

# MICHIGAN FARMER

AND LIVE STOCK JOURNAL  
PUBLISHED WEEKLY. ESTABLISHED 1843.

VOL. CLIX, No. 6  
Whole Number 4212

DETROIT, MICH., SATURDAY, AUGUST 5, 1922

ONE YEAR \$1.00  
FIVE YEARS \$3.00





Published Weekly Established 1843 Copyright 1921

The Lawrence Publishing Co.  
Editors and Proprietors

1632 LaFayette Boulevard Detroit, Michigan

TELEPHONE CHERRY 5334  
NEW YORK OFFICE-95 Madison Ave.  
CHICAGO OFFICE-1109 Transportation Bldg.  
CLEVELAND OFFICE-101 1-1013 Oregon Ave., N. E.  
PHILADELPHIA OFFICE-261-263 South Third St.

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

I. R. WATERBURY ..... Associate Editor  
BURT WERMUTH ..... Associate Editor  
ALTA LAWSON LITTLE ..... Associate Editor  
FRANK A. WILKEN ..... Associate Editor

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

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

RATES OF ADVERTISING  
55 cents per line agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement inserted for less than \$1.55 each insertion. No objectionable advertisements inserted at any time.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as Second Class Matter at the Post Office at Detroit, Michigan Under the Act of March 3, 1879

VOLUME CLVIX NUMBER SIX

DETROIT, AUGUST 5, 1922

## CURRENT COMMENT

### THE MICHIGAN FARMER SAYS:

Talk may sell stock in air castles, but it does not produce crops.

The farm is fortunate which has intelligent management.

The hardest part of having a tooth pulled is the anticipation.

Let's not forget that petting produces more milk than milk stool manipulation.

We may talk about the beauty of the green fields out yonder, but somehow we are always glad to get back home.

Farming and mining are two different things. It is all right for a miner to be a farmer if he wants to, but it is bad business for a farmer to be a miner.

### Showing Up Father

IT was our pleasure to spend a couple of days last week with a young farmer who is now in charge of his father's general farm. He is making good. The place had gotten in poor condition through the use of methods developed during pioneer times—methods which provided for removing fertility from the soil but not for replacing it.

The first step taken by the young man was the purchase of a small herd of good dairy cows to which he has been adding as opportunity offers. Now he milks ten. Besides spreading the manure from the cows upon the fields, he has plowed under green crops and hauled manure from stables located in his market town. From these three sources he has been able since he took over the management, to put in the soil of his farming land a fairly ample supply of humus. The farm shows it. He is already cashing in on his venture and now after three years his father is taking renewed interest in the business.

This young man had accurately sensed the first commandment of good farming: "Thou shalt keep thy soil filled with an abundance of good plant food." He went about keeping the commandment in the most logical way, through the use of the dairy cow. Now that he has justified his position he will have the fullest cooperation of his senior in carrying out plans and policies which will mean much to the future of that particular farm.

Sometimes it requires young eyes to

see things which are not apparent to older persons.

### School Days Ahead

THESE hot, busy days are not conducive to meditation about school, neither on the part of the boys and girls who in a few weeks will be back at their books, nor on the part of the parents who pay the bills. But the days go on and if not already arranged for it is time that teachers be selected to carry on this very important work for the coming season.

In a good many districts the same teacher will be invited back for another year. We are wondering in this connection, if it would not add much to the school work of 1922-1923, and to the spirit of cooperation between parents, teacher and students, if the families making up the school district should get together and have a real surprise party for the one who is to have the supervision of the children in charge the next ten months?

Somehow we have a feeling that such a celebration would make the school tax money go much further and would help materially in building up a community spirit. With that developed, the district will be in a position to undertake other worth-while things.

### The Three Big L's

IN more ways than one Michigan is a state of diversified agriculture. At one end of the state, the north, land-clearing is the popular subject and big crops from virgin land are reported, while at the other we are already considering ways and means of restoring and maintaining fertility in the soil.

A few acres have become idle because they were not worth farming, but others have become infertile because they were farmed by those who believed that the soil was inexhaustible. The results have proven that this theory was wrong.

If others still insist on trying out this theory we may need a public revival of interest in the need of building and maintaining fertility in the soil. Such a revival necessarily will be based on the three big L's, lime, legumes and live stock.

With a knowledge of the application of these three essentials, a wide-awake farmer may find real opportunities in rehabilitating hobo acres into respectable crop producing land. In doing so he will contribute to posterity as well as his own prosperity.

### Going It Together

LAST spring a bird lover of the writer's acquaintance built a neat ten-room home for his feathered friends and anchored the structure at the top of a pole in his back yard. Last week I watched with much interest a colony of martins which had taken possession of the house. They were not the first tenants, however. The first pair of martins to arrive found the ever-present sparrows already preparing their nests.

The story of the conquest by the martins is interesting. Upon finding the house occupied, the newcomers went about to take possession. There were too many sparrows, however, and no headway could be made. For two days the martins kept up a continuous fight, seemingly trying to worry the enemy into submission, but to no avail. Then the martins disappeared. A few days later, however, they were again on the scene, but this time with ample assistance. They had successfully solicited the aid of other martins to give battle for the house. The fight was hard and furious, but finally the victory was won. The martins then settled down to housekeeping and last

week their numbers had increased sufficiently to fill every one of the ten rooms to overflowing.

Perhaps farmers could well afford to imitate the prudence of these birds, who, when the first pair found the task too great for their own strength, solicited the aid of others. There are many problems connected with the business of agriculture and rural life which need the cooperation of the entire community to solve them.

### Paying the Piper

FIRES, waste, reckless cutting and lack of proper supervision have depleted Michigan's virgin forests. Now, instead of furnishing her many wood-working industries with the high-grade timber once gathered from her forests, she is able to supply little more than fuel-wood and other minor wood products.

