

# MICHIGAN FARMER

AND  
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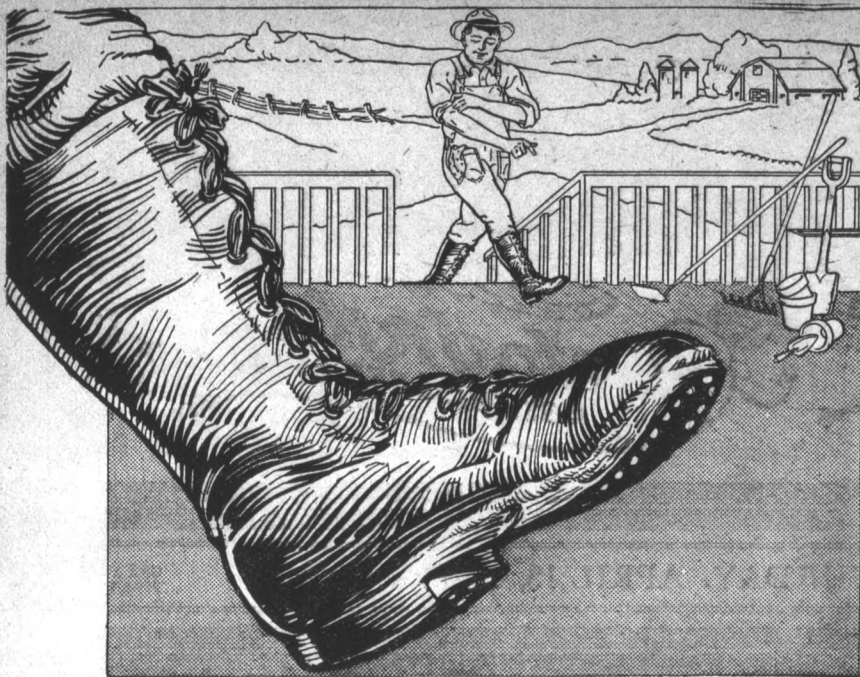
DETROIT, MICH., SATURDAY, APRIL 18, 1925

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*Animals are such agreeable friends—they ask no questions. They pass no criticisms.—George Eliot.*





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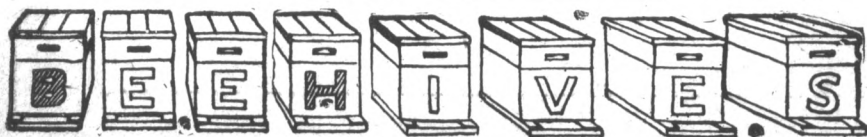
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 Color desired.....

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## News of the Week

### World

A COMMISSION of international jurists are in session at Geneva, Switzerland, arranging a digest of international law, which will later be used as a basis of a code which all nations will be asked to subscribe to.

A famine among the Esquimaux in the northern districts of the continent has forced cannibalism. Relief is being planned.

Earthquake shocks have caused much suffering in the state of Durango, Mexico.

Old German marks will be worthless after July 5, according to a decree of the German government.

The British government has established a trade branch of its Department of Commerce in New York City.

Because of terms asked by American financiers on French loans, the French press declares that our bankers are "harsher" to them than to Berlin.

President Coolidge notifies the Peruvian government that his award as arbitrator in the dispute between Peru and Chile is final and without appeal.

The dwindling majority of the Herriot government in France, has suddenly regained its leadership through its financial and tax program.

A riot of considerable proportions was occasioned by the presence of Lord Balfour of England at Damascus, Syria.

Forty persons are known to have been killed in a typhoon which struck the Hachigo Islands off the southeast coast of Japan.

Field Marshal Von Hindenburg refuses for the second time to become the candidate of the Nationalists for the presidency of Germany. General Ludendorff has also refused to allow his name to be used in this election.

The world's first aerial moving picture show was given in London this past week.

German dentists have added enameled steel teeth as one of their accomplishments.

### National

COMMERCIAL aviation which has already attained prominence in Europe, made its advent in this country last week when the first plane of air express landed in Chicago with two thousand pounds of freight from Detroit.

Postal receipts in fifty selected cities throughout the United States show an increase of nearly six per cent over a year ago.

An earthquake shock was felt at Syracuse, New York, last week.

Secretary of Agriculture, Jardine, listens to pleas for dissolution of the packer merger in Chicago.

Senator Wadsworth of New York refuses to act as the successor to Secretary of War Weeks.

President Coolidge declares that an understanding between the nations and industry is essential to the prosperity of our great textile business.

Collective bargaining, public opinion, and legislation are responsible for the shorter work day in the United States, according to the International Labor office at Washington.

Loeb and Leopold have been such model prisoners that they have advanced to Grade B, and are allowed to converse with each other at certain times.

Both Tyrus Cobb and Babe Ruth, the two great stars of base ball, are ill with the flu.

Dorothy Ellingson, the San Francisco jazz girl, has been declared insane, and will be confined in an asylum.

### State

ONLY one home was spared in the recent disastrous fire at Chatham.

Nobody was killed, but quite a few were seriously injured in their endeavors to stop the fire.

The \$85,000,000 issue of Dodge Brothers, Inc., stock which was offered to the public was over-subscribed in less than an hour.

The retailers of Grand Rapids are opposing the enlargement of the Leonard Street retail market, where farmers sell their produce.

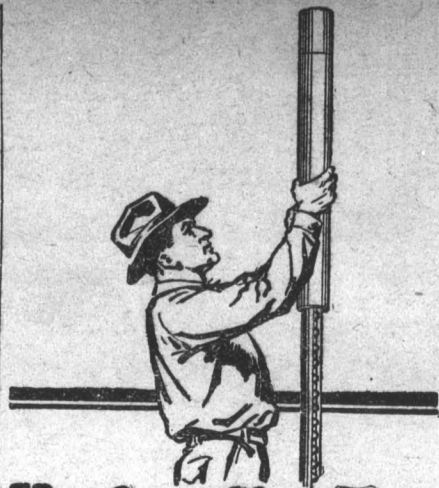
Brush fires are raging near Grand Haven and the resort section.

Detroit is planning many super-highways to help relieve auto congestion.

The Detroit United Railway is opening passenger terminals in the outskirts of Detroit so that its cars will not have to travel to the center of the city.

Rober Clagge, noted authority on flowers, died recently at his home in Mt. Clemens.

Twenty-seven Lansing retailers were arrested for selling meats and groceries on Sunday.



**Head and Shoulders  
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WHEN an article like the Red Top Steel Post outsells all other makes so overwhelmingly there must be a reason. There is. Not one, but many.

The Red Top Studded Tee is an extra strong reinforced post, very durable and of finer appearance. It is easy and cheap to set and fasten fencing to, therefore making even its original cost in the fence line very reasonable.

With the One-Man Driver one man can drive 200 to 300 Red Tops in a day. Once in the ground Red Tops stay put, keeping stock, yours and your neighbors', where it belongs. Red Tops do away with frequent post replacements and fence repairs. They are cheaper installed and outlast at least two wood posts.

**You Get These  
 4 Big Features in  
 Red Tops**

**Studded Reinforcing Rib  
 Full Length of Post**

1 There is not a single hole in this super steel post. Improvements don't stop there. A steel reinforcing rib runs the full length of this post, making it much stronger by actual test than other types.

**Anchor Plate Attached Without Rivets or Holes in Post**

2 A post needs to be especially strong at this place because here's where the strain comes. The Red Top is not weakened at this vital point by punching holes in the post. The sturdy anchor plate is permanently united to the post by spreading the heads of two of the studs.

**Handy Fasteners  
 With the Long Leg**

3 Here's a fastener that never loosens up or lets go. The long leg on the patented Red Top fastener wraps all the way around the stem of the post and permanently holds the wire in place. One man without a helper attaches fencing to posts with this fastener.

**Pure Aluminum  
 Metallic Finish—Baked-on**

4 This double duty finish adds extra years to the life of the post by protecting the steel much longer than the paints commonly used in finishing steel posts. Red Tops with the Aluminum finish make such neat, attractive fences, giving that thrifty, well-kept look to a farm and thus adding to its value.

**Red Top Steel Post Company**  
 38-L South Dearborn Street, Chicago

**Red Top**  
 GUARANTEED  
 Double Strength Studded Tee  
 Steel Fence Posts

**MICHIGAN FARMER**  
 Classified Liners bring results. They cost little.



DEVOTED  
TO  
MICHIGAN

VOLUME CLXIV

# MICHIGAN FARMER

AND LIVE STOCK JOURNAL  
PUBLISHED WEEKLY  
ESTABLISHED 1843

A Practical Journal for the Rural Family

MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY  
RELIABILITY  
SERVICE

NUMBER SIXTEEN

## Forage Crops Reduce Pork Costs

*Exercise, Vitamines and Inexpensive Food Lurk in the Pasture Lot*

By W. E. J. Edwards

Animal Husbandry Dept., M. A. C.

THE use of forage crops for growing spring pigs is one of the chief factors in the development of strong, thrifty, well-grown hogs and assists materially in lowering the cost of pork production.

Young growing pigs need considerable exercise in order that they grow strong stretchy frames with robust constitutions. They are then in a position to make rapid gains until finished with less danger of going off feed. Nursing pigs getting limited exercise are very apt to get too fat, develop digestive disturbances and thumps, which usually prove a serious check on their growth and thriftiness. Pasture provides the exercise needed.

Sanitation is another factor which cannot be overlooked if satisfactory results are to be obtained. Clean quarters, which are more easily obtained on pasture than in the barn or dry lot, play a very important part in the prevention and control of parasites and disease.

Much has been written during recent years about vitamins. While the knowledge concerning these vital constituents is still quite limited, it is known that all common forage crops are rich in vitamins and it is thought by many that this is one of the chief reasons why all classes of animals usually grow and thrive so well on pasture.

It is now thought that pigs need the addition of minerals to their ration to a greater extent than any other class of farm animals. The chief reason for this is that swine consume comparatively little roughage. While it is advisable to let the pigs have access to a mineral mixture on pasture, this is not so necessary as when fed in dry lot as pastures are richer in minerals

than are concentrates. There are many good mineral mixtures. One that is easily obtained, is inexpensive and gives good results is made as follows: Thirty pounds each of acid phosphate, finely ground limestone and salt, with five pounds of sulphur. A good grade of bone meal or bone flour may be used instead of the acid phosphate, in which case somewhat less limestone would be required.

Pasture is a great protein saver. Green forage crops are comparatively rich in protein. Pigs on pasture therefore need the addition of less of this important constituent to their ration than where pasture is not available. This is important in reducing the cost of gains as protein feeds are, during most years, considerably higher in price than other concentrates.

Labor is a big item on the farm during the growing and harvesting seasons. In many cases it is the determining factor. Feeding pigs on pasture reduces the amount of work to a minimum, especially if a self-feeder is used. There is then little work in feeding; the cot seldom needs cleaning during the summer, and the manure is distributed without any labor.

The real importance of the above points is that they contribute toward and make possible the two big factors in pork production, rapidity of gains, and lower cost of production. Pigs will gain faster on pasture than they will any other place. This hastens them to an early market. Statistics covering a recent twenty-one-year period of the Chicago market show that the average price of hogs during Sep-

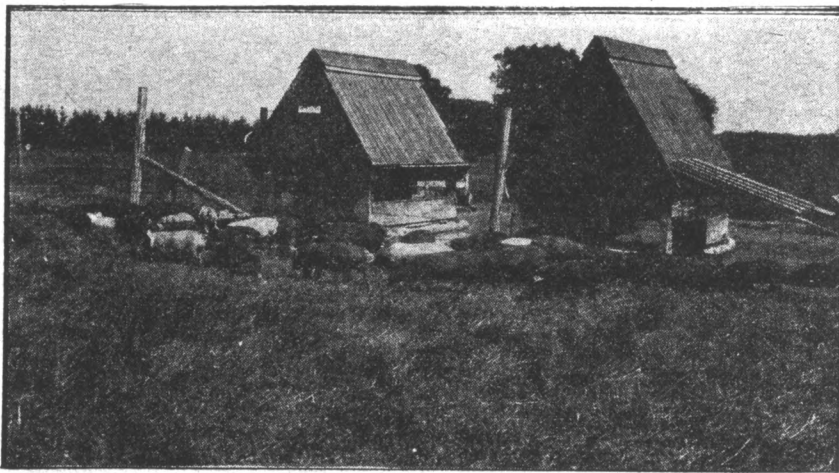
tember was sixty-one cents higher than the average during October; \$1.13 higher than that during November; \$1.36 above the December average, and \$1.19 higher than the average during January. These figures show very clearly that factors, such as the use of pastures, which speed up the gains and make early marketing possible, may easily make the difference between a profit or a loss. Figures on the cost of production will be given later in this article.

It must be kept in mind that pigs will not do well on pasture alone. Their digestive system is small compared with that of cattle, sheep and horses, and they should get at least one-half as much grain as they would eat in a dry lot. Full feeding is usually recommended. Self-feeders can be used to advantage as feed used this way produce as much gain as if trough-fed.

Blue grass supplies good spring and fall pasture, but usually dries up badly in the summer, so should not be depended upon for the whole season.

Alfalfa is unexcelled as a forage crop for hogs. The pigs should be turned in when the alfalfa is eight to ten inches high. This crop should not be pastured closely or the stand will be injured. To prevent loss of feed, cut the residue for hay. This may be done two or three times during the season.

Trials conducted at the Michigan Experiment Station during the season of 1924, covering a period of 120 days, show that fifteen spring pigs averaging thirty-four pounds at the start on an acre of alfalfa, with shelled corn, tankage and minerals in a self-feeder, and water in an automatic waterer, made an average daily gain of 1.131 (Continued on page 554).



Alfalfa Pasture Provides Ideal Conditions For Rapid Gains and Low Cost of Production.

## Getting Our Spuds in Elite Society

*Many Factors Affect the Quality of Michigan Potatoes*

By J. W. Weston

Potato Specialist

A GREAT deal has been, and is being said at present, about the presence of immature stock and Hollow Heart in Michigan potatoes. The investigations on our larger markets in 1923 and 1925 brought out the fact that Michigan potatoes are more generally dark in appearance and present more hollow heart than the New York and Pennsylvania potatoes.

Michigan potatoes this year, (1924-1925 crop), are the best they have been in twenty-five years. Many buyers in Pittsburgh made the statement that the Michigan potatoes this year were brighter, especially the Russet Rurals, than the New York or Pennsylvania Russet Rurals, but due to her past reputation, the Michigan potato has not won back her full confidence of the trade.

There isn't a question in my mind, but what 1924 was one of the most exceptionally favorable growing seasons of the past ten years for potatoes, and the quality generally was much better than the average. In addition to this, the potato grading inspection work as promulgated by the L. Whitney Watkins, commissioner of agricul-

ture, in 1922, has been responsible in a large way for the more uniform pack going on the market.

Appearance is one of the most important factors in the movement of potatoes on the market. Jobbers and brokers say it "makes ninety per cent of the sale." It is a comparative term, varying with the season and with the price and demand of potatoes. Especially when the market is draggy and slow, the bright, clean, uniform potatoes, free from blemish, are first to move.

From this we would understand that appearance depends on the maturity, uniformity and freedom from defects. That is, the market wants mature potatoes that are free from excess dirt, bright, firm and whole skinned.

Again, they want potatoes that are uniform in size. The size wanted for retail grocery trade generally ran from four to eight ounces, with a preference for four to six-ounce sizes. Potatoes may grade U. S. No. 1 and still

be very uneven in size, as often a sack will have potatoes that will vary from two ounces to sixteen ounces in weight per tuber. Many handlers of potatoes suggested that these over-sized potatoes be graded out and put into separate bags, ten to fifteen bags in the car, and then sold for what they would bring—usually ten to fifteen per cent less than the medium-sized potatoes—to restaurants, hotels, or for potato chips.

The markets also want potatoes free from defects. Much of our grading work in the past consisted of running the potatoes as rapidly as we could over a sizing machine, several layers deep, so as to get in that full five per cent tolerance below grade for undersized. More attention to grading was given when the fruit and vegetable inspection service of the State Department of Agriculture started their educational program in 1922 and the work has been going forward ever since.

Grading now includes both sizing and taking out the defects, such as, sunburned, forked, hooked, or digger-sliced potatoes, soft rot, dry rot, oversized, hollow heart, (as far as possible), prongy and extensively withered or immature potatoes. These seriously affected with scab, insects, injury and irregular shape.

The fork prick, hooked and bruised potatoes constitute a large share of the blemishes, and come from the northern part of the state. More care in digging and handling will eliminate a great deal of this trouble. Oversized potatoes can be materially reduced by closer planting. This condition is found a great deal in potatoes from central Michigan. Maturity can be increased by earlier planting. Hollow Heart is a question still unsolved, but it seems to be more prevalent in late planted potatoes and more serious on heavier or clay loam soils than on the lighter sandy soils. Earlier and closer planting is thought to favor the production of sound potatoes, especially of the Rural type. A discussion of the best time for planting will appear in an early issue.



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DETROIT, APRIL 18, 1925

## CURRENT COMMENT

## A Week For Forestry

IT has become something of a habit with us in America to give emphasis to certain matters by devoting days or weeks to the thing we would promote. Thus we have apple day, flower day, mothers' day, clean-up week, etc., etc. By our devoting time to these matters we virtually acknowledge they deserve more attention than they are getting. So Forestry Week has been added to the list.

No less a personage than the good President of these United States has added this week. The subject of this new enterprise is truly worthy of the attention of Mr. Coolidge. It goes to the very foundation of our civilization. Unless we do some real constructive work along the line indicated, future generations are going to have a hard time of it.

President Coolidge realizes this. He knows the part this matter plays in making people happy and contented with their lot; and he knows also how handicapped and unprotected they are likely to be without this natural resource.

So a proclamation has been issued from the White House. It calls the American people's attention to forestry work by setting aside April 27 to May 3 as Forestry Week.

In some sections forestry protection week has been observed, but we have not observed forestry building week. The first is vitally important, but the second step not only comprehends protection to the remnant we have, but creates in us the hope for something greater in the future. The President says, "We must learn to tend our woodlots as carefully as we tend our farms."

This is a matter in which Michigan farmers in particular should apply themselves with boundless energy and skill. In every community there ought to be selected a sort of vigilance committee to urge "public officials, public and business associations, industrial leaders, forestry owners, schools, educators, editors, farmers and all other patriotic citizens to unite in the common task of forestry conservation and renewal."

We covet for Michigan a generation hence, leadership in forest production. It can be done. No other step could more fully insure her industrial supremacy and her agricultural security. We can take a long stride toward the

realization of this by acting immediately upon the President's recommendation. The week of April 27 to May 3 should be red-lettered.

## Handicaps Of Centralization

IN the olden days industry was much decentralized. Most of the things were done in the home. Each roof was its own clothing factory; each its own bakery, and so forth. Then came the age of machinery and people became specialists. What had been done in the homes was taken over by factories. The next step was the consolidation of those various activities.

Steel was made in Pittsburgh; live stock was butchered in Chicago; furniture was made in Grand Rapids, automobiles in Detroit, fruit was grown in the west, and potatoes in Michigan.

This centralization of activities was valuable in that it helped in making methods more efficient. But even centralization has its handicaps. A prominent one is the freight barrier. Freight has kept the western apple grower from becoming rich; it is giving the Michigan potato grower something to think about.

When potatoes are selling for twenty-five cents in northern Michigan and eighty-five cents in Indiana, does it not seem that one would be much more fortunate if he were a grower of good potatoes in Indiana than in northern Michigan?

Diversification is the opposite of centralization. Industry is learning that efficient methods can be maintained under decentralization or diversification, and that there is economy in it. The southern farmers are learning that growing something besides cotton is a wise policy. And, we believe, the Michigan potato grower is beginning to think that it will profit him better if he will grow more for home consumption than so much for uncertain outside markets.

Diversification has made Michigan

one of the most stable agricultural states in the country. Diversification helped it withstand the slump much better than did other states. Likewise it will help the individual farmer in the state who is a one-crop man to stabilize his farming operations and his income as well.

## Spring Brings Hope

THE farm is always an interesting place in the early spring. No matter how serious the drouth in summer, how disappointing the harvests in the fall, or how discouraging the outlook through the bleak days of winter, when spring comes with its warm rains and the warmth from the sun daily increasing, there is renewed hope.

All nature has lain dormant for weeks and weeks. The world, in the country has seemed to be at a standstill. The farmer has been well-nigh in hibernation, he has stuck close to the sheltering roof and the fireside.

Then comes along April, and, in response to her showers and sunshine, all things in sight seem to come to life—the sap begins to rise, the grass springs green, the farmer gets out and sees his shadow and finds the air and sunshine good and delicious to stay out in.

Just a few of these warm days and we see teams of horses tramping too and fro in all the fields about us, and hear the familiar hum of tractors as they pull the tillage tools or plows across the fields. Another season of work and hope is here.

## The White Rats

AT the Agricultural College about fifty white rats are under the management of one of the feminine sex who is giving them her tenderest care instead of jumping on a chair and lifting her skirts at the sight of them.

## BEAN HEARING NEXT WEEK

ON Friday, April 24, at 10:00 A. M., at the Kerns Hotel, Lansing, will occur the hearing on federal grades and inspection of beans. This is one of a series of hearings being held by representatives of the Bureau of Agricultural Economics, of the United States Department of Agriculture, preliminary to the announcement of federal grades for this crop.

Michigan is a leading bean state. The production and handling of this crop are of considerable financial importance to her farmers and elevator people. For a third of a century, the grades and inspection work of the Michigan Bean Jobbers' Association have been a factor in the development of the Michigan bean industry. The grades and grading rules as worked

out by this association are the product of long experience, and naturally cannot be lightly passed over in making the proposed change.

In the April 4 issue of this journal the tentative grades and requirements as proposed by the Federal Bureau of Economics, were published. In respect to the beans grown in Michigan, these tentative grades differ only in a few, but perhaps important, particulars from the grades of the jobbers' association.

Many arguments have been advanced for and against these proposed federal grades. In order that our readers may have a general understanding of the issue, we here set down the most tenable of these arguments as follows:

## FOR.

That proposed federal grades combine the best ideas of those in the bean industry and include the best features of all existing grades.

That uniform grades and uniform application of grades mean economy of operation for all handlers of beans, therefore a narrowing of the margin between producer and consumer which would result in larger returns to the producer.

That federal grades uniformly applied will react to the benefit of every agency concerned in the production and marketing of beans.

That proposed federal grades are practical and simple of application.

It is important that representative bean growers attend this hearing in numbers. Through two so-called Michigan bean growers' associations, neither of which may be said to fully represent the sentiment of a majority of Michigan bean growers, two factions

## AGAINST.

That the proposed grades are impractical of application to the economic handling of the Michigan crop.

That loading point inspection by special inspectors experienced in the grading of beans is essential.

That the Michigan crop has been well standardized to the best advantage of both growers and consumers by the grades and methods of inspection established by the Michigan Bean Jobbers' Association, economy of handling considered.

That proposed federal grades will increase handling and marketing costs to the disadvantage of the producer.

of growers have been aligned on opposite sides of this question. A good attendance of growers at this meeting is essential to clarify this situation and crystallize grower sentiment and influence in this controversy for the benefit of the industry.

She is feeding these rats various kinds of food, and can at will make them sick or well by the use of food. The rat that was getting the right kind of diet was lively, and good to look at. Others had rickets, paralysis, eye trouble and other infirmities.

"Well, what has that got to do with the cost of living," you may ask. In reply I will say that it shows what a great influence food has on happiness and success. You will probably answer, "Oh, rats! What has feeding got to do with us?" And I will answer that what can be done with feeding rats can also be done with humans.

Millions of us are depriving ourselves of a full enjoyment of life by not knowing how to eat. We pay more, perhaps, for unsuitable food than that which we should eat, and pay doctor bills besides. At the same time we hinder ourselves in life's enjoyment by the resulting nutritional disturbances.

It is fortunate, however, that we now have research by investigators in food and nutrition, and this, with all the educational work that is being given the young in proper eating, assures us that the coming generation will be better fed than we are, and therefore will be in fit shape to enjoy more and accomplish more. In the meantime, it behooves us to learn all we can about proper eating so that we can make more valuable and enjoyable our declining years.

## Announcements

WELL, what you call Lent is over, and the preachers is just got through workin' hard tryin' ta save folkses. They done pretty good but I come across some folkses what they ain't saved yet. So, I'm goin' ta work on what's been left over by givin' seven Syckle Sermons on the conduct o' life.

I know I'm undertakin' a tuff job, 'cause what is left must be tuff ta stand what the preachers said without winkin' a eye. But if I save you, I would like ta have you write me at the Michigan Farmer office and tell me so I kin make you a regular member o' my congregashun.

Here's my announcements:

Happinuss:—The only way ta get it is ta give it.

Compensashuns:—Life always pays you fer what you do.



Thinkin':—The only thing what kin hurt me is myself; the only thing what kin help me is right thinkin'.

Religun:—The religun what does most good is what I use in my everyday life.

The Poisons o' Life:—Hate, fear, anger, jealousy, vanity, and etc., never done nobody no good at no time.

Others:—I should never care what others do ta me, but I ought ta be careful what I do ta them.

Love:—It ain't what most people think it is.

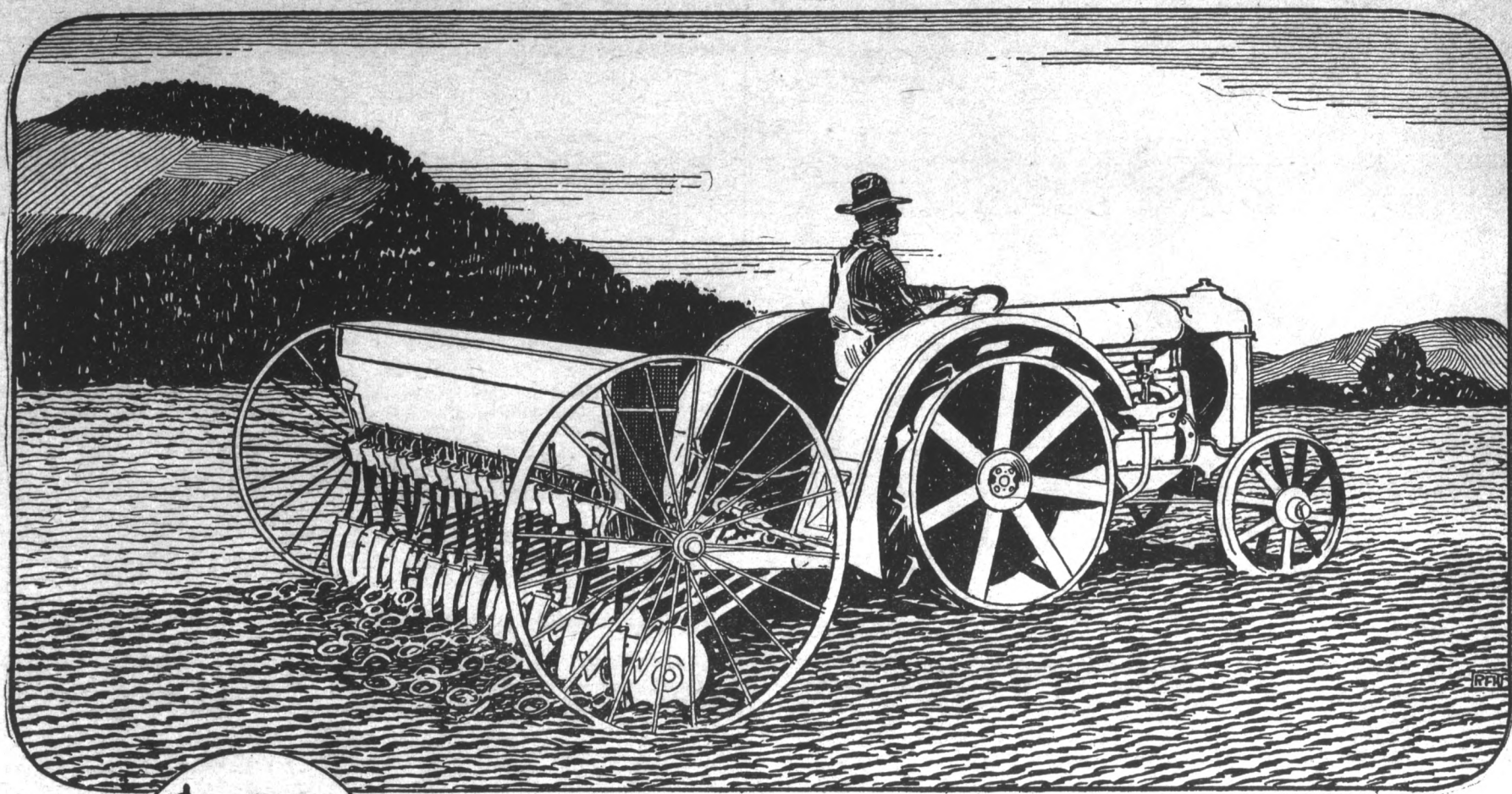
Now, them ain't the sermons; they's just the announcements. I'm goin' ta give one sermon each week and I advise you ta read them just before goin' ta bed, 'cause you'll be abul ta go ta sleep easy after readin' 'em.

I suppose they's lots o' you folkses what will be pretty busy durin' the next seven weeks and won't be abul ta read these sermons. But that won't be my fault. These sermons is just like medicine; they won't do you no good unless you take 'em, and it makes lots o' difference how you take 'em.

Now, the only collectshun I'm goin' ta take is the letters I get from you. And I ain't goin' ta ask you ta go ta sleep settin' up on hard benches, with other folkses lookin' at you. You kin read these in bed, so you kin stay ta sleep and be comfortabul.

HY SYCKLE.





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\$35 Extra



Even depth furrows  
mean a better seed bed



Fordson power makes it easy  
to keep the weeds down

## Ready for Spring Rains

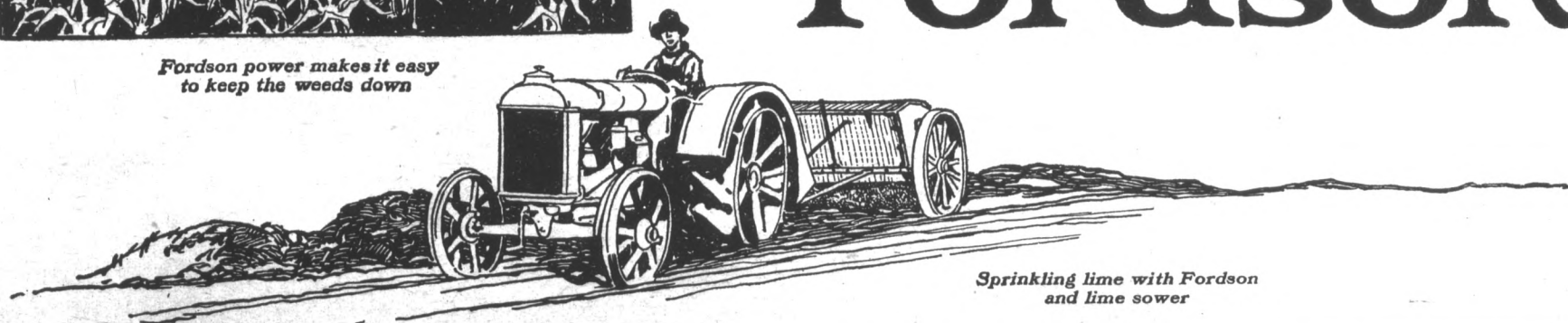
Crops, safely planted and in a good seed bed when the first spring rains come, are worth more money to you at harvest time.

Well cultivated and cared for during the spring growing season, their worth increases rapidly.

Any Ford dealer will show you how the Fordson's ready, dependable power can crowd into a few days the work which formerly has taken weeks.

*Ford Motor Company*  
Detroit, Michigan

# Fordson



Sprinkling lime with Fordson  
and lime sower

See the Nearest Authorized Ford Dealer





## The profit start

WINNING sportsmen always keep in mind the old proverb, "A good start is half the victory." And wise farmers do likewise—

To start well—to show an increase in your income this season—you must be sure that you are using a fertilizer that will bring best results.

Other farmers' experiences will help you in deciding. Read the following, for example—

In Lapeer County, Michigan, Mr. T. G. Graham grew sugar beets on adjoining plots of muck soil. At a flat rate of \$7.00 per ton his yields showed that 500 lbs. of a complete fertilizer containing 18% potash produced \$76.90 more income over and above the cost of the potash than when the same fertilizer minus potash was used. In addition—

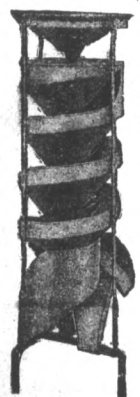
Mr. Graham's experiment with sugar beets on muck soil showed that the use of 18% potash increased the sugar content from 11.2% to 16.2%—a net increase of 5% sugar content.

The Michigan High Analysis fertilizer recommendations for sugar beets on muck soils are 0-8-24 and 0-0-50. Be sure that this 24% or 50% potash is derived from Genuine German Potash.

See that your dealer supplies you with a fertilizer containing plenty of potash. Potash Pays!

**Genuine German POTASH**

POTASH IMPORTING CORPORATION OF AMERICA  
81 Fulton Street, Dept. H-4, New York, N.Y.  
Baltimore San Francisco  
Sales Agents: H. J. Baker & Bro., 81 Fulton St., New York



**Vetch Separator**

Will separate vetch from wheat, rye or oats

**The Sinclair-Scott Co.,**  
Baltimore, Md.

MENTION The Michigan Farmer when writing to advertisers.



The white patch that never fails.

Sticks instantly without fire. Becomes self-vulcanized (fused) by tire heat from driving. BEST FOR BALLOON TUBES, truck and all tubes, because e-lastic. Stretches with tire, can't tear out. 50c—Worth it.

Las-Stik Co., Hamilton, Ohio

**Las-Stik**  
TUBE PATCH

## The Humble Squash

*It's Possibilities on the Farm*

By M. C. Guild

THE story has often been told of the young man from the back woods, who, in the early history of our country, decided that he would like to go to college.

On his journeying hither he is reported to have enquired of the college president as to how long it would take to complete a college course of study.

"Four years," replied the professor. "Why," said the young man, "I thought one could get through in six months."

"It all depends on what you want to make of yourself," said the professor. "When the Lord undertakes to grow an oak tree He takes one hundred years or more, but He can grow a squash in less than six months."

This narrative has been used with telling effect by educators in inducing young people to gain a thorough education, and much to the detriment of the squash.

We fully believe that a complete education is of great value, but we wish in this article to rise in defense of the humble squash.

It is true that the squash does not have the tough enduring fiber of the oak (we couldn't eat if it did), but like the oak tree, the squash continues with us, and it fills a very useful place in our dietary.

Winter squash such as the Hubbard and the Delicious, when baked until they turn in color to a rich gold and brown, with patches of syrup forming on them here and there, and eaten with cream, is a food that is truly delicious, and makes a dish fit for a king. Some prefer them steamed, and they are fine cooked that way. Squash pies are not to be despised, and are fully as good as pumpkin pies.

