft Kid Slipper (One-Strap Model)

**\$1.49**



Always Mention Size

Beautiful soft kid leather slipper. Stylish strap model with two buttons. Medium round toe. Cushion soles. Black only. Sizes 2 1/2 to 8. Wide widths. Black by No. 18A228. Brown by No. 18A229. Send no money. Pay \$1.49 and postage on arrival. State size.

Men's Dress Shoes

**\$2.98**



Send no money

State Size

Men's French toe dress shoes or oxfords in mahogany calf-finished leather. Have medium toe, perforated, oak soles and rubber heels. Perforated on vamp and eyelet stay. Sensational values. Sizes 6 to 11, wide widths. Order Oxfords No. 18A658. Order Shoes No. 18A660. Send no money. Pay \$2.98 and postage on arrival for either style. State sizes.

Men's Hip Boots-Bargains

Don't fail to make this big saving on Men's pure gum hip boots; friction lined; heavy corrugated sole and heel; guaranteed first quality. Made of the very best rubber. Usually retailed at \$5. Be sure to order your pair while this great saving offer lasts. Sizes 6 to 11. Wide widths. No half sizes.



**\$2.98**

Order by No. 18A949. Send no money. Pay \$2.98 and postage on arrival. State size wanted. Order similar style in knee boot sizes 6 to 12 by No. 18A950.

Send no money. Pay \$2.98 and postage on arrival. State size.

Scout Shoes for Men and Boys

Fine Scout shoe of soft pliable brown leather. Absolutely guaranteed barnyard proof; reliable sturdy soles; low, broad leather heels; leather insoles; reinforced leather back stay. Guaranteed to stand hardest wear.

**\$1.79** up



Be Sure to Give Size

Order by No. 18A783. Send no money. Pay \$1.79 and postage on arrival. Order little boys' sizes 9 to 13 1/2 by No. 18A565. Price \$1.79. Order big boys' sizes 1 to 6 by No. 18A564. Price \$1.89. Pay bargain price and postage on arrival. State size.

Ribbon Trimmed Felt Slippers

Priced Low

**98c**



Fine grade wool felt with combination insert of lawn. Sizes 3 to 8. Order American Beauty by No. 18A389. Order Copen by No. 18A390. Order Lavender by No. 18A391. Send no money. Pay 98c for any color. State Size.

Men's Rubber 4 Buckle Arctics

Guaranteed best quality, all rubber 4-buckle hi-cut arctic for men. Made with double thick soles and seams reinforced. Snow excluding tongue. Furnished in men's sizes 6 to 15. Wide widths. Sensational value. Send quick. Order by No. 18A990. Send no money. Pay \$2.48 and postage on arrival.

**\$2.48**



State Size



Strong, Comfort Work Shoe

**\$1.79** UP

Sizes for Men and boys

Order your pair quick—while this bargain offer lasts. Wonderful work shoe for men. Has soft, strong uppers that resist barnyard acids. Solid leather insoles. All seams stitched with waxed thread. Strong leather soles. Wide widths. Sizes 6 to 11. Order by No. 18A758. Send no money. Pay \$1.98 and postage on arrival. Order boys' sizes, 1 to 5 1/2 by No. 18A554. Price \$1.89. Order little boys' sizes 9 to 13 1/2 by No. 18A555. Price \$1.79 and postage on arrival. Mention size.

Brand New Standard Tires Guaranteed 6000 Miles

We do not pay Postage on Tires and Tubes

30x3 \$5.98

Fresh stock of heavy, non-skid tires of live rubber. Generously oversize. 6,000 guaranteed, but often give 8,000 to 10,000 miles. Choice of non-skid or rib tread in 30x3 size. Others are non-skid. Pay only bargain price listed below and postage on arrival. Add 39c for postage on cash orders.

BARGAIN PRICE LIST

No. 18D4040—30 x 3	5.98
No. 18D4041—30 x 3 1/2	6.98
No. 18D4042—32 x 3 1/2	8.98
No. 18D4043—31 x 4	10.28
No. 18D4044—32 x 4	11.98
No. 18D4045—33 x 4	12.28
No. 18D4046—34 x 4	12.98

8,000 MILE GUARANTEE

SHAROOD'S JUNIOR CORD, 30x3 1/2 Same sturdy construction as regular cord, but not oversized. A wonder-service tire for Ford. Order by No. 18D4090. Send no money. Pay only \$9.79 and postage on arrival. Add 49c for postage on cash orders.

GUARANTEED INNER TUBES

Now is your chance to buy extra thick, live rubber inner tubes at a big saving. Don't wait for tube prices to go up. How many shall we send. Give size wanted. No money now. Pay only bargain price and postage on arrival. Add 10c for postage on each order.

BARGAIN PRICE LIST

No. 18D4020—30 x 3	\$0.99
No. 18D4021—30 x 3 1/2	1.19
No. 18D4022—32 x 3 1/2	1.45
No. 18D4023—31 x 4	1.69
No. 18D4024—32 x 4	1.79
No. 18D4025—33 x 4	1.79
No. 18D4026—34 x 4	1.79

Be Sure to Mention Sizes, Colors, Etc., and Send All Orders From This Page Direct to

**SHAROOD CO.,**

Dept. MINNEAPOLIS.  
18 MINNESOTA