Experts have been studying to determine the effect of forest devastation upon communities, farming, industry and the general economic situation. They tell us that these wood-working industries are now paying for the state's past quarter-century debauch, and, of course, the manufacturers are passing the cost along to the ultimate consumer.

But these experts also give hope. They say that it is possible for Michigan to pull herself together and in a few decades produce much of the high-class wood for which her soils and climate are suited and which are now needed by these established industries. They even go so far as to say that Michigan's lost leadership in the lumber business might be re-established and permanently maintained through the adoption of a constructive forestry policy.

The big question is fires. If these can be controlled then nature will go a long way toward doing the rest.

### Value of Steadfastness

SOME time ago I heard one of the great preachers impress the lesson of steadfastness and since then the word "steadfast" has had a prominent place in my mind.

There is great value in that word for it brings to mind the need of aims or purposes in living and working. We must have more than one purpose in life, as living involves many activities. These include a moral purpose, a financial purpose, and an occupational purpose.

Moral steadfastness is obtained by following the great moral laws which we all should know well. A financial steadfastness means a definite plan of handling our financial resources. If we have that, we are not enticed by the glittering offerings of proficient talkers.

In farming, steadfastness means a farm plan, a crop rotation, a definite live stock program or an endeavor to attain a certain standard of perfection in quality for your fruit and other farm products.

Steadfastness means you have decided on the port you want to reach, you've set your rudder and you are sailing directly toward that port.

There is steadfastness in virtue but not in vice; in well-earned prosperity but not in poverty; in good farming but not in careless soil robbing. Steadfastness gets you somewhere; the lack of it gets you nowhere.

### Going After a Reputation

THERE are several ways of getting a reputation. One is to let it accumulate as it will by doing as you like, and another is to decide what kind of a reputation you want and then go after it.

The former method is one which has

been in vogue among Michigan and other central west fruit growers. And, as the result of too many fruit growers doing as they liked instead of as they should when packing, much of this central west fruit acquired a bad reputation.

But things are changing fast, for fruit growers are realizing the value of co-operation and unified effort, and are doing much to change this reputation from bad to good.

In Illinois, even though it is not a fruit state, they have come to realize the value of a good name and are going after it. The State Fruit Exchange there has decided on a state-wide trade-mark under which carefully standardized and packed fruit will be sold.

Such a widespread and thorough endeavor to get a good reputation can not help but bring greater financial returns and satisfaction to Illinois fruit men, for there is both profit and satisfaction in a good reputation.

### Crowds

A CROWD is more'n one—sometimes. For inst., when Sam Jackson and me set in the front seat of my Oughto it's a crowd, but when Sophie is there it is just right.

Now, in most cases more'n two is a crowd, especially when the opposin' sexes is concerned. Seems like when two is together there's lots of harmony, but three is uncomfortable, for two of them and amusin' to one. Guess Adam and his lady friend was the only ones what didn't have a crowd bother 'em in their love makin'.

Now, this is about crowds and not about love, so I am goin' to tell you about the big crowds we got in when we went in our Oughto to the big city park to see our ansisters, the monkeys.

When we got to the city, there was a policeman at each corner what would wave to me to come, and when I ast what he wanted he would say "Go on." I don't understand it, but seems like a lot of this city livin' is nothin' but "Come on" and "Go on."

I don't like to get in a Oughto crowd. All you do is startin' and stoppin'. It is just like the poet says:

Oughtoes to the right of them  
Oughtoes to the left of them  
Oughtoes in front of them

Volleyed and thundered:

Stormed at by policemen, and yell,  
Boldly they went pell mell  
Into the jaws of death,  
Into the mouth of hell

Drove the six hundred.

And at night it sure does look like the Charge of the Light Brigade, with all them headlights on. It sure is confusin' to have all them lights comin' toward you like hundreds of big eyes.

Seems like when you stop in the city it ain't stoppin' a tall. It's parkin' instead. And if you don't park in the right place, you get parked in the jail. When we got to the big park I thought it was park all over, but I found it wasn't so. They wasn't satisfied till I got between two white lines, which they said was my parkin' place.

When I got stopped where they'd let me, my crowdin' inclinashuns was gone. This startin' and stoppin' is awful hard on your disposition and your feet.

I guess I'll have to tell you about the rest of the crowd next week, 'cause Sophie says I should go to bed 'cause I gotta hoe the potatoes before breakfast in the mornin'.

"Labor worketh a hardness upon sorrow."—Cicero.

Says Sam: Pride and impatience never make a good farmer.



# More Apples from the Nitrate Bag

*Nitrogenous Fertilizers Increase Fruit Production*

By E. A. Kirkpatrick

NOT so simple as it sounds, of course—this practice of using commercial nitrogen in orchards. Some folks like to believe that all you need to do is spread the nitrate on the ground beneath the trees, forget all about it, then go out in the fall and harvest a big crop of first-class fruit. This is just as far out of the question as it is to believe that cracking the whip is the only thing necessary to do a good job of mule driving.

When everything else is taken care of, then use nitrogen. Bread, butter and potatoes first, then cake, if you choose to put it that way.

Nitrogen is known to stimulate the set of fruit and help the crop along, although nitrogen is generally thought of as a producer of tree growth. Orchardists in Michigan, in New Jersey, in Ohio, and in the northwest, testify to the value of nitrogen in producing larger crops of peaches and apples.

Around Mosier, Oregon, quite a lot of nitrate is used by fruit growers. Reports from that section show that last year splendid results were secured. One man says:

"I could see little difference in the fruit of the Ben Davis, but nitrate increased the wood growth. There was a twenty per cent increase in the fruit of the Red Cheek Pippin. I have used it only one year."