Noting in the Michigan Farmer several inquiries about raising and selling Hubbard squash, will give a few suggestions that may be helpful to new beginners.

In our family when I was a boy we made a specialty of raising Hubbard squash, and the writer is still raising them successfully.

When the country was new and we cleared land each year, we found that squash was easier to raise on a new field full of stumps than potatoes, and they usually paid us better.

Although the past summer was unusually cold here in Northern Michigan, as it was elsewhere, I succeeded in raising a fine crop of Hubbard squash, and they sold readily, even to farmers, as they were very scarce in this region last fall. Had a good number weighing from fifteen to twenty pounds, that were suitable for saving seed from. Merchants and restaurant keepers were glad to buy the seed squash in halves, and I kept the seed.

In raising squash I try to select a rich loamy field, preferably one that slopes to the south.

They should be planted just as soon as all danger of frost is past, in hills eight feet apart each way. Dig a hole large enough to hold two or three shovels of fine rich barnyard or chicken manure. The fertilizer should have a little of the soil worked into it, then cover it lightly and firmly with more of the soil. Sow plenty of seed within a radius of about fifteen inches, covering to a depth of about one-half inch. The seed should be soaked in warm water before planting, but be careful not to leave them long enough to sour. Twelve to fifteen seed are none too many in a hill. Just as soon as they come up they should be thoroughly cultivated both ways, and when about all the young plants show well above the ground they should be hoed and thinned. Leave but three or four plants to a hill, selecting the most hardy and vigorous ones.

Within a short time cultivate and hoe again, and keep them growing fast.

In harvesting them it is essential that they be carefully handled, as a slight bruise or scratch is apt to cause them to decay. The stem should not be broken.

The sale for choice winter squash is usually good in most any of our Michigan towns or cities, and the price is generally satisfactory.

When the market is over-supplied, or the price is low, they make fine feed for cattle, and materially increase the production of cream.

In some parts of Michigan they are grown in ten, and as high as twenty acre fields, purposely for feeding to cattle and hogs, and are considered one of the most profitable crops grown on the farm.

Squash should be stored in a cool dry place. They will not stand freezing, and moisture soon causes them to decay.

I have raised them in the southern part of the state, but those that are grown in the northern part of the Lower Peninsula are much richer and finer grained than when grown further south.

### GRAPE JUICE INTERESTS WIN CASE.

THE grape juice interests of the Lake Erie district won their case against the practice of labeling synthetic juices in such a manner as to lead the purchaser to believe that he is getting pure fruit juice. According to the terms of an order issued by the Federal Trade Commission, the manufacturers of a certain synthetic drink, when using the word "Nugrape" in connection with the sale of its product must accompany such word with an additional designation clearly indicating that the product does not contain genuine grape juice.

The respondents in the case are also ordered to cease using in connection with the sale of their product any pictorial representation of grapes or grape vineyards, or any words, pictures or symbols stating or suggesting the Nugrape is made from grapes or grape juice.

It is believed that this action on the part of the Federal Trade Commission will have the effect of putting a stop to the labeling of other synthetic drinks so as to give the impression that they are composed of pure fruit juice.

### FANCY APPLES.

PACKING apples in unusual packages is attended with some risk to the shipper. Recently a carload of Delicious apples, packed in egg crates, was shipped from Columbia county, New York, to the New York market. The apples were A-grade, strictly fancy and high color, and the sizes were 2½, 2¾ and three-inch. The 2½-inch stroke was packed nicely in the crates and presented a fine appearance when the packages were opened. The 2¾ and three-inch stock was partitioned in layers, and the individual apples were protected on all sides, similar in manner to which eggs are shipped. The shipment was taken by the jobbing trade at comparatively high prices, 2½-inch stock bringing \$4, 2¾-inch \$5.25, and the three-inch stock \$5.00.

In reporting this sale to the department of agriculture, the market specialist in New York said that while these apples sold quickly at the prices indicated, it is not believed that such a type of package would be desirable for regular run of shipments, because it is a slow educational process to induce jobbers to take packages to which they are not accustomed.



## Feeding Detroit Milk

*It's a Big Job and a Mixed Up Problem*

By J. T. Horner

ONE of the most baffling questions of our modern economic society is that of price. Many people come to wrong conclusions about markets, prices, or the integrity of those dealing in products because they do not understand the fundamental factors which cause value.

I do not propose to write a thesis on value or price; but rather explain just how the price of milk in the Detroit market is determined. It will be impossible for me to go into all the details of the market or justify the prevailing practices.

Those who have given much study



Every Last Child Should Have Its Bottle of Milk.

to the problem of marketing milk do not hold to all the theories put forth by many who come to their conclusions without facts on conditions of the city end of the milk market.

Prices in a market cannot be set at any level which seems desirable. There are certain factors which must be considered when a price policy is determined. In a later article I shall discuss what the price determining factors are in the milk market.

Most of the milk which comes into the Detroit market goes from the farm to the local milk receiving station. These stations are, in almost every instance, owned and operated by a city distributor. Here the milk is weighed, sampled for testing, cooled, and then loaded either into tank trucks or placed into cans for transportation to the city. The costs of operating these country stations are paid by the distributor. This is not the case in all parts of the country. For instance, in the Philadelphia market the farmer is charged half a cent a quart for this service.

The transportation service to the Detroit market is provided for and paid for by the city distributor; but this cost is charged back to the farmer. The cost depends upon the distance.

The price to the farmer is quoted f. o. b. Detroit; that is, if the price is \$3.00 per cwt., for fluid milk, the transportation cost is deducted when the distributor remits. There is, also, a deduction of two cents per cwt. for the Milk Producers' Association dues. There is no deduction for country receiving station charges, as there is in the Philadelphia market; if the milk does not test 3.5, a deduction of five cents a point (at March market prices) for each point below. An addition of five cents is made for each point above 3.5. This point will be dealt with later.

In ordinary seasons the lowest production of milk is in the months of July, August, September and October. These are, also, usually the months of highest consumption. Often distributors have been unable to get sufficient milk from their regular patrons within the area to meet the market demands. When such conditions prevailed it was necessary for the distributors to go outside of the area for a part of their supply. At times of extreme shortage it is very difficult to get milk. To overcome this difficulty distributors attempt to take on sufficient producers to assure them an ample supply dur-

ing the shortage period. This necessarily brings in more milk than is needed during the flush period.

Farmers cannot expect to get the best results from a market unless they produce in accordance with demand. A production in excess of demand at one time of the year has a tendency to force prices down. An insufficient production at another period tends to widen the market area and bring in more producers.

To equalize production and make it conform more nearly to market demands throughout the year is a difficult task. What has been called the "Base Plan" was adopted in order to assist in this. Briefly, this plan is for the purpose of encouraging production during the shortage period. Under it each farmer establishes a base during the months of July, August, September and October. The average daily production for these months is base for the balance of the year.

The farmer who produces during this period is a better producer than the one who does not. This is a difficult period for milk production and the man who keeps his production high at this time should be rewarded. Under the plan he is rewarded by being permitted to sell more of his milk at fluid prices during the flush period than is the man who has a low production when the supply is short.

This plan is merely for the purpose of rewarding the man who produces during the shortage period; and of encouraging production at that time. It is to make an adjustment between the producers. Contrary to the belief of some, under this plan, a man does not get fluid milk prices for a quantity equal to his base during the balance of the year.

Because of difficulty in the production of milk for city consumption the price of fluid milk must be higher than that for milk used for manufactured products. More care must be practiced in producing and handling market milk. This higher price results in a premium for fluid milk.

The distributor can pay more for the milk he sells as fluid milk than for that he manufactures. No distributor



"We'll Soon Be Ready to Help."

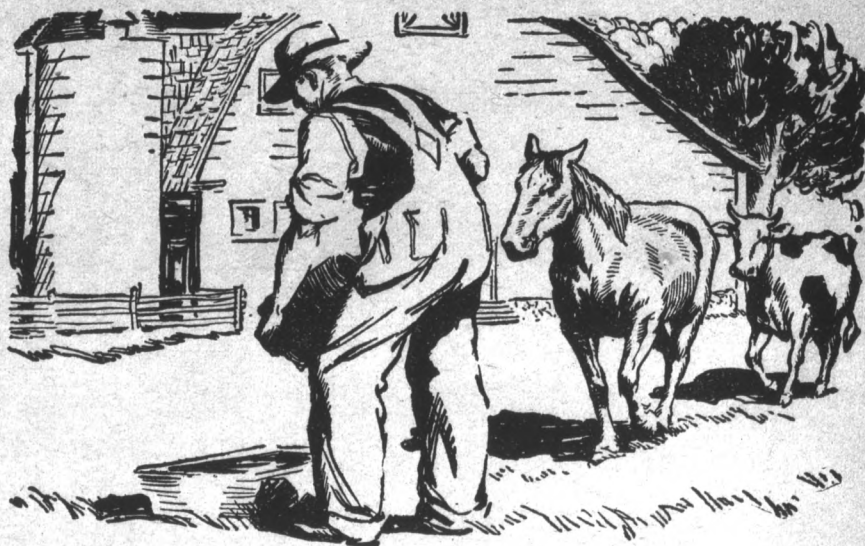
should be permitted to buy the milk which he sells as fluid milk at manufactured prices. On the other hand, he should not be compelled to pay fluid prices for milk which he must put into butter, cottage cheese, or condensed. If he were forced to do this he would have to bear the risks of the market and would consequently cover this risk by forcing the price down and allowing himself a wider margin.

The variations in production and consumption cause risks to arise. The farmer, as all other producers, must finally bear this risk. In the Detroit market it was thought best for the farmer to bear this risk at first hand and not have it passed back to him by the distributor. Therefore, the present plan of selling milk was adopted.

This plan is briefly as follows:

The distributor pays the fluid milk price for all milk sold as whole milk and manufactured prices for the bal-

(Continued on page 552).



## The danger of "hit-or-miss" methods in salting stock

Do your livestock get as much salt as they need? Investigations prove that the stock on thousands of farms do not eat enough salt to keep in top-notch condition.

Experts have found the reason for this in the fact that many farmers use "hit-or-miss" methods in salting their stock. They feed their animals "any old" salt; they do not realize that if salt is strong and bitter the stock simply will not eat enough of it. Ordinary salt, it has been found, contains certain impurities that make it bitter and disagreeable. One taste reveals them instantly.

### An easy way to make sure

There is an easy way to make sure your animals get their full salt requirements—by giving them free access to salt that is mild and pleasant. Such a salt is Diamond Crystal Common Salt.

Diamond Crystal is made from a brine that is pumped from salt beds 2,000 feet deep in the earth. It is exceptionally clean and pure. Because it is so free from the impurities that make some salt strong and bitter, Diamond Crystal Common Salt is ideal for conditioning livestock. And

yet it costs no more than ordinary kinds.

### Use the salt guide

There is a Diamond Crystal Salt for every farm need. Diamond

Crystal Salt for table or cooking use, for curing meat, etc., is further refined by a special patented process which no other manufacturer can use. It is the only salt which government tests show to be always over 99% pure. The same process makes it into quick-dissolving flakes instead of hard, gritty cubes like ordinary salt. Thus, Diamond Crystal brings

out finer flavors in food; cures meat evenly and thoroughly, preventing spoilage.

The salt guide shows you how to get the greatest value for your money when you buy salt. Take it with you when you order your next supply. If you do not know where to get Diamond Crystal, just write us.

The Diamond Crystal Salt Company, since 1887 makers of Diamond Crystal, "The Salt that's all Salt", St. Clair, Mich.

FREE—Many women have been much interested in our booklet "101 Uses for Salt". We will be glad to mail it free upon request.

### The Diamond Crystal Salt Guide

For Table, Kitchen and Household Use	Diamond Crystal Shaker Salt (free flowing, in handy pouring cartons) or Diamond Crystal Table Salt (in boxes or sanitary muslin bags).
For Curing Meats	Diamond Crystal Coarse Salt (in 35-lb. and 70-lb. bags).
For Butter-Making	Diamond Crystal Flake or Fine Flake Salt (in 280-lb. paper-lined barrels and in bags).
For Cheese-Making	Diamond Crystal Cheese Salt (in 280-lb. paper-lined barrels).
For Canning Vegetables and Fruits	Diamond Crystal Flake Salt, Diamond Crystal Fine Flake (Table Salt) or Diamond Crystal Fine Salt (in 280-lb. barrels or bags).
For Livestock, Salting Hay, Killing Weeds, etc.	Diamond Crystal No. 1 Common Salt (in 280-lb. barrels, in bags and in 50-lb. blocks).

## Diamond Crystal Salt



There is a Diamond Crystal Salt for each farm need. No. 1 Common, for stock feeding, comes in 280-lb. barrels, in bags and in 50-lb. blocks



## Automobile Insurance Company Makes Good Record Now Has Assets Over \$565,225.96

Increased by years as follows;

The Years	Claims Paid	Policies in Force	Assets
1915	11 \$ 564.18	1,738	\$4,083
1916	176 25,260.42	15,337	7,740
1917	474 58,938.91	27,431	40,446
1918	721 95,120.35	32,908	69,424
1919	1,387 182,492.27	39,742	71,201
1920	2,232 280,901.29	45,067	85,961
1921	2,646 323,273.36	40,268	137,392
1922	3,326 295,147.21	38,263	226,499
1923	5,493 402,422.11	46,050	375,945

1924

9,001 Claims Paid, \$539,106.38

Total Claims Paid to date, 25,463

Total Amount of Claims Paid, \$2,203,226.48

Assets

# \$565,225.96

The Company settled 9,001 claims in 1924, only 37 cases were disposed of in the Court, as follows;

16 adjusted before trial      7 verdict for policy holder  
7 verdict against policy holder      7 dismissed

If you are not carrying automobile insurance, it would pay you to see the local agent, or write

## Citizens Mutual Automobile Insurance Company of Howell, Michigan

**Wet Weather Togs**  
**FISH BRAND SLICKERS**  
**EVERYBODY'S WEARING 'EM**  
From  
**Snappy Varsitys**  
to the old **Reliable**  
**Reflex Slickers**  
TOWER'S  
**FISH BRAND**  
"The Rainy Day Pal"  
A.J. TOWER CO. BOSTON

## SEED CORN

Will yours grow and mature? If not, I have a good supply that was carefully gathered and dried last fall. This spring it tested 90% string germination. I may be able to supply you if you don't put it off too long.

**Ralph Arbogast,**  
Union City, Michigan.

**FOR EVERY KIND OF SPRAYING**  
Fruit trees, shrubbery, vegetables, gardens, vines, flowers — for whitewashing, cold-water painting, spraying, disinfecting, for washing automobiles, windows, etc., the

**SMITH BANNER**  
COMPRESSED AIR SPRAYER

will do the job easily, effectively and economically. The finest of compressed air sprayers. Tank holds about four gallons. Few strokes of heavy brass pump compresses air to discharge contents. Automatic, non-clog brass nozzle, adjustable from coarse spray to finest mist.

Sold by hardware, seed and implement stores. If your dealer cannot supply you, write us for price and catalog.

**D. B. SMITH & CO., Inc.**  
40 Main St., Utica, N.Y.

## OUR SERVICE DEPARTMENT

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

### SNOWBALLS HAVE LICE.

My snowballs are infested with lice. What can I do to control them?—Mrs. O. C. N.

The lice on the snowballs can best be controlled by a spray of forty per cent nicotine-sulphate, put on just as the leaves are pushing out and before they begin to curl. Black leaf forty, or forty per cent nicotine-sulphate is usually satisfactory for this purpose. Use one ounce in six gallons of strong soapsuds and apply very thoroughly.

### RIDDING A HOUSE OF MICE.

Kindly tell me how to get rid of mice. We have tried traps and don't seem to be able to catch them. It is also a new house. They seem to be in the draws where the clothes are kept.—E. R. C.

The best way is to catch them. The next best way is to poison them. Poisoning is the quickest way, but the dead mice are left in the partitions and under the floors, etc., and the resultant odor is quite offensive.

The mice can be caught, every one of them in the house at the time, if you are a good trapper. The little snapper trap that can be bought for a song is about the best. Bait it with an appetizing bait, cheese or bacon rind or ham rind is good. Set the trap in any out of the way place, behind the bureau, back of the couch or near the garbage pail. Every time you catch one use fresh bait for the next. Be a little persistent and you will get every one. Of course, they will come again after a time, they always will as long as you live, and you have to keep catching them, but they can be kept down so they do little or no damage.

If you want to poison them get some arsenic, mix with molasses or grease and spread on tough bread or cheese, cut into small pieces and scatter around where they are liable to go. But this poison is dangerous. If you have children or cats or poodle dogs don't use it. Use the trap. There is some sport to that.

### ANSWERING CENSUS QUESTIONS.

What is penalty if questions asked by the United States census taker, are not answered correctly, or doesn't it matter?—Reader.

The statute providing for the taking of census authorizes the census taker to ask the various questions required by the census bureau, and if answer is contumaciously refused, the census taker may report it to the United States District Court and have the offender arrested and prosecuted.—Rood.

### PART OF PROPERTY.

When a person sells a farm, can he take the telephone from the wall, or a wire clothesline that is on posts, or anything that is fastened? If so, how about window shades?—G. H.

Articles like those mentioned are generally regarded as realty when affixed by the owner of the soil. The general rule is that such things as would be more valuable to the owner as permanent fixtures than as chattels will be presumed to have been attached with the intention of making the annexation permanent.—Rood.

### HUBAM CLOVER.

Which is the best way to sow Hubam clover for seed—broadcast or drill? Some say drill eighteen inches apart and cultivate. When should it be sown and how much to the acre?—W. V. H.

In handling Hubam clover for seed, the best results have been secured by planting in rows twenty-eight or thirty

inches apart, using two pounds of seed per acre and giving clean cultivation. The crop should be planted during April or early May, though plantings made in late May will have good opportunity for ripening seed in the average season. The seed should be planted on a well prepared, firmly rolled seed-bed.

On soils needing lime, two tons of finely ground limestone or several cubic yards of marl should be applied per acre. An application of two or three hundred pounds of acid phosphate will increase seed production and hasten maturity. Yields of from four to ten bushels of seed were secured by the majority of growers last year.—J. F. Cox.

### KEEPING FENCE IN REPAIR.

My neighbor owns a woodlot next to my farm. He lets a man pasture mules on it, but he will not fix the fence. I have notified him, but he did not pay any attention. The fence is barbed wire and is down in several places and my cattle are getting hurt.—S. K.

If the lands are enclosed, and a fence built which is out of repair, and the party who should repair does not do so on request, the statute provides that the fence viewers of the town may be summoned to look over the fence, and if found in need of repairs, they may order such repairs made, and if they are not made in a reasonable time by the party ordered to do so, the opposite party may build it, and have the cost assessed by the supervisor of the town as a tax to be collected by the town treasurer with the other taxes on the land.—Rood.

### SOY-BEANS FOR GREEN MANURE.

I have a field of good sandy loam, from which I cut wheat last year but lost all of the clover. I am thinking of plowing and, after thorough cultivation, of sowing soy-beans about the first of June, then plowing them down whenever they are at their rankest growth, and then of sowing the field to wheat next fall. Can secure soy-beans grown here for \$3.00 per bushel. Any suggestions you may offer will be appreciated.—E. P. W.

Your plan of increasing the organic matter in your land by turning under a soy-bean crop where clover has failed, is excellent.

Would suggest broadcasting one bushel per acre of Manchu or Ito San soy-beans, planting on a thoroughly disced seed-bed after the middle of May or during early June. The crop should be turned under from the first to the middle of August in order to give a period of a month or so for the organic matter turned under to become thoroughly incorporated with the soil. The soy-beans may be pastured to a considerable extent before turning under if desired. Plowing should be to medium depth and should be followed by a roller or cultipacker, well weighted, so as to compact firmly.

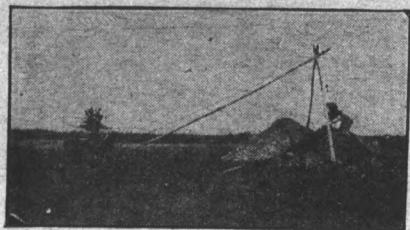
Soy-bean seed, grown in your neighborhood, should be very well adapted to your conditions. The Farm Bureau Seed Department, of Lansing, Mich., handles the varieties named.—J. F. Cox.

WKAR has succeeded in putting the Michigan farmers and the "oldest agricultural college in the world" on the map in other ways as well, for since the official opening of the station in January of this year, more than 4,000 different communications have been received by the operators representing forty-six states of the Union, practically every province in Canada, Cuba, Porto Rico, and Central America. During April the power of the station is to be almost tripled and a proportionate increase in range is expected.—Cook.



## HAS EASILY ACCESSIBLE MARL BED.

WE are indebted to Marion Haynes of Mason, for these pictures of the marl bed located on her father's farm. She states that her father thinks there is nothing like marl for



building up worn-out sour soil. One of these pictures shows the engine and hoist used to lift the marl from the hole and pile it for weathering. The other shows a hole from which marl



has been taken. This, we are told by this wide-awake country girl, makes a good swimming hole during the summer time, when filled with water.

## TO PREVENT WEAR ON ROPES.

FARMERS who unload hay through a door in the gable should make a wooden roller, three and a half or four feet long, and two and a half or three inches in diameter. A canvas roller from an old binder will do. Erect the roller on the door sill so that it will be flush with the weatherboarding and in the center of the doorway. Make two triangular blocks as supports for the roller and bore small holes in the tops of the blocks so you can oil the axles of the roller. Be sure the roller is higher than the blocks. This will protect the trip rope from wearing out by drawing it over the timber and it will be much easier to pull the fork back.—Warner E. Farver.

## PLAN FOR 1925 POTATO SHOW.

THE present officers of the Top O' Michigan Potato Show Association received such a hearty endorsement at the annual meeting of that association at Gaylord last week, that they were unanimously re-elected for another year and directed to "carry on." Plans for increasing the scope of the show were developed and approved. The dates for the 1925 show were set for November 4-6. The report of the treasurer showed a nice surplus, thus insuring funds with which to start the work off for another year.

It was decided to include an apple show with the "Spud" show for 1925. Mr. T. F. Marston, one of the officers, said, "There is no reason why we can not do the same thing for apples that we are doing for potatoes. We need to grade our apples better, spray and take care of them better, and standardize on a few adapted varieties. The Show is the best medium through which to attain these ends and make people acknowledge the superiority of northern Michigan's product. The show has produced the "King Spud" for the potato growers. Why not let it develop the "King Pomme" for the apple producers. Over 200 carloads of apples are shipped out of Cheboygan but very few people realize it.

Only standard varieties will be listed in the premium-list for apples and they will be shown in commercial containers.

Another phase of work which is going to be emphasized this year is the Boys' and Girls' Club work. Special premiums will be offered for the young farmers and farmerettes who join the clubs and show potatoes at the show.

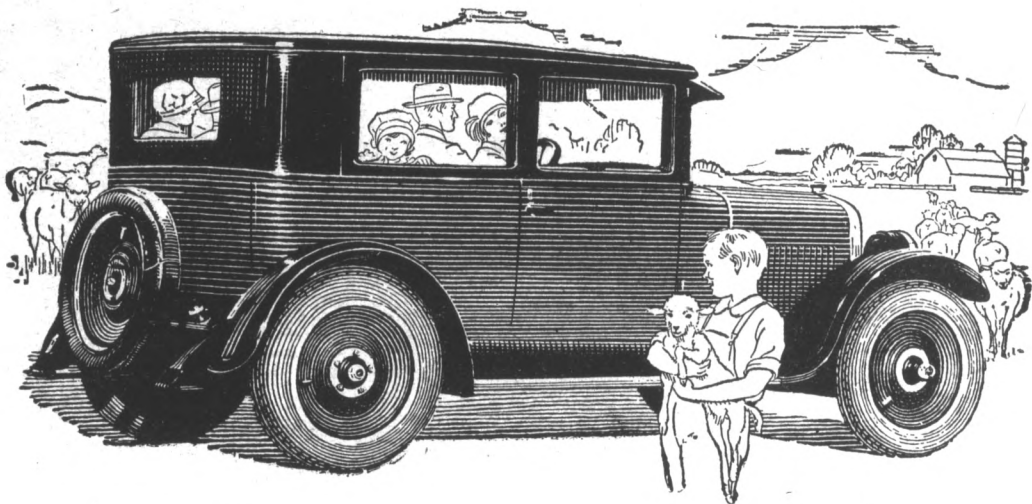
## A Car You Must Drive Yourself to Appreciate

You must see and drive the new Oakland Coach yourself to appreciate it. Considering both car and price you will agree that here is unmatched value—just the value you have been looking for. = = Five-passenger Fisher Body, big wide doors, one-piece V.V. windshield, Duco finish, powerful, economical, six-cylinder engine, four-wheel brakes, balloon tires—in fact everything you want. = = See your Oakland dealer today. Let him also show you how the General Motors Time Payment Plan will save you money.

OAKLAND MOTOR CAR COMPANY, PONTIAC, MICHIGAN

# Coach—\$1215

at factory



WINNING AND HOLDING GOOD WILL  
**OAKLAND SIX**  
PRODUCT OF GENERAL MOTORS

### PULVERIZED LIMESTONE

Finely Pulverized High Calcium Limestone, either in bulk or bags. Highest grade sold in Michigan.  
Campbell Stone Co., Indian River, Mich.

**Agricultural Lime** High Calcium. Either lump or hydrated. Also spraying lime in wooden or steel barrels or paper sacks. Price mailed on request. NORTHERN LIME & STONE CO., Petoskey, Mich.

Mention The Michigan Farmer When Writing Advertisers

## Time Tested Windmill

The Auto-Oiled Aermotor has behind it a record of 10 years of successful operation. In all climates and under the severest conditions it has proven itself to be a real self-oiling windmill and a most reliable pumping machine. An Auto-Oiled Aermotor, when once properly erected, needs no further attention except the annual oiling. There are no bolts or nuts to work loose and no delicate parts to get out of order.



There are no untried features in the Auto-Oiled Aermotor. The gears run in oil in the oil-tight, storm-proof gear case just as they did 10 years ago. Some refinements have been made, as experience has shown the possibility of improvement, but the original simplicity of design has been retained while greater perfection of operation has been achieved. The Aermotor is wonderfully efficient in the light winds, which are the prevailing ones. The self-oiled motor works with practically no friction, and the wind-wheel of the Aermotor is made to run in the lightest breeze. It is also amply strong to run safely in the strongest winds. In any condition of wind or weather you may be sure that the Auto-Oiled Aermotor will give you the best of service. It is made by the company which established the steel windmill business 38 years ago.

**AERMOTOR CO.**

Chicago  
Kansas City

Dallas  
Minneapolis

Des Moines  
Oakland

## MYERS DOOR HANGERS

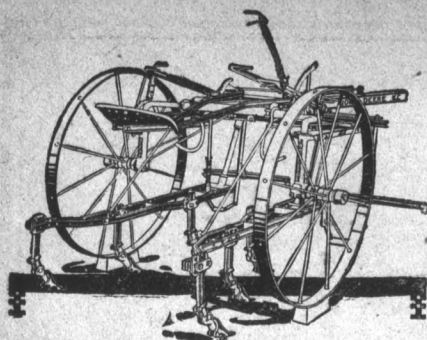
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# State Capitol News

Our Lansing Correspondent

**P**ROSPECTS seem very favorable for a considerable amount of disagreement and perhaps a rather far reaching deadlock between the house and senate before final adjournment is reached. Thus far the two branches have apparently been unable to agree as to the terms of most of the more important appropriation bills. Then, too, the house has passed a bill to allow \$350,000 for construction and maintenance of a fifth state normal school. The senate does not appear to be taking kindly to this idea and as the normal school bill was the particular favorite of a large group of house members, no little hard feeling on this score is predicted. The senate, on the other hand, is considering a bill to make the lieutenant-governor a member of the state administrative board at a salary of \$4,000. Now the house wastes no love on the lieutenant-governor and undoubtedly would make great sport of any such proposal.

Reapportionment is another issue upon which there is a most disagreeable division of opinion. As the house had passed a motion to postpone indefinitely further consideration of the whole matter of reapportioning the representative districts, they thought the thing was settled for good as far as the present session was concerned. Then Senator Elijah B. Howarth, Jr., of Royal Oak, revived the ghosts of this haunting issue and introduced in the senate a new proposal to give Wayne twenty-one house members, instead of the fourteen which they now have. If this friction continues it is hard to prophesy when the law-makers can complete their labors or what the

net results of the session will be.

\* \* \*

**I**N the midst of this tumult and confusion, farm legislation is making steady, if not totally satisfactory, progress. Probably the most important event in the past week from the farmer's point of view was the final passage through the house of senator Leland's bill to make the federal potato grades compulsory in Michigan, except in case of direct sales from the producers to consumers or grocers. With the exception of these direct sales, no potatoes could be sold except on the basis of the official grades, unless the potatoes were marked "culls."

In considering this bill in committee of the whole, an innocent appearing amendment was slipped in, changing the word "culls" to "ungraded." In the opinion of leading potato growers and their marketing organizations, this amendment would practically have defeated the purpose of the bill in that undoubtedly a large proportion of the Michigan potato crop would have gone to market under the ungraded class, and hence the reputation of Michigan potatoes would not have been improved either on the home or the out-state market.

When the bill came up for the third reading and final passage, Representative Orvy Hulett, of Armada, sponsored an amendment to take out the term "ungraded" and restore the word "culls." This proposal aroused an interesting debate, but finally Representative Hulett's amendment prevailed by a vote of sixty-eight to seventeen and the bill passed seventy-eight to thirteen. In its final form it appears to have real teeth and its passage is hailed with tremendous satisfaction by the commercial potato growers, the Michigan Potato Growers' Exchange, the Michigan State Farm Bureau and other influential interested organizations.

\* \* \*

**T**WO other bills regarding the standardization of Michigan farm products have also been passed by the house during the last few days. These are Senator Leland's new apple grading bill, which reduces the number of grades from seven to four, and Representative Eugene Kirby's bill, which makes several amendments to the present grape standards law.

\* \* \*

**T**HE house has finally passed Representative Joseph Warner's bill to allow \$12,000 of state money for a campaign to control and suppress the European corn borer which is already infesting the corn fields of ten southeastern counties of Michigan and because of its rapid spread is a most serious menace to the corn crop of the entire state. As originally introduced this bill would have provided a state appropriation of \$25,000 which the federal government would have supplemented to an extent of \$35,000 or \$50,000. The cut in state funds will, of course, mean a corresponding decrease in federal aid. It is rumored that southeastern Michigan farmers and influential state-wide farmers' organizations will make a strong fight to have this appropriation restored to its original amount when it comes up for consideration in the senate.

\* \* \*

**R**EPRESENTATIVE BRAKE'S bill to make an appropriation of \$5,000 to the State Department of Agriculture to be used for research and field work in the eradication of diseases has been reported favorably by the senate committee on agriculture. As bee raising and honey production is a very important project in many parts of the state, it is evident that this bill is a very wise investment if foul-brood and other bee diseases can be controlled and eradicated for this amount.

**T**HE senate has finally approved Representative Wm. J. Thomas' bill which exempts cooperative organizations dealing in farm products from the provisions of the state anti-trust law, by inserting the following significant amendment to the Michigan anti-trust statute: "Provided, However, that nothing contained in the provisions of this act shall be construed to forbid producers of farm or dairy products from cooperating or organizing corporations or associations not primarily for profit, for the purpose of insuring and providing a reasonably certain and stable market for, and distribution of, such products upon terms fair and reasonable to the public and to themselves, and bargaining with distributors of such products singly or collectively in relation thereto, nor shall such cooperative undertaking, corporations, associations or members thereof be held or construed to be illegal combinations or conspiracies in restraint of trade."

\* \* \*

**O**NE would naturally suppose that in a selfish world there would be few people found who would refuse an opportunity to increase their own pay. However, for several sessions proposals have appeared to increase the pay of the legislators from the admittedly insufficient present amount of \$800 for the two-year term to some figure which would more nearly compensate the members for the expenses of a primary and regular election campaign and pay them for their time and living expenses during the four months which they are compelled to remain in Lansing during the regular biennial session, and the strange part of it is that each time any such bill appears it is defeated.

This year Representative Milton Palmer of Detroit, sponsored a resolution for submission to the voters of a constitutional amendment which, if passed, would have increased the pay of our law-makers from \$800 to \$1,800 for the two-year term. After full debate this resolution received fifty-seven affirmative and thirty-four negative votes. However, as this proposal was in the form of a constitutional amendment it required two-thirds of the house members, or sixty-seven yeas. Hence it once more went down to defeat. However, it has been reconsidered and placed on the table and it may be revived later in the session.

## BUY FARM LAND NOW.

**D**EAN R. S. SHAW, of the Agricultural College, firmly believes that farm land is lower in price now than it ever will be again and he is urging all those who need farm land to purchase now. He says that war and its after effects put farming entirely out of balance and as the result of the depression, farm lands have unduly depreciated in price.

## GRANGE TOUR IN AUGUST.

**T**HE Michigan State Grange is planning a summer tour of about eight hundred miles. The tentative plans call for starting at the Agricultural College and making drives of about one hundred miles each day. Mr. W. H. Lovejoy will manage the camps and itinerary, Mrs. Dora Stockman the evening programs, and Mr. A. B. Cook the commissary.

## WOMAN WINS.

**M**RS. ELSIE M. PULASKA, Waverly, Illinois, was awarded the thousand dollar prize for producing a champion ear of corn. The ear was declared 100 per cent perfect by the judges at the national seed corn show in Chicago. Mrs. Pulaska's ear was selected in competition with 30,000 entries from forty-six states.

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Double-Tanned—Double Wear

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## We Like Things Sweet

*So We Use Lime on Our Fields*

By O. B. Price

**T**HE kind of liming material to use will depend largely on the soil type, the acidity of the soil, and the price per unit the farmer is required to pay.

There are three forms of liming materials in use; calcium carbonate, calcium hydrate, and calcium oxide. To the first group belong limestone, marl, shells, refuse from acetone works, and various by-products of minor importance. Calcium hydrate, or hydrated lime, is commonly sold as agricultural lime, but the name is no more applicable to it than to other forms of lime user for agricultural purposes. Calcium oxide is ordinary quicklime that is used by plasterers. It is not used to any great extent in Michigan, but nevertheless it does command some attention by those farmers who have ready access to lime kilns.

Limestone is most universally used because it is cheapest per unit of neu-

tion, but by carefully planning the farm operations the screenings can be applied six months to a year previous to seedings and just as good results obtained.

The mechanical or screen analysis is an important consideration. All the material should pass the ten-mesh screen, and about half should pass the one hundred mesh to be high-grade material. This gives plenty of fine material for immediate use and the coarser material will gradually decompose and help in later years. The screen analysis on much of this material is just as important as the chemical analysis. If the material is coarser more material should be used per acre to get plenty of fine and readily available material.

The use of marl is now commanding considerable attention in sections of the state where there are large deposits of high-grade marl. This is very



**It Also Keeps us Sweeter to Get the** Boulders Out of the Way of the Plows. tralizing material. When ordinary limestone or lime rock is burned, forty-four per cent of the weight is lost in the form of gas. The carbon dioxide gas is liberated in the process of heating, leaving only fifty-six per cent of the original weight as calcium oxide, or quicklime. When this quicklime is allowed to take on water, through the air or by application, it will take on eighteen parts, increasing the weight to seventy-four per cent of the original weight. This form is the hydrated lime. Then in equivalent strength one hundred pounds of limestone is equal to seventy-four pounds of hydrated lime, or fifty-six pounds of quicklime. If compared on the ton basis, one ton of limestone is equal to about three-fourths of a ton of hydrated lime, or one-half ton of quicklime.

Quicklime is not used very much for agricultural purposes so the price the farmer has to pay will be local. Hydrated lime is used to a considerable extent, and probably too extensively for greatest profits. Assuming the limestone can be purchased for \$5.00 a ton, and that the lime requirement is two tons of ground limestone per acre, the cost of the liming material will be \$10 per acre. If hydrated lime is used the requirement will be one and one-half tons to give equivalent neutralizing effects. Assuming that this costs \$12 per ton, which is a low quotation, it will cost \$18 to lime the same area. The mistake is often made of using from 300 to 700 pounds of the hydrated lime in place of two tons of limestone. This amount will cost less, but may also result in poor stands, or failure, of alfalfa and clover.

There are two products being used in the form of limestone; the pulverized stone and the limestone screenings. The pulverized material is very fine, while the limestone screenings are the by-products of stone quarries finer than one-fourth or three-sixteenths-inch mesh. The use of limestone screenings is increasing in Michigan because it is cheaper. The fine material is a little more rapid in ac-

satisfactory for agricultural purposes, and where excavation can be done at a reasonable cost, it can some times be applied to the soil at a lower cost than limestone. Because of the high per cent of water that it contains, it cannot be transported very far without raising the cost per cubic yard to a prohibitive price. On the air-dry basis one cubic yard of high-grade marl is equal to about one and one-fourth tons of limestone, but on account of the high moisture content it is usually applied by the cubic yard. Three to five cubic yards is an average application. The development of marl excavating machinery by the Michigan Agricultural College has done a great deal in promoting the use of marl throughout the state.

Lime is used primarily to permit the successful growing of alfalfa and the clovers. By determining the lime requirement and applying the lime where needed, one great step in the preparation has been completed. A good seed-bed, good seed and fertile soil are also very essential. Help insure your chances for a good seeding by the proper use of lime.

### CUTTING GOVERNMENT COSTS.

**T**HE President's economy program is reaching into every department of the government. Consolidation of offices, reduction of clerical forces and the elimination of unnecessary wastes are the means being employed to reduce expenses. This is effecting the department of agriculture to some extent. Secretary Jardine has reported to Director Dord, of the budget, that expenditures of the department for this fiscal year would be \$1,322,460 less than the \$50,000,000 designated in the department's estimate last fall. This is a saving of more than two per cent, the amount requested by the budget. It is explained that this saving was made possible only by the close cooperation of the department officials.

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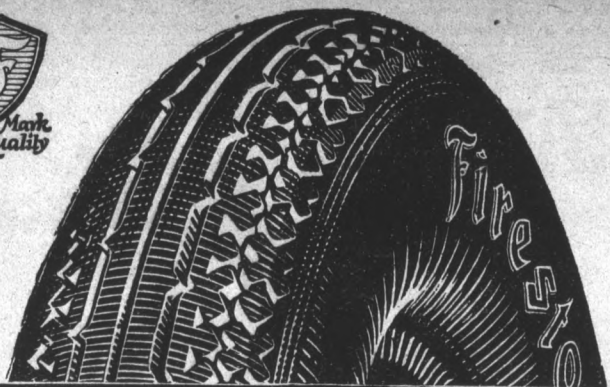
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## NEWS FROM CLOVERLAND

### PORTAGE TOWNSHIP LEADS IN HOUGHTON.

DURING the past five years the number of farms in Houghton county—the Copper Country of Michigan—has increased 246. The total number of farms there is 1,987, while it was 1,741 in 1919. Portage township leads with 343 farms. This township contains the developing Otter Lake district with the John A. Dolle Agricultural School at its center. The farm acreage has made a commensurate increase and amounts to about 165,000 acres.

### CALF CLUB WORK GROWS RAPIDLY.

THE Upper Peninsula Development Bureau has prepared figures showing the advance made in calf club work in the peninsula since its inception. In 1920 there were twelve club members—boys in this case, in one club. The next year the calf club members numbered eighty-five here. At the end of 1923 there were 300 boys enrolled in calf clubs, which was increased to 426 the year following. The present year will undoubtedly register another distinct advance.

### FROM BREWERY TO COLD STORAGE.

OF interest to our farmers is the announcement from Escanaba that the Richter Brewery Company's building at Escanaba is to be converted into a cold storage plant, ready for service about May 15. The plant will provide about 92,000 cubic feet of cold storage space. Poultry, hogs, fruit and vegetables, and beef will be taken from local farmers and held for sale until favorable market conditions arrive.

### ENCOURAGES FLAX PRODUCTION.

THAT flax-raising would be a profitable cash crop for the farmers of Chippewa county is the belief of D. L. McMillan, county agricultural agent, who recently held a meeting for farmers interested in this phase of agriculture. It is well known that flax does well in the same latitude as this west of Lake Superior, and the only problem would seem to be that of markets.

### CLOVERLAND POULTRY SPECIAL.

FOLLOWING the successful dairy special that toured the Upper Peninsula last spring, the D., S. S. & A., and Soo Line Railroads will put on a poultry demonstration train this spring, starting April 27 and running for three weeks, making fifty stops.

The object of this special is to demonstrate ways and means of making money with poultry under our farm conditions. Too few people make money with their flocks, even with

high prices. A vast amount of eggs is shipped into the Upper Peninsula each season and it is pointed out that these eggs could well be produced here.

Last year, eighty poultry demonstration farms were established on the best farms in each county, and a large per cent of these are not making any money, if the records gathered are to be believed. Old hens, poor houses, no ventilation, improper feeding and no care in regard to breeding; these seem to be the reasons for the average poultry men failing to make money with their flock.

The train will be made up with these things in mind, and lectures and demonstrations will be given to correct them, or show how they can be corrected.

The train will consist of four cars, two baggage cars, one flat car and a combination diner and sleeper. In the first baggage car will be exhibits of breeds of poultry that are especially well adapted to Upper Michigan conditions, both from meat and egg standpoints. Individual birds will be shown to bring out special points, showing the effect of breeding, culling and proper housing and feeding. The flatcar is next in line and will be used for demonstrations and lectures.

The next baggage car will contain miniature poultry houses, poultry house equipment, such as feeders, water buckets, nests, roosts, ventilating systems, brooders, etc., also labor-saving devices, both commercial and home-made.

Poultry specialists and others well versed in poultry husbandry will accompany the train for the purpose of giving lectures and demonstrations.

Mr. George E. Bishop, of the Upper Peninsula Development Bureau, will accompany the train and have charge of the meetings. Mr. J. A. Jeffery, agricultural agent for D., S. S. & A. has general charge of the equipment and schedules.

Following is a tentative schedule. It is expected that this will be final:

Monday, April 27—North Ironwood, Bessemer and Thomaston.

Tuesday, April 28—Topaz, Ewen, Paynesville.

Wednesday, April 29—Trout Creek, Kenton, Sidnaw.

Thursday, April 30—Watton, Covington, Herman.

Friday, May 1—L'Anse, Baraga, Keeweenaw Bay.

Saturday, May 2—Alston, Pelkie, Arnheim.

Monday, May 4—Houghton, Chasell, Michigamme.

Tuesday, May 5—Republic, Humboldt, Ishpeming.

Wednesday, May 6—Chocolay, Skandia, Dukes.

Thursday, May 7—Rumley, Chatham, Munising.

Friday, May 8—Shingleton, Seney, McMillan, Newberry.

Saturday, May 9—Strong's, Brimley, Sault Ste. Marie.

Monday, May 11—Dafter, Rudyard, Trout Lake.

Tuesday, May 12—Hermansville, Tesch.

Wednesday, May 13—Rapid River, Cooks.

Thursday, May 14—Whitedale, Gould City, Engadine.

LET every American, every lover of liberty, every well-wisher to his posterity, swear by the blood of the Revolution never to violate in the least particular the laws of the country, and never to tolerate their violation by others. As the patriots of '76 did to the support of the Declaration of Independence, so to the support of the Constitution and laws let every American pledge his life, his property and his sacred honor. Let every man remember that to violate the law is to trample on the blood of his father, and to tear the charter of his own and his children's liberty. Let reverence for the laws be breathed by every American mother to the lisping babe that prattles on her lap; let it be taught in schools, seminaries, and in colleges; let it be written in primers, spelling books, and almanacs; let it be preached from the pulpit, proclaimed in the legislative halls, and enforced in courts of justice. In short, let it become the political religion of the Nation."—Abraham Lincoln.



## Insecurity Retards Farming

*Forestry and Fruit Growing in Palestine Lack Government Assistance Cooperation*

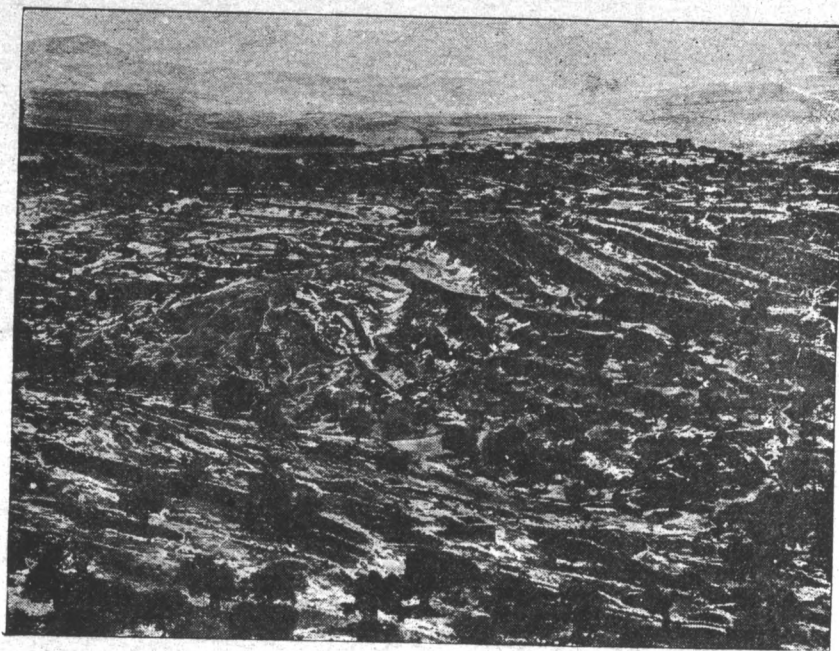
By M. M. McCool

PALESTINE is in a critical and indeed pitiful condition with respect to forest for lumbering and for fuel. After many years of destructive policies by the Turks, orders were sent out recently to the effect that the cutting down of all trees is prohibited. As is often the case, this order came too late to prevent the great destruction of the forests.

The soil on the hills for the most part is gone and little, if any, vegetation exists. Although when viewed from a distance the hills and mountains of Palestine are fairly attractive, yet a close-up view results in an entirely different reaction on the part of

unmounted guards which have been instrumental in bringing about important changes in the laws regulating the cutting of trees and also in conducting investigations as to the best trees to use under different soil and climatic conditions, as well as the best methods of propagation.

In 1920-21 about 480,000 eucalyptus were planted, 93,700 casuarina, 23,300 cupressas, 38,000 pine, and smaller numbers of several others. The total planting amounting to 680,620 trees. In addition there have been established recently several nurseries for the production and distribution of seedlings. So far as possible, an educa-



Many of the Olive Trees and Grape Vines in Palestine Are Planted on Terraces Made by Removing the Rotten Stone Lying Near the Surface and Making Embankments or Retaining Walls Out of Them.

the observer. The vegetation is very sparse. There are no trees as a rule, although there occur occasionally small shrubs. Coupled with this, one notes that the country is over-grazed by sheep and goats.

Although the variety and gross production of horticultural products are very large, the conditions in general are similar to those that characterize other industries in Palestine. Varieties of vegetables, especially, are very poor, the cultural methods are primitive and the insects are troublesome. In some sections, however, the production of oranges and grapes is carried on along rather modern lines.

The forest resources of the country were greatly reduced during the war by the Turks for military purposes. The finest trees were destroyed. The agricultural director tells of one village, called, "Mother of Charcoal," which once flourished as a producer of this material for fuel, now has to scour the country to buy it, owing to the demands made upon it for wood by the Turks. At another place eighty per cent of the eucalyptus trees were taken for railway sleepers.

There remain some natural forests, however. The Jordan valley forest consists of a belt of timber of subtropical varieties, which varies from thirty to three hundred yards in width on either bank for a distance of many miles. Its larger tributaries also carry similar belts of timber. These are of limited value because of isolation and transportation difficulties.

There are a few artificial forestry plains and woodlots of Palestine. These consist of eucalyptus, pine and casuarina. The eucalyptus, which at present is the most important of the lot was introduced about fifty years ago.

There is a forestry section of the department of agriculture and fisheries with five mounted rangers and ten

tional campaign is being conducted along forestry lines.

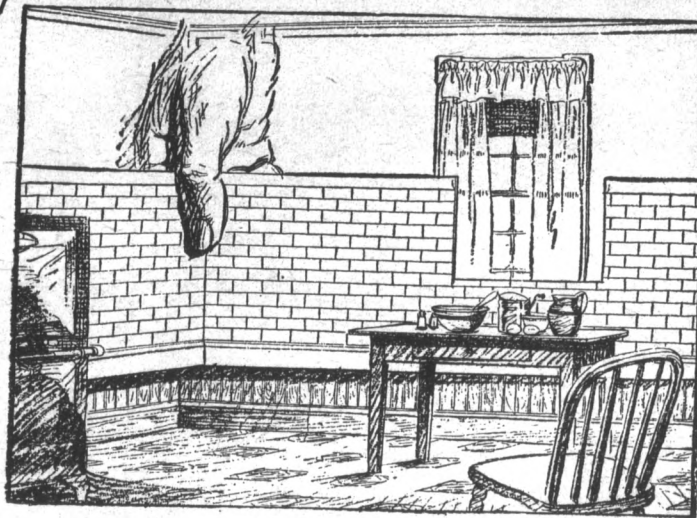
Horticulturally and economically, the most important tree in Palestine is the olive. It is ever green, with leaves similar to those of the willow in shape, size and color. In fact, the olive trees are like willows that have been pruned back repeatedly for the production of new wood growth. The olive tree, under favorable conditions, lives to be of great age. There is a sacred olive tree which stands in the Garden of Gethsemane (or the Garden of the Olive Press). According to traditions in and about Jerusalem, it has been there more than two thousand years. The diameter of this tree at the base is about twelve feet and its height is about twenty-five feet.

It is estimated that there are about 750,000 olive trees in Palestine, the most of which are grown in the hilly country on very shallow soil. Before their destruction during the war, olive trees occupied many of the terraces. As a result of their removal, the traveler observes that these terraces along the railway are in ruins. It is considered that about sixty per cent of the olive trees were felled for fuel.

The olive tree may be propagated in three ways, namely, by cuttings from tips, cuttings from wood and from grafted seedlings. The latter is the best method, although it is used to the smallest extent in Palestine. Much of the fruit, good yields of which are obtained only on alternate years, is used in the manufacture of soap. In 1920 the total production of olive oil was estimated at 14,753,200 pounds. As there are 75,000 trees this means a production of about twenty pounds of oil per tree. It should be noted, however, that not all of the fruit goes for the production of oil.

The blossoms appear in April and the fruit is ripe and collected in October and November. The olives are

## for WALLS



## Tile Walls Like Magic

Beaver Tile Board works wonders in old kitchens and bathrooms. It gives you glistening white tile walls at one-tenth the cost of the old way because this miracle tile comes in big panels—ready to nail right over the dingy old cracked walls. Get a few panels of it from your local dealer, nail it up, enamel it, and behold the lustrous new beauty of your kitchen and bathroom. Or mail the coupon for a free sample and a full explanation of its use and application. Why put up with a dingy kitchen or bathroom any longer?

### Beaver Tile Board

Beaver Tile Board comes in panels 4 feet wide and 6 to 10 feet long—each contains hundreds of uniform tiles—the indentations are deep and clean-cut. When nailed over old walls or direct to the studding it will not crack, fall or crumble. Wears like porcelain. Ask your dealer about it and mail coupon for free samples.

### Other BEAVER Products

#### for WALLS

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# BEAVER

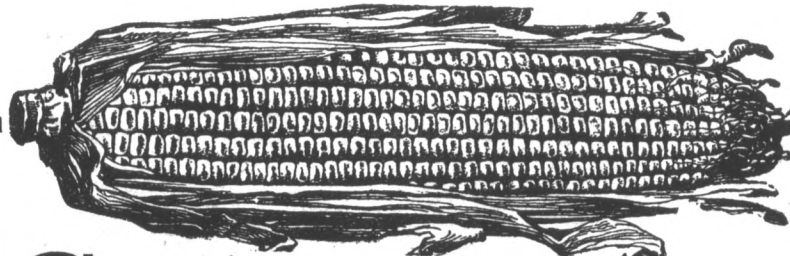
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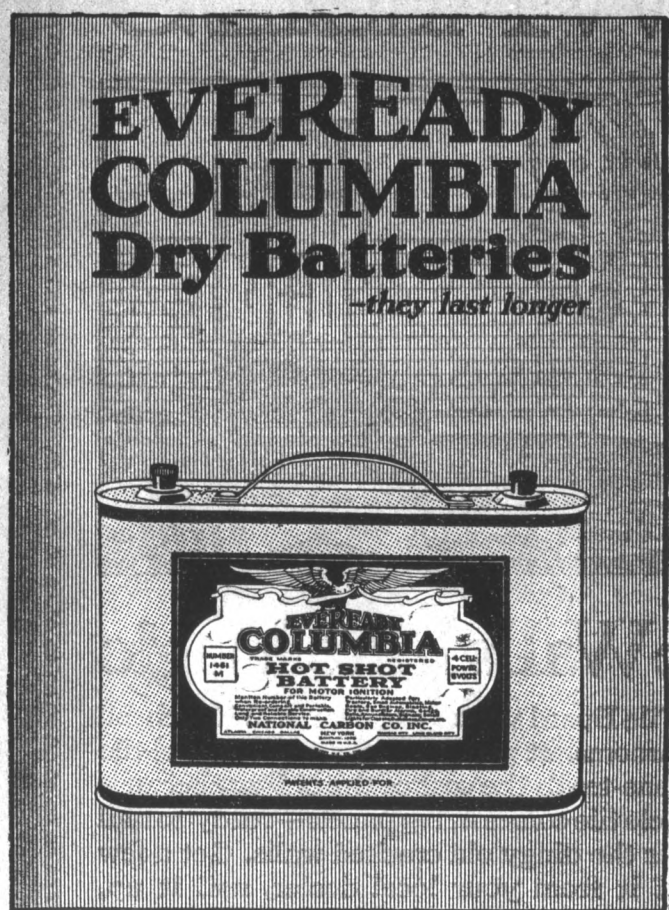
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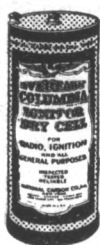
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HARDEST workers you ever hired—Eveready Columbia Dry Batteries. They will work day after day—and willingly. Hard work on the farm is what Eveready Columbia Hot Shots are built for. Each night they pick up new strength to carry on next day's duties. Made in three voltages, 6, 7½ and 9 volts. Punch, pep, POWER! Durable, water-proof steel case protects them from hard knocks and bad weather. Used everywhere because they are reliable and safe—they last longer.

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The easy-reading poise and the arrow-tip beam make the use of a Fairbanks simple and certain. Economical, too. You can buy the 500-pound capacity portable platform scale for only \$16.15, f.o.b. factory. The vital parts are rust-proof—last a lifetime. Other models for wagon, auto-truck and practically every weighing need. Ask your dealer or mail coupon.

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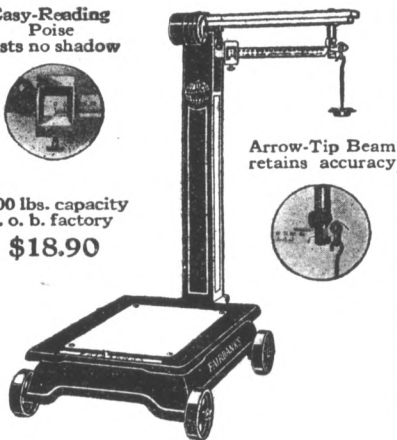
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usually beaten off the branches of the trees with sticks and clubs. The children climb the trees and knock them off by means of sticks, and the men stand on the ground and beat the branches with clubs. The women collect the fruit in bags and baskets. It is said that this method of removing the olives from the branches results in attacks by diseases. The olives are then taken to the press, which consists of a small vertical wheel of stone, worked by horses or mules around a groove cut in a large slab of stone. The olives are poured into this groove. The residue is put into baskets for crushing in an iron oak wood twin screw press. The pulp is used for fuel in bakeries and other places.

The orange and lemon industry in Palestine is quite an important one. Although there are orange groves in several places the most important region is that around Jaffa. In 1921 the total produce of these was 718,780 boxes, about 645,500 of which were from Jaffa. When one goes by rail from Cairo to Jerusalem, he has an opportunity to see groves of these fruits. They are usually fenced by means of earth embankments upon which are planted cacti. These plants reach a diameter of a foot or more and a height of fifteen to twenty-five feet. These groves, for the most part, are

laid out on irrigation projects. The quality of the Jaffa orange is excellent. Those we had while in Jerusalem were the sweetest and best we had ever eaten. Indeed, they were the one redeeming feature of the meals served up to the tourists.

The total production of grapes is quite large. In 1921 it amounted to about 14,800,000 pounds. The leading grape centers are Jaffa, Jerusalem and Gaza. The majority of the fruit is made into wine although the raisin production receives some consideration. The grape leaves are used for food, serving as cabbage in this country. They were fed to us in soups and in other dishes. Other fruits produced are dates, figs, bananas and almonds.

Lack of equipment, which characterizes other phases of agriculture in Palestine, is typical of the manufacture of the raw products into finished articles. Such things as modern improvements or factories for packing, fruit drying, or canning, as well as flour mills, oil mills, bacon factories and tobacco curing sheds, etc., are unknown, or if so, limited to single units. There are signs of progress along several lines, however. Many of the statistics given in these articles were taken from a review of the agricultural situation in Palestine by E. R. Sawyer, director of agriculture.



MAY DAY.

HAS ABSCESS IN EAR.

SECRETARY HOOVER and President Coolidge are of one mind as to looking after the interests of the children of America. Hoover is president of the American Child Health Association. He wants May Day to be observed as a big day for the health of all the children of this nation. Coolidge is willing, and wrote: "I am confident that the people of America will be glad to make May Day the occasion of re-dedicating themselves to the happy task of safeguarding our most precious asset—our 35,000,000 children."

But designating a special day and printing resolutions will not serve any good purpose unless we get down to actual work in the school and home. The Michigan Farmer would like to lay down five May Day points for your special observance:

1. Weigh and measure your children to see if they are up to normal weight for height. Overweight is as bad as under.
2. Check up on their diet. Are they getting the amount of fresh milk and green vegetables that they need to make sound teeth, bone and muscle?
3. Notice their posture. Do they sit and stand erect? Are you training them to "stand tall and reach up?"
4. You may think that the child's vision and hearing are normal, but check up on it, anyway. It is a simple matter.
5. Make sure that your child is getting regularly from ten to twelve hours sleep every night (according to age), and that this sleep is taken in the full, fresh air.

We may as well face the fact that the normal child is not concerned about health. Why should he be? The only child who thinks about health is the poor little invalid who has lost it. We must think and plan for the children and we are prone to leave this thinking and planning to the two whom we consider the natural guardians of children—mother and teacher. The rest of us may at least turn in and help for this one special day, however. Why not a May Day program for every school, church and lodge, dealing especially with the vital points of the health of the children.

I am a married woman of twenty-five, five feet five inches tall, but weigh only 105 pounds. I have a running sore in my right ear which has troubled me since childhood. It breaks occasionally and always gives me pain just before it breaks. Is it due to tonsils or adenoids? What can be done for it?—Mrs. E. E.

This trouble no doubt began as a result of middle ear catarrh with inflammation of the middle ear and abscess formation. Since it has existed so long it will not yield to ordinary treatment and you will have to apply to a specialist in diseases of the ear. It is a very important thing that you get this attended to without delay for it is sure to keep you from gaining. Worse than that, it may cause a mastoid abscess to develop, from which infection might spread to the brain and cause you to lose your life.

## INWARD GOITER.

Is there any other cure than operation for "inward goiter?" Does it always affect one's heart, and is it dangerous?—M. I. H.

Probably you have reference to the form of goiter known as "exophthalmic." This usually has a marked effect upon the rhythm of the heart and also gives the eyes a peculiar, bulging appearance. This form of goiter is much more serious than the "simple" variety, and is dangerous if allowed to progress. One of the best forms of treatment is the "rest cure" administered in much the same way as given to the tuberculous. It is always worth while to try this first. If, however, improvement does not follow, surgical operation is the next resource and gives marvelous relief in most cases.

## HAS PAIN IN SIDE.

I am a woman twenty-four years old. For several months I have had a soreness and pain in the left side just below the ribs, and sometimes extending to the groin. It's a sharp, sickening pain. What would you advise me to do for it?—Mrs. J. S.

There are so many different things that might cause such a pain, that your only safe plan is an investigation by a local doctor who can give a careful examination.





**That Tag  
tells only  
a Part  
of the  
Story**

### Some Good Tips on Spring Feeding

The spring pastures will soon lure you into thinking that you have a new source of cheap feed. It will pay you to remember your past experiences and feed a good combination of feeds with your grass. You should buy a feed—not a tag. When you judge a feed solely by its analysis and price you may deceive yourself, but you can not fool the animal.

**For Increased Profits  
feed**

### Corn Gluten Feed

**on pasture  
to your**

**Dairy Cows  
Beef Cattle  
Hogs  
Sheep  
Calves**

**Mail Coupon for  
this booklet**

**it tells how**



### What the Tag Really Tells

State and Federal laws require all feed manufacturers to publish the minimum amount of crude protein, carbohydrates, fat, and maximum fiber contained in their products. They do this—on the bag and on the tag.

Some feeds may contain higher percentages than shown on the tag. All tags should give a list of the materials in the feed. But even these facts are only a limited guide in buying.

This is all the tag tells you and this information is good only up to a certain point. It doesn't tell you a thing about the quality of the ingredients, their safety, or how palatable or digestible.

You can't judge the value of any goods by the outside of the package. Let's forget analysis and price for a few minutes and think about what you GET for what you PAY. That is what determines values.

What kind of animals are you feeding? Do you know what kind of nutrients they are getting? Are they digestible, or locked up in fibre like nuggets of gold in the ground? What are you getting for the price you pay?

### Feeding Methods Are Changing

Successful feeders now pay more attention to methods than to price tag and analysis. They are more interested in the health of their animals and in a program that insures better results from the right feed in the right amounts.

Successful feeders have quit buying feed to produce fertilizer and have learned how to feed a ration that is more easily turned into milk—beef—pork—mutton—eggs. They feed less—they make more.

This is due to a better understanding of feed values. A few years ago we thought that any kind of protein was just "protein", as salt is salt. Now we know better. There are several kinds of protein. Some are good—others are not.

We now know that when the cow stuffs herself with green grass she makes milk from her reserve strength. Grass is nearly 80% water and water alone won't make milk.

Be sure you feed the rations that actually make what you want—and at a profit to you. Use the right materials and mix your own rations, or buy a mixed feed from a manufacturer who sells quality.

### Something That Can't Be Done

No manufacturer could stay in business very long by continually buying raw material in which there is a lot of waste. In manufacturing, practically all raw material is converted into something of value.

Your cows, steers, hogs and hens are machines. They can not produce up to a capacity set by the Great Designer unless you give them the right kind of raw materials.

Feed is the raw material which your animal machines convert into finished products. A cow may produce forty pounds of milk from twenty pounds of poor material, but she will do a better job with fifteen pounds of good feed.

You should buy the kind of raw material that the cow likes to handle. In other words the feed must be palatable. She must be able to turn it into milk with the least effort. It must be digestible.

As a food manufacturer—operating animal machines—you must have raw material containing the protein elements which are most easily convertible into finished products. Then you will increase your output and reduce your cost.

### Your Safest Guide In Buying

No matter whether you are feeding dairy cows, steers, hogs, sheep or poultry your rations should contain the right amount of Corn Gluten Feed.

This pure corn concentrate is rich in the most needed proteins. In the processes of manufacture they become more digestible than the same elements in whole corn. This is why they make milk and meat instead of manure.

No other plant in the world has won as many victories in the feed lot as the corn plant has. Every great dairy test has been made with pure concentrated protein feeds—made from corn—as a large part of the ration.

Better still, corn is a safe feed. It is never used as medicine. It never caused a cow to slip her calf or become blind. Pure corn concentrates can always be depended upon to return their cost with a profit.

Your home-mixed ration should contain Corn Gluten Feed. Get it from your feed dealer or any manufacturer. If you buy a mixed ration be sure Corn Gluten Feed is in it.

### Associated Corn Products Manufacturers

Feed Research Dept.

Hugh G. Van Pelt, Managing Director

729-208 So. La Salle St.

Chicago, Ill.

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M. G.  
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THESE years of relentless labor had been no showy success with Selina posing grandly as the New Woman in Business. No, it had been a painful, grubbing, heart-breaking process as is any project that depends on the actual soil for its realization. She drove herself pitilessly. She literally tore a living out of the earth with her two bare hands. Yet there was nothing pitiable about this small energetic woman of thirty-five or forty with her fine soft dark eyes, her clean-cut jaw-line, her shabby decent clothes that were so likely to be spattered with the mud of the road or fields, her exquisite nose with the funny little wrinkle across the bridge when she laughed. Rather, there was something splendid about her; something rich, prophetic. It was the splendor and richness that achievement imparts.

It is doubtful that she ever could have succeeded without the money borrowed from August Hempel; without his shrewd counsel. She told him this, sometimes. He denied it. "Easier, yes. But you would have found a way, Selina. Some way. Julie, no. But you, yes. You are like that. Me, too. Say, plenty fellers that was butchers with me twenty years ago over on North Clark Street are butchers yet, cutting off a steak or a chop. 'Good morning, Mrs. Kruger. What'll it be today?'"

The Hempel Packing Company was a vast monster now stretching great arms into Europe, into South America. In some of the yellow journals that had cropped up in the last few years you even saw old Aug himself portrayed in cartoons as an octopus with cold slimy eyes and a hundred writhing reaching tentacles. These bothered Aug a little, though he pretended to laugh at them. "What do they want to go to work and make me out like that for? I sell good meat for all I can get for it. That's business, ain't it?"

Dirk had his tasks on the farm. Selina saw to that. But they were not heavy. He left for school at eight in the morning, driving, for the distance was too great for walking. Often it was dark on his return in the late afternoon. Between these hours Selina had accomplished the work of two men. She had two field-helpers on the place now during the busy season and a woman in the house, the wife of Adam Bras, one of the laborers. Jan Snip, too, still worked about the place in the barn, the sheds, tending the coldframes and hothouses, doing odd jobs of carpentering. He distrusted Selina's new-fangled methods, glowered at any modern piece of machinery, predicted dire things when Selina bought the twenty acres that comprised the old Bouts place adjoining the DeJong farm.

"You bit off more as you can chew," he told her. "You choke yet. You see."

By the time Dirk returned from from school the rough work of the day was over. His food was always hot, appetizing, plentiful. The house was neat, comfortable. Selina had installed a bathroom—one of the two bathrooms

in High Prairie. The neighborhood was still rocking with the shock of this when it was informed by Jan that Selina and Dirk ate with candles lighted on the supper table. High Prairie slapped its thigh and howled with mirth.

"Cabbages is beautiful," said old Klaas Pool when he heard this. "Cabbages is beautiful I betcha."

Selina, during the years of the boy's adolescence, had never urged him to a decision about his future. That, she decided, would come. As the farm prospered and the pressure of necessity lifted she tried, in various ingen-

impressions unconsciously from the traps she so gullefully left about him. Books on the lives of great men—lives of Lincoln, of Washington, Gladstone, Disraeli, Voltaire. History. Books on painting, charmingly illustrated. Books on architecture; law; medicine, even. She subscribed to two of the best engineering magazines. There was a shed which he was free to use as a workshop, fitted up with all sorts of tools. He did not use it much, after the first few weeks. He was pleasantly and mildly interested in all these things; held by none of them. Selina had thought of Roelf when they were

less floating Things; the red-eyed hag of 1793; the dimpling coquette of 1650. Beneath the illustration a line or two—Roelf Pool . . . American . . . future

"It's Roelf!" Selina had cried. "Roelf. Little Roelf Pool." Tears in her eyes. Dirk had been politely interested. But then he had never known him, really. He had heard his mother speak of him, but—

Selina showed the picture to the Pools, driving over there one evening to surprise them with it. Mrs. Klaas Pool had been horrified at the picture of a nude woman's figure; had cried "Og heden!" in disgust, and had seemed to think that Selina had brought it over in a spirit of spite. Was she going to show it to the rest of High Prairie!

Selina understood High Prairie folk better now, though not altogether, even after almost twenty years of living amongst them. A cold people, yet kindly. Suspicious, yet generous. Distrustful of all change, yet progressing by sheer force of thrift and unceasing labor. Unimaginative for generations, only to produce—a Roelf Pool.

She tried now to explain the meaning of the figure Roelf had moulded so masterfully. "You see, it's supposed to represent the Seine. The River Seine that flows through Paris into the countryside beyond. The whole history of Paris—of France, is bound up in the Seine; intertwined with it. Terrible things, and magnificent things. It flows just beneath the Louvre. You can see it from the Bastille. On its largest island stands Notre Dame. The Seine has seen such things, Mrs. Pool!"

"What dom talk!" interrupted the late widow. "A river can't see. Anybody knows that."

At seventeen Dirk and Selina talked of the year to come. He was going to a university. But to what university? And what did he want to study? We-e-ll, hard to say. Kind of a general course, wasn't there? Some languages—little French or something—and political economy, and some literature and maybe history.

"Oh," Selina had said. "Yes. General. Of course, if a person wanted to be an architect, why, I suppose Cornell would be the place. Or Harvard for law. Or Boston Tech for engineering, or—"

Oh, yeh, if a fellow wanted any of those things. Good idea, though, to take a kind of general course until you found out exactly what you wanted to do. Languages and literature and that kind of thing.