"On some trees there was a fifty per cent increase, with an average of twenty-five per cent," says another. "I have used it only one year and expect to get a big increase in my next year's crop, due to the greatly increased vigor of the trees. I used three pounds per tree on Spitzenberg, Arkansas Black and Black Twig."

Near Hartford, Michigan, tests were made last year with ammonium sul-

phate, another form of nitrogen. In peach orchards, this material was used at the rate of one and one-half pounds per tree. The peaches were larger and held to the trees better than on trees not fertilized. There was better color, too.

Investigation by the Missouri Experiment Station show that a marked

improvement in the set of fruit can be secured on healthy, well-kept trees by spring applications of any quickly available nitrogenous fertilizer. An experiment conducted at Riverview Orchards at McBaine on the Missouri river, showed that five pounds of sodium nitrate or three pounds of ammonium sulphate, or five pounds of dried blood of high grade made the average yield of each York tree twenty-five bushels in contrast to twenty bushels borne by unfertilized trees. In dollars and cents this gain of five bushels means that an expenditure of twenty to thirty cents per tree returned \$10.

The fly in the ointment is this: Nitrate can not be used indefinitely without plowing under humus in some form—manure, straw or a cover crop. Orchards will wash badly in winter and bake in summer if the use of nitrate alone is carried too far.

For those reasons, C. A. Macrum, of Mosier, Oregon, suggests the use of a



Alfalfa in Tree Row Shows Effect of One Pound of Acid Phosphate and One-half Pound of Nitrate of Soda Per Tree at Graham Experiment Station.

cover crop. For this purpose vetch is generally used, but since vetch does poorly in that part of Oregon, rye is Macrum's choice. He says: "Rye benefits the soil by adding humus, but if you supply the rye with a quickly available form of nitrogen, it will take it up and fix it in organic form so that when the cover crop is turned under in the spring, the soil holds an added amount of organic nitrogen available for slow assimilation. The rye should be sown about the middle of August. Broadcast or drill one-half or three-fourths of a bushel to the measured acre, sowing between the tree rows in

a strip twelve to fifteen feet wide. The first rains will bring it up and produce quite a growth before winter sets in. "In the latter part of February or first week in March, if the winter has broken, broadcast the nitrate of soda on the strip of rye between the tree rows, using an amount equal to three pounds to each tree. This method puts the humus and nitrogen where they are needed directly over the feeder roots. In about two weeks the rye will have taken on a deeper green color. The sowings for the following years should be made at right angles to the previous one. Sowing on two or three inches of snow is good practice. The nitrate should be thoroughly crushed before sowing. Tramping on the sacks will usually be sufficient, or it can be emptied into a box and crushed with a club. The amount of nitrate per tree in any given orchard depends on the condition of the orchard. Usually three pounds to the tree in orchards not over fifteen years old is sufficient. While nitrogen is required for the seeds, it is also a stimulant to the tree. Too much wood growth will result if an excessive amount is used."

Nitrate of soda is of no benefit when alfalfa, clover, vetch, or other leguminous plant is used as a cover crop. Evidence to this effect is seen in Wasco county, Oregon. One fruit grower in that county says: "My neighbors got good results with nitrate but on my place there seems to be little if any result. I have used it for two years on all kinds of fruit and can see no good results. Perhaps this is due to the fact that we plow under a vetch and rye crop and the vetch may take the place of the nitrate."

## Years of Cooperative Lamb Marketing

*Forty-five Years Have Proven the Value of this Endeavor*

By Glenn G. Hayes

WHEN a dozen lamb growers at Goodlettsville, Davidson county, Tennessee, decided to market their 1877 crop of lambs through an organization of their own, rather than sell them to the buyers, they probably did not dream that their action would prove to be historic. That was the case, however, for the organization they created, the Goodlettsville Lamb Club, is still operating successfully after forty-five years, and is the oldest existing cooperative marketing association in the United States.

From George W. Jackson, who as a boy helped his father drive lambs to the first shipment made by the Goodlettsville Lamb Club in May, 1877, and who has been its secretary since 1898, I learned the circumstances surrounding the formation of that historic organization.

"Fifty years ago Central Tennessee produced many early lambs, although the industry was then really in its infancy," he said. "In those days the lamb buyers drove from farm to farm in the spring and early summer. Almost always their bids were the same—\$3.00 a piece for the good lambs and \$2.00 each for the rest. Occasionally prices would be below that schedule, but not often. No difference was made for weight, quality, age, nor anything else that affects the market value of a lamb.

"Rumor had it that the 1876 lamb crop had proved to be especially profitable to the buyers, so a dozen of the larger producers at Goodlettsville decided that thereafter the shipping prof-

its would be turned to them. After a few caucuses held behind sheep barns, a plan of cooperative selling was worked out and put in effect in 1877."

That plan, as Mr. Jackson explained to me, provided that the members of the Goodlettsville Lamb Club should bring their lambs to town on a day fixed by the officers, where the lambs were sorted and graded by a committee of the growers. This job done, the committee received sealed bids on each lot of lambs, the bids being submitted by the buyers or anyone who might want to ship them to a central market. With only a few modifications this plan has been followed by the Goodlettsville Lamb Club since its inception in 1877.

During the early years the club frequently received \$1.00 per lamb more for its offerings than others were paid, and its membership gradually expanded. After a few years, however, this margin suddenly narrowed, and it was discovered that the buyers were meeting the day before and arranging their bids. About 1885—nobody seems to remember the exact date—the committee in charge of the sale set the buyers on their ears by rejecting all bids, ordering cars and shipping the lambs to the Louisville market.