Selina was rather delighted than otherwise. That, she knew, was the way they did it in England. You sent your son to a university not to cram some technical course into him, or to railroad him through a book-knowledge of some profession. You sent him so that he might develop in an atmosphere of books, of learning; spending relaxed hours in the companionship of men who taught for the love of teaching; whose informal talks before a study fire were more richly valuable than whole courses of class-

## SO BIG--By Edna Ferber

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### GARDENS-SPRING AND FALL

By Clara M. Wardron

'Long in April, every Spring,  
Sure's the frogs begin to sing,  
Down the crick;  
I git garden fever so  
I just got to spade and hoe,  
Right off quick.

Like to work the dirt up fine,  
Like to make rows by a line  
Fer the peas.  
Somehow then my back don't break  
And they ain't no pesky ache  
In my knees.

But I get one when the weeds  
Come up faster than my seeds,  
Mighty soon.

When the cutworms and the slugs,  
Aphids, blight and 'tater bugs,  
Come in June.

When that wry-necked Leghorn hen  
Watches for her chance—and then!  
Oh, I say!  
Never did have any luck  
Tryin' to raise garden truck  
Any way.

Next year it can grow to grass,  
And I'll buy my garden sass.  
So by jing!  
Every year I say the same;  
But I play the same old game;  
Every Spring.

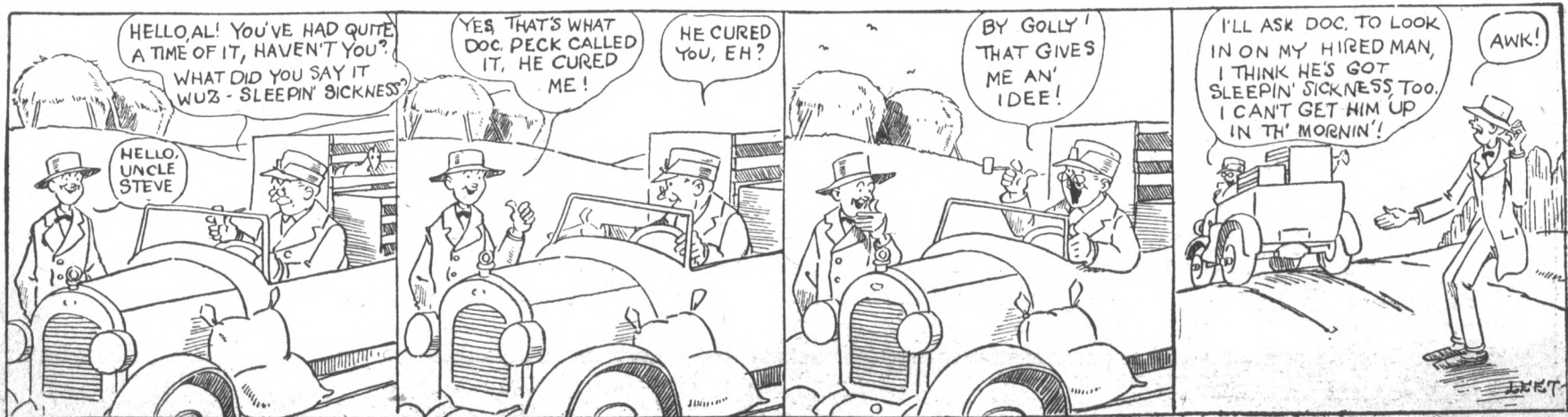
ious ways, to extract from him some unconscious sign of definite preference for this calling, that profession. As in her leanest days she had bought an occasional book at the cost of much-needed shoes for herself so now she bought many of them with money that another woman would have used for luxury or adornments. Years of personal privation had not killed her love of fine soft silken things, mellow coloring, exquisite workmanship. But they had made it impossible for her to covet these things for herself. She loved to see them, to feel them. Could not wear them. Years later, when she could well afford a French hat in one of the Michigan Avenue millinery shops, she would look at the silk and satin trifles blooming in the windows like gay brilliant flowers in a conservatory—and would buy an untrimmed "shape" for \$2.95 in Field's basement. The habit of a life-time is strong. Just once she made herself buy one of these costly silk-and-feather extravagances, going about the purchase deliberately and coldly as a man gets drunk once for the experience. The hat had cost twenty-two dollars. She never had worn it.

Until Dirk was sixteen she had been content to let him develop as naturally as possible, and to absorb

fitting up the workshop. The Pools had heard from Roelf just once since his flight from the farm. A letter had come from France. In it was a sum of money for Geertje and Jozina—a small sum to take the trouble to send all the way from an outlandish country, the well-to-do Pool household thought. Geertje was married now to Vander Sijde's son Gerrit and living on a farm out Low Prairie way. Jozina had a crazy idea that she wanted to go into the city as a nurse. Roelf's small gift of money made little difference in their day. They never knew the struggle that the impecunious young Paris art student had had to save it sou by sou. Selina had never heard from him. But one day years later she had come running to Dirk with an illustrated magazine in her hand.

"Look!" she had cried, and pointed to a picture. He had rarely seen her so excited, so stirred. The illustration showed a photographic reproduction of a piece of sculpture—a woman's figure. It was called The Seine. A figure sinuous, snake-like, graceful, revolting, beautiful, terrible. The face illuring, insatiable, generous, treacherous, all at once. It was the Seine that fed the fertile valley land; the Seine that claimed a thousand bloated life-

### Activities of Al Acres—Al Has a Fellow Feeling for Him





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Make **Monamotor** your motor hobby. It will pay you to use only **Monamotor**. **Monarch Manufacturing Co.**  
Council Bluffs, Iowa Toledo, Ohio

**Monamotor**  
Oils & Greases

room lectures. She had read of these things in English novels. Oxford. Cambridge. Dons. Ivy. Punting. Prints. Mullioned windows. Books. Discussion. Literary clubse.

This was England. An older civilization, of course. But there must be something of that in American universities. And if that was what Dirk wanted she was glad. Glad! A reaching after true beauty.

You heard such wonderful things about Midwest University in Chicago. On the south side. It was new, yes. But those Gothic buildings gave an effect, somehow, of age and permanence (the smoke and cinders from the Illinois Central suburban trains were largely responsible for that, as well as the soft coal from a thousand neighboring chimneys). And there actually was ivy. Undeniable ivy, and mullioned windows.

Dirk had suggested it, not she. The entrance requirements were quite mild. Harvard? Yale? Oh, those fellows all had wads of money. Eugene Arnold had his own car at New Haven.

In that case, they decided, Midwest University, in Chicago, on the south side near the lake, would do splendidly. For a general course, sort of. The world lay ahead of Dirk. It was like the childhood game of counting buttons.

Rich man, poor man, beggar-man, thief, Doctor, lawyer, merchant, chief.

Together they counted Dirk's mental buttons but it never came out twice the same. It depended on the suit you happened to be wearing, of course. Eugene Arnold was going to take law at Yale. He said it would be necessary if he was going into the business. He didn't put it just that way, when talking to Dirk. He said the damned old hog business. Pauline (she insisted that they call her Paula now) was at a girls' school up the Hudson—one of those schools that never advertise even in the front of the thirty-five cent magazines.

So, at eighteen, it had been Midwest University for Dirk. It was a much more economical plan than would have resulted from the choice of an eastern college. High Prairie heard that Dirk DeJong was going away to college. A neighbor's son said, "Going to Wisconsin? Agricultural course there?"

"My-gosh, no!" Dirk had answered. He told this to Selina, laughing. But she had not laughed.

"I'd like to take that course myself, if you must know. They say it's wonderful." She looked at him, suddenly. "Dirk, you wouldn't like to take it, would you? To go to Madison, I mean. Is that what you'd like?"

He stared. "No! No! Unless you want me to, Mother. Then I would, gladly. I hate your working like this, on the farm, while I go off to school. It makes me feel kind of rotten, having my mother working for me. The other fellows—"

"I'm doing the work I'm interested in, for the person I love best in the world. I'd be lost—unhappy—without the farm. If the city creeps up on me here, as they predict it will, I don't know what I shall do."

But Dirk had a prediction of his own to make. "Chicago'll never grow this way, with all those steel mills and hunkies to the south of us. The north side is going to be the place to live. It is already."

"The place for whom?"

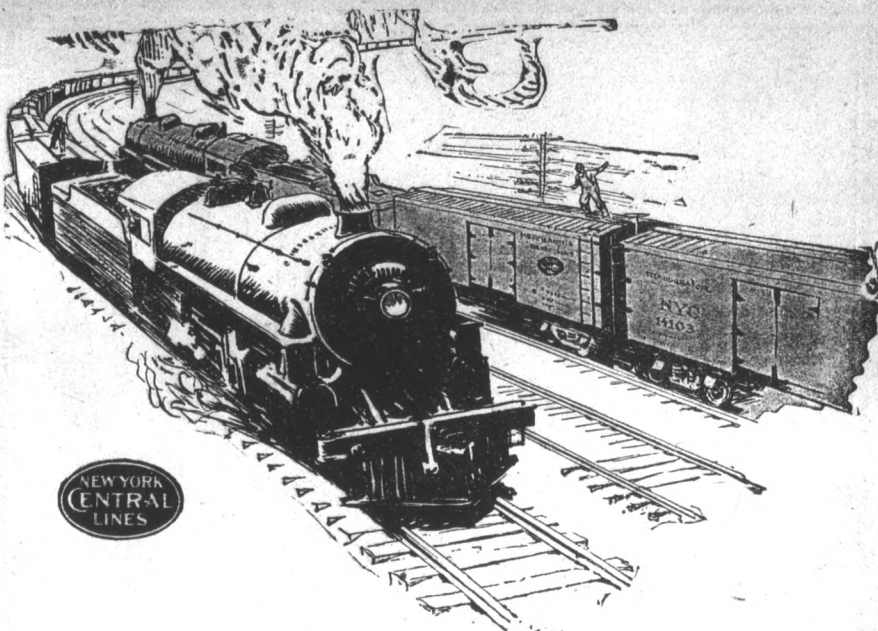
"For the people with money."

She smiled then so that you saw the funny little wrinkle across her nose. "Well, then the south section of Chicago is going to be all right for us yet a while."

"Just you wait till I'm successful. Then there'll be no more working for you."

"What do you mean by 'successful,' Sobig?" She had not called him that in years. But now the old nickname

(Continued on page 545).



## 130,000 Owners

A century ago a 17-mile railroad was built from Albany westward. It was valued at \$165,000. This was the beginning of New York Central.

Today this vast railroad system of 12,000 miles extends from the Atlantic seaboard to the Great Lakes and the Mississippi Valley, and now represents a value of more than \$2,000,000,000.

The upbuilding of this great enterprise has been the work of many investors through generations. Today there are more than 130,000 individuals and institutions owning the securities of the New York Central Lines. Thirty-six thousand investors own the stock of the New York Central Railroad Company; in addition, more than 41,000 employees are becoming stockholders in the company.

## NEW YORK CENTRAL LINES

BOSTON & ALBANY—MICHIGAN CENTRAL—BIG FOUR—PITTSBURGH & LAKE ERIE  
AND THE NEW YORK CENTRAL AND SUBSIDIARY LINES

Agricultural Relations Department Offices

New York Central Station, Rochester, N. Y.

La Salle St. Station, Chicago, Ill. Michigan Central Station, Detroit, Mich.  
466 Lexington Ave., New York, N. Y. 68 East Gay St., Columbus, Ohio.

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

## LOW RATES FARM LOANS LONG TERM

If you need a first mortgage loan on farm property this bank can offer you unusual terms. We are organized under the Federal Farm Loan Act passed by Congress to provide money for farmers at reasonable rates on favorable terms. We are allowed to loan you 50% of the value of your land plus 20% of the insurable value of the buildings. No bonuses or commissions to pay.

### You Save Under Our Plan

We provide money for new loans or to refinance old loans. Your local banker knows about us. Ask him or write to us for detailed information.

Loans \$1,000 and up

**Union Joint Stock Land Bank of Detroit**

(under Government Supervision)

UNION TRUST BUILDING

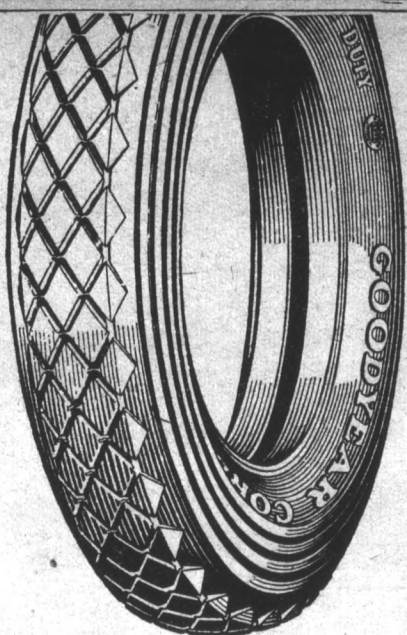
DETROIT, MICHIGAN



Goodyear HEAVY DUTY Cord Tires, for passenger cars, buses and trucks, are available from Goodyear Dealers in the following sizes:

30 x 3 1/2 (Cl.)	34 x 4 1/2 (S.S.)
32 x 4 (S.S.)	30 x 5 "
33 x 4 "	33 x 5 "
32 x 4 1/2 "	34 x 5 "
	35 x 5 (S.S.)

For those who desire balloon tires Goodyear makes a complete line, including the HEAVY DUTY type in certain sizes.



**B**AD roads needn't bother you, if you use the new Goodyear HEAVY DUTY Cord Tire. It's built to stand a world of punishment. Stronger, heavier, more massive all through. The powerful supple carcass made of the superior new cord fabric SUPERTWIST. The sturdy sidewalls reinforced against rut-wear. A great tire, and a great value, for the man whose driving calls for extra stamina! Does yours?

Goodyear Means Good Wear

**GOODYEAR**

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## STOP! LOOK! LISTEN!

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### A SUITABLE FARM HOME

in any of the States served by its lines, namely:

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Write for free copy of "Farmers' Handbook of Explosives."

## Life in the Early Church

Our Weekly Sermon—By N. A. McCune

**L**IFE in the early church is a story of enthusiasm. Not ephemeral, passing enthusiasm, but enthusiasm nevertheless. A few months ago a long line of folk waited all night and all day outside the doors of His Majesty's Theatre, Melbourne, Australia. At an auction sale, held from the stage, tickets were sold, some for \$500 each. It was Melba's farewell appearance in Australia. Vast audiences went wild with joy, cheered as if the preservation of the nation depended on it, and eight carloads of flowers were carried off the stage. This was enthusiasm.

Once upon a time a young man from the country went to work for a wholesale house in London. He was religious and wanted other young men to be Christians. Finding that his employer stood in the way of aggressive work of this type, he got his friends

to pray for the employer. The said employer hears of it, is irate, and sends for the youthful evangelist. Let the rest be told by Harold Begbie, in his "The Ordinary Man and the Extraordinary Thing."

"George Williams stood in front of his master.

'Is it true,' demanded Mr. Hitchcock, 'this tale I hear about you, that you are praying for my soul?'

George Williams was startled, but he faced his master and said, 'Yes, it is true, sir.'

Hitchcock measured him with stern eyes, measured the little man of whom he had said not many years ago, 'He's too small.' Perhaps now he seemed bigger than he had thought.

After a pause he asked, 'You pray for my conversion?'

'Yes, sir.'

'You think I need conversion?'

'Yes, sir.'

'Are you aware that I am a churchwarden?'

'Yes, sir.'

'But you think I am not converted?'

'No, sir.'

'Why not?'

The quick challenging question was opportunity with a golden key. George Williams opened his heart. He told his master many terrible truths about the business. He spoke eloquently about the tainted moral atmosphere. He brought home to the heart and soul of the rich man his frightful responsibility towards those who served him. He magnified nothing, he spared nothing. He told the truth, and that sufficed.

Hitchcock heard him out.

'You may go,' he said, 'but continue your prayers for me.'

That, I take it, was also enthusiasm. And it was the type of enthusiasm of the early church. Listen to some of the dynamic phrases of this lesson: "With great power"—"great grace was upon them all"—"great fear came upon the church"—"they had all things common."

**T**HE communism that these Christian enthusiasts practiced was not enjoined upon them. They did it because of the love that swelled their hearts. Communism is not obligatory for us, if I understand things aright. Christianity is bound up with no particular economic system. But the spirit of fraternity, of love, is enjoined upon us. Would we be Christians, we must have that. And when we do have it, it will show itself outwardly. It will come out in practical ways. It will bind men one to another. It will unite communities one to another. Would that we all had it!

Peter and John were arrested, you will recollect, when they healed the lame man, and were put into jail for the night. Early the next morning, they were taken before the sanhedrin, the dignified and august body of seventy venerable Jewish rabbis. When these learned men had heard the story and had threatened the two not to speak again in the name of Christ, it was a straight reply that they received: "We cannot but speak the things we have seen and heard." And this was the man who, a few weeks before, had denied his Lord.

"The things we have seen and heard." That would be a first-rate testimony for men and women to give now. What have you seen, what have you heard, that leads you to believe in Christ, in Christianity, in the Bible? Surely we have all seen a good deal that is convincing.

The reason why these early Christians were so much in earnest was, that they expected the early return of their Lord. He had gone, only to come back in the near future. The teaching of the early Christians was filled with this people. People were to be ready to meet their Lord when he returned. And it was a powerful appeal to make. It went down deep into the conscience, and found men right where they lived. As time went on and the Lord did not return bodily and visibly, the emphasis on this doctrine was less and less. The gospel of John, probably written as late as the book of the New Testament, does not stress the return of Christ, but rather the leadership of the Holy Spirit in the lives of Christians.

**T**HE story of Ananias and Sapphira is one of the best known in the Bible. The surprising thing about it is, the emphasis that is laid on the meaning of the lie. The falsehood, said Peter, was not to man but to God. And the one who was the leader in correcting this beginning of deception in the church, was the same man who had done so much lying the night of the crucifixion. Note, however, that he does not presume to act the part of executioner. The death of Ananias and his wife was due to the hand of God, not to any act of Peter. It is true that when we have sinned in one particular field, and have heartily repented of it, that we may be called upon to correct that very sort of sin in others. John B. Gough, rescued from a drunkard's grave, devoted his life to lecturing on prohibition. Women, snatched out of lives of pollution, have given their energies to the rescue of girls in the same plight. The man who has been burned out is quick in help and sympathy with others who are reduced by fire.

Now it may not seem that Peter was particularly sympathetic or gentle with this man and his wife. But, of course, we do not know with what tones he spoke. We only are given some of the words, and words can be spoken in many tones. The church was thus purged of this dreadful and devastating sin—lying. A liar will bring trouble anywhere he goes. There must be a radical cure.

### SUNDAY SCHOOL LESSON FOR APRIL 19.

SUBJECT:—Life in the Early Church. Acts 4: 1 to 5, and vs. 11.  
GOLDEN TEXT:—The multitude of them that believed were of one heart and soul.—Ac. 4:32.

Hiram Whizzle says his boy Ned is a great worker. He only requires that the job must be absolutely worthless and something that don't have to be done. Then Ned will pitch in like time.—Sunshine Hollow.



## SO BIG.

(Continued from page 543).

came to her tongue perhaps because they were speaking of his future, his success. "What do you mean by 'successful,' Sobig?"

"Rich. Lots of money."

"Oh, no, Dirk! No! That's not success. Roelf—the thing Roelf does—that's success."

"Oh, well, if you have money enough you can buy the things he makes, and have 'em. That's almost as good, isn't it?"

Midwest University had sprung up almost literally overnight on the property that had been the site of the Midway Plaisance during the World's Fair in Chicago in '93. One man's millions had been the magic wand that, waved over a bare stretch of prairie land, had produced a seat of learning. The university guide book spoke of him reverently as the Founder, capitalizing the word as one does the Deity. The student body spoke of him with somewhat less veneration. They called him Coal-Oil Johnny. He had already given thirty millions to the university and still the insatiable maw of this institute of learning yawned for more. When oil went up a fraction of a cent they said, "Guess Coal-Oil Johnny's fixing to feed us another million."

Dirk commenced his studies at Midwest University in the autumn of 1909. His first year was none too agreeable, as is usually the case in first years. He got on well, though. A large proportion of the men students were taking law, which accounts for the great number of real estate salesmen and insurance agents now doing business in and about Chicago. Before the end of the first semester he was popular. He was a natural-born floor-committeeman and badges bloomed in his but-

tonhole. Merely by donning a ready-made dress suit he could give it a made-to-order air. He had great natural charm of manner. The men liked him, and the girls, too. He learned to say, "Got Pol Econ at ten," which meant that he took Political Economy at that hour; and "I'd like to cut Psyk," meant that he was not up on his approaching lesson in Applied Psychology. He rarely "cut" a class. He would have felt that this was unfair and disloyal to his mother. Some of his fellow students joked about this faithfulness to his classes. "Person would think you were an Unclassified," they said.

The Unclassified were made up, for the most part, of earnest and rather middle-aged students whose education was a delayed blooming. They usually were not enrolled for a full course, or were taking double work feverishly. The Classifieds, on the other hand, were the regularly enrolled students, pretty well of an age (between seventeen and twenty-three) who took their education with a sprinkling of sugar. Of the Unclassified students the University catalogue said:

Persons at least twenty-one years of age, not seeking a degree, may be admitted through the office of the University Examiner to the courses of instruction offered in the University, as unclassified students. They shall present evidence of successful experience as a teacher or other valuable educative experience in practical life. They are ineligible for public appearance.

You saw them the Cinderellas and the Smikes of this temple of learning. (Continued next week).

In those sections where sheep fit in well with a diversified program, a moderate production seems advisable. On the other hand, it must not be forgotten that many farmers are apt to "go in" for sheep rather heavily this year. —J. T.



## Americans will not wait

Accustomed to instant communication by telephone and telegraph, our military authorities realized in the late war that the American Expeditionary Forces could not depend on the communication services of Europe.

The necessary plans, materials and engineers were sent over in ship loads. A world record was made by the Signal Corps in establishing lines of communication indispensable to every branch of the army. In a surprisingly short time, every American general in France had at his disposal the communication facilities to which, in America, he had been accustomed.

Europe was sometimes startled by the amazing methods of the telephone workers from overseas. The American-trained Signal Corps units invariably sought the shortest way, overcoming all natural obstacles to extend the needed means of communication.

The Americans were not content to wait. They expected and demanded the same ever-ready telephone connections which they had at home. The Bell System has set a world standard for prompt attention and continuous service.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY  
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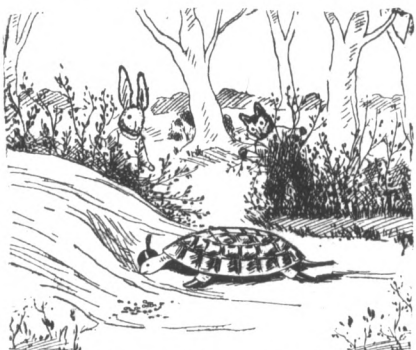
## Doings in Woodland

Where the Turtle Lays Her Eggs

JACKIE RABBIT and Brownie had been playing down by the little creek in Woodland. On the bank on the other side they spied Madame Tommy Turtle crawling up out of the water.

The members of the turtle family were ever a curiosity to Jackie and Brownie since they had first seen them in the Spring down by the Frog Pond Hollow.

"There's Madame Tommy Turtle



Madame Tommy Turtle Carefully Covered Her Eggs with Sand.

and she is still carrying her house on her back," said Brownie.

"Oh, yes, but what is she doing?" asked Jackie.

"I don't know, but let's watch behind this bush, we'll be real quiet," said Brownie.

They watched Madame Tommy Turtle for some time. First they saw some snow white eggs laying in the sand. While Jackie Rabbit and Brownie peeked from behind the bush, the old mother turtle covered all the eggs

with sand, smoothed the surface down so one would scarcely know anything was hidden there. Then she crawled back to the creek at her mile an hour gait, plunged into the water and disappeared in the weeds at the bottom.

This discovery of where Madame Tommy Turtle hid her nest was a real surprise to Jackie and Brownie. They hurried right home to tell Bruin and Rolly Rabbit their secret.

Bruin listened to them with much interest, then told them all about it.

"In the Spring Madame Tommy Turtle always crawls to a sand bank, digs a little hole there and lays her eggs. Then she covers them with sand and is very careful to make the sand on top look as if nothing was hidden there. If she left any tracks someone might find her eggs, and destroy them."

"Soon the warm rays of the sun hatch the eggs and the little turtles work their way out of the sand. They are then very small, about the size of your hand, Jackie Rabbit," said Bruin.

"What do they do then?" asked Brownie.

"Just as they like," said Bruin, "for the mother turtle never comes back to them, they must get their own food, and you know they carry their house right with them so they have a place to sleep when night comes."

"I'm glad I'm not a turtle," said Brownie, "'cause maybe I won't find any porridge."

"I'm glad I'm not a turtle," said Jackie, "'cause maybe I wouldn't find any cabbage leaves." And they both went off to play again.

## Take The Ground Hogs Off Your Pay Roll

Groundhogs cost you real money in the crops they destroy. They fill your fields with dangerous holes and undermine embankments. They are an unnecessary expense that can — and should be — taken off your pay roll now. Get rid of groundhogs once and for all with efficient and economical

## CYANOGENAS

(REG. U. S. PAT. OFF.)

## CALCIUM CYANIDE

A heaping tablespoonful placed in the mouth of each burrow liberates a gas which quickly kills the groundhogs in their tracks. There is no escape. Cyanogas is recommended by State and Government authorities. Send the coupon today for a large 5-lb. tin sufficient to kill all the groundhogs in 80 burrows. The cost is only \$2.50 (express prepaid). Cyanogas like other poison cannot be mailed.



Dealers: There is a big market in your territory for Cyanogas (Calcium Cyanide). It will prove a profitable article for you to handle. We will gladly send full details on request.

American Cyanamid Co.,  
of Delaware  
511 Fifth Avenue, New York City

American Cyanamid Co.  
511 Fifth Ave., N. Y. C.

Gentlemen:

Enclosed find \$2.50 for a large 5-lb. tin of Cyanogas — express prepaid.  
Yours truly, P

NAME \_\_\_\_\_  
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**LAKEVIEW POULTRY FARM**

Tancred Strain  
WHITE LEGHORNS  
Park's BARRED ROCKS  
Single Comb & Rose Comb  
RHODE ISLAND REDS

SUPERIOR CHICKS  
IN ALL BREEDS

### Missed One Day in Two Years

Coleman, Mich., Jan. 10, 1923. Lakeview Poultry Farm, Holland, Mich.: "I have a flock of nice Rhode Island Reds which came from your poultry farm and in two years they have missed but one day in laying. Please send me catalog for this year.—Mrs. Mabel Nelson Long."

### Wh. Leghorns B'd. Rocks R.I. Reds

White Leghorns, Barred Rocks and Rhode Island Reds vie with each other in high production. Our Leghorn stock is Pure Tancred. Barred Rocks pure Park's strain. Our catalog not only tells what chicks to buy but how to grow them into strong pullets.

LAKEVIEW POULTRY FARM, Holland, Mich., R. R. 8, Box 6.

**Great Northern Hatchery**

HIGH GRADE STOCK  
AT PRICES YOU  
Can Afford to Pay.

Bred for eggs, not for show feathers. Every chick from our farm is of a proven egg-laying strain.

### ORDER FROM THESE PRICES.

GRADE	50	100	500	1000
Barron Leghorns (Pedigreed Males)	\$8.50	\$16	\$75	\$145
Barred Rocks (Aristocrat Strain)	9.50	18	85	165
Br. Leghorns	8.50	16	75	145
GRADE A.				
White Leghorns	\$7.00	\$13	\$62	\$120
Barred Rocks	8.00	15	72	140
Br. Leghorns	7.00	13	62	120
Broilers, Heavy	\$12 per 100	Mixed	\$9.00 per 100	
100% Live Delivery. Catalog Free.				

Order Pullets Now, for May 15 Delivery.

GREAT NORTHERN HATCHERY,  
R. 3, Box 56, Zeeland, Mich.

**BABY CHICKS**

WHITE LEGHORNS and BROWN LEGHORNS

**\$11.00 PER 100** **\$52.00 PER 500**

**ODDS and ENDS \$9.00 PER 100 \$40.00 PER 500**

Order direct. Hatch every week. We guarantee live delivery by Prepaid Mail. Reference State Com. Bank.

MAIN HATCHERY, - ZEELAND MICH.

**Town Line POULTRY FARM**

White Leghorns  
Tancred-Holly-wood-Barron strains  
Anconas  
Sheppard Strain, direct  
Bar'd Rocks  
Parks dark colored  
Br. Leghorns

At International Egg Laying contest of 1924 our Leghorn pen laid more eggs than 84 of the 100 pens and outlaid several pens from world renowned trap-nest farms.

ORDER NOW.

Special Star Mating, pedigreed	100	\$18	\$85
Extra selected	100	14	65
Selected	100	12	55
Barred Rocks	100	16	75
Broiler chicks (odds and ends)	100	10	50

TOWN LINE POULTRY FARM, R. 1, Box 15, Zeeland, Mich.

**CHICKS THAT LIVE**

From sturdy, healthy free-range flocks. Fluffy, lively youngsters that should grow fast, and get on an all-year-round egg laying basis. From carefully mated high-egg-producing strains, tested and culled to insure exceptional vigor and laying ability. This stock and our scientific hatchery produce chicks that live, grow fast, lay early. Selected for uniform size and color so they will grow into beautiful flocks of which you'll be proud. Place your order before our output is taken by others. Order now for present or future delivery. Leading varieties. Live delivery guaranteed. Postpaid. Write for new chick booklet.

H. L. Carl, Box 100, Montgomery, Mich.

**BIG HUSKY CHICKS**

From pure-bred, high quality, heavy laying, tested flocks. Great Winter Layers. 100% Live Delivery Guaranteed. Postpaid. Leghorns, 50, \$7.25; 100, \$14; 500, \$67.50. Barred Rocks, Reds, 50, \$8.50; 100, \$16; 500, \$77.50. Anconas, 50, \$7.75; 100, \$15; 500, \$72.50. Mixed Chicks, 100, \$10; 500, \$50. Bank Reference. Free Circular. WINSTROM POULTRY FARM, Box C-6, ZEELAND, MICHIGAN.

**BABY CHICKS FROM OUR S. C. WHITE LEGHORNS**

Every bird in our flock is hatched every day in the year. If you want to secure Baby Chicks at a reasonable price from high record stock do not fail to send for our catalogue. STRICK POULTRY FARM, R. 4, Box M, Hudsonville, Mich.



## Woman's Interests



## Getting the Most out of a Garden

*How a Women Plans Her Garden to Feed Her Family in Summer and Winter*

IT is a fruitful spot." A thing of beauty during the growing season, and a joy forever, as well as a source of health, exercise and a small income.

Our garden is a rich, mellow, well-drained lot, two rods wide and eight rods long, lying just across the drive from the house. It is enclosed with a poultry fence, insuring freedom from the annoyance many housewives endure of seeing nicely planted gardens scratched into chaos by meddling hens and their lusty broods.

Our garden yields its treasures from the first of May, when rhubarb, of which there is a row across its east end, stands three feet in height, with great, broad, glistening leaves, and stalks half as thick as one's wrist, until the late winter months, when the crisp white parsnips and salsify

them most appetizing served with creamed peas about July 4.

The Silver Skin onion raised from the seed, is the variety we like best. Planted early and thinned when plants are small, they make a rapid growth and produce an onion of much finer flavor than those grown from sets. By fall many are as large around as tea cups, and still retain their mild flavor.

Detroit Dark Red beets have been our choice for several seasons. They are not very long so never sprangle. They are a wonderful color, a fine flavor, and mature early. We pickle them in July when they are tender and fine flavored.

Ox-heart carrots, Mammoth salsify and Improved Hollow Crown parsnips have proven to be most satisfactory. We thin these out when plants are small, so there is plenty of time and

These tasty combinations are delicious.

Cottage cheese, finely chopped beet pickles.

Cottage cheese, nuts, cherries.

Cottage cheese, nuts, finely cut pimento.

Cottage cheese, celery, cucumber.

Cottage cheese, onion, paprika.

Cottage cheese, grape fruit, bits of tart jelly

Cottage cheese, Swiss chard, finely chopped onion and pickle.

Cottage cheese, prunes, nuts.

Cottage cheese, grated raw carrot, nuts.

Cottage cheese, nuts, pimento.

Cottage cheese, pineapple, nuts, paprika.

Cottage cheese, lemon jello, lettuce.

Cottage cheese, marmalade, chopped olives.

Cottage cheese, chopped pickles, finely cut head lettuce.

Cottage cheese, fried bacon, tomato, and dill pickle.

### CHILD MANAGEMENT BULLETIN AVAILABLE.

MOTHERS, most of them, know what to do when children have colds and sore throats.

How many parents know what to do when Jack or Mary has a temper tantrum? A fit of jealousy? A fear of the dark, or new activities? A capricious dislike of necessary foods?

How many parents know that their children's thoughts and feelings and habits are as important as the state of their teeth or the strength of their muscles?

How many parents wouldn't think of giving castor oil for every physical ailment, have only one method of treatment—a don't—for every bad habit?

How many parents realize that the spoiled child is really a mentally sick child?

Perhaps these questions will suggest themselves to mothers and fathers who read "Child Management," by Dr. D. A. Thom, an authority on mental hygiene. This is the latest bulletin of the Children's Bureau of the United States Department of Labor, and can be secured from that bureau at Washington, D. C.



These Farm Products Make Farm Life Worth Living.

(vegetable oyster) are taken from their earthy beds.

Along its north fence stand currant and gooseberry bushes, one quince and two pear trees.

Our garden is always plowed and dragged early, and the best of seeds planted and sown in drills the length of the garden. Every member of the family watches eagerly for the first tiny leaves to peep forth.

We sow French Breakfast and Early Scarlet radishes because these varieties mature quickly and are solid and of a fine flavor as soon as they are as large as very small marbles, at which time we begin thinning them out for table use. The rest attain size rapidly. Second and third sowings made a week to ten days apart follow in quick succession.

Early curled Simpson lettuce is true to name, and its curly leaves are always crisp and luxuriant. We sow but a few feet, perhaps eight or ten, and when gathering lettuce in the early morning, cut, not pull, it off, leaving about an inch of stem on each root which will grow again in abundance. By the time we cut the last of the first growth, the second growth is ready for use.

We use two to three pounds of Little Gem peas, bought in the bulk, for planting. This is an early variety, sweet and tender, and a heavy bearer on good soil. We make two plantings, the first very early, the second ten days to two weeks later. This is a fine variety also for canning.

After the vines have finished bearing, if there is sufficient moisture we usually pull them and sow turnip or rutabaga seed.

With other very early plantings come two rows of Irish Cobbler, or Early Six Weeks potatoes, both varieties being very desirable. We find

room for large, thrifty roots to grow.

There must be a row of parsnips which are in demand in February and early March. If covered with straw and fertilizer in the fall before the ground freezes, they are ready any time.

Golden Wax beans and Bush Limas are planted quite early, contrary to advice. The Golden Wax is an ever- (Continued on page 547).

### COTTAGE CHEESE COMBINATIONS

DON'T forget cottage cheese when you are making salads and sandwiches for the church social or the party at school.

## Child Health Day

JOUBERT has said, "In bringing up a child think of its old age." One of the greatest factors of child life bearing strongly on its old age is its health. And there is no question but that health has a tenacious bearing upon human development, both mental and moral.

It was with these facts in mind that Herbert Hoover, President of the Child Health Association, presented the plea of many organizations to President Coolidge "to establish the first of May as a day for constructive, concentrated thought and demonstration on behalf of community action for the American child."

The President wrote back: "I am confident that the people of America will be glad to make May Day the occasion of rededicating themselves to the happy task of safeguarding our most precious asset—our thirty-five million children."

The President is right, but his utterance reminds us that America is not first in everything. Five nations beat us in conserving child life, as proved by the death rate. Sixteen nations beat us in saving the lives of mothers in childbirth. The selective service draft actually scared us. It proved that nearly half of the American men were unfit for military service.

Probably America will never be Utopia, but it can and will be a finer America than it is now. One of the ways in which all of us can help is to pay more attention to the health of our boys and girls, all of which means that the designation of May Day as a day for auditing child health in every community in the United States is a beginning in a plan to make smoother paths for our children than our feet have known. Through them we can turn the gains of our generation into the victories of theirs.



### SUGGESTIONS THAT WILL MAKE HOUSECLEANING EASIER.

THERE is no way of making housecleaning easy, but the work may be lessened by use of proper tools and materials.

Walls present varying problems. For wiping either painted or papered walls a long-handled soft hair or wool brush is extremely convenient as it removes dust without scratching. Where the cleaning closet lacks such a brush, a cloth fastened securely around a broom may serve the same purpose. This time honored method may be improved upon by making the cloth into a bag with a padding of heavy soft cloth over the end of the straws and a gathering of string to fasten firmly around the handle.

Grease spots may be removed by careful use of blotting paper and a warm iron. There is less danger of changing the color of the paper if as thick a layer of Fuller's earth, magnesium or even talcum powder, as will stick is applied over the spot. After twenty-four hours brush off lightly and apply again if necessary.

Avoid using strong soaps, soda and washing powders in washing painted

per quart. Gooseberries also have been cared for.

There is no room in the garden for sweet corn so that is honored by a patch all its own.

We never use but one variety of sweet corn—The Early Minnesota or Early Eight-Row as we usually call it. The ears are medium-sized, making it fine for "cooking on the cob." The kernels are deep and it is excellent for table use or canning, because it is so sweet and tender.

We make at least five plantings, three to four rows each, ten rods long and ten days apart, so we have an abundant supply from the fore part of August until Jack Frost lays his icy fingers on stalk and blade. We make no extra trips with any of our produce, just the usual twice-a-week. Corn brought us fifteen cents per dozen ears last season.

Hubbard squash and pie pumpkins are usually planted in the late potato patch and are a source of much satisfaction when added to the winter hoard of food.

Watermelons and muskmelons are the boys' specialty, but I can not refrain from mentioning them. Kalb's Gem, Cole's Early and Kleckley's Sweets among the first mentioned, Lake Champlain, Emerald Gem and Osage Orange among the latter. They are beautiful to the eye and a feast for a king.

There is a song, "What is Home Without a Mother?" With due respect I would suggest another theme for the poets—"What is a Farm Without a Garden?" It surely pays in health, exercise, dollars and cents.

### HINTS WORTH TAKING.

A PINCH of soda added to any boiled syrup will keep it from crystallizing. A teaspoon of vinegar added to home-made syrup will keep it from candying after it stands.

A teaspoon of vinegar beaten into boiled frosting will prevent it from being brittle or breaking when cut.

After boiling salt beef, leave two or three carrots in the liquid until cold. The carrots will absorb the salt and the liquor can be used for soups.

Dissolve the sugar used in making fried cakes, in milk and they will not absorb the grease as readily.

## Household Service

### DAFFODILS HAVE MANY BULBS.

My daffodils and jonquils have many small bulbs attached to center bulb. Will they blossom?—Mrs. R. D. C.

Jonquils and daffodils frequently have this fault of producing numerous small bulbs in clumps, apparently growing too densely to make large flowering bulbs. Separating the bunch about the first of September and planting the larger bulbs separately is the only practice that would promise flowers.—C. P. Halligan.

### WISTERIA DOESN'T BLOSSOM.

My wisteria vine has grown large and thrifty, but does not blossom. What can I do?—Mrs. J. H. Q.

Frequently the wisteria vine does not blossom until it is eight or ten years old. The time of flowering varies largely with the method of propagating the plant. If propagated from seed or from cuttings, it is apt to come into flower very late and frequently will be a poor flowering vine. If, however, it is propagated by grafting cuttings from free flowering vines onto a seedling root, it will flower earlier in its years and will be apt to be freer flowering. The withholding of nitrogenous fertilizers and moderate instead of severe pruning will tend to bring it into flower quicker. In other words, anything which tends to stimulate its growth tends to retard bringing it into flower.

### Spring Recipe Contest

THE time "between hay and grass," as the farmer thinks of this season of the year has its feeding problems. And so it is with us humans. The spring brings with it its problems of food, and the home cook racks her brain for recipes to tempt lagging appetites before "garden sass" comes to her rescue.

As a mutual benefit, send in the recipe that is a particular favorite with your family in the spring.

For the five best recipes we will give a complete needle case. Address your recipes to Martha Cole, Michigan Farmer, Detroit, Michigan, before April 24.

walls, even though tempted to use them to cut the grease. They will yellow white paint and change light colors. Clean with whiting and a cloth dampened in very hot water. Use straight up and down strokes and clean only a small space at one time. If each stroke overlaps the other, no streaks will show.—Marian Rogers Smith, Household Management Specialist, M. A. C.

### GETTING THE MOST OUT OF A GARDEN.

(Continued from page 546).  
bearer and also a heavy bearer.

We sow Early Jersey Wakefield and Late Flat Dutch cabbage, and cauliflower seeds in a small plot in a corner of the garden and transplant when quite small.

Either the Matchless or the Early Stone tomato graces our garden and likewise our table, for they are the sweetest, meatiest, smoothest and handsomest tomato produced.

We plant two seeds in a hill and transplant one plant when small so we have about thirty plants.

There is room for five or six hills of Boston Pickling cucumbers which furnish enough to can twelve to sixteen quarts, with a few left to slice on occasion.

On the south part of our garden last year were three rows of strawberry plants, set the previous year, the Senator Dunlap and another variety, which yielded nine bushels of fruit. These netted us the sum of \$14.90, after short cakes, strawberries with cream and without, and two bushels for canning.

In the meantime currants have changed from green to red, and those not used to fill the sixteen fruit jars we own, with toothsome jelly, have been disposed of at ten to twelve cents



## You must see the KITCHEN KOOK

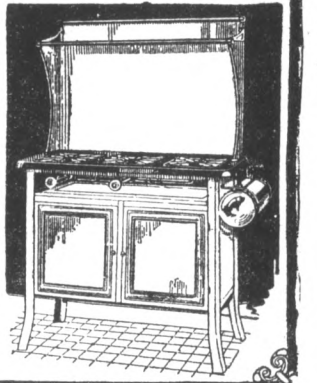
Kitchenkook cleanliness, its remarkable cooking and baking speed, its convenience, economy and safety—all the features you want in a cook stove have been perfected in this new Kitchenkook to a degree you never thought possible.

### ALBERT LEA KITCHEN KOOK THE IDEAL COOK STOVE

Kitchenkook is not an oil stove. It's a gas stove with all the desirable features of city gas and with greater cooking speed. Makes and burns its own gas from common low test gasoline, producing a clear, blue flame entirely free of smoke, soot and odor, not only while new but permanently.

There is a dealer near you who will gladly show you the advantage of Kitchenkook in your own home. There is a style and size to meet your needs—the price is surprisingly low. The Kitchenkook folder, telling all about them, is sent on request. Write for it.

American Gas Machine Co., Inc.  
38 Clark St., Albert Lea, Minn.



## ONE MILLION "GOOD LUCK" QUALITY CHICKS LEADING BREEDS - LOWEST PRICES!

REDUCED ROCK BOTTOM PRICES MAY 4th TO SEPT. 1st. THOUSANDS OF PLEASED CUSTOMERS TESTIFY TO THEIR WONDERFUL QUALITY, TYPE, BEAUTY AND EGG PRODUCTION. Send for our BIG, BEAUTIFUL, COLORED, INSTRUCTIVE ART BOOK, FREE, showing our own birds in their NATURAL COLORS. Read the many testimonials full of praises which highly endorse our Chicks. Before you buy elsewhere see these illustrations of the actual birds that produce the eggs. WE GUARANTEE OUR BIRDS FREE FROM NEW EUROPEAN AND OTHER DISEASES. 100% Live Delivery Postpaid. Bank Ref., Mem. I. B. C. A. and Ohio C. A.

ALL LEADING VARIETIES	Prices now	25	50	100	300	500	1000
White, Brown & Buff Leghorns, Anconas	\$2.50	\$4.75	\$9.00	\$25.50	\$42	\$80	
Barred & White Rocks, R. I. Reds	3.25	6.00	11.50	33.00	52	100	
Bl. Minorca, Wh. Wyandotte, Wh. & Buff Orpington	3.75	7.00	13.50	39.00	62	120	
Buff & Wh. Minorca, Sil. Wyandotte, S. Sussex	5.00	9.00	17.00	48.00	80		
L. Brahma, Gol. Wyandotte, 20c each. Light Mixed, 100, \$8. Heavy Mixed, 100, \$9.50.							

NEUHAUSER HATCHERIES, BOX 62, NAPOLEON, OHIO.

## EARLY MATURING BABY CHICKS FROM PURE BRED BLOOD TESTED STOCK

Prices on	100	500	1000
Select B. P. Rocks & R. I. Reds	\$8.50	\$16.00	\$75.00
Extra Select B. P. Rocks & R. I. Reds	9.50	18.00	85.00
White P. Rocks & Wyandottes	9.00	17.00	85.00
"Utility" & Eng. Barron S. C. W. Leghorns	7.00	12.00	60.00
"Tanager" S. C. W. Leghorns	8.00	15.00	75.00
Mixed Chicks (all Heavies), \$12 Straight. Mixed Chicks (all Varieties), \$11			

Stock has been Tested for Bacillary White Diarrhea. Member I. B. C. A. 100% Live Delivery. Order direct from this ad. Our reputation is your guarantee. We can supply you pullets from eight weeks to maturity. MILAN HATCHERY, Box 4, Milan, Mich.

## Egg-Line White Leghorns

Tancred-Barron 250 to 330 egg record ancestry. Strong, sturdy chicks from the world's greatest laying strains at commercial hatchery prices. Two great matings for 1925. Grade "AA" Extra Selected Egg-Line hens mated to 250 to 300 egg record pure Tancred strain males direct from Beall and Morgan, 25, \$5.25; 50, \$10.25; 100, \$20; 500, \$95; 1000, \$180. Deduct 2c per chick for May shipment. Grade "A" Selected Egg-Line hens mated to choice Tancred-Barron males of high record parentage, 25, \$3.50; 50, \$6.75; 100, \$13; 500, \$62.50; 1000, \$120. Deduct 1c per chick for May delivery. Order direct from this ad for immediate delivery. Shipped by prepaid parcel post and guaranteed to arrive in strong, healthy condition. Terms: 10% with order, balance two weeks before shipment. Bank references. Catalog free.

J. PATER & SON, Box M, Rt. 4, Hudsonville, Mich.

## Our Pure Blood — Tested Chix. Can ship at once. Rush your order. — At reduced prices.

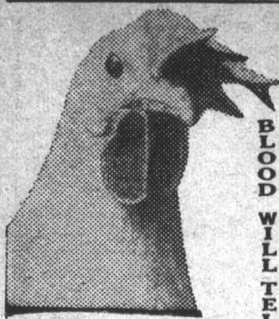
Barred and White Rocks, Reds, Bl. Minorcas, 14c each. White and Silver Wyandottes, Orpingtons, 15c. White and Black Langshans, Light Brahmas, 15c. White, Brown, Buff Leghorns, Heavy Broilers, 11c. Sheppard's Anconas 12c. Light Broilers, 8c. May chix, \$1.00 per 100 less. June chix, \$2.00 less. Add 35c extra if less than 100 wanted. Hatching eggs. Bank reference. Free catalog of 20 varieties.

BECKMAN HATCHERY, 26 LYON ST., GRAND RAPIDS, MICH.

BUY NOW	Large, vigorous, peppy chicks that will completely satisfy you.	100	500
Barron Strain, S. C. White Leghorns		\$10	\$45
Barred Rocks		12	55
S. C. R. I. Reds		12	55
R. C. R. I. Reds		13	60
Anconas & Brown Leghorns		11	50
Broilers, Mixed		8	35
Eggs for hatching, Half Price of chicks. Pullets \$1.25 each.			

Order now direct from Ad. We give you service. We positively guarantee to satisfy you. 100% alive guaranteed. CO-OPERATIVE FARMS, Box 8, ZEELAND, MICH





## English Type WHITE LEGHORNS

The Big, Deep Bodied Hens with the Large Combs, That Produce the Large White Eggs.

The chicks we offer you this year are from extra selected hens, sired by males out of hens that laid 270 eggs in 365 days these males being sired by a male from a 300-egg hen. The price asked for them is very reasonable. They will bring you bigger profits and absolute satisfaction.

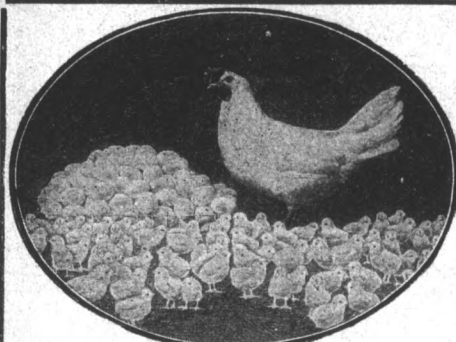
You will be benefited by our 15 years experience hatching and shipping chicks. Our stock grows up uniform in size, has great vitality and brings big returns in our customers' hands. Let us mail you our catalog with prices. 100% live arrival guaranteed.

**NINE WEEKS OLD PULLETS IN MAY.**

## WOLVERINE HATCHERY

H. P. WIEREMA, Prop. R.R. 2, Box 97 Zeeland, Mich.

**BRED FOR SIZE, TYPE and EGGS SINCE 1910.**



## S. C. WHITE LEGHORNS CHICKS-EGGS-STOCK

From world-famous layers. Pens headed by males from hens with records of 250 to 280 eggs. Also Barron strain matings males with ancestry of 230-270. Birds culled by experts from the state university. All our pens are mated with males from dams of high records. 100% live delivery guaranteed. Write for our illustrated catalog showing our poultry show winners. "Regular Egg Machines," said W. W. Zike, judge of Holland show, after looking over our pen.

Reliable Hatchery and Poultry Farm, Box 3 Holland, Mich.

## 1,000,000 Babion's Quality Chicks



FOR 1925. Breeders of highest egg producing strains in all leading varieties. You will be greatly pleased with results obtained from our heavy layers.

100% Live Delivery Guaranteed. Postpaid prices	25	50	100	500	1000
English White Leghorns	\$3.75	\$7.00	\$13	\$62	\$120
Single & Rose C. Brown Leghorns	3.75	7.00	13	62	120
S. C. Buff & Black Leghorns	3.75	7.00	13	62	120
Barred Rocks, Anconas	4.25	8.00	15	72	140
S. C. & R. C. R. I. Reds	4.25	8.00	15	72	140
White and Buff Rocks	4.50	8.75	17	82	160
White Wyandottes, Black Minorcas	4.50	8.75	17	82	160
Buff and White Orpingtons	5.00	9.50	19	92	180
Sl. Wyandottes, Lt. Brahmas, Langshans	5.00	9.50	19	92	180

15 other rare varieties. Mixed, all Heavies, \$12 per 100. All Light, \$10 per 100. Light and Heavy Mixed, \$11 per 100. DUCKLINGS, Pekins, 25, \$7.50; 50, \$15; 100, \$30. White and Fawn Runners, 25, \$6.50; 50, \$13; 100, \$25. Remember quality goes ahead of price. Consider this when you place your order and please note we guarantee 100% Live Delivery and Chicks that will please you. No Chicks shipped C. O. D. At least 10% of purchase price must come with order. Bank Reference. You cannot go wrong in ordering direct from this ad. Chicks from EXTRA SELECT FLOCKS, \$3 per 100 higher than above prices, and Chicks from our Blue Ribbon Pens, \$5 per 100 higher. Write at once today.

BABION'S FRUIT & POULTRY FARM,

FLINT, MICH.

## WASHTENAW Baby Chicks

Chicks that are lively and healthy from pure-bred carefully selected stock. One-fifth down books order. Good poultry judges say our flocks are unusually good. Order today. Last year we were not able to supply the demand. Order early this year. Pure-bred, carefully selected, 100% live delivery.

Prices on (prepaid)	25	50	100	500	1000
Bd. Rocks	\$4.25	\$8.00	\$15.00	\$72.00	\$140
R. I. Reds	4.25	8.00	15.00	72.00	140
Wh. Rocks	4.50	8.50	16.00	77.00	150
Wh. Wyandottes	4.50	8.50	16.00	77.00	150
Wh. & Br. Leghorns	3.75	7.00	13.00	62.00	120

Ref.: Farmer's & Mechanic's Bank, this city.

**WASHTENAW HATCHERY,**  
Geddes Road  
Ann Arbor, Michigan

## DILIGENT CHICKS DID IT

Postpaid prices on	50	100	500
Single Comb White Leghorns	\$6.25	\$12.00	\$57.50
Barred Plymouth Rocks	7.75	15.00	72.50
S. C. Mottled Anconas	6.75	13.00	62.50
Mixed Chicks	4.75	9.00	42.50

Low in price, high in quality. Order right from this ad, or send for our catalog. If close in call on us, we are located on the M-11 cement road, 2 miles north of Holland. We have pullets for sale after May first.

DILIGENT HATCHERY, Holland, Mich. Harm J. Knoll, Owner.

## Michigan Pedigreed Heavy Laying Strains

Are from champion Tancred and Tom Barron White Leghorn foundation stock. Records 265 to 302 eggs. Headed by males from International Egg Laying Contest winners. Bred and hatched by experts. Most modern equipment in Michigan. Hand picked and inspected—no weaklings. Will grow and make you a profit. Also Sheppard Anconas, Park Strain Barred Rocks; 8-week-old pullets. 100% vigorous delivery and satisfaction guaranteed. We pay postage and our prices are right. Our catalog tells the story—it's free—write for it now.

Michigan Poultry Farm, Box 4, Holland, Mich., U.S.A.

## HUNDERMAN'S CHICKS

FIRST CLASS CHICKS \$8 per 100 and up. From pure-bred flocks on free range, culled by an expert. 100% Live Delivery Guaranteed. Postpaid prices 25 50 100 500 1000  
English S. C. White Leghorns \$3.25 \$6.00 \$11.00 \$52.50 \$105  
S. C. Brown Leghorns 3.25 6.00 11.00 52.50 105  
Barred Rocks, S. and R. C. Reds 3.75 7.00 13.00 62.50 120  
Mixed Assorted, 25, \$2.50; 50, \$4.50; 100, \$8. Ref.: State Commercial Savings Bank.  
You take no chances. Hatched in Blue Hen Incubators. 10% down books your order. Free Catalog. HUNDERMAN BROS., Box 36, Zeeland, Michigan.

## DUNDEE CHICKS

Stock Guaranteed Pure Bred and Blood Tested for Bacillary White Diarrhea Bred for early laying and high egg production. Write for prices. Barred Plymouth Rocks, Rhode Island Reds, English W. Leghorns and Anconas. 100% Live Delivery guaranteed.

Ref. Dundee State Savings Bank.

Dundee Hatchery & Poultry Farm Box A, Dundee, Mich.

## CHICKS-HATCHING EGGS-PULLETS

### BARRON STRAIN S. C. WHITE LEGHORNS

We furnish CHICKS and PULLETS from BLOOD TESTED 2-year-old Hens at prices you would pay for ordinary hatchery stock. We positively guarantee to please you. Our Hens have large lopped combs, plus SIZE and Egg Production. Booking orders for 10-week Pullets now, \$1.00 each in lots of 100. Send \$5.00 and we book your order. Place your order now. Catalog Free.

PEERLESS POULTRY FARMS, BOX 10 ZEELAND MICH.

## MARKET COCKERELS AT TWO POUNDS.

POULTRYMEN will find it more profitable to market young cockerels when they reach a weight of two pounds, than to feed the birds until late fall or early winter, according to results obtained in tests of feeding made by the Ohio Agricultural Experiment Station some years ago. The experiments show that at least ten pounds of grain must be fed to produce a pound of gain and it is doubtful whether grain should be utilized for meat production through poultry.

On the average the feed necessary to grow the birds to maturity will cost about four cents a pound. Thus, unless the poultry producer has a special market for the heavy birds, the price secured next fall may not pay for the feed given the fowls.—W. E. Farver.

## KEEP POULTRY HEALTHY.

NOTICE so many complaints about sickness among poultry. We never attempt to raise anything but chickens and guineas but we very seldom have a sick fowl. I think this is because our hen house is well lighted, cleaned at least twice a year, and sprayed well with kerosene to eliminate lice, and is never overcrowded. The drinking pan is scalded out occasionally and eight or ten drops of carbolic acid dropped over the bottom, before filling with fresh water.

We keep only Barred Rocks which are both a pleasure and a profit.—Mrs. B. O. R.

## POSSIBLY POISONING.

Some of my hens throw their heads backward, then to the right and left. Sometimes they go right over backwards, then jump and flop around. You would think they were dying, but they live for weeks like that.—V. S.

The symptoms are rather indefinite, but possibly the hens have eaten some poisonous substance or mouldy feed. Losses might occur from the hens eating too much frozen soft corn or frozen green feed. Such cases of sickness in the flock, due to indigestion, can often be avoided by feeding a balanced dry mash containing twenty per cent bran and a sprinkling of fine charcoal. The easily digested ground grains in the mash help to prevent digestive disorders and keep the hens from filling up on litter in an effort to obtain elements they seem to crave.

## STARTING DUCKLINGS.

I would like to have a little advice on raising ducklings. I have hatched out a large number of ducklings but it seems they live two or three days, then start to die off, a few at a time, until they are all dead. I have been feeding hard boiled eggs and two per cent sand and about half ground oatmeal for a starter.—E. C.

A good starting feed for ducklings consists of equal parts bread crumbs and rolled oats and three per cent sand. When the ducklings are three or four days old use equal parts of bran, cornmeal, rolled oats and bread crumbs. After the first week use a mash of one part cornmeal, one part low grade flour and three parts bran, to which is added ten per cent green feed, five per cent beef scrap and three per cent sand.

Furnish plenty of fresh water in dishes deep enough for the ducklings to wash out their eyes when drinking.

Provide shade, as exposure to extremely hot sun is bad for ducklings.

## WASHING DUCK EGGS.

Would you please tell me if duck eggs will hatch if they are washed?—E. B.

It is all right to wash duck eggs before they are used for hatching, although it is not best to wash hen's eggs used in incubation. Some duck breeders feel that washing the eggs opens the pores in the shells and helps produce a better hatch. When

## Chicks Dying From White Diarrhea

### How to stop it in 48 hours

A letter from Chas. N. Kittinger, of Willows, Calif., contains good news for poultry raisers who are losing baby chicks. He says:

"Twelve of my chicks had diarrhea when I started giving them Avicol. By the second day the trouble disappeared, and now they are all lively as crickets. If I had only known of Avicol sooner, I would have saved lots of chicks."

There's no doubt that Avicol is wonderful both for preventing and stopping disease in baby chicks. It has a specific action as a bowel antiseptic and regulator. Usually within 48 hours, the sick, droopy chicks are lively and healthy. A liberal supply of these tablets can be obtained by sending fifty cents to The Burrell-Dugger Co., 546 Allen St., Indianapolis, Ind. As Avicol is positively guaranteed to do the work or money refunded, it costs nothing to try. Readers will be surprised at the way chicks grow and develop, in vigorous health, when these tablets are used in the drinking water.

## GERMOZONE TREATMENT

FOR "NECRO" IN HOGS, which has proved such a wonderful remedy, is fully explained in new free book by Geo. H. Lee, inventor of the famous Germozone. Book shows how to "post" your own sick hogs to determine whether "Necro" Worms, Lung Disease, Cholera or what other ailment; how to treat each, etc.—information worth many dollars if for sale. Million copies already requested. Free at leading drug or seed store in your town, or send stamp to the

GEO. H. LEE CO., Dept. 1071 Omaha, Neb.

## CHICKS FROM REAL BARRON Single Comb White Leghorns START RIGHT

Your future success depends on your foundation start. Start with OTTAWA stock, chicks, or eggs. Then you will have layers that will give you the largest production. Write for your copy of our valuable catalog and price list.

Ottawa Hatchery & Poultry Farm, R. 10, HOLLAND, MICH.

## HIGH QUALITY CHICKS

Delivered by Parcel Post Prepaid 100% Live Delivery Guaranteed

	25	50	100
White, Brown and Buff Leghorns	\$3.50	\$6.50	\$12
Barred, White & Buff Rocks, Single and Rose Comb Reds & Anconas	\$4.00	\$8.00	\$15
White Wyandottes, Buff Orpingtons & Black Minorcas	\$4.50	\$8.50	\$16

All chicks inspected by poultry experts holding certificates from Ohio State University to inspect poultry.

## MANKEL IDEAL HATCHERY

Box B, Upper Sandusky, O.

## Good Chicks FREE CATALOG

In Business For 22 Years

WHITE and BUFF LEGHORNS AND HATCHING EGGS BARRED ROCKS, R. I. REDS

## MEADOWBROOK FARM

HENRY DE PREE & SONS R. R. 1 HOLLAND, MICH.

## SUNNYBROOK CHICKS

### Husky Livable Chaps

If you want healthy, vigorous, pure-bred chicks from flocks carefully selected and tested for heavy laying and standard qualifications typical of the variety they represent, chicks that will mature quickly and improve your flock, then you want "SUNNYBROOK" chicks. We specialize in S. C. W. Leghorns, \$13 per 100; Barred Rocks, \$15 per 100; Rhode Island Reds, \$16 per 100; and White Wyandottes, \$18 per 100. In lots of 500 or more \$60 per 100 less. 100% live delivery guaranteed. Postage paid. Catalog free. SUNNYBROOK POULTRY FARM, HILLSDALE, MICHIGAN.

## CHICKS WITH PEP

Ohio Accredited. Every bird passed by inspector trained and authorized by the Poultry Department Ohio State University. Prize winners at many shows from National down. Developed for high egg production for many years. Free range flocks in best of health. 100% live delivery. Thirteen breeds. Catalog free. Prices low, quality considered.

Holgate Chick Hatchery, Box 8M, Holgate, Ohio

## WHITTAKER'S TRAPNESTED REDS

Both Combs, Michigan's Greatest Color and Egg Strain. Chicks and Eggs from Vigorous, Hardy Stock. Our 16th Annual Catalog is yours for the asking. Write for it. INTERLAKES FARM, Box 39, Lawrence, Mich.





### FREE Literature on Pure Bred Chicks and Pullets

Every Fairview bird is thoroughly inspected by a poultry expert. Our stock for years has qualified as long distance layers, giving full satisfaction, as is proven by the fact that 95% of our sales are repeat orders. Before you buy get our

24-page catalog telling how poultry can be made a paying industry with the leading varieties of stock EGGS FROM EXHIBITION ROCKS and REDS, \$5.00 PER 15.

CHICKS: Rocks and Reds, 15c. Grade A Barron Leghorns, Mixed Anconas and Brown Leghorns, 13c. Special matings, 15c. 100% live delivery. FAIRVIEW HATCHERY AND POULTRY FARM, Box 203, Zeeland, Mich.

THEY BEAR INSPECTION  
**Reliable**  
Poultry Farm



### Fancy Stock at Right Prices

Barron W. Leghorns (270-300 ancestry) \$13.50 per 100  
Sheppard Anconas (300-egg strain) 13.50 per 100  
White Wyandottes (Evergreen strain) 18.00 per 100  
Odds and ends, broilers 10.00 per 100  
Shipped by parcel post. Safe arrival guaranteed.  
RELIABLE POULTRY FARM AND HATCHERY, Zeeland, Mich., R. 1, Box 47.

### L-O-O-K!

Can ship chicks of high grade quality at once. Barred Rocks, Reds, White Rocks, 14c each. Wyandottes, Buff Orpingtons, Buff Rocks, 15c. White, Brown Leghorns, 11c. Anconas, 12c. Mixed heavy, 12c. Mixed light breeds, 8c. May chicks \$1.00 per 100 less. June chicks, \$2.00 less. Order direct from this adv. If less than 100 is wanted add 35c extra. Hatching eggs. Free circular tells about 15 first class varieties. Lawrence Hatchery, R. 7, Grand Rapids, Michigan.



W. LEGHORN-BLACK MINORCA-ANCONA

Official International Egg Contest Records up to 254 Eggs.

Few can equal our PRICES. No one can beat our QUALITY. Before ordering your 1925 chicks send for our CATALOG. Our LOW PRICES will astonish you. Over 20 years experience assures your satisfaction.

Established in 1904. Sent by PARCEL POST PREPAID. 100% Live Delivery Guaranteed. PINE BAY POULTRY FARM, Holland, Michigan.



### White Leghorns

Tancred - Hollywood - Barron Sired S. C. White Leghorn chicks. Pure-bred. All free range. Best winter laying strains. Selected 100, \$13; 500, \$22.50; 1,000, \$120. Selected Star-A, 100, \$15; 500, \$72.50; 1,000, \$140. Postpaid. Full live arrival guaranteed. Illustrated catalog free. Highland Poultry Farm, R. 9, Box C, Holland, Mich.

### BARRED ROCKS & REDS

Chicks from sturdy, healthy free range flocks. Carefully mated for high egg production. Blood tested for bacillary white diarrhea. Write for prices. Reference, Farmers' & Merchants' Bank.

Krueper Poultry Farm & Hatchery  
Milan, Mich.



### SPECIAL SALE PULLETS & CHICKS

We have a number of 8 week pullets which we are forced to sell at sacrifice prices because quarters are too small for growing stock. Here is your chance to get some good pullets and day old chicks. To save money, act quick. STANDARD HATCHERY, ZEELAND, MICH. Box A

### SEND NO MONEY for SILVER CHICKS

Just mail your order, we ship C. O. D. and guarantee prepaid 100% live delivery of sturdy, purebred chicks from healthy, bred-to-lay flocks. Wh. Br. Buff Leghorns, 13c; Bd. Rocks, S. C. Reds, 14c; Wh. Rocks, 14c; Buff Rocks, Buff Orps., Wh. Wyand., 16c; Mixed, 10c; Bk. Minorcas, 15c. Lots of less than 100 chicks, 1c more. Silver Lake Egg Farm, Box M, Silver Lake, Ind.



### CHICKS That Satisfy

Big, husky chicks, from heavy layers. S. C. Eng., White and Brown Leghorns, 12c; Anconas, 13c; Barred Rocks and R. I. Reds, 15c; Assorted chicks, 10c; Class A chicks only. No money down. Pay full amount ten days before chicks are shipped. 100% live delivery. Postage paid. Catalog free. THE BOS HATCHERY, R. 2-M, Zeeland, Mich.



### BABY CHICKS Ten FREE

with every 100 order. Plymouth Rocks, White Rocks, White Wyandottes, Reds and White English Leghorns. Order now and get the best at DURAND POULTRY FARM & HATCHERY, Fenton, Mich., Box 404.

CHICKS Barred Rock, Eckhard Strain, White Leghorns and Brown Leghorns. Guarantee full 100% alive. Free Delivery. HILLVIEW POULTRY & HATCHERY, C. BOVEN, Prop., R. 12-B, HOLLAND MICHIGAN.



mother ducks hatch their own eggs near the water, they often take a short swim and come back to the eggs with wet feathers, which gives the eggs considerable washing during the process of incubation.

### CHICKEN-POX AND ROUP.

Please tell me what I can do to stop my other chickens from getting roup and chicken-pox. I have a few that have the chicken-pox and have taken them away from the others. Also tell me what to do for the roup.—G. F. W.

Preventing roup and chicken-pox is largely a matter of sanitation. Keep strong, vigorous birds in well-ventilated houses and feed a balanced ration and the losses from disease are usually small. Of course, chicken-pox might be carried on the feet of a visitor from an infected flock to a clean one.

Touching the sores with iodine seems to help in curing chicken-pox. Severe cases of roup are best treated with the hatchet. They should be prevented by keeping the flock free from colds. When the head is swollen with the accumulation of thick pus, only surgery will save the bird. A wide cut is necessary to pick out the thick matter. Then pack the wound with a bit of cotton wet with iodine so healing will begin on the inside. Remove the mucous from the nostrils with tissue paper and inject commercial disinfectant. Whether treatment for roup will pay or not may depend on the value of the bird. It often takes a lot of time.

Commercial poultrymen find that the only method of making poultry profitable is to keep the flock healthy. This is much cheaper than the rather unsatisfactory treatments which are necessary in curing roup.

### PREVENTING EGG EATING.

My hens insist on eating their eggs. They have grit before them all the time. What would cause them to do this? Also, what causes hens to eat feathers?—H. H. D.

Egg eating usually results from a combination of idleness, open nests and a craving for something the ration lacks. I note you do not mention oyster shells. They are needed to provide the hens with material to place strong shells on all the eggs.

Try using darkened nests which the hens enter from the rear. Then the eggs are not easily seen. Gather the eggs several times from 9:00 a. m. until 3:00 p. m., and a large part of the day's production can be taken from under the birds before the egg eaters have a chance at them. Watch the flock and isolate any birds seen to break eggs. Possibly three or four hens are causing most of the trouble. Turn the flock on range as soon as possible. Keep plenty of litter in the nests so that eggs will not drop on the bare boards and be cracked.

Filling an egg with mustard and red pepper and placing it as bait for an egg eater sometimes produces a cure.

Feather eating is often due to idleness and can be cured when the hens are on free range. Give them a piece of raw beef to peck at and isolate the principal offenders. Make them exercise in straw litter for their scratch grain.

### PURE BRED CHICKS AT REDUCED PRICES

From strong, healthy flocks noted for high egg production. S. C. W. Leghorns For April delivery 10c each. For May delivery 9c each. Odd lots at \$7.50 per 100. We guarantee 100% live delivery, prepaid to your Post Office. SHADY LAWN FARM & HATCHERY, Zeeland, Mich., Box 5-M.