That move had the desired effect, and for many years there was spirited bidding for the Goodlettsville lambs. Then once more the buyers were alleged to have "fixed things" before-

hand, and again the committee shipped the lambs. Following that, the committee often consigned the lambs either to Louisville or East St. Louis or Nashville. In recent years the club has shipped the lambs about as often as it has accepted the local buyers' bids.

For some years past the first shipment of the Goodlettsville Lamb Club is usually made about May 15. It consists of fall or early winter lambs, ewes which have outlived their usefulness, wethers, etc. Around June 1 is staged the big event of the year for Goodlettsville, when the lambs are received, sorted and sold. This is usually an all-day affair, as the committee must pass on nearly two thousand lambs at this time. They are divided into two grades, and are sold accordingly. The late lambs are sorted and sold about a month or six weeks later.

When the lambs are graded, all of equal grade are turned together and sold that way. Each man's lambs are weighed when graded, and each farmer is given credit for so many pounds of No. 1 lamb, so many of No. 2, etc. If there is a shrinkage of weight in any grade, it is distributed among all who have lambs in that pool. If a lamb dies after grading, the loss is distributed over the pool.

The practice of grading the lambs and pooling them by grades has been followed by the Goodlettsville Lamb Club ever since the organization was founded. The grading is done by a committee of three who are elected by

(Continued on page 131).



The Elevator Exchange Men at Annual Gathering.

# LATE AGRICULTURAL NEWS

## STATE PROMINENT IN CIDER AND VINEGAR MAKING.

IT is said that one great industry begets another. This is shown by the fact that because Michigan is first in cucumbers, and also a leader in apple growing, it has come up in the ranks to third place in the production of apple vinegar, which is used so much in pickling cucumbers, and to sixth place in the manufacture of apple cider. Only Pennsylvania and New York lead it in the production of vinegar.

## WESTERN APPLE CROP SMALLER.

A REPRESENTATIVE of one of the national fruit-exchanges said that the apple crop of the country was about double of that of last year. But in the western box apple region the crop was about fifteen per cent less, and in Canada about twenty per cent less. The big increase this year has come in the mid-western states into which Michigan must ship. This will give her competition in the disposal of her crop.

## APPLE AND POTATO SHOW.

A BIG apple and potato show is assured at Grand Rapids December 4-8, through the united efforts of the State Horticultural Society, the Potato Growers' Exchange, and the West Michigan State Fair Association.

Frank G. Row, president of the West Michigan Fair, has been elected chairman of the permanent Apple and Potato Show Association. J. Pomeroy Munson, of the State Horticultural Society, is vice-president; Lyman A. Lilly, West Michigan Fair, secretary, and K. K. Vinning, Kent County Agricultural Agent, treasurer. The executive committee consists of J. W. Weston, T. A. Farrand, and Prof. R. E. Marshall.

Over \$2,500 will be given in premiums for apples and \$750 on potatoes. It is expected over ten cars of apples will be exhibited. Anyone interested should communicate with the secretary, at Grand Rapids.

## STUDY FARMERS' POWER PROBLEMS.

THE Michigan Public Utilities Commission has appointed a committee of sixteen electrical experts and agricultural leaders to investigate the problem of bringing electricity to the farmer. When this committee makes its report it will present information which will be valuable to the entire country.

This committee which is working under the direction of President Friday, of M. A. C., will determine the approximate cost of serving the farmer with electricity. The cost of distribution and upkeep which is one of the great problems of furnishing electricity to rural sections, will be fully investigated.

## GRANGE ACTIVITIES IN AUTO TOUR.

ONE of the big summer events for the Grange will be the rally at M. A. C., August 18-19. Prominent Grangers, such as Hon. Charles M. Gardner, B. Needham, Hon. J. C. Ketcham, and Hon. A. B. Cook, will take part in the program. President Friday, of the college, will give the address of welcome.

Besides the speaking, sports will be features of the two days' rally. On Friday and Saturday, both, baseball will be the attraction of the afternoon. On Saturday, the Grange base ball championship will be determined when

the Upper Peninsula's best team will play that of the Lower Peninsula. On Saturday forenoon state championship quito games will be played.

For the base ball championship games the Grange offers \$50 for the first prize, \$25 for the second, and \$15 for the third. The champion team will also receive a silk pennant. For the quito prizes the Grange gives \$15 for the first, \$10 for the second, and \$5.00 for the third.

## LOCAL FARMERS' UNION.

THIRTY-TWO farmers of Schoolcraft county have formed an association for promoting their mutual interests. For one thing, members will examine the milk tests given them by distributors, such as the buying of wholesale feed and siring of cattle will be given attention.

## FARMERS AND MERCHANTS GET TOGETHER.

A GET-TOGETHER meeting of farmers and merchants was held at Lake City, July 20. Realizing the need of greater cooperation between the farmers and merchants, the latter raised \$1,200 for this event. Everything was absolutely free to the farmers, and included prizes for various contests as well as eats. Talks were given by the county agent and other

prominent men. Business in town was suspended from 9:00 a. m. to 3:00 p. m.

## FARMER GETS RENT FOR SIGN SPACE.

IN some of the counties the road commissioners have ruled that board signs along the roadway are public property. This has necessitated the tearing down of many signs in these contracts.

Agencies which have been renting this space to advertisers have since had to get permission of farmers before they could erect their signs. And in many cases the farmers have made a rental charge for the privilege.

## WALDRON RESIGNS.

MR. J. A. WALDRON has resigned as extension specialist for the Agricultural College to accept the management of the Fred Harvey farm at Del Rio, Arizona. Fred Harvey is the man who is famous for his dining car and railroad lunch room service on southern railroads.

## A BIG CLEARING BLAST PLANNED.

WHAT will undoubtedly be the largest single land-clearing operation will occur August 11 near Chatham. This will take place in connec-

tion with the summer round-up held at Chatham and will be attended by nearly two thousand farmers. President Friday, of the Agricultural College, will throw the switch after his afternoon's address, which will blow out three hundred stumps from a two-acre plot of ground.

## CONFERENCE OF GRANGE MASTERS.

A CONFERENCE of State Grange Masters was called by National Master Lowell, at Syracuse, New York, July 23-29. This is an innovation in grange work, as it is the first time in ten years that the state masters have been all called together at one time.

One object of the session was the discussion of grange extension through the enlargement of the membership. The ritualistic work of the grange was emphasized at this meeting. The masters attended a meeting of a local grange where the entire ritualistic work of the grange was exemplified.

Plans for the extension of grange fire insurance were discussed, as well as a system of grange automobile insurance and funeral benefit.

At a recent grange meeting in Virginia at which A. M. Loomis, of the Washington office, was a speaker, Virginia farmers said that they had found the grange of more help to the farmers of their state than any other farm organization.

## CANNING GETTING BACK TO NORMAL.

THE United States Department of Agriculture in its survey of vegetable canning crops has found that the tomato canning industry is back to normal. Tomatoes for canning are growing on 217,000 acres this year. Last year the acreage in tomatoes was 88,000.

Under stimulus of war demand for canned products the canning tomato acreage reached its peak in 1918 with 365,560 acres, and a pack of 15,882,332 cases of No. 3 cans. In 1919, acreage dropped to 254,058 acres, and in 1920, 230,596 acres.

The heavy pack of 1920, together with the large war department surplus unloaded onto the market, and dealers charging war-time prices for canned goods, trade moved slowly, resulting in a large carry-over and out of 1,348 factories only 527 reported acreage. The 1921 pack was the smallest since 1907. This small pack permitted a cleaning up of old stocks and a return to practically normal in 1922.

The same conditions apply to the corn pack. Sweet corn for canning is being grown on 186,500 acres, compared with 119,000 acres in 1921, a canning acreage of 157 per cent of last year's crop is indicated.

The area of cannery peas has increased to 140,000 acres from 108,000 acres in 1921. Snap beans for canning are being grown on 8,970 acres in 1922, compared with 7,057 acres in 1921, an increase of 127 per cent.

## MICHIGAN LEADS IN TB. WORK.

THE Bureau of Animal Industry reports that Michigan is taking a leading place in tuberculosis eradication area work. Livingston is the first Michigan county to complete its total area eradication work. An intensive campaign is on in Hillsdale and Jackson counties. The cost of testing cows in Michigan runs from twenty-five to forty-seven cents a head for the county's share.

## News From Cloverland

By L. A. Chase

## BIG DAIRY CAMPAIGN IN UPPER PENINSULA.

THE headquarters of the Cloverland Dairy Products Company are to be at Gladstone. This concern operates ten dairy establishments in northern Michigan. Several branch plants are due to start soon. The products of the nine branches will be shipped to and handled through the Gladstone plant, it is stated. The company will purchase the entire farm output of milk in this section, it is stated. The price to the producer will be, to begin with, \$2.05 per hundred pounds, delivered at the plant. The re-opening of the Gladstone plant is said to have aroused considerable local interest.

## BUREAU PICNIC TOUR.

THE members of the Dickinson County Farm Bureau are due to make a picnic tour of the county, early in August. The tour will include a stop at a dairy farm where the members will be addressed by an expert from the Michigan Agricultural College. A farm having a modern power and lighting plant will be inspected, and the farm of the Morgan Lumber & Cedar Company will be visited to study the merits of sunflower ensilage. Attention will also be given potato culture. At another farm experimental plots of oats will be examined while at Felch the pig clubs will exhibit their stock. It is expected that four hundred bureau members with as many more visitors will take part in this tour.

## BIG CROP OF WILD CHERRIES.

THE wild berry crop of the Upper Peninsula is a bumper one, this year. Rains have been abundant. Railroad coaches filled with the berry pickers are not infrequently seen, and the pickers return at the close of the day

with well-filled pails. The Gazette of Houghton, reports that the raspberry and huckleberry crop in that section is the largest in a decade and the berries are of unusual size. If statistics were available, the wild berry crop would be seen to have added enormously to the food resources of the peninsula as well as providing a considerable item of exported fruit. One opinion is that the number of pickers, this summer, will be less than a year ago because of the improved industrial conditions.

## HIGHWAY AROUND LAKE MICHIGAN.

IT is being agitated that a completely improved highway should surround Lake Michigan. This can be effected by closing certain gaps that still exist in Michigan, Indiana, Illinois and Wisconsin. Illinois and Indiana, however, have nearly completed their portion of the work. The gaps in upper Michigan are not extensive and the route in the southern peninsula from Mackinac to the southern boundary is stated to be already finished.

## PHEASANT EGGS DISTRIBUTED.

AN agent of the State Department of Conservation has been distributing pheasant eggs from the state game farm near Mason to farmers in the vicinity of Negaunee. The eggs will be hatched under hens and the birds, when they are old enough to care for themselves, will be liberated in the woods. The settings of eggs are fifteen in number. Farmers in other districts will receive these eggs, which have already reached every county in the Upper Peninsula, it is stated. Farmers are said to be quite interested in the game possibilities of the pheasants and numbers of birds have been seen already in the woods, it is reported.