### BABY CHICKS

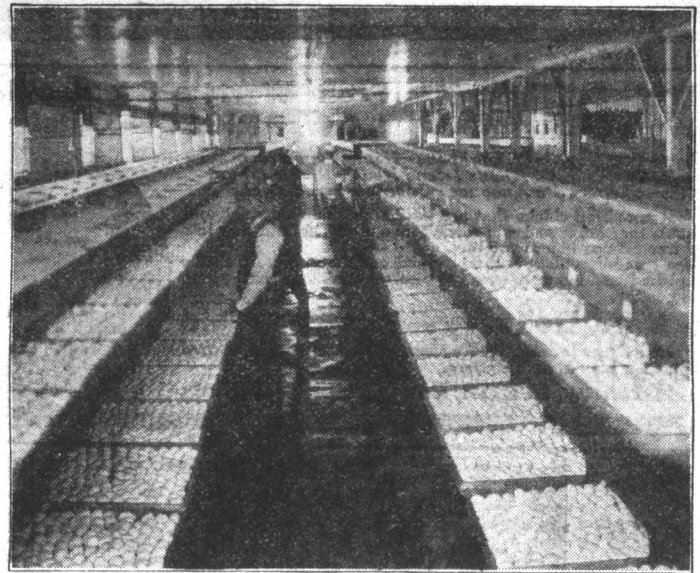
\$12.50 Per 100 and Up We are listing 12 varieties of Pure Blood Farm range stock. Chickens, Ducks and Guinea. Write for price list. CLINTON HATCHERY & POULTRY FARMS, Wilmington, Ohio.



### Quality Chicks

Free range. Healthy stock. Twelve varieties. Eight cents and up. Write for circular and prices. 100% Live arrival guaranteed. Bank reference. ST. STEPHEN HATCHERY, St. Stephen, O.

# Vitality FEEDS



View of the DeVries mammoth 100,000 egg incubator

## USED ON THE DEVRIES GRANDVIEW POULTRY FARM AT ZEELAND MICH.

### Tests by Professor E. C. Foreman Prove Superiority of VITALITY FEEDS

THE DeVries Grandview Poultry Farm, the second largest hatchery in the United States, hatching 500,000 chicks every year, is another famous organization which has adopted the entire Vitality System of Poultry Feeding.

Their decision was based on the vivid record of results produced in a series of exhaustive tests conducted under the personal direction of Professor E. C. Foreman, until recently Head of the Poultry Department of the Michigan Agricultural College, but now associated with the DeVries Grandview Poultry Farm.

Experiments proved "Vitality Chick Starter" to be unequalled for producing rapid growth and large frames and in reducing mortality. "Vitality Growing Mash," and "Vitality Egg Mash," used in prescribed combination with Vitality scratch feeds proved equally supreme for their purposes. The DeVries Grandview Poultry Farm, besides using Vitality Feeds exclusively, also recommend Vitality to their customers.

### Read Mr. DeVries' Enthusiastic Endorsement of the Vitality System of Poultry Feeding!

"In placing an order for a carload of Vitality Poultry Feed with your Michigan representative, we made this decision only after a careful study and comparison of the leading poultry feeds now on the market."

"A minute examination of your various poultry feeds reveals an excellent, well-balanced blend of the highest quality ingredients, which should give entire satisfaction in

securing the desired development in the growing or production from the mature birds."

"Proper feeding is as essential as selective pedigree breeding in economic year round production, and we are confident that 'Vitality Feeds' will furnish the right combination with our careful methods of rigid selection and pedigree breeding for best possible results."

### Write for Profit-Building Poultry Book

"Scientific Poultry Feeding and Management" contains essential information that will assure you greater success and profits from your poultry. Also gives complete information about Vitality Feeds and feeding system. Write for it. Ask your dealer about receiving the Free monthly "Vitality Bulletin."

### GRAIN MARKETING COMPANY DEPT. 4-MF.—208 S. LA SALLE ST. CHICAGO.

## FREE POULTRY BOOK COUPON

Grain Marketing Company, Date \_\_\_\_\_  
Dept. 4-MF.—208 S. La Salle St., Chicago.

Gentlemen: Kindly send me a free copy of the 1925 edition, "Scientific Poultry Feeding and Management."

Name \_\_\_\_\_

Address \_\_\_\_\_

Name and address of your dealer \_\_\_\_\_





## Wingarden Strain

### WHITE LEGHORN BABY CHICKS

**Tancred Holly-wood Barron**

**EGG BRED for 19 YEARS**

**Brown Leghorns Anconas Barred Rocks**

Males from 298-304 egg ancestry; hens from 260-289 ancestry. Every chick strong and healthy, broods making uniform flocks that average high in egg production. 100% safe arrival guaranteed. In short, we sell you profits—how much do you want? Read our catalog for full information.

**Wingarden HATCHERY & FARMS**  
ZEELAND, MICH., BOX M

## BABY CHICKS From World's Greatest Layers

### LOW PRICES—Catalog Free

Eckhard and Tom Barron W. Leghorns—Heavy Type Brown Leghorns—R. C. and S. C. Rhode Island Reds—Rhode Island Whites—Sheppard's Anconas—Park's Barred Rocks

If you want pure bred chicks that are bred right, hatched right, and shipped right, that grow and will make you a profit, get our new low prices and free catalog before you buy.

Flocks are carefully culled and developed on free range. All chicks are hand picked and inspected, no cripples or weaklings. Every one strong and healthy.

**100% Live Delivery—Postage Paid**

Satisfaction Guaranteed. Write Now. White Leghorn and Barred Rock pullets after May 1, at low prices.

**Knoll's Hatchery, R. R. 12, Box M., Holland, Mich.**




## Eagle Nest

### OHIO ACCREDITED BABY CHICKS

Every Eagle Nest Chick is produced from flocks culled and banded by experts appointed by Ohio State University.

Varieties	Prices on	50	100	300	500	1000
White, Brown and Buff Leghorns	.....	\$ 7.00	\$13.00	\$38.00	\$62.00	\$120
Barred, White and Buff Rocks, Anconas, Black Minorcas, S. C. and R. C. Reds	.....	8.00	15.00	43.50	72.00	140
White Wyandottes	.....	8.50	16.00	47.00	75.00	145
Jumbo Brahmas	.....	11.00	21.00	61.00	100.00	190
Buff Minorcas (not accredited) Light 10c Heavy 12c	.....	12.25	24.00	68.00	112.00	...
Mixed Chicks (not accredited) Light 10c Heavy 12c	.....	12.25	24.00	68.00	112.00	...

orders 10% down. Balance 10 days before shipment. Postage Paid. 100% Live Delivery. Circular Free. Order from this advertisement. Banks References. THE EAGLE NEST HATCHERY, Dept. 26, Upper Sandusky, Ohio, U. S. A.

## TYRONE POULTRY FARM

Let us sell you your 1925 Chicks from pure-bred, select White and Brown Leghorns, Barred, White and Buff Rocks, R. I. Reds, Anconas, Black and White Minorcas, White, Buff, Golden and Silver Wyandottes, White and Buff Orpingtons, Black Spanish, Light Brahmas, etc. Of leading strains such as Barron, Parks, etc.

3000 CHICKS GIVEN AWAY TO OUR CUSTOMERS DURING 1925.

We guarantee 100% Live Delivery, Postpaid. Reference: Commercial State Savings Bank. Before ordering Chicks elsewhere, get our special circular containing our low prices and particulars about the 3000 PRIZE CHICKS.

TYRONE POULTRY FARM, DEPT. 20, FENTON, MICHIGAN.

## YPSIFIELD HIGH GRADE CHICKS

Healthy and Husky—True to breed—Order right from this ad. Postage prepaid—25% books order.

English Type White Leghorns, Grade A	English Type White Leghorns, Grade B	White Wyandottes	Barred Rocks	Rhode Island Reds
.....	.....	.....	.....	.....
\$9.50	\$8.50	\$8.50	\$8.00	\$8.00
\$18	\$16	\$16	\$15	\$15
\$85	\$75	\$75	\$72	\$72
\$165	\$145	\$145	\$140	\$140

Ref., First National Bank, Ypsilanti. This is not primarily a Commercial Hatchery, but the Hatchery Department of our modern Egg Farm, established from 20 years' experience in breeding and prolific egg production. YPSIFIELD EGG FARM HATCHERY, Ypsilanti, Mich.

## YEARS OF EXPERIENCE

Our 15 years of work and experience in breeding and hatching Chicks qualifies us as DEAN in the Poultry Industry College. We own and operate a real Poultry Farm of 20 acres, not merely a Hatchery. Our Free Catalog will give you an excellent idea of this Farm—Get it now. We have specialized in White Leghorns for many years.

100% Live Delivery Guar.	Postpaid prices on	25	50	100	500	1000
S. C. White Leghorns, Extra Quality	.....	\$4.00	\$7.50	\$14.00	\$67.50	\$130.00
Barred Rocks, Reds, Anconas	.....	4.25	8.00	15.00	72.00	140.00
White & Buff Rocks, White Wyandottes	.....	5.00	9.00	17.00	80.00	155.00

Ref. Royal Oak Savings Bank. Order direct from this ad. in full confidence.

**DEAN FARM AND HATCHERY,** Box 21, Birmingham, Michigan.

Ref. Royal Oak Savings Bank. Order direct from this ad. In full confidence. DEAN FARM AND HATCHERY, Box 21, Birmingham, Michigan.

## PROGRESSIVE CHICKS

Sturdy, strong Chicks from good, pure-bred flocks on free range.

100% Live Delivery Guar.	Postpaid prices on	25	50	100	500
Buff and Brown Leghorns, Anconas	.....	\$5.50	\$10.00	\$18.00	\$80.00
Barron Strain White Leghorns, (Select)	.....	7.00	14.00	24.00	100.00
Barred Rocks, S. C. Rhode Island Reds	.....	8.00	15.00	27.00	110.00
Mixed Chicks for Broilers	.....	6.25	12.00	21.00	85.00

Special prices on 1,000 to 10,000. Ref., Zeeland State Bank. Order right from this ad in full confidence of getting what you want. Free Circular.

PROGRESSIVE POULTRY FARMS, BOX E, ZEELAND, MICHIGAN.

## Blood-Tested Baby Chicks

Barron Strain S. C. W. Leghorns. We furnish chicks from one, two, and three-year-old tested breeders, mated with high record cockerels, chicks that will positively pay you a profit in eggs this fall and winter. Why speculate with just chicks when you can buy the best "Quality" at "Live and Let Live" prices. Get our circular before you place your order. Satisfaction and 100% live delivery positively guaranteed.

**City Limits Hatchery, Rt. 5, Box C, Holland, Michigan.**

## Pure Bred Baby Chicks

### \$8.00 Per 100 and up

We are now booking orders for May and June chicks, from our high grade Anconas and White Leghorns. These chicks are from extra selected hens mated to Tancred and Sheppard males. We insure our chicks for one week. Write for our catalog and prices before you buy, we can save you money.

**M. D. Wyngarden R. 4 Box 6, Zeeland, Michigan**



## CHI X

We make no extravagant claims. We know you want GOOD CHICKS and that is just what we will furnish you, from good, bred-to-lay, pure-bred flocks, carefully selected. Our business has been built up by having satisfied customers.

100% Live Delivery.	Postpaid prices on	25	50	100
White, Brown & Buff Leghorns	.....	\$4.00	\$7.50	\$14.00
Barred & White Rocks, Reds, Anconas	.....	4.25	8.00	15.00
White Wyandottes, Buff Rocks	.....	5.00	9.00	17.00

5% discount on orders for 500, 10% discount on orders for 1000 and over. Ref., Branch County Savings Bank. Order right from this ad.

**COLDWATER HATCHERY, BOX 53, COLDWATER, MICHIGAN.**

## OUR BOYS AND GIRLS

### What W. B. Didn't Get

Some Interesting M. C. Letters

Dear Uncle Frank and Merry Circle:

Every time I read the different letters on the M. C.'s page, I learn something new, as if these persons were standing right in front of me and telling me of their experiences. I am also pleased with the contests you have. It was great fun to answer them.—Helen Rugg, Route 1, DeWitt, Mich.

It is fine that you find the letters instructive as well as interesting.

Dear Uncle Frank:

Will you allow a Tuscola county creature to get in your (M. C.) motorcycle race with a wheelless flivver? Now, maybe you think this county is not on the map, "but it is." I have never seen any letters in print from near here. Hope I get the first send-off, not in W. B., oh, no!

Say, girls, how do you like Robert Green; isn't he a peach? Now, please

For in our hygiene it describes the ear, how we hear, and when a tree falls it does not make only waves in the air. When a person or animal is there the ear of them will change the waves into sounds. It is the ear which makes the sound.—Your loving niece, Gretchen Hazen, Clarksville, Mich.

I think your explanation of sound is very good, and is correct.

Dear Uncle Frank:

I agree with Rex Ellis on cross word puzzles. They make me very angry at times.

I am getting disgusted with you, Uncle Frank. I have entered nearly every contest and never won anything yet. Oh, well, I guess you are not to blame, it is my own fault. I am not going to give up. My motto is if you don't succeed, try, try again. Thanks for the membership card and button. The button is very pretty.—An M. C. Niece, Ester Richards, R. 6, Lowell.

I am sorry you get disgusted with me, but I can really agree with your conclusions. Just keep to your motto, and besides, try to do a little better each time.

Dear Uncle Frank:

Many, many thanks for accepting my paper as prize worthy, and for the "dandy" prize. I tried very hard to win, but I could only be hopeful about it. When you have once won a prize, it doesn't seem so difficult after all, but I hope my paper deserved all of the favor that it received. I certainly like the Merry Circle, and all that it stands for.—Your grateful Merry Circle nephew, Frank Van Tassel, Hart.

Thanks for your very appreciative letter. Your paper was worthy, otherwise it would not have won a prize.

Louise Turner is a Fifteen-year-old Aunt to These Girls.

don't tell him, but he's the "bi ov me own heart" for doing the work so nice when his dear mother was sick.

Speaking about smoking, I like the unsmoked herring the best.

Don't you think Clinton Vaw's idea is too much like the United States presidential election? We just begin to get over the effects of that, and now along comes vote for Clint Van D. for president.

I wonder what Albert Alfredson does with his feet when he goes to bed, leave them down stairs? At any rate, his portrait is O. K.—Goldy Gladys, Vassar, Mich.

Sure, join our motorcycle race, it's a speedy one, you'll find. I'm glad you like unsmoked boys. Are you sure Clinton was speaking for himself?

Dear Uncle Frank:

I have been a silent reader of the boys' and girls' page. I agree with Oliver Weaver. When a tree falls and there is no one around to hear it, of course it would not make any noise.

Dear Uncle Frank:

How is Old Man Waste Paper Basket today? Not very hungry, I hope. I agree with Gladys Knecht about boys smoking. I prefer the unsmoked kind, thank you. I have three brothers and none of them smoke.—Pearl Wallus, R. 2, Hastings, Mich.

I am glad you prefer the boys who do not smoke.

Dear Uncle Frank:

How are you getting along these days?

I have just read "The Bluebird's" letter about exams., and I would say that I do not get confused when I am writing or I do not wink at the girl on the other table.

I should think a good topic for M. C. would be, "Consolidated Schools." We may get one in our township. I will sign off for tonight.—Your nephew, Orvus McGin, Hale, Mich.

You must be a sensible, even-tempered sort of boy. I think you do right in not winking at the girls during examination. Business is business, you know.

## From a Mother and Others

Some Who are Helping to Spread Happiness

HOW gladly I contribute to your fund for giving cheer to the children at the Sanatorium for Tuberculosis. Loneliness and homesickness and restlessness are as hard for a child to combat as the disease. The proper attitude of mind is as necessary as the care, diet or fresh air. I am sure all your readers will want to give something toward so worthy a cause.

A little more than a year ago a sweet child spirit left our household because of this terrible disease, and though I have the faith and understanding to know that she is not lost to me, and to feel her presence very near almost every day, I feel she was needed in the flesh, and so are all the other little ones, whom I am glad to help as much as I can, and only wish it were more.—A Mother.

Dear Uncle Frank:

I am sending you a quarter for the M. C. Fund. I think the radios would be used in the Merry Circle Fund. We a thing that the children will enjoy. It surely is a great deed of kindness. May God bless you for this.—An M. C. Friend, Mary Fox.

Dear Uncle Frank:

Enclosed please find one dollar to be used in the Merry iCircle Fund. We think the plan you have is a splendid one and hope you will be successful in getting the desired amount.—From two Merry Circle, Dora and Victor Baas.

Dear Sir:

I have read of your radio plan toward helping the tuberculosis children. Although I am not a M. C., I wish to give my bit toward helping them.—Ruth Matthews.



## First-Choice White Leghorn CHICKS

PURE  
HOLLYWOOD  
STRAIN  
260-290 Egg Pedigree

Direct descendants of hens with records of 260-290, mated to males from dams with records of 283-290. Foundation stock direct from Hollywood. We offer also our own Hollywood Mated Rural Strain, Anconas from Sheppard Farm and Brown Leghorns. Fancy matings at prices enabling every buyer of chicks to own the highest grade stock.

ORDER FROM THIS LIST

	50	100	500	1000
Pure Hollywood W. Leghorns (Limited amount).....	\$11.00	\$20.00	\$95.00	\$130
Hollywood Mated.....	8.00	15.00	70.00	115
Utility.....	7.00	13.00	62.50	115
Anconas (Sheppard mated).....	9.00	16.00	75.00	135
Anconas (Utility).....	8.00	14.00	65.00	120
Brown Leghorns (Grade AA).....	7.50	14.00	67.50	125
Brown Leghorns (Grade A).....	7.00	13.00	62.50	115
100% Live delivery. Large, illustrated catalog free.				

THE RURAL POULTRY FARM  
ZEELAND, MICH. R. R. 1, BOX 109

## \$7.81 OFFICIAL PROFIT Per Hen in One Year

Write for my free book today. Tells how I made \$7.81 official profit per hen. Tells how you, too, can make big money with

### Dr. Heasley's Egg-Bred White Leghorn CHICKS

From Greatest Bred-to-Lay Strains  
Tannered—Hollywood—English—Farris (Dr. Heasley Bred) Strains. Also Dr. Heasley's Famous "Egg Basket" Strain Buff Leghorns.  
When you buy chicks this year—buy the best. Dr. Heasley's chicks come from the blood of National Show and Egg Contest winners. Real business birds. Heavy layers of large white eggs. Make big profits every day on the farm. That's what you want—we supply them. At Int'l Egg Contest 1923-24 the Heasley 10 bird pen was among highest winners with average of 235 eggs each. One customer reports average of 208 eggs from 125 farm flock pullets.

SPECIAL REDUCED  
PRICES NOW  
Free Service to Customers.  
Write Today.  
DR. L. E. HEASLEY FARMS,  
Dept. 10  
Grand Rapids, Mich.



## \$502 Net Profit In 3 Months From 250 B.F. White Leghorns Pullets

That's what Mr. I. Wade of Fennville, Mich. made in three months time from pullets raised from chicks he bought of us last spring. You can make big money with our profit making chicks.

### CHICKS - CHICKS

Our stock is strong, healthy, free range, Tannered and Tom Barron White Leghorns—S.C. Rhode Island Reds—Parks' Barred Rocks—the best blood lines in the country. 100% live delivery guaranteed, postpaid. Big, fine catalog free.

8 to 10 Weeks-Old Pullets

Write for Prices

Brummer-Frederickson Poultry Farm  
Box 20 Holland, Mich.



### ROYAL PEN STILL LEADS LEGHORNS

On Jan. 30 the Royal White Leghorn pen at the International Egg Laying Contest took the lead in the Leghorn class and on April 1 still led all the 69 Leghorn pens and was gaining.

Such birds speak for themselves. High breeding counts. 75% of the orders we receive are from old customers who buy their chicks from us year after year. Place your order with us and become a satisfied customer. Our prices are reasonable. 100% live arrival guaranteed. Write now for catalog and prices.

ROYAL HATCHERY & FARMS  
S. P. Wierama, Prop. Zeeland, Mich. R.F.D. 2

CHICKS Barron S. C. W. Leghorns, \$11 per 100. Live delivery guaranteed. Ten extra with each 100 if ordered five weeks in advance. WATERWAY HATCHERY, R. 4, Holland, Mich.

### The Merry Circle Fund

THIS is being written right in the midst of our Self-denial Week, so things have been rather quiet. I suppose that most everyone is waiting until the end of the week and will then send in the results of their self-denial.

At present we have \$38.43 on hand, which has been sent in by 154 contributors. You see that we have quite a ways to go yet to get enough to make those young folks happy at the Howell Sanatorium.

This fund will do a wonderful lot of good if each of ten thousand Merry Circle funders would send in only five cents each. That would mean a real Merry Circle fund of \$500 which could be used to great advantage in spreading happiness.

If we had the money right now, we could help the children at the Crippled Children's Home, near Farmington, to have a garden this summer by buying seeds and tools for them. But, unless we all will do our share, we won't be able to do anything for these children this year.

I would like to be swamped with nickles, dimes and quarters during the coming week.—Uncle Frank.

### The Pie Contest

NO, this is not the kind you think; it's a printer's pi, or pie, I am referring to. You see, I got together several quotations on charity and had the linotype man set them up. Then they got pied, or all mixed up, and I am asking you to help me straighten them out.

Please write the quotations as they should be, put your name on the upper left hand corner of the paper and, if you are a Merry Circle, put M. C. after your name. Write on one side of the paper only.

All the neat and correct papers will be put into a basket and the first two drawn out will win for their writers, fountain pens; the next three, dictionaries, and the next five, handy pocket knives. All who have correct papers and do not win prizes will get M. C. pins and cards if they are not now members.

This contest closes April 24. Send your papers to Uncle Frank, Michigan Farmer, Detroit, Mich.

Here are the pied quotations:  
He is truly great who hath a great  
We are rich only through what we refuse.

\*\*\*  
give, and poor only through what we  
\*\*\*

Be charitable and indulgent to  
thou shall find it after many days.  
everyone but yourself.

\*\*\*  
charity.  
And learn the Luxury of doing good.

\*\*\*  
Cast thy bread upon the waters for  
\*\*\*

### HOME CONTEST WINNERS.

THE "What is the Matter with Home" contest brought some interesting papers on the subject, although there were not as many replies as I expected there would be. Perhaps most of the boys and girls are satisfied with home as it is. If so, I am very glad.

The winners of the contest are as follows:

Fountain Pens.  
Valma Mishler, R. 2, Alto, Mich.  
Dorothy Wicke, 56 Garland Avenue, Detroit, Mich.

Dictionaries.  
Florence Rairigh, Woodland, Mich.  
Ruth Halsey, R. 4, Olivet, Mich.  
Donna Scribner, Bancroft, Mich.

Knives.  
Kenneth Tripp, Hope, Mich.  
Esther Sjogren, R. 3, Rockford, Mich.

Vera Freeland, R. 2, North Branch, Mich.  
Wilma Betts, Ray, Indiana.  
Archie J. Pearce, R. 3, Bad Axe, Mich.

# PAN-A-CE-A

## prevents the back-sets

If you want early broilers—

If you want November layers—

You must avoid the back-sets in your growing flock.

Add Dr. Hess Poultry Pan-a-ce-a to the ration daily.

Then never mind about disease, bowel troubles, leg weakness and gapes.

Pan-a-ce-a takes care of all that.

Pan-a-ce-a tones up the appetite—promotes digestion.

Pan-a-ce-a helps your flock to turn the feed to good account—growth, bone, flesh, feathers.

You can tell a Pan-a-ce-a flock every time by the good feeling—always happy and industrious.

### Costs Little to Use Pan-a-ce-a

The price of just one two-pound broiler pays for all the Pan-a-ce-a 200 chicks will eat in sixty days.

Tell your dealer how many chicks you have. He has a right-sized package for every flock.

REMEMBER—When you buy any Dr. Hess product, our responsibility does not end until you are satisfied that your investment is a profitable one. Otherwise, return the empty container to your dealer and get your money back.

DR. HESS & CLARK, Inc., Ashland, Ohio

## Dr. Hess Instant Louse Killer Kills Lice



## OHIO ACCREDITED CHICKS

### THEY COST NO MORE - AND YOU CAN FEEL SAFE

Chicks from our hatchery come up to the standard set by Ohio State University for pure-bred chicks. They have been inspected and have stood the test. Order today for immediate delivery, or send for catalog. Order our chicks and feel safe.

Prices (Postpaid) on:

S. C. Wh. Br. & Buff Leghorns.....	25	50	100	500	1000
S. C. Mottled Anconas.....	\$3.25	\$4.50	\$13	\$60	\$115
S. C. Blk. Minorcas, Bd. Rocks, S. C. Reds.....	3.50	7.00	11	55	125
Wh. Rocks, Wh. Wyandottes, R. C. Reds.....	4.00	8.00	16	77	144
Jersey Black Giants.....	4.25	8.50	17	83	160
Assorted (not shipped under Accredited Label).....	7.50	15.00	30	..	..
S. C. Buff & White Orpingtons.....	2.50	5.00	10	50	100

WOLF HATCHING & BREEDING CO.,

DEPT. 4,

Immediate  
shipment 100%  
live delivery  
guaranteed  
GIBSONBURG, OHIO.



## KEYSTONE HATCHERY

QUALITY CHICKS Hatched from heavy laying, contest winning flocks. Winners in Michigan, Connecticut, Missouri and Canadian

Contests. BLOOD TESTED FOR BACILLARY WHITE DIARRHEA.

100% Live Delivery Guaranteed. Postpaid prices	50	100	500	1000
Foreman Strain Barred Rocks.....	\$10.50	\$20	\$95	\$185
Selected Barred Rocks.....	8.00	15	70	135
S. C. Reds, (Int. Laying Contest Stock).....	10.50	20	95	190
Extra Selected S. C. and R. C. Reds.....	9.00	17	80	155
White Rocks and Wyandottes.....	8.00	15	70	135
Tannered American White Leghorns.....	9.00	17	80	155
Utility & Eng. Barron White Leghorns.....	8.00	15	70	135
Mixed Chicks, 50, \$6; 100, \$12. Mixed all Heavies, 50, \$6.50; 100, \$13. For Delivery May 15th to June 15th, deduct 2c per Chick. For Delivery after June 15th, deduct 4c. Order direct from this advertisement in perfect confidence. KEYSTONE HATCHERY, DEPT. 50, LANSING, MICHIGAN.	6.50	12	60	115

## Chicks--Pullets

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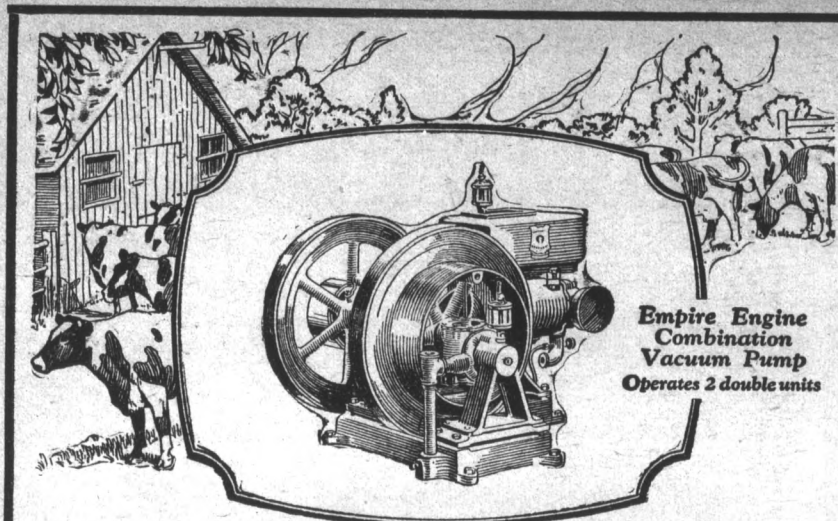
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Combination  
Vacuum Pump  
Operates 2 double units

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Duty Free Gets all the cream, turns easier, cleans quicker—the greatest money maker ever built.  
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## Feeding Detroit Milk

(Continued from page 533).

ance. At present these prices are:  
Fluid milk \$3.00 per cwt., for milk testing 3.5 per cent and the average price of New York 92-score butter plus twenty per cent for all milk received in excess of fluid milk sales. There is a differential of five cents (at March butter prices) a point for milk testing above or below 3.5 per cent.

Another principle of the selling plan is that each farmer shall have the privilege of keeping at home all his production in excess of what will be sold as fluid milk. Probably the farmer would prefer to separate this milk, sell the butter-fat, and feed the skim-milk on the farm. This plan is no doubt a very good one for the transportation cost is saved and skim-milk is going to be very valuable for pork production this year.

There are some practical difficulties in the way of notifying the farmer at the beginning of the month just how much milk he can sell at fluid prices. The distributor does not know until

the close of the month just what these sales are. The best that can be done is to make an estimate. The farmer naturally wants to sell as much of his production as possible at fluid prices and therefore wants to be told how much to ship. This can never be foretold accurately.

The most feasible plan suggested up to this time is for the distributor to make an estimate of what his sales will be during the month and "make a call" on this basis. If the "call" is too high or too low an adjustment will be made the next month. This call is based upon production of the "Base Period." Each distributor knows how much milk his patrons produced during this base period. If he estimates that his sales during the next month will be eighty per cent of this base production, he will make a call for eighty per cent and agrees to pay for this percentage of each producer's base at the fluid milk price.

To show how this works out a few cases are given:

	Test.	Base.	Call 80% of Base.	Shipments.	Paid for at Base.	Paid for at Mfgd. Prices.
A	3.5	3000	2400	4800	2400	2400
B	3.2	1000	800	800	800	....
C	3.7	2000	1600	1000	1000	....
D	3.8	1000	800	6800	800	6000

Each farmer may keep at home the amount of production in excess of what he can sell as fluid milk.

Assuming that each of the producers are shipping from the same station and the transportation rate is thirty-five cents per cwt., their receipts would be as follows:

A—2400@3.00	.....	\$ 72.00
2400@ 2.00	.....	48.00
Total	.....	\$120.00
Transportation	.....4800@35c	\$16.80
Association dues, 2c per cwt.	.....	.96
Total	.....	\$137.76
Average per cwt.	.....	\$102.24
B—800@3.00	.....	2.13
Transportation	.....800@35c	\$ 24.00
Association dues	.....800@ 2c	\$ 2.80
For low test 3 points	.....800@15c	.16
Total	.....	\$ 4.16
Average per cwt.	.....	\$ 19.84
C—1000@3.00	.....	2.48
For high test 2 points at 5c (10c)	.....	\$ 30.00
1000	.....	1.00
Total	.....	\$ 31.40
Transportation	.....1000@35c	\$ 3.50
Association dues	.....1000@ 2c	.20
Total	.....	\$ 27.30
Average per cwt.	.....	2.73
D—800@3.00	.....	\$ 24.00
6000@ 2.00	.....	120.00
Total	.....	\$144.00
Differential 3 points@5c (15c) 6800	.....	10.20
Total	.....	\$154.20
Transportation	.....6800@35c	\$23.80
Association dues	.....6800@ 2c	1.36
Total	.....	\$ 25.16
Average	.....	\$129.04
	.....	1.90

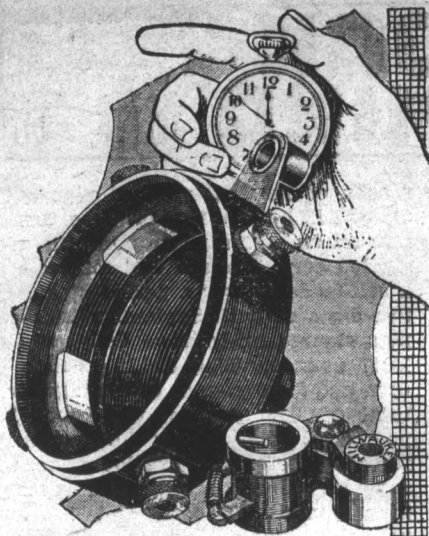
The producer who ships large quantities above that sold as fluid milk naturally gets a lower average price because he is shipping a low valued product on which he pays a high transportation cost. It surely is not profitable to ship whole milk a long distance and sell it as manufactured prices. A separator and a bunch of hogs would, no doubt, turn loss to gain.

I know of no milk marketing plan which is giving entire satisfaction to every producer, all distributors, and every consumer. This is a big problem and is being worked out slowly. If there are any features in the Detroit plan which is wrong I am sure the officers of the Michigan Milk Producers' Association would be glad to receive suggestions and would be pleased to have anyone come forth

with a plan which would work better and be just to all producers and the consumer.

Many of us, no doubt, do not feel that we are making our private business bring us the best results. We probably haven't what we feel is a perfect plan in operation. We hope to make adjustments so that better results will be accomplished. It is much harder to work out a system which will satisfy 10,000 producers, fifty business men, and over a million consumers. Every member of the Michigan Milk Producers' Association should study this milk market problem in a scientific, unprejudiced and, unselfish manner to the end that dairying will become a more profitable and stable business and that a safe milk supply be assured the city of Detroit.





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DEPEND on a good watch to time yourself accurately. Depend on a Milwaukee Timer to time your Ford accurately.

A Milwaukee will give your good Ford motor more power, peppier speed, quicker starting, faster pick-up. You can depend on it because of its

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Our Giant Washington Asparagus brought \$15 a dozen bunches in New York markets. Hardy, rust-resistant—easy to grow. Many stalks 2" in diameter. Stalks to the bunch. Plant Giant Roots and eat next year. Write for free booklet today. Riverview Farms, Box 252 Bridgeton, N.J.

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is a superior hinge-joint fence, made in the standard styles for farm, poultry and garden. Both our hinge-joint and stiff-stay fences are Super-Zinc-ed and include attractive Lawn and Flower Fences. We guarantee them to be unexcelled in quality and durability, yet they cost no more than ordinary galvanized fences.

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708 Union Trust Bldg.  
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### DANES PRODUCE BUTTER CHEAPER THAN WE DO.

SHOULD President Coolidge decide upon a higher duty on butter as a result of the findings of the United States Tariff Commission, the Danes may retaliate by placing a prohibitive tariff on certain American products, according to reports that come to Washington from Denmark. The commission's findings show that Danish butter can be laid down in New York at a less price than that of the product of middle western creameries.

### ENGLAND WANTS DAIRY CONGRESS.

A WORLD'S dairy congress in London, England, similar to that held in this country in 1923, is being considered by the British ministries of health and agriculture, according to reports received in Washington. The Britishers who attended our world's congress were especially impressed with the way the United States is handling its tuberculosis eradication work, and there is a strong feeling in the British Isles that a similar work should be undertaken there.

### NORTH KENT ANNUAL REPORT.

THE North Kent Cow Testing Association finished its second year's work on March 24, 1924. The tester's report shows 212 cows on test for the year with an average production of 7,083.9 pounds of milk and a 4.1 per cent test, and 291.35 pounds of butter-fat. Feed cost of a pound of butter-fat was .247 cents. Feed cost of 100 pounds of milk was \$1.01, and \$2.25 returned for every dollar invested in feed.

Honors for butter-fat production went to the herd of Frank Jewell, consisting of four pure-bred Holsteins. This herd averaged 12,618.7 pounds of milk, a 3.47 test, and 438.3 pounds of fat. This same herd was high in milk production. The high cows in fat production was a pure-bred Holstein from the Jewell herd, producing 15,305 pounds of milk, a 3.48 test, and 533.7 pounds of fat. This cow was also high in milk production.

The high two-year-old was a pure-bred Guernsey owned by Elmer Weller producing 7,032 pounds of milk and 397.7 pounds of fat. The high three-year-old was a grade Holstein owned by Roy Hodges, producing 9,632 pounds of milk and 355.1 pounds of fat. The high four-year-old and milk class was a pure-bred Holstein owned by Frank Jewell.

Ten herds made over 300 pounds of fat. They were as follows: Frank Jewell, Holsteins, 438.3 pounds; Elmer Weller, Guernseys, 391.1 pounds; M. Rector, Guernseys, 366.5 pounds; F. Norman, Holsteins, 363.9; C. Lamb, Holsteins, 331.6 pounds; J. Hammer, Holsteins and Jerseys, 324.8 pounds; M. Post, Jerseys, 324.7 pounds; Ray Hodges, Holsteins, 321.1 pounds; F. Long, Jerseys, 317.5 pounds; Carl Young, Guernseys, 306.5 pounds.

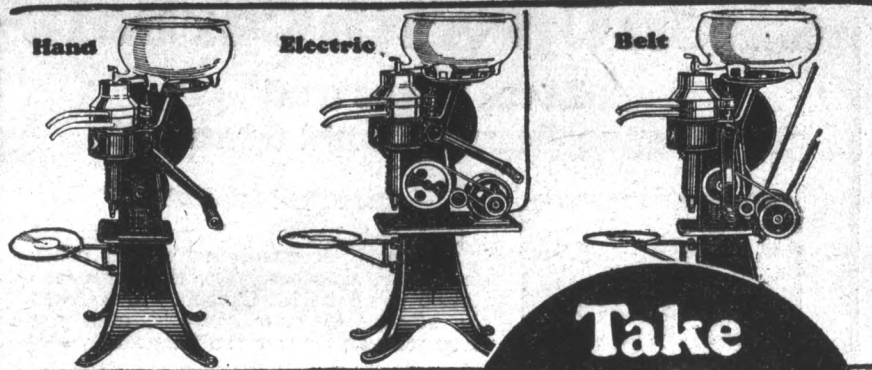
Fifteen members used alfalfa. A large amount of manure has been hauled from four pits in the association. Ten separators were checked up. Three were losing money per month as follows: \$1.14, \$4.35 and \$10.13. Figure it up and see if cow testing association work paid those men.

The association is under re-organization and will continue its work. Herbert Hansen who has been the tester for eighteen months past will not return. Going to his home to farm.—K. K. Vining, Kent County Farm Agent.

### DURHAM COW LEADS HERE.

OF the 262 cows in the Coleman-Union Testing Association, sixty-three were dry last month, sixteen produced above forty-five pounds of fat and four produced above fifty pounds; twenty-eight made over 1,000 pounds of milk, and eleven over 1,250 pounds. Nine new cows were entered. One was sold as unprofitable. The average production of butter-fat was 21.9 pounds, and of milk 578.1 pounds.

The high cow for butter production was a grade Durham, owned by Frank A. Lundy, of Coleman. She gave 1,147.7 pounds of milk and 63.7 pounds of fat. Mr. Lundy also had high herd average for the third time. His four grade Durhams averaged 1,133.8 pounds of milk and 48.5 pounds of fat. The high cow on milk production was a Holstein with 1,531.4 pounds of milk and 56.7 pounds of fat. She was owned by John Sterling, of Beaverton.—Elden G. Witkovsky.



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for all permanent buildings on the farm or in the city; best material obtainable, combining beauty, durability and economy. Furnished in Smooth Glaze or beautiful Mat finish. If your dealer is not handling Hoosier tile send us your plans and get free estimates of cost. HOOSIER BLDG. TILE & SILO CO., M-99, Albany, Indiana

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## Insures More Milk

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Apply Carbola to the walls, ceilings, roosts and dropping boards of your poultry houses. Dust the dry powder right on the fowls. Result—more light, thorough sanitation, healthy fowls, more eggs—and no lice or mites.

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Sire by Lone Pine Ranger whose dam has an A. R. record of 17,044.2 lbs. Milk, 936.6 lbs. Fat. No Females for Sale. Write J. M. Williams, North Adams; Gilmore Brothers, Camden, Mich.

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8 months T. B. tested, from one of best herds in state. W. F. EVANS, Birmingham, Mich., Quanton Road, Route 2.

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Young bulls from A. R. cows for sale.  
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### A PONTIAC BULL

Born December 11, 1924. A good individual, well grown, and dark colored.  
Sire: College Butler Boy, 293508, a show bull out of a 32.7-lb. cow with a yearly record of 1,112.0 lbs. butter and 25,079 lbs. milk. His first yearly record daughter has better than 800 lbs. butter at 2 yr. 1 month of age.  
Dam: Pontiac Onetta, 304319.  
At 3 yr. 4 mo.: Butter, 7 days.... 24.12  
Milk ..... 535.1  
Butter, 305 days.... 907.52  
Milk ..... 22088.1  
Her sire is Best Walker, sire of the World's record heifer, Pontiac Irene, and her dam is a granddaughter of Pontiac Korndyke and Hengerveld Dekol.  
His dam and sire's dam average 1,010 lbs. butter and 23,583 lbs. milk.  
PONTIACS FOR PRODUCTION  
Send for pedigree of Ear Tag 171.  
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60 Wt. Around 850 lbs.; 66 Wt. Around 740 lbs.  
80 Wt. Around 650 lbs.; 46 Wt. Around 525 lbs.  
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Also many other bunches. Deep reds, dehorned, good stocker condition. Real quality Herefords are usually market toppers when finished. Will sell your choice from any bunch. VAN B. BALDWIN, Eldon, Wapello Co., Iowa.

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72 wt. around 700 lbs. 38, Shorthorns, 1,150 lbs.  
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at a bargain. Four yearlings, three two-year-old heifers, ten young cows with calves by side and rebred; one yearling, one two-year-old bull; also herd bull, Wizard Briton, a show and breeding bull, never sired a horned calf. For particulars, write GLEN GOLDEN, Angola, Indiana.

**Registered Herefords** Bulls, cows and heifers for sale. RALPH CALHOON, Branch Co., Bronson, Mich.

**Financial King Jerseys** Our bulls of serviceable age are all sold, but we have a few bull calves of excellent breeding, sired by our great herd sire, Financial King Sensation. Our prices are reasonable. COLDWATER JERSEY FARM, Coldwater, Mich.

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15 Cows, 4 bulls from R. of M. Cows. Chance to select from herd of 70. Some fresh, others bred for fall freshening. Colon C. Lillie, Coopersville, Mich.

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Lakefield Farms, Clarkstown, Mich.



## FORAGE CROPS REDUCE PORK COSTS.

(Continued from page 529).

pounds, using 307.37 pounds of corn and 17.20 pounds of tankage, or a total of 325.70 pounds of feed for each 100 pounds of gain.

The average of five trials conducted at this station with corn and tankage self-fed in a dry lot showed that it took 395 pounds of shelled corn and forty pounds of tankage to produce 100 pounds of gain. The alfalfa pasture pigs, therefore, made a saving of eighty-seven pounds of corn and twenty-three pounds of tankage per 100

season of 1924. Seventeen pigs averaging 44.76 pounds each were turned into an acre of rape on June 21, with shelled corn, tankage and minerals in a self-feeder. Over a period of ninety-two days, or until September 21, these pigs showed an average daily gain of 1.047 pounds, using 316.18 pounds of corn and 25.70 pounds of tankage, or a total of 342 pounds for each 100 pounds of gain. Using the figures referred to before for dry lot gains, the rape lot showed a saving of seventy-nine pounds of corn and fourteen pounds of tankage for each 100 pounds of gain made by the pigs. The total gains made were 1,368 pounds. Using



It is Gratifying to Know That the Number of "Whitefaces" Are Increasing in the Thumb District of Michigan.

pounds gain. The total gain of the pigs on this lot was 2,035 pounds. Calculating corn as worth eighty-four cents per bushel, and tankage at \$60 per ton, the acre of alfalfa saved \$40.59 worth of feed, or in other words, produced this value in pork. This shows that alfalfa has a high feeding value for pasturing pigs.

When blue grass or alfalfa is not available oats and Canada field peas can be used to excellent advantage. They should be sown as early as possible in the spring at the rate of about one and one-half bushels each per acre. On strong land the amount of peas should be reduced to one and one-quarter bushels. About six pounds of Dwarf Essex rape per acre should be added. While it is usually not advisable to sow rape in the early spring, there is little added expense or labor in sowing it with the oats and peas, and if conditions are favorable it will provide good forage all season until late fall. With a good spring this mixture will be ready to pasture in five or six weeks after being sown.

Dwarf Essex rape is no doubt the best emergency pasture crop for hogs. This crop can be grown successfully on lots that have been tramped all winter and spring and supplies good succulent feed from early summer until killed by frost. The best time to sow rape is usually soon after oat seeding, or from May 1 to June 1, using from six to eight pounds per acre. If conditions are favorable during the summer, sowing as late as July 1, or even later, produces good forage for fall use. A clover sod after the hay has been removed, can well be used for this purpose.

Care should be taken to make a good seed-bed for rape. The seed is very small, and unless the soil is worked down fine, germination is liable to be very poor.

Rape is usually ready to pasture about five or six weeks after being sown. It should then be eight to ten inches high. In order to get the largest amount of forage it should not be pastured very closely nor allowed to grow up very high. It is advisable to have two plots of rape and rotate the pigs from one to the other.

The Michigan Experiment Station conducted experiments with rape as a pasture for pigs during the summer

the feed prices referred to above, this gives a feed saving value for rape of \$26.39 per acre.

These figures on the value of alfalfa and rape are the result of but one year's work at this station, but they are considered fairly representative. This work will be repeated this year.

These trials and many others conducted at other experiment stations show clearly that forage crops are a very important factor in producing rapid gains and economical pork production.

## SHORTHORNS AT WILDWOOD.

**D**RIVING across country the other day, I stopped at the Wildwood Farm. Here among the century-old trees at the side of a well-paved highway, near Tecumseh, live Beeland & Beeland, and on their well-improved farm they are endeavoring to perpetuate the farm of the old Davidson Shorthorns, so well known to Michigan cattlemen a generation and more ago. The herd was carried on through the second generation by the son-in-law and under the name of Davidson & Hall, and now on the adjoining farm the good work goes on under the guidance of the son-in-law's son-in-law, and the firm name is Beeland & Beeland.

The herd has always been known for its good milking qualities. Today special emphasis is being laid upon these qualities and many very satisfactory records are being made. They have a group of fourteen heifers by a very promising sire that came a couple of years ago from one of Indiana's good milking herds. To mate with these heifers they have recently purchased a very likely youngster with much royal blood and show yard winning ancestry from the Walnut Grove herd of Milking Shorthorns, owned by H. E. Tener, at Washingtonville, New York.

This firm recently consigned a group of their cattle to an association sale in Ohio, and had the satisfaction of seeing them sell well toward the top.—Pope.

A man with a flivver had a blowout right near Myra Kinsting's house but he did not stop. Myra says it must have been the spare tire that blew up.



## PIGS COMING STRONG.

THE warm weather has been especially favorable for the new-born pigs. So far we have scarcely lost a pig that was fit to live upon arrival. From four litters to date we have thirty-eight little fellows nicely started on the road to hoghood, and we have not lost much sleep over them either.

Our brood sows have wintered very nicely on alfalfa hay, beet tops, ground oats and barley, with a very little tankage fed in their slop, and just corn enough to keep them in smooth flesh. They have had a good dry, roomy place to sleep, with plenty of exercise, and always a block of salt in the yard, and occasionally some ashes and charcoal. Soon they will go with their families out on the fresh alfalfa pasture where they will be at liberty to make gluttons of themselves if they wish.—Pope.

## CATTLE WINTERED WELL.

OUR little herd of cattle have come through the winter in fine shape. I think I have never seen them in a thriftier condition at this time of the

year, and except for the one cow that we milk, you could carry all the grain they have eaten, in your hat. They have had one good feed of alfalfa hay each day throughout the winter. The remainder of their ration has been sugar beet tops, bean pods and corn fodder. After this year's experience, I am quite well sold on the value that lies in sugar beet tops, as a part ration. The cattle eat them as greedily now as in the fall when they were fresh, and their flesh is sappy and mellow and their hides soft and loose and pliable. It has been a surprise to us that we could feed beet tops all through the winter. Heretofore, we thought we had to quit when they began to freeze badly, but by piling them up in neat little piles while green, and hauling them in, a load at a time, the cattle have missed scarcely a feed of them this winter and they will last right up until the cattle go to grass.

## 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.

**Sore Eyes.**—Our very young lambs are troubled with sore eyes, but do not seem to be sick. Mrs. A. W. Hillman, Mich.—Dissolve a teaspoonful of boric acid in a half pint of water and apply a few drops to eyes twice a day. A bright light will make them worse.

**Chronic Scours.**—Have a yearling heifer that has been troubled for a long time with scours and nothing I have done for her seems to make her any better. Mrs. S. S. McN., Mt. Pleasant, Mich.—Give her a teaspoonful of powdered dried sulphate of iron at a dose in feed three times a day.

**Milk Fever—Cough.**—One of my cows had severe attack of milk fever; since then she has not been doing well. One quarter of udder is diseased. Several of our calves are troubled with a cough. J. I. Snover, Mich.—Give cow a tablespoonful of powdered gentian in ground feed three times a day, feed plenty of roots and salt her daily. Apply camphorated oil to throat of calves twice a day.

**Garget.**—We have a cow which is now suffering from second attack of garget and now gives very little milk from one quarter of udder. Will she ever give much milk from diseased quarter? N. W. S., Webberville, Mich.—Give her half ounce of fluid extract of phytolacca at a dose three times a day, and apply one part iodine and ten parts lard to hard portions daily. I am unable to say how she will milk from this quarter, it's too early to tell.

**Nasal Catarrh—Worms.**—I have a cat that is troubled with catarrh, mucus comes from eyes and nose. Last year he had sores under chin. He also has worms, and I have tried everything for lice. Mrs. R. R. Montrose, Mich.—Dissolve a teaspoonful of boric acid in half pint of tepid water, and apply to nose and eyes twice a day. Fast the cat for fifteen hours, give ten drops of equal parts of fluid extract of spigelia and senna once a week. This is a safe worm remedy for cats. An infusion of stavesacre one to twenty should be applied and well worked into hair and skin; this will kill lice, but it should be repeated several times. In young or debilitated cats which are troubled with lice, chinolol 1-500 may be substituted in place of above mentioned remedy.

**Blotches.**—Have a young cow that has large blotches on her back and near root of tail which ooze a watery fluid. A. B., Algonac, Mich.—Dissolve one ounce of acetate of lead, one dram of tannic acid in one quart of water and wet sore parts three times a day. Equal parts of boric acid and oxide of zinc is another good remedy and it should be applied twice daily.

**Sick Hogs.**—I have 45 hogs weighing about 180 pounds each. They are fed corn, water and tankage. I have lost two, another hog is sick, they breathe with some difficulty, sometimes fall, but seemingly get over it. This sick spell does not come on while they are eating. Our local veterinary advised taking cold chill off water and to cease feeding tankage. H. S., Williamston, Mich.—Hogs that are fed corn, tankage and good clean water usually thrive. The writer is unable to say what ails your hogs, perhaps they have intestinal parasites, or parasitic lung ailment.



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is made up of elements that for ages were in the form of solid rock. Mixed with great care, ground fine, burned thoroughly and then reground finer than flour under strict chemical supervision, these elements make an extraordinary binding material that knits sand and stone, or sand and gravel, into improvements solid as rock.

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Registered O. I. C. Sows some due to farrow soon, others later. Gilts, yearlings and 2-year-olds. Also boars of all ages. All stock on approval. Register free. FRED W. KENNEDY, R. 2, Plymouth, Mich.

O. I. C. 6 fine fall boars and 1 choice yearling boar. CLOVER LEAF STOCK FARM, Monroe, Mich.

### Francisco Farm Poland Chinas

There are still a few of those good, big, bred gilts left. The first \$50 checks get them. P. F. POPE, Mt. Pleasant, Mich.

Fall Pigs either sex, by the great Boar, The Wolverine. Priced reasonable. Best of dams. W. E. Livingston, Parma, Mich.

Big Type POLAND CHINA FALL GILTS. Rainbow - Clansman breeding. Bred or open. Geo. W. Needham, Saline, Mich.

Large Type Poland Chinas Fall pigs of either sex for sale. A. A. FELDKAMP, Manchester, Mich.

## SHEEP

Registered Shropshire Ewes For Sale. Twenty-one Head of yearling and two-year-olds due to Lamb in April. C. V. Tracy, Ithaca, Mich. Union Phone.



JAMES COUZENS

## SENATOR COUZENS

DISPERSES HIS ENTIRE HERD OF  
185 REGISTERED HOLSTEINS

AT WABEEK FARMS PONTIAC, MICH.

MAY 5-6, 1925

This great producing herd has been developed by the use of the very best blood lines, namely the Maplecrest, Ormsby, Segis and Pontiac strains and by a rigid application of authentic production tests. Therefore, there is a reason why the herd today is rich in the best blood of the breed, why many of its numbers would make a creditable showing in any show ring, and why the herd is so well recommended by practical production records.

Write to WABEEK FARMS, Harry Mather, Mgr., PONTIAC, MICH., for a catalog and illustrated circular.

### DISPERSAL SALE — 38 REGISTERED HOLSTEINS APRIL 23, 1925 — 1. P.M. SHARP

Blackley Farm Dairy Herd, all T. B. Tested. 19 Cows. Three daughters out of 32-lb. bull, King Korndyke Sadie Hengerveld. 5 daughters out of 30-lb. bull, King Korndyke Echo Sylvia. 1 daughter out of 32-lb. cow, Lyons Mutual Brighton. 1 daughter out of 25-lb. cow and 37-lb. bull. 2 granddaughters of Flint Hengerveld Lad. 12 granddaughters of Jule Segis Pontiac. 1 Herd Sire, double grandson of Kirkwood Pauline Bertjusca—37-lb. cow.

Sale—located 2 miles north and 1½ miles east of Royal Oak on 13 Mile Road near John R., 3¼ miles east of Warren.

B. V. KELLEY, AUCTIONEER, SYRACUSE, N.Y.

S. T. WOOD (in the box) LIVERPOOL, N.Y.

WILLIAM L. BLEAKLEY (owner) ROUTE 5, BOX 91, ROYAL OAK, MICH.

### Complete Dispersal Sale of Geo. C. Spangenberg herd at 1:30 P. M. April 21st. 30 Registered Holsteins. Federal Accredited Herd 60 day retest.

Herd sire is Velvet Flint De Kol, a son of King Flint, from a granddaughter of Johan Hengerveld Lad with 27 lbs. butter in 7 days, 785 lbs. butter in 305 days.

Females are daughters or granddaughters of such sires as King Ona, King Segis Pontiac, K. P. P. 30th, Maplecrest Korndyke Hengerveld, King Korndyke Sadie Vale and other good sires.

Farm is 3 mile west and 1 mile north of Royal Oak, 1½ miles west of Woodward Ave., on 13 Mile Road, Corner Division Road.

F. J. FISHBECK in the box. IRVING A. COULSON, Mt. Clemens, Mich., Auctioneer, GEORGE C. SPANGENBERG, Owner. Sale of farm equipment at 10:00 A. M.





# THE LATEST MARKET REPORTS



## GRAIN QUOTATIONS

Tuesday, April 14.

### Wheat.

Detroit.—No. 1 red \$1.83; No. 2 red \$1.82; No. 2 white \$1.80; No. 2 mixed \$1.80.

Chicago.—May \$1.60 1/4 @ 1.60 1/2; July \$1.46 1/2 @ 1.46 3/4; September \$1.36 @ 1.36 1/4.

Toledo.—Wheat \$1.84 @ 1.85.

### Corn.

Detroit.—No. 3 yellow \$1.15; No. 4 yellow \$1.10.

Chicago.—May \$1.09 1/4 @ 1.09 1/2; July \$1.12 1/2 @ 1.13; September at \$1.13 1/2 @ 1.13 1/4.

### Oats.

Detroit.—No. 2 white at 55c; No. 3 white 54c.

Chicago.—May at 41 1/2c; July 43c; September 43 1/2c.

### Rye.

Detroit.—No. 2, \$1.21.

Chicago.—May \$1.15 1/2 @ 1.15 3/4; July \$1.10 1/2; September \$1.02.

Toledo.—\$1.16.

### Beans.

Detroit.—Immediate and prompt shipment \$5.40 @ 5.50 per cwt.

Chicago.—Navy, choice \$6.25; red kidneys \$10 @ 10.50.

New York.—Choice pea \$6.25; red kidneys \$10 @ 10.25.

### Barley.

Detroit.—Malting 93c; feeding 89c.

### Buckwheat.

Detroit.—\$2 @ 2.05.

### Seeds.

Detroit.—Prime red clover cash at \$17.20; alsike \$15.15; timothy \$3.30.

### Hay.

Detroit.—No. 1 timothy \$16 @ 16.50; standard and light mixed \$15.50 @ 16; No. 2 timothy at \$14 @ 15; No. 1 clover and No. 1 clover mixed \$13 @ 14; wheat and oat straw \$10.50 @ 11; rye straw \$11.50 @ 12.

### Feeds.

Detroit.—Bran at \$33 @ 35; standard middlings at \$34; fine middlings \$39; cracked corn \$55; coarse cornmeal at \$41; chop \$35.

### Apples.

Chicago prices on apples: Northern Spies \$7 @ 8 bbl; Baldwins at \$6 @ 7; Jonathans at \$9.50 bbl; Kings at \$7.50 @ 8; Greenings \$7.50 @ 8; Wagons \$5.25 @ 5.50 bbl; Grimes at \$5.50 @ 5.75; Starks \$6.50 @ 7; Ben Davis at \$5.50.

## WHEAT

The grain markets have had a distinct turn for the better in the last week. The action thus far strongly suggests that the bear market of the preceding two months is over and that the main trend will be upward for a considerable period. The tone of the wheat market has improved abroad as well as in the United States. The rate of absorption of wheat abroad tends to confirm the view that there will be a close cleanup of supplies at the end of the crop year in all exporting countries. The official report on the winter wheat crop was more bullish than the private returns. The condition was placed at 68.7.

## CORN

Demand for corn from industries and feeders improved noticeably on the break early in the week and a strong rally in prices followed. It is not so clear that cash buyers of corn will follow the market upward as keenly as they may do in wheat. Nevertheless, the decline in corn prices probably was much overdone. Fundamental conditions in corn appear to be amply strong enough to maintain prices above the extreme low points reached on the decline, although those conditions may take some time to assert themselves in the form of a material advance.

## FEEDS

Demand for feeds is quiet and prices on gluten and hominy feeds were cut last week. Production of wheat feeds is not large and while the offerings are liberal, prices held firm. Some cattle have been put in pastures, stocks of hay in the country are large and demand for feed is not likely to improve materially.

## OATS

Oats prices have taken their trend chiefly from the corn market. The extreme break increased the demand from consuming interests while sales from first hands had fallen off some

time ago. The result was another sizable decrease in the visible supply. It is logical to believe that prices went low enough on the recent decline to discount whatever bearishness may be construed into the large visible supply and ample invisible holdings on farms and in country elevators.

## SEEDS

The seed markets were improved generally during the past week of fair weather. Demand for red clover seed was more active and stocks are steadily decreasing in spite of the higher prices. Considerable damage to the new seeding from the late severe weather is reported in Iowa, Illinois, Southern Indiana and Ohio, where some re-seeding had been necessary. Alsike prices were marked higher again last week as demand continued active and stocks showed signs of becoming exhausted.

## HAY

The hay market weakened further last week. Continued mild weather restricted hay consumption and farmers are buying in small lots in anticipation of early pasture. Receipts during the week were moderate but dealers' stocks were liberal and fully equal to the slack demand. Alfalfa, timothy and prairie hay prices were reduced \$1 a ton in most markets.

## POULTRY AND EGGS

Fresh egg prices in the distributing markets broke to a new low level for the season last week but have steadied again due to the Easter and Hebrew spring holiday demand. Country prices have remained high so that much of the supply arriving at the large markets last week sold below cost. Receipts last week were 50 per cent larger than at the corresponding time a year ago. The season started earlier than last year so that the flush of production, which came the first week in May a year ago, may be reached sooner this spring. The total trade output of eggs is large, both demand for consumption and for storage being in excess of a year ago, but receipts are more than ample.

Chicago.—Eggs, extras 32 @ 33c; miscellaneous 26 1/2c; dirties 25 1/2c; checks 25c; fresh firsts 27 @ 27 1/4c; ordinary

firsts 26c. Live poultry, hens 29c; springers 30c; roosters 18c; ducks at 30c; geese 16c; turkeys 28c.

Detroit.—Eggs, fresh candled and graded 27c. Live poultry, springers at 32c; light springers 26 @ 28c; heavy hens 32c; light hens 28 @ 30c; roosters 18 @ 20c; geese 16 @ 18c; ducks at 35c; turkeys 35c.

## BUTTER

Butter prices have finally steadied after the sharp break a week ago. The decline was more drastic than conditions seemed to warrant or than dealers generally anticipated. Fluctuations in butter prices are frequently erratic just before a new season. The statistical position of the market is generally unchanged. Production reports indicate that as yet the butter make is increasing only very slowly.

The appearance of the natural spring increase in production is to be expected this month. Prices will probably drift somewhat lower before the spring level is reached, but, in view of the stronger statistical position this year, they should hold above prices prevailing last spring.

Prices on 92-score creamery were: Chicago 42c; New York 43c. In Detroit fresh creamery in tubs sells for 40 @ 42c per pound.

## WOOL

The wool market was quiet early last week with only a small volume changing hands, but later on some lines were moved at several cents decline from previous quotations, with the better delaine wools in Boston at 53 @ 55c, grease basis, and fine staple territory at \$1.35 @ 1.42, scoured basis. Compared with the December peak, the market is 20 to 25 per cent lower. Foreign markets report a fairly firm tone. Imports of foreign wool in the last few months have been heavier than a year previous, but below the usual volume. The goods trade is still reported unsatisfactory. Consumption of wool by domestic mills during February amounted to about 58,000,000 pounds, grease equivalent weight. This was a slight falling off in the daily rate as compared with January or with the corresponding month a year ago. Nevertheless, the gain in mill activity as compared with the dull

time last June has been fairly well maintained.

## BEANS

The bean market is very slow, with buyers holding off as long as possible. The trend has been downward for several weeks, with C. H. P. whites now quoted at \$5.45 per 100 pounds f. o. b. Michigan shipping points. Belief that there will be plenty of beans is rather general and the market slowing down in buying by the grocers has affected beans along with other classes of goods. The general disposition is to operate very cautiously. As long as this attitude continues, or until stocks of beans in distributing channels are more completely exhausted, a slow market is to be expected.

## POTATOES

Old potato shipments are falling off as the season advances. Prices were generally firm last week in the east, although mid-western markets tended lower. The movement of new potatoes continues to show heavy increases over preceding weeks. Northern round whites, U. S. No. 1, were quoted at 75 @ 85c per 100 pounds in the Chicago carlot market.

## APPLES

Supplies of fancy apples were small last week in eastern consuming markets where prices were firm. Middle western markets were steady to slightly lower on barreled apples with boxed kinds unchanged. Midwestern barreled Ben Davis were quoted at \$5.50 @ 6 and Northern Spys at \$7 @ 8 in the Chicago market.

## DETROIT CITY MARKET

Cabbage, parsnips and most of the root crops sold slowly. Horseradish was in better demand and fancy root parsley moved off faster. Apples were ready sellers and potato prices moved up a little. The demand for poultry continued strong and as high as 36c a pound wholesale was paid for good weight pullets.

Apples \$1.25 @ 4 bu; beets, round at 50 @ 65c bu; cabbage 50 @ 65c bu; red 75c @ \$1 bu; carrots 60c @ \$1 bu; horseradish \$2 @ 4.50 bu; dry onions, No. 1 \$1.75 @ 2 bu; root parsley 65 @ 90c bu; parsnips 75c @ \$1 bu; potatoes 40 @ 70c bu; rutabagas 50 @ 75c bu; root celery 75c @ \$1.25 bu; honey \$1.15 @ 1.25 per 5-lb. pail; butter 50 @ 60c lb; maple syrup \$3 @ 3.50 gallon; eggs, wholesale 32 @ 34c; retail 33 @ 40c; hens, wholesale 32 @ 36c; retail 35 @ 38c; springers, wholesale 31 @ 33c; retail 34 @ 38c lb; ducks, wholesale 30c lb; veal 18c lb; dressed poultry, hens 38 @ 40c; springers 38 @ 40c.

## GRAND RAPIDS

Wheat prices started to recover in Grand Rapids this week, advancing to \$1.55 bushel. More home-grown green vegetables are available, spinach appearing at \$1.50 a bushel and silver skin onions at 20c per dozen bunches. Buying eggs for storage accounts tended to steady buying around 25c a dozen, and poultry was firm in a range of 22 @ 27c a pound. Butter-fat eased to 43c a pound. Old vegetables were slow at the following prices: Potatoes 40 @ 50c bu; carrots 50 @ 60c bu; parsnips 40 @ 50c bu; white cabbage 40 @ 50c bushel. Greenhouse products were steady. Leaf lettuce was moving at 8 @ 9c lb., and radishes in a range of 65 @ 75c per dozen bunches.

## COMING LIVE STOCK SALES.

### Holsteins.

April 23—Dispersal Sale, William L. Bleakly, R. 5, Royal Oak, Mich. .  
April 21—Dispersal Sale, George C. Spangenberg, Twelve Mile Road and Division Road, Royal Oak, Mich.  
May 5-6—Wabeek Farms, Harry Math-er, Mgr., Pontiac, Mich.

## MUST REGULATE SUPPLIES TO HOLD ENGLISH APPLE TRADE.

THE regulation of supplies of American apples in British markets is closely associated with sources of shipment, according to fruit market specialists of the Bureau of Agricultural Economics. When all the supplies passed through New York a close check was to be had upon prospective British supplies, but with the coming of the Panama Canal route with large refrigerator ships carrying cargoes of over 100,000 boxes direct from the Pacific Northwest, under schedules that are subject to change, it has been very difficult for exporters to gauge supplies.

# Live Stock Market Service

Tuesday, April 14.

## CHICAGO

### Hogs.

Receipts 16,000. Market is generally active, steady to 10c higher. Light and light lights in best demand; big packers doing little; best 13; 160 to 225-lb. average \$12.70 @ 12.95; bulk 140 to 340-lb. butchers \$12.60 @ 12.90; 140 to 160-lb. weights \$12.40 @ 12.65; packing sows mostly \$11.10 @ 11.35; strong weight slaughter pigs \$12 @ 12.25.

### Cattle.

Receipts 10,000. Fed steers and yearlings steady; big weights top yearlings \$12.60; light yearlings and heifers \$11.60; packers and feeders active, strong to 25c up, others steady; light vealers \$9 @ 9.50; some are held around \$10.

### Sheep and Lambs.

Receipts 17,000. Market slow; good weight fat lambs are opening around steady; heavies weak; good handy-weights \$15.25 @ 15.50; 90 to 92-lb. kind \$14.65 @ 14.75; good 75 to 79-lb. clipped \$12.75 @ 13; springers at \$18 @ 22; fat ewes steady; lower on weathers, shearing lambs unchanged; good up to \$15.

## DETROIT

### Cattle.

Receipts 420. Market slow on canners and cutters, fat cows and steers; others steady.

Good to choice yearlings dry-fed ..... \$ 9.75 @ 10.50  
Best heavy steers, dry-fed ..... 9.00 @ 10.50  
Handyweight butchers .. 8.25 @ 9.50  
Mixed steers and heifers ..... 7.50 @ 8.50  
Handy light butchers .... 6.50 @ 7.75  
Light butchers ..... 5.25 @ 6.75  
Best cows ..... 5.50 @ 7.00  
Butcher cows ..... 4.50 @ 5.50  
Cutters ..... 3.25 @ 3.75  
Canners ..... 2.50 @ 3.00  
Choice bulls ..... 5.00 @ 6.50  
Heavy bologna bulls ..... 4.25 @ 5.25  
Stock bulls ..... 4.00 @ 5.00

Feeders ..... 6.50 @ 8.00  
Stockers ..... 5.50 @ 7.50  
Milkers ..... \$45.00 @ 90.00

### Veal Calves.

Receipts 688. Market steady.  
Best ..... \$12.50 @ 13.00  
Others ..... 5.00 @ 12.00

### Sheep and Lambs.

Receipts 341. Market slow.  
Best lambs ..... 12.75  
Fair lambs ..... 11.50 @ 12.25  
Light to common ..... 7.00 @ 10.25  
Clipped ..... 13.00  
Yearlings ..... 13.00 @ 13.50  
Fair to good sheep ..... 7.00 @ 7.50  
Culls and common ..... 3.00 @ 4.50  
Buck lambs ..... 13.00 @ 13.25

### Hogs.

Receipts 1,753. Market slow.  
Mixed hogs, heavy y'rkr. \$10.00 @ 13.25  
Pigs ..... 12.75 @ 13.00  
Little yorkers ..... 13.25  
Yorkers ..... 13.55  
Roughs ..... 11.40  
Stags ..... 7.00 @ 7.50

## BUFFALO

### Hogs.

Receipts 4,600. Market is closing steady. Grade 150 lbs. up \$13.75; bulk \$14.25; heavy sold at \$14.10 @ 14.25; medium \$14.35; light at \$13.50 @ 14.25; light lights \$13 @ 13.65; pigs at \$13.50; packing sows and roughs \$11.75 @ 12.

### Cattle.

Receipts 6,000. Market 25c higher. Steers from 1,100 lbs. up \$8.50 @ 11.15; steers 1,100 lbs. down \$6 @ 10.50; load of bulk yearlings up to \$11.50; heifers at \$5.50 @ 9; cows \$2 @ 6.50; bulls \$4 @ 5.25; butchers are steady.

### Sheep and Lambs.

Receipts 1,250. Tops at \$16.25; culls \$15 down; best clipped lambs at \$13; yearlings at \$13.50 @ 14; clipped aged wethers \$8 @ 8.50; clipped ewes \$6 @ 7.50; clipped lambs \$13.50 @ 13.60; ewes \$9 @ 10.

### Calves.

Receipts 2,800. Tops at \$13; culls \$10 down.



## COLLEGE STAFF HONORED.

THE teaching staff of the Michigan Agricultural College received its second signal recognition of outstanding merit of the year last week when word was given out that Professor J. O. Veach, of the department of soil survey had been selected by the United States Department of Agriculture at the request of agricultural interests of Scotland to introduce soil survey methods in that country. The first recognition of the superior merit of the state college's staff came early this spring when Dr. Stafseth, of the veterinary division, was invited to visit Budapest as exchange professor.