## State Cow-Testing Activities

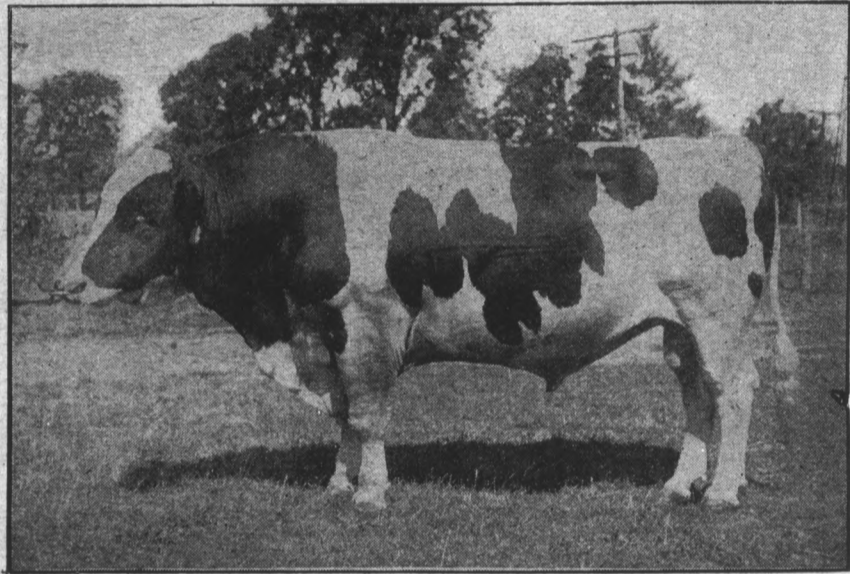
By A. C. Baltzer

COW-TESTING association activities in Michigan have been increasing in many counties and a sound growth of associations is going on throughout the state. The Dairy Department of the Michigan Agricultural College is pleased to report that there are eighteen associations actively operating July 1, 1922. This is the largest number that has ever been active in Michigan at any one time.

There are many reasons for the cow-testing associations and some of these have perhaps been mentioned at different times in our farm papers. Some men will join a cow-testing association to perhaps get a record on their cows, other men to find out how profitable their cows are, still other men will want to have a basis for making sales

not directly belong to the cow-testing association to raise better live stock. Naturally it can be seen how widespread and effective the work of the cow-tester may become in activities of this nature.

There have been many instances in Michigan where improvements are noted from the first year of the cow-testing association work, when compared with later years. The butter-fat average will certainly increase and gradually approach a very high efficient point of production, somewhere around 250 to 300 pounds of butter-fat in the association. Production of milk and butter-fat on this high level is a good paying proposition and also means efficient dairying. There are now in Michigan about 3,500 cows being tested ev-



Cow-testing Has Led to an Increased Use of Pure-bred Sires.

and use the cow-testing association to classify their cows accordingly. Then again, others will wish to have a check on the buyer of their products and none of these reasons mentioned above can in any way minimize the value of being in a cow-testing association.

A good cow-testing association plans out a long-time program and will put dairying on a sound, substantial basis, where it continues year after year. Perhaps the greatest success in having a good cow-testing association is the tester himself, who makes the rounds of the association. The history of good cow-testing associations in Michigan has been the history of good testers. In this connection we wish to point out that a good cow-tester must necessarily have an enlarged vision of the work he is carrying on. His field of activities are greatly diversified, even though he is only directly hired to do cow-testing association work. The cow-tester must be a leader and he must have a good personality. He has a large field of community development and improvement and he has a job in which he can put on the very best of a program of work that he may desire to carry out. The cow-tester also can be instrumental in helping members in improving the feed rations, balancing of rations, and interest the members toward cooperative buying of their concentrates, such as linseed and cottonseed meal. Further, he has the possibility of working up interest in a bull association or bull club in the cow-testing association membership. Just in this connection we have recently heard from Mr. Leslie Wilcox, the cow-tester in the Wayland-Allegan County Cow-testing Association. He reports the entire membership in his association, which includes twenty-seven different farmers, using or owning pure-bred sires in their herds. This nucleus of influential farmers living in several townships, will in turn influence many other farmers and neighbors who do

every month in the cow-testing association work. The average production would be about twenty-four pounds of milk and one pound of butter-fat daily. We find that the production of the herds will vary considerably and that there are some cows giving much larger amounts than others. In July there were 450 cows out of 3,000 in cow-testing association work, giving over forty pounds of butter-fat monthly and 514 cows over 1,000 pounds of milk per month.

The entire cycle of cow-testing association work will always revolve around the slogan of "Feeding, Breeding and Weeding." It is absolutely essential that the cow of high-class breeding have an abundance of good feed to allow her to produce efficiently. Likewise, it is also good business to use a milk scale and milk sheet to weed out the inefficient cows that will always occur in any herd. These necessary steps in building up a high-class herd have always been the outcome of success among the breeders of good dairy cattle. It is known that the cow-testing association brings out these very features to the man who often just keeps cows, and he in turn sees the light for better dairying. This is the purpose of the cow-testing association work in Michigan, to improve the conditions of Michigan dairy farmers.

### TUBERCULOSIS ERADICATION IN OCEANA COUNTY.

THE supervisors at their last session voted an appropriation of \$1,000 to assist in the eradication of animal tuberculosis from Oceana county. This is the result of the combined efforts of the Shorthorn breeders, Jersey breeders, and the County Farm Bureau.

We feel that we have taken one more step toward putting the entire state of Michigan on the map as a tubercular-free state.—C. M. Branch.



## Protect your Fordson profits

WORK, work, work. Out in the heat and rain. Heavy load conditions—all the time. Your Fordson tractor is the power plant of your fields.

Time cannot be spared for frequent adjustments, trouble-hunting or repairs. The business-like farmer's motto is: "Keep going!"

"Keep going!" Operation must be careful. And the biggest single factor in careful operation is efficient lubrication. "Keep going!" Efficient lubrication is all that blocks the way to extra repairs, extra operating bills, extra fuel consumption.

Fordson owners in every state have proved through actual use that Gargoyle Mobiloil "BB" insures the highest and most continuous Fordson efficiency. In agricultural college tests, and in public tests and private tests all over the country the superiority of Gargoyle Mobiloil "BB" has repeatedly proven itself.

Gargoyle Mobiloil "BB" protects. It feeds adequately to every friction surface. It cuts repair bills to the bone. It conserves fuel and power.

### Beware of By-product Oil

Nine out of ten lubricating oils offered you are simply by-products in the manufacture of gasoline.

Gargoyle Mobiloil is *not* a by-product.

It is produced by lubricating specialists who are recognized the world over as leaders in lubricating practice. Gargoyle Mobiloil is made only from crude oils chosen solely for their lubricating quality—not for their gasoline content. Gargoyle Mobiloil is manufactured by processes which bring out the highest lubricating value—not the greatest gallonage of gasoline.

### Warning:

Don't be misled by some similar sounding name. Look on the container for the correct name Mobiloil (not Mobile) and for the red Gargoyle.

Don't believe false statements that

some other oil is identical with Gargoyle Mobiloil. Gargoyle Mobiloil is made only by the Vacuum Oil Company, in its own refineries, and is never sold under any other name.



# Mobiloil

Make the chart your guide

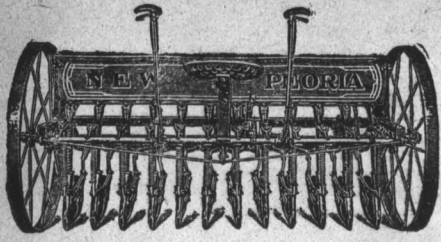
### ADDRESS OUR NEAREST BRANCH:

New York (Main Office)	Boston	Chicago
Philadelphia	Detroit	Pittsburgh
Indianapolis	Minneapolis	Kansas City, Kan.
Buffalo	Des Moines	Dallas



## VACUUM OIL COMPANY

# Our Service Department



**Opens the Furrow—  
Drops the Seed at the  
Bottom**

This means a better yield—more profits for you. No seed is wasted—none left exposed to birds and wind. Every seed is laid in the bottom of a packed seed bed and covered.

**The New  
Peoria Drill  
For YOUR Farm**

can pay back its cost quickly.

If you don't work your farm yourself, give your men this wonderful drill. Do it even if necessary to discard some other make. They can show you better results. You stop wasting seed and get bigger crops.

**Every Seed Is Covered**

No other drill can duplicate the work of the New Peoria. It works in any soil. Use it for any of the small grains—or peas, beans and corn. Can not injure the seed. Write for catalog and full information.

**PEORIA DRILL &  
SEEDER CO.**

2420 North  
Perry St.  
Peoria,  
Ill.

The  
Peoria  
Famous  
Disc Shoe



**Raise Better Cattle  
and  
Make More Money**

Right feeding means better cattle. Any herd will do better if fed with Saginaw Silage.

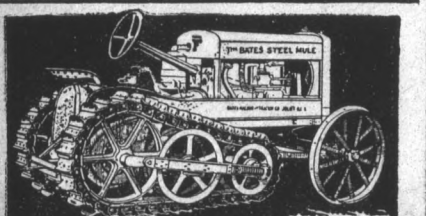
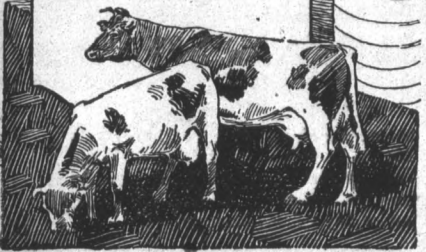
Saginaw Silage is aged next to the wood in Saginaw Silos—keeps sweet and clean.

The result of 20 years experience in silo manufacture, Saginaw Silos are built to meet your needs and priced to suit your pocket-book.

Feed your cattle Saginaw Silage and your Saginaw Silo will pay for itself in a short time. A Saginaw Silo is the means of doubling your farm without increasing acreage or labor costs.

Write today for full information.

**THE McCLURE CO.**  
Saginaw, Mich., Cairo, Ill.



—The most efficient Tractor in America

Crawler Traction  
Quality Construction  
Pulls 3 to 4 Plows  
Handles 28" to 32" Thresher  
Special Price now in effect.

**Bates  
Steel Mule**

Write today for full information

Washenaw Motor Co., Ann Arbor, Mich.

**Bates Machine & Tractor Co.**

1223 Benton St. JOLIET, ILLINOIS

## NODULES ON SWEET CLOVER.

Will you kindly tell me if nodules form on sweet clover roots the first year when inoculated? Also, is Mammoth clover as sensitive to acid soils as sweet clover or alfalfa?—C. F.

If the proper bacteria is present, the nodules will form on sweet clover roots the first season; in fact, they are oftentimes formed in a very few days after the young seedlings appear above ground.

Mammoth clover is not as sensitive to acid soils as sweet clover or alfalfa. Alfalfa is the most sensitive of the common leguminous plants to soil acidity. Sweet clover probably ranks second, June clover and Mammoth clover following in close order, while vetch and soy-beans are even less sensitive than Mammoth clover.—Megee.

## KILLING HONEY LOCUSTS.

I had about forty rods of the so-called honey locust hedge, which I cut down last winter, but now they all have sprouted out again. Now they tell me if I cut them off in August and put on thick salt it will kill them. What is your advice? I have also thirty rods of the same which was never trimmed off and grew up to good-sized trees and measure from six to eight inches through, which I am

told will make better fence posts than cedar. If this is true, when should I cut them down to make the best posts and also rot or kill the stumps?—H. M.