The selection of Mr. Veach from an army of available specialists from institutions all over the country, is practically according him first place among soils survey experts of the entire Union, and is, according to Professor M. M. McCool, of the soils department, a great tribute to the work as carried on at the Michigan Agricultural College. The soils survey department has only been a part of the regular extension service since 1919, but since that time, Mr. McCool declares, it has been generally recognized as the foremost leader in that field of work.

Mr. Veach expects to leave about May 1, and his visit is expected to cover a period of about six months.—Cook.

## URGE STANDARD LIVE STOCK CLASSES.

THE use of standard market classes and grades for live stock is being urged by the United States Department of Agriculture, as a practical means of reducing distribution costs in the live stock industry. Secretary Jardine has pointed out that standardization is necessary for the improvement of market conditions. That \$10,000,000 worth of live stock is sold daily in this country, is proof of the importance of standardization.

Standard market classes and grades have been worked out by the Bureau of Agricultural Economics and are already used in thirteen live stock markets for market reporting purposes, but a more general use of the standards is sought by the department. The present standards are being offered to stockmen, shipping associations and the trade as permissive standards with the hope ultimately that a system of grading live stock at shipping points for market consignments or grading at the market prior to sale may be established.

Such a system, the department specialists say, would make possible the sale of animals on grade description, and remove much of the uncertainty

for producers from the present miscellaneous marketing practices. General use of the standards would benefit all interests connected with the live stock industry. More orderly marketing would result and much of the cost of distributing the products of the producer to the consumer would be eliminated.

The whole system of grading is based on conformation, finish and quality of the animals.

## PRICES DECLINE IN MARCH.

ALL crop prices except cotton showed a decline during March, according to the Bureau of Agricultural Economics. Live stock prices advanced, hogs taking the lead with a twenty per cent increase. The purchasing power of thirty farm products combined, in exchange for non-agricultural products, is placed at eighty-eight for February as compared with eighty-two in February a year ago, the five-year period of 1909-14 representing one hundred.

## SPRING SEEDING PROGRESS IN EUROPE.

SPRING seeding in European countries is making rapid progress under favorable conditions. Efforts are being made to recover the losses from winter-killing by increasing the spring acreage. General world prospects indicate that with a favorable crop season this year's harvest throughout the world will be a record breaker.

**D O-RE-MI-FA-SOL-LA-SI-DO**  
Go up the scale of quality as far as you will and you'll not find better Fruit and Ornamental Trees and Shrubs than those grown by **FINGER LAKES NURSERIES**  
419 Washington St., Geneva, N.Y.  
Catalogue is ready. Send postal for your copy today.

**BEE HIVES**  
section boxes, comb foundation, smokers, etc. Everything for the bees, including beginners' outfits. Top market price paid for beeswax. Send for supply catalog.

**Berry Baskets and Crates**  
We carry a high grade wood basket, and the wax lined paper basket. Send for price list. Can quote special prices on large orders.

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

## CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates.  
Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order.  
Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

One	Four	One	Four
10.....\$0.80	\$2.40	25.....\$2.08	\$6.24
11......88	2.64	27......216	6.48
12......96	2.88	28......224	6.72
13.....1.04	3.12	29......232	6.96
14.....1.12	3.36	30......240	7.20
15.....1.20	3.60	31......248	7.44
16.....1.28	3.84	32......256	7.68
17.....1.36	4.08	33......264	7.92
18.....1.44	4.32	34......272	8.16
19.....1.52	4.56	35......280	8.40
20.....1.60	4.80	36......288	8.64
21.....1.68	5.04	37......296	8.88
22.....1.76	5.28	38......304	9.12
23.....1.84	5.52	39......312	9.36
24.....1.92	5.76	40......320	9.60
25.....2.00	6.00	41......328	9.84

## Special Notice

All advertising copy discontinuance orders or change of copy sent in advance of publication date.

## REAL ESTATE

CALIFORNIA FARMERS make more money on small farms in San Joaquin Valley, California, where you can work outdoors all the year. Splendid opportunities for men of moderate means. Twenty and forty acre farms produce alfalfa abundantly. Dairying, hogs and poultry make good returns; staple varieties of fruits yield dependable profits; combination of these means a well-balanced farm with good income throughout the year. Winterless California offers much to the man looking for a country where he can get the most out of life. Climate delightful, long growing seasons, wonderful roads, excellent schools. Cooperative marketing associations afford profitable outlets for all produce. A small one-family farm, cutting out high labor costs, insures success. No winter handicaps. San Joaquin Valley illustrated folder mailed free on request. C. L. Seagraves, General Colonization Agent, Santa Fe Ry., 912 Railway Exchange, Chicago, Ill.

IMPROVED "40" WITH TEAM—Cow, Crops, Poultry—Only \$900. Close bustling town, bank, depot, stores, high school, etc.; 35 acres for corn, tomatoes, fruit, general crops; spring-watered wire-fenced pasture, woodland; oak-shaded dwelling, high elevation. Low price \$900 for all, part cash. Easy to succeed here. Details pg. 166 new 196 page Catalog farm bargains throughout 24 states. Free, Strout Farm Agency, 205-BC Kresge Bldg., Detroit, Mich.

FOR SALE—437 acres of unimproved land in Cheboygan County, Michigan, suitable for pasture land with a small stream running through it. D. & M. Railway runs through one corner of said land and about 6 miles from the Village of Alohos. R. L. Hubbard & Company, Caswell, Michigan.

LAND OPPORTUNITY—1000 acres meadow land in Alger Co., Mich., close to station; 1280 acres Schoolcraft Co., Mich., 800 ready for small grain; down payment waived to party having haying or farm equipment. Jesse Greenman, Pioneer Bldg., St. Paul, Minn.

I WILL PAY CASH FOR MICHIGAN LAND, any sized tract, improved or unimproved; prefer lake or river frontage or on good stream. Send full details, plat, legal description and lowest price in first letter. H. J. Dewey, 417 Valentine Building, Toledo, Ohio.

WANT MICHIGAN FARM—Washtenaw, Monroe, Lenawee, or Oakland county preferred. J. W. Wagner, Dearborn, Mich.

FARMS NEAR DETROIT—Milan and Ypsilanti. Write for list, stating kind wanted. E. W. Bordine, R. 5, Milan, Michigan.

WIDOW HAS TWO FARMS FOR SALE. Write Mrs. John Lucier, Stephenson, Mich.

WANTED—to hear from owner of farm or unimproved land for sale. O. K. Hawley, Baldwin, Wis.

FOR SALE—80 Acres, black loam soil, with buildings, stock and tools. Owner, Emory Borosh, Boon, Wexford Co., Mich.

## MISCELLANEOUS

MAGAZINE PRICES SMASHED—Write for them. C. D. Mater, Stackhouse, N. C.

GLADIOLUS BULBS—Write for descriptive price list. George Hunter, Dowagiac, Mich.

WILL BUY old gun catalogs. L. D. Satterlee, 458 Forest Avenue West, Detroit, Mich.

## TOBACCO

HOMESPUN TOBACCO—Chewing, five pounds, \$1.50; ten, \$2.50; smoking, five pounds, \$1.25; ten, \$2.00; pipe free, pay when received, satisfaction guaranteed. Co-operative Tobacco Growers, Maxons Mill, Kentucky.

HOMESPUN TOBACCO, Chewing 5 lbs., \$1.50; Ten \$2.50. Smoking 5 lbs., \$1.25; Ten \$2.00. Pay when received, pipe and recipe free. Farmers Union, Paducah, Ky.

HOMESPUN TOBACCO—Chewing, five pounds, \$1.50; ten, \$2.50. Smoking, five pounds, \$1.25; ten, \$2.00. Pipe free. Pay when received. Satisfaction guaranteed. Kentucky Farmer's Association, Paducah, Ky.

HOMESPUN TOBACCO—Chewing, 5 lbs., \$1.50; 10 \$2.50. Smoking, 5, \$1.25; 10, \$2. Mild, 10, \$1.50. Pay when received. F. Gupton, Bardwell, Ky.

## SEEDS AND NURSERY STOCK

FROST PROOF Cabbage Plants and Tomato Plants. Varieties: Early Jersey and Charleston Wakefield. Copenhagen Market, Flat Dutch and Succession. Tomato: Greater Baltimore, Earligana and Livingston Globe. Prices, Parcel Post Paid, 500, \$1.50; 1,000, \$2.50. Express collect, \$1.25, 1,000. We ship the size of plant you wish. Satisfaction guaranteed. Tifton Potato Company, Inc., Tifton, Ga.

SEED CORN—Hackberry's Yellow Dent, 1924 Crop. Michigan Grown, 97% to 98% germination. Grown on sand alfalfa sod, ripe cut and shocked six weeks before frosts. Husked, sorted, dried and shelled by hand. Price \$5.00 per bu. 50 lbs. shelled corn and worth the price. H. J. Holbrook, Hubbardston, Mich.

FROSTPROOF CABBAGE, Bermuda Onions and Tomatoes. Strong, hardy plants. Leading varieties. Prompt shipment. Satisfaction guaranteed. 100, 40c; 500, \$1.25; 1,000, \$2.00; 5,000 \$8.50. Pepper, 100, 50c; 1,000, \$2.50. All postpaid. East Texas Plant Co., Ponta, Texas.

FROSTPROOF CABBAGE PLANTS—Leading varieties. Earligana and Baltimore tomato plants. Open field grown. 500, 75c; 1,000, \$1.25; 5,000, \$5.00. O. B. Prompt shipment. Safe arrival guaranteed. Our plants mature earlier crops. Reinhardt Plant Co., Ashburn, Georgia.

CANADIAN VARIETATED ALFALFA—75% Grimm. Taken from fields that have produced alfalfa continuously for 20 years. Very hardy as it thrives in extreme cold weather. \$24 per bushel, sack included. Purity test 99.78 pure seed. R. E. Barron, Howell, Michigan.

FROST PROOF CABBAGE PLANTS, ready standard varieties: 300, 85c; 500, \$1.50; 1,000, \$2.25. Insured. Parcel Post Paid. 10,000 collect, \$17.50. Tomato, pepper. May delivery. Buy your plants from old established growers. Satisfaction guaranteed. J. T. Council & Sons, Franklin, Va.

DODGES FAMOUS Rio Grande Valley Bermuda Onion plants will produce the best and Earliest Mature Bermuda Onions. Large open field grown plants, 500, \$1.25; 1,000, \$2. Prepaid. Satisfaction guaranteed. Dodge Plant Farms, Raymondville, Texas.

FREE—NEW RED RASPBERRY—Tip Grower. Very Hardy. Send for Literature. Strawberries \$3.00 per 1,000. All Small Fruit Plants. Dept. H. Hellenga's Nursery, Three Oaks, Mich.

CERTIFIED WOLVERINE OATS—Purity 99.9%, germination 99.5%, foreign seed 0.0. Weight per bu. 38 lbs. George R. Wheeler, Maplehill Farm, Mt. Pleasant, Mich.

ASPARAGUS—best paying crop grown. Washington, Mary Washington, largest, best varieties. Choice roots for sale cheap. Circulars free. J. C. Dunham, Lawton, Mich.

U. S. SMALL—formerly called seconds, seed potatoes, from certified Irish Cobblers and Rural Russets, one cent per pound in 150-lb. sacks. Spudaway Farm, Mantion, Mich.

CANADA FIELD PEAS for planting, \$5.00 per 100 lbs., sacks included, f. o. b. Michigan shipping point. Port Huron Storage and Bean Co., Port Huron, Mich.

CERTIFIED Wolverine Oats. Certified Robust Beans. Postal card brings particulars. A. B. Cook, Owosso, Mich.

ASPARAGUS—Why not plant the largest, tenderest, most profitable, "The Washington"? 100 roots \$1.25; 1000 \$8.00. Prepaid. Click Seed Farm, Lancaster, Pa.

CERTIFIED MANCHU SOYBEANS—new seed, 96% germination, \$2.50 per bu. Charles Martin, Otterbein, Indiana.

SEED CORN—Murdock Yellow Dent, 1923 crop, high germination. Three Dollars per bushel. Irving O. Leary, Coloma, Mich.

ASSORTED COLORS GLADIOLA bulbs; 55 large or 120 flowering size, \$1.00, postpaid. Martha Osmond, Fostoria, Mich.

MIXED DAHLIA ROOTS—12 different varieties for \$1.50, post paid. Sunnyside Farm, Bridgman, Mich.

TESTED WHITE FLINT Seed Corn, \$4.00 per bu. Bags included. N. Ayers & Son, Silverwood, Mich.

CABBAGE PLANTS—Thousand \$1.75 postpaid. \$1.25 expressed collect. Dahlia Farm, Ocean View, Va.

GENUINE Improved Robust seed beans. F. DeWitt & Son, Wheeler, Mich.

CERTIFIED Potoksey Seed Potatoes, \$1 per bu. C. P. Reed, Howell, Mich.

FOR SALE—Registered and Certified Worthy seed oats. Write Paul C. Clement, Britton, Michigan.

REGISTERED WOLVERINE OATS—Michigan's Best. C. D. Finkbeiner, Clinton, Mich.

## HAY

GET FULL market value for your hay. Ship to Albert Miller & Co., 192 No. Clark St., Chicago, Ill. Market reports furnished free.

## POULTRY

BARRED ROCKS—Parks strain foundation stock. Hatching eggs \$2.00 per 15; \$5.00 per 50; \$10 per 100. Prepaid by parcel post. R. G. Kirby, R. 1, East Lansing, Mich.

CHICKS OF QUALITY that will bring you a profit, hatched from thoroughly culled flocks. Our quality will please you. Our price will surprise you. Our service will satisfy you. Send for catalogue and prices. Summit Hatchery, Byron Center, Mich.

WHITE PLYMOUTH ROCK hatching eggs from Wilbur's Farm's best production strain. Chicks in small lots. Reasonable prices. Earl Pelton, Midland, Mich.

EGGS—Single Comb Buff Leghorns and Buff Rocks. Pure-bred farm range, \$1.00 for 15; \$6.00 for 100; prepaid. Mrs. H. H. Walter, Powhatan Point, Ohio.

ROSE COMB Brown Leghorn pullets, 1 yr. old, also R. C. White Leghorn hens, 2 yr. old, \$1.35 each. R. B. Hutting, Carson City, Mich.

TURKEN—Half turkey, half chicken, large hardy layers, hatching eggs. Turken Home, Fayette, Iowa. Box 853.

SNOWY WHITE ROCKS, high quality. Eggs prepaid. \$1.40, 15; \$3.75, 50; \$7.00, 100. Mrs. Earl Dehnhoff, Vanburen, Ohio.

BIG TYPE Toulouse geese eggs, 50c each. Buff Rock eggs, \$2 per 15. Baldwin & Nowlin, R. 4, Laingsburg, Mich.

PURE-BRED Rhode Island White eggs, \$1.00 per setting. White China or Embden Goose eggs, 35c each. Hillview Farm, Mattawan, Mich.

WHITE ROCKS—Eggs, \$7.00 per 100; \$1.50 per setting of 15. Wesley Hill, Ionia, Mich.

HATCHING EGGS—Jersey Black Giants exclusively, \$8 per 100. Frank Haynes, Middleton, Mich.

MAMMOTH Imperial White Pekin duck eggs, \$1.50 per 11. Chas. Stutz, Saranac, Mich.

S. C. R. I. R. good strain eggs, per setting, \$1.00. Special pen, \$3.00. Order now. W. L. Rundel, Saline, Mich.

SINGLE COMB REDS—Eggs and Chicks, special triple value this year only. Babcock & Son, Urdendale, Battle Creek, Mich.

EGGS—Rhode Island White, pure-bred excellent layers. \$2.00 per 15 eggs. Ida Prause, R. 3, Maple City, Mich.

FOR SALE—Pure-bred Toulouse Geese eggs, \$4.75 per 10. Loyd Southworth, R. 1, Allen, Mich.

NOW BOOKING ORDERS for Bourbon Red turkey eggs for hatching. J. J. Chapman, Northville, Mich.

PURE-BRED Embden geese eggs, high producers. Glen Rykert, Williamston, Mich.

ANCONA PULLETS—200 Selected Layers, \$1.35. H. Knoll, Jr., R. 1, Holland, Mich.

EGGS from Ringlet Barred Rocks \$5.00 per 100, \$2.00 per setting. Robert Martin, Woodland, Mich.

WHITE CRESTED Bk. Polish Hatching Eggs, \$3.00 per 15. Sunnyside Farm, Bridgman, Mich.

## BABY CHICKS

ENGLISH WHITE LEGHORN CHICKS, Vigorous, Northern bred. Persistent winter layers. Selected. 100, \$13; 300, \$38.25; 500, \$62.50; Star A, 100, \$15; 300, \$44.25, 500, \$72.50. Postpaid. Live arrival. Catalogue. Save time, order from this ad. Highland Poultry Farm, R. 9, Box C, Holland, Mich.

BABY CHICKS—Silver L. and White Wyandottes, Barred Rocks, R. I. Reds, Anconas, White and Brown Leghorns from culled and strong laying strains. Sold from day-old to eight weeks old. Fifteenth year. Write Shapard Poultry Farm, Litchfield, Mich.

OAKLAND HILLS QUALITY CHICKS—Strong, vigorous, true to breed, profitable. English Leghorns, Reds, Rocks, White Wyandottes, etc. Safe delivery guaranteed. Circular free. Oakland Hills Poultry Farm, Farmington, Mich.

BRED-TO-LAY Barred Rock and Hanson's White Leghorn Chicks. Blood Tested two years. Highest Rock hen Michigan and Missouri contests 1923-24. Circular free. 1827 Belden. Aseltine Poultry Farm, Grand Rapids, Mich.

BABY CHICKS—Pedigree Sired Eng. W. Leg. Chix, delivered 100% alive at your door at our low prices of \$12.50 per 100; \$60 per 500; \$110 per 1000. Circular free. Model Poultry Farm, R. 4, Zeeland, Mich.

BABY CHICKS from flocks blood-tested for Bacillary White Diarrhea. All flocks tested—second test on Rocks and Reds. All popular varieties. Ask for Catalogue. Pierce Hatchery, Jerome, Michigan.

SUPERIOR CHICKS—9c up, 12 varieties. Heavy layers. Delivery guaranteed. Postpaid. Bank references. Catalogue Free. Superior Hatchery, Box 886, Windsor, Mo.

BABY CHICKS—From selected heavy layers. White Leghorns \$13 and \$15; Barred Rocks and Reds \$16 Hundred. Circular Free. Martin's Poultry Farm, Box F, Westphalia, Mich.

FULL BLOOD Hollywood White Leghorn Chicks at \$12.00 Per Hundred. Rhode Island Reds \$15.00 Per Hundred. Live Delivery Guaranteed. H. Koons, Homer, Mich.

BABY CHICKS—Bred for heavy egg production. Rhode Island Reds, Barred Plymouth Rocks and White Leghorns for \$13.00 per hundred and up. Carleton Hatchery, Box 117, Carleton, Mich.

BABY CHICKS—Barred Rocks, Rhode Island Reds, \$14 per 100; \$65 per 500. Four extra chicks per 100, 100% live delivery. Free circular or order direct. Gore's Poultry Farm, Corunna, Mich.

SATISFIED CHICKS—Hollywood, Tancroft strain, S. C. White Leghorns, Brown Leghorns, Anconas, Barred Rocks, 8 cents and up. Ship two times a week. Circular free. Queen Hatchery, Zeeland, Mich.

BABY CHICKS at living prices. Fourteen popular varieties. High egg production and standard qualities combined. Michigan State Fair Winners. Write for prices. Litchfield Hatchery, Litchfield, Mich.

BABY CHICKS—Barred Rocks, Rhode Island Reds, \$12 per hundred. Large mixed for broilers, \$10.50. Live delivery guaranteed. Order early. Ida Prause, R. 3, Maple City, Mich.

CHICKS, Brown Leghorns \$12 per 100; also have White Leghorns, Rocks and Reds. Free booklet. Freeport Hatchery, Box 12, Freeport, Mich.

CHICKS—English Strain White Leghorns, M. A. C. Barred Rocks and Black Minorcas. Circular. Hillside Hatchery, R. 3, Holland, Mich.

BABY CHICKS AND EGGS—Superior Ringlet Barred Rocks, Rose Comb Rhode Island Reds, White Leghorns. Wyndham's Ideal Hatchery, Tiffin, Ohio. Circular.

BUFF MINORCA CHICKS—\$18 per 100. Black minorcas, \$16. Large type. Willow Egg Farm, Holland, Mich.

RICHARDSON'S ROCKY RIDGE pure Parks strain Barred Rock Baby Chicks, \$16 per 100. Hanover, Mich.

S. C. BUFF LEGHORN CHICKS—First hatch March 3. Circular. Willard Webster, Bath, Mich.

READ Shady Lawn Poultry Farm Ad on Page 549.

## TURKEYS

TURKEY EGGS—Mammoth Bronze, Bourbon Red, Narragansett and White Holland. You should place your order early. Write Walter Bros., Powhatan Point, Ohio.

## AGENTS WANTED

ADDITIONAL SALESMEN WANTED for unoccupied territories. Our proposition is an unusual opportunity for high grade men, offering greater earning power and steady work. Must have car. Full information on request. Minneapolis Woolen Mills Co., Inc., 612 First Ave. North, Minneapolis, Minn.

FREE TRIP TO CALIFORNIA. Get three good responsible farmers to go with you to inspect California state approved lands. Opportunity for one good man in each community to join largest land selling organization in U. S. Write for details. Herman Janas, 1195 Transportation Bldg., Chicago, Ill.

AGENTS—our new Household Cleaning Device washes and dries windows, sweeps, cleans walls, scrubs, ovens. Costs less than brooms. Over half profit. Write Harper Brush Works, 173 3rd St., Fairfield, Iowa.

## HELP WANTED

SUMMER WORK for teacher or advanced student. Real health giving enjoyable vacation at Summer Resort. Write Dept. "D," 309 General Necessities Bldg., Detroit, 22.

RELIABLE YOUNG MAN, the year round, for general farming on an 80-acre farm in Washtenaw County. Non-cigarette smoker preferred. Box 707, Michigan Farmer.

WANTED—Man for general farming. State experience and salary desired in first letter. Paul F. Klutner, Saline, Mich.



## Chart of Recommendations

(Abbreviated Edition)

THE correct grades of Gargoyle Mobiloil for engine lubrication of both passenger cars and motor trucks are specified in the Chart below.

E means Gargoyle Mobiloil "E"

How to Arc. means Gargoyle Mobiloil Arctic

Read the A means Gargoyle Mobiloil "A"

Chart: B means Gargoyle Mobiloil "B"

BB means Gargoyle Mobiloil "BB"

Where different grades are recommended for summer and winter use, the winter recommendation should be followed during the entire period when freezing temperatures are experienced.

The Chart of Recommendations is compiled by the Vacuum Oil Company's Board of Automotive Engineers, and represents our professional advice on correct automobile lubrication.

NAMES OF AUTOMOBILES AND MOTOR TRUCKS	1924		1923		1922		1921		1920	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Anderson.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Apperson (6 cyl.).....	A	A	A	A	A	A	A	A	A	A
Auburn (Model 643).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Autocar.....	A	A	A	A	A	A	A	A	A	A
Buick.....	A	A	A	A	A	A	A	A	A	A
Cadillac.....	A	A	A	A	A	A	A	A	A	A
Camp.....	A	A	A	A	A	A	A	A	A	A
Chalmers.....	A	A	A	A	A	A	A	A	A	A
Chandler.....	A	A	A	A	A	A	A	A	A	A
Checker Cab.....	A	A	A	A	A	A	A	A	A	A
Chevrolet (Model F&T).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Chrysler.....	A	A	A	A	A	A	A	A	A	A
Cleveland.....	A	A	A	A	A	A	A	A	A	A
Cole.....	A	A	A	A	A	A	A	A	A	A
Colbia (Det.) (Com' Eng.).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Cunningham.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Davis.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dodge Bros.....	A	A	A	A	A	A	A	A	A	A
Dorris (6 cyl.).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Dort.....	A	A	A	A	A	A	A	A	A	A
Duesenberg.....	A	A	A	A	A	A	A	A	A	A
Durant Four.....	A	A	A	A	A	A	A	A	A	A
Elcar (4 cyl.).....	A	A	A	A	A	A	A	A	A	A
(6 cyl.).....	A	A	A	A	A	A	A	A	A	A
Flint.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Ford.....	E	E	E	E	E	E	E	E	E	E
Franklin.....	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB
Gardner.....	A	A	A	A	A	A	A	A	A	A
Garford (1 1/2, 1 3/4 ton).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
G. M. C. (Com' Eng.).....	B	B	B	B	B	B	B	B	B	B
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Graham Bros.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Gray (Can.).....	A	A	A	A	A	A	A	A	A	A
Gray Dorr (Canada).....	A	A	A	A	A	A	A	A	A	A
Haynes (6 cyl.).....	A	A	A	A	A	A	A	A	A	A
(12 cyl.).....	A	A	A	A	A	A	A	A	A	A
H. C. S.....	A	A	A	A	A	A	A	A	A	A
Hudson Super Six.....	A	A	A	A	A	A	A	A	A	A
Hupmobile.....	A	A	A	A	A	A	A	A	A	A
Jewett.....	A	A	A	A	A	A	A	A	A	A
Jordan.....	A	A	A	A	A	A	A	A	A	A
Kissel.....	A	A	A	A	A	A	A	A	A	A
Lexington (Com' Eng.).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Lincoln.....	A	A	A	A	A	A	A	A	A	A
Locomobile.....	A	A	A	A	A	A	A	A	A	A
Mack (Com' Eng.).....	A	A	A	A	A	A	A	A	A	A
McLaughlin-Buick (Can.).....	A	A	A	A	A	A	A	A	A	A
Marmont.....	A	A	A	A	A	A	A	A	A	A
Maxwell.....	A	A	A	A	A	A	A	A	A	A
Com' D.....	A	A	A	A	A	A	A	A	A	A
Moon.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Nash Four & Six.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Com' I (Quad.).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
National (Ind.) (Mod. 6-51).....	A	A	A	A	A	A	A	A	A	A
(Mod. 6-51).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Oakland.....	A	A	A	A	A	A	A	A	A	A
Oldsmobile (4 cyl.).....	A	A	A	A	A	A	A	A	A	A
(Mod. 30).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Overland.....	A	A	A	A	A	A	A	A	A	A
Packard (Eight).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Paige (Com' Eng.).....	A	A	A	A	A	A	A	A	A	A
Com' I.....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Peterson.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Pearleau (8 cyl.).....	A	A	A	A	A	A	A	A	A	A
Pierce Arrow (2 ton).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
R. & V. Knight.....	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB
Reo.....	A	A	A	A	A	A	A	A	A	A
Rickenbacker.....	A	A	A	A	A	A	A	A	A	A
Roamer (Mod. 4-75).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Rollin.....	A	A	A	A	A	A	A	A	A	A
Rolls Royce.....	A	A	A	A	A	A	A	A	A	A
Sayers & Scoville (S&S).....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Star.....	A	A	A	A	A	A	A	A	A	A
Stearns Knight.....	B	B	B	B	B	B	B	B	B	B
Stevens.....	A	A	A	A	A	A	A	A	A	A
Stewart (N.Y.) (1/4 ton).....	A	A	A	A	A	A	A	A	A	A
N.Y. (1 ton).....	A	A	A	A	A	A	A	A	A	A
(Mod. 7X & 10X).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Studebaker.....	A	A	A	A	A	A	A	A	A	A
Stutz (4 cyl.).....	A	A	A	A	A	A	A	A	A	A
(6 cyl.).....	A	A	A	A	A	A	A	A	A	A
Westcott (Mod. D-48).....	A	A	A	A	A	A	A	A	A	A
(Mod. 50).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
White (Mod. 15 & 20).....	A	A	A	A	A	A	A	A	A	A
All Other Com' I Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Willis-Knight.....	B	B	B	B	B	B	B	B	B	B
Winton.....	A	A	A	A	A	A	A	A	A	A
Yellow Cab.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.

### Makes of Engines

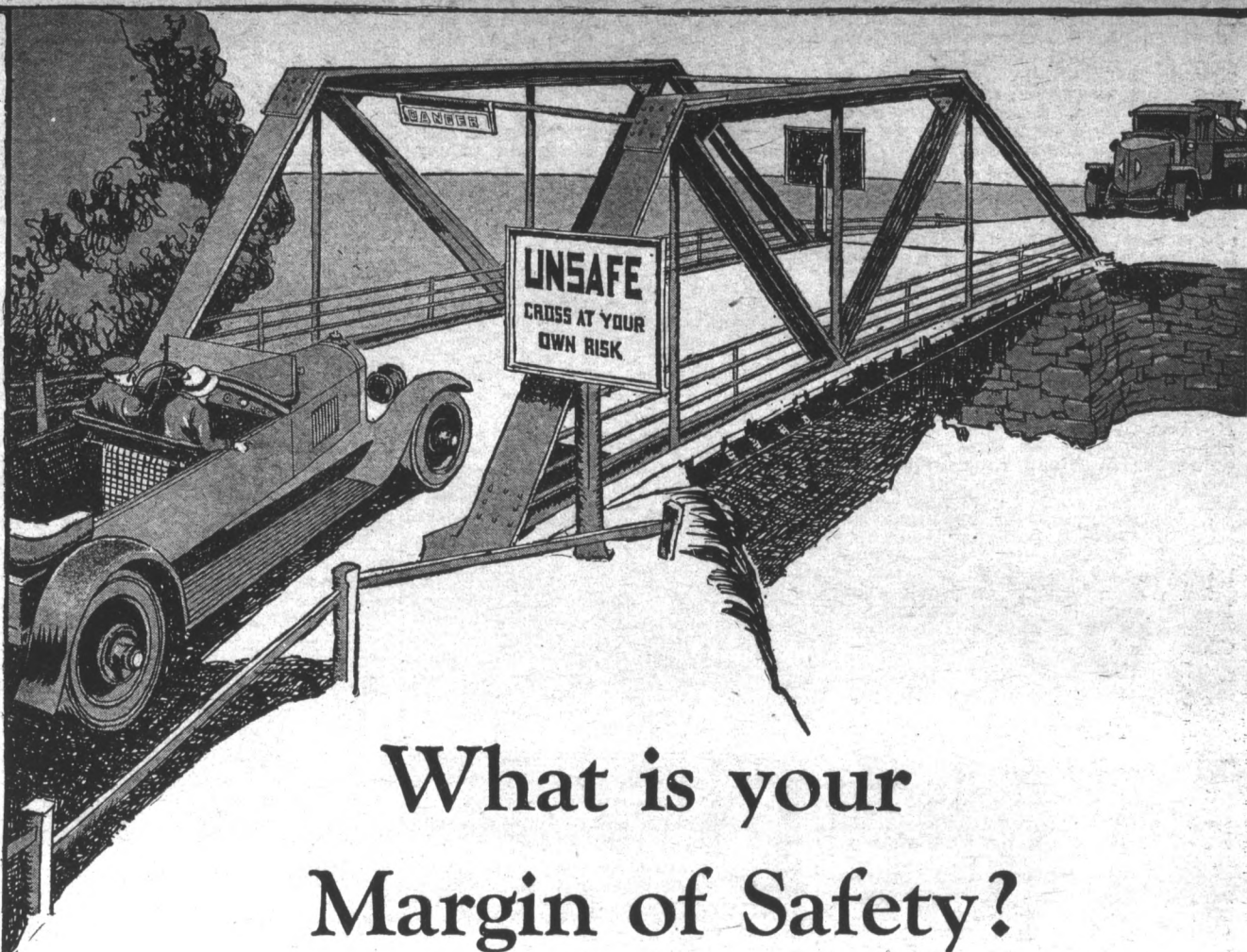
When Used in Passenger Cars and Motor Trucks

(Recommendations shown separately for convenience)

Buda (Mod. RU, WU).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Continental (Mod. B5).....	A	A	A	A	A	A	A	A	A	A
(Mod. B2).....	A	A	A	A	A	A	A	A	A	A
(Mod. 12KD).....	A	A	A	A	A	A	A	A	A	A
(Mod. B7).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Falls.....	A	A	A	A	A	A	A	A	A	A
Herschell-Spill'n.....	A	A	A	A	A	A	A	A	A	A
(Mod. 15, 41, 80 & 91).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Hinkley.....	A	A	A	A	A	A	A	A	A	A
Lycoming (C Series).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Rochester.....	A	A	A	A	A	A	A	A	A	A
Waukesha (Mod. Y & Z).....	A	A	A	A	A	A	A	A	A	A
(CV, DU, EU, FU).....	A	A	A	A	A	A	A	A	A	A
All Other Models.....	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.	Arc.
Wisconsin.....	A	A	A	A	A	A	A	A	A	A

### Transmission and Differential

For their correct lubrication, use Gargoyle Mobiloil "C," "CC" or Mobilubricant as recommended by complete Chart available at all dealers.



## What is your Margin of Safety?

No GOOD BRIDGE is built without providing an ample margin of safety. No skyscraper is erected without allowing a margin of safety. No good automobile is designed without making sure that there is a margin of safety in all those parts which must withstand severe strains.

No lubricating oil should be used in your automobile engine which does not provide an ample margin of safety. Unusual strains are sure to come—demands of cold weather which congeals unsuitable oil, the added heat of a hard pull in low gear through snow or mud, the added friction of a necessary spurt of speed. Even the most careful drivers run into these conditions.

It is then that the difference between haphazard lubrication and Gargoyle Mobiloil, with its greater margin of safety, may mean

- the difference between a burned out bearing—or a protected bearing
- the difference between a damaged engine—or a protected engine
- the difference between excessive carbon—or infrequent carbon
- the difference between dangerous frictional heat—or minimized frictional heat.

When you use the grade of Gargoyle Mobiloil specified for your car, you secure the fullest possible margin of safety in the operation of your automobile engine. For no other automobile oil has back of it such specialized manufacturing experience and success.

That is why practically every automobile manufacturer endorses the Gargoyle Mobiloil recommendation for your car in the Chart of Recommendations.

That is why Gargoyle Mobiloil is asked for by name at least five times as often as any other oil.

If you want the greatest margin of safety in the lubrication of your automobile engine, you want Gargoyle Mobiloil—the grade recommended for your car.

### TRACTOR Lubrication

The correct engine lubrication for the Fordson Tractor is Gargoyle Mobiloil "BB" in summer and "A" in winter. The correct oil for all other tractors is specified in our chart. Ask for it at your dealer's.



# Mobiloil

Make the chart your guide

### Domestic Branches:

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Milwaukee  
Minneapolis

New Haven  
Oklahoma City  
Peoria

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Pittsburgh  
Portland, Me.

Rochester  
Springfield, Mass.  
St. Louis

# VACUUM OIL COMPANY