Honey locusts sends up shoots after being cut off very readily. The shoots will, however, be a little less vigorous if the trees are cut in August than if cut in the winter or spring. An arsenic solution consisting of one pound of arsenic and three pounds of soda has been used in some cases to kill the roots of trees and prevent their sprouting. The solution is, however, very poisonous and cannot be used satisfactorily in the case of shrubs or bushes. The solution is made as follows:

Dissolve three pounds of either caustic soda or washing soda in a convenient amount of water, using heat if desirable to assist and hasten it. Then slowly add one pound of arsenic previously made into a thin paste, stirring all the time; place on a strong fire and allow it to boil for at least a half hour, stirring from time to time and being careful to stand on the side away from the fumes as they are poisonous and are apt to cause sickness. When the arsenic is thoroughly dissolved, the solution should be made up to the bulk of one gallon by adding sufficient water, either hot or cold.

In killing the trees, sink the blade of an axe into the wood as if it were intended to cut the tree down. Then pry downward on the back of the axe, pour some of the poison into the resulting cavity and allow it to run down well and then withdraw the axe. One hack is said to be sufficient for a six-inch tree, two for a tree ten inches in diameter, three for an eighteen-inch tree, etc. Small trees may be cut off low down and the solution may be daubed on with a swab-stick so as to prevent suckering. Care should be taken to keep people and animals away until rain has washed the poison thoroughly away. Other poisons are sometimes used but no poison will always work satisfactorily as much depends upon physiological and weather conditions.—Chittenden.

## LAND FOR HIGHWAY.

The county wants to take an acre of my land in re-locating the highway. The road commissioners and I cannot agree on price. They offer me \$50 which I do not think enough. Please advise me.—E. S. T.

Concerning the matter of taking of an acre of your property for re-location of highway, please be advised that the statute provides that if the board of county road commissioners or state highway commissioner, in re-locating a highway can not purchase from the owner of the premises the required land for such re-location then they have the right to condemn the land for highway purposes, and the value is determined by the jury appointed by the circuit judge, or judge of probate of your county.

As to the adequacy of the amount offered to you, you are advised that it would be impossible for any one not familiar with the surrounding circumstances to know whether \$50 would be a fair compensation for the same. If, however, you feel that you are not being properly compensated, then you have the liberty to refuse to sell, and to resort to condemnation proceedings as above outlined.—Partlow.

## QUACK GRASS RARELY PRODUCES SEED.

Had a small spot of quack grass in my hay this year. I do not find any seed in the quack. Would like to know if it will seed back by the hay being fed and returned to the land as manure.—F. S.

Ordinarily quack grass does not produce seed but multiplies and spreads by its underground stem or root stock. If a patch of quack is allowed to remain undisturbed for a considerable length of time the roots become crowded and the plant becomes dwarfed, then it will produce seed.

You need have no fear of spreading this plant by means of manure from live stock consuming the hay. In most every instance there are no seed. If there should be seed practically all would be destroyed when consumed by the animal, and if some should perchance pass through the animal and not be destroyed you need have no great fear. Only a few would germinate and grow, anyway. Besides, if some do grow there is nothing to be greatly alarmed at. In a sane, sound system of rotation of crops, containing hoed or cultivated crops and a good thorough, vigorous practice of cultivation, such as one must have if he succeeds at farming, neither quack grass nor any other undesirable plant can become so established as to cause any especial work on the part of the farmer.

## Crop Outlook in Michigan

*Our Crops Rank Above U. S. Averages According to Verne E. Church, Federal Crop Statistician*

THE condition of every crop in Michigan was up to the ten-year average or better on July 1, and every crop in the state was above the average for the United States. While our crops usually rank well in comparison with those of other states, seldom does it happen that every crop shows a favorable condition at the same time.

Weather that is unusually favorable for one class of crops is likely to be detrimental to others. Likewise, unfavorable weather for a few days at any time is liable to coincide with the critical period in the growth of certain crops yet have no effect upon the others. Rainfall during the summer months is apt to vary greatly within short distances. Local showers frequently extend but a mile or two in width and only a few miles in length. Some localities will be visited often with showers, others will be missed throughout nearly an entire season, causing conditions ranging from a near failure to a bumper crop. If heavy rains come, they often deluge certain sections, knocking down grain, washing hillsides away, and drowning crops on lowlands. If the ground is dry much of the water runs off without penetrating the soil or giving any benefit.

This year, while some localities have had an excess of moisture and some crops have been injured thereby, in most sections the rainfall has been normal or below. The showers have been moderate and come at timely intervals. The weather has not been extremely hot for more than a day or two at a time, and evaporation has been much less under those circumstances.

The combined condition of all crops in the state was 109.1 per cent as compared with the ten-year average. Only two states, New Hampshire and Vermont, exceeded this condition, while the condition for the United States was 97.9 per cent, or slightly below the average of other years. Much of the

corn belt, including the states of Indiana, Illinois, Iowa, Missouri, South Dakota, Kansas, Nebraska, Arkansas, Oklahoma and Texas show conditions below the ten-year average.

Notwithstanding the high level of crops as a whole in Michigan, the only crop that can be classed as a bumper one is hay. Present estimates place the crop at 4,400,000 tons in round numbers, a record one except that of 1916 when 4,713,000 tons were produced. Grain crops in general show a little better than an average yield. Beans were planted extensively and show an increase of sixty-three per cent in acreage over last year and a condition of eighty-nine per cent. The acreage of sugar beets dropped from 163,800 in 1921 to 106,400 this year. The principal fruits range from seventy to eighty per cent, and the small fruits and truck crops ninety per cent or better. The acreage of potatoes planted was seven per cent larger than last year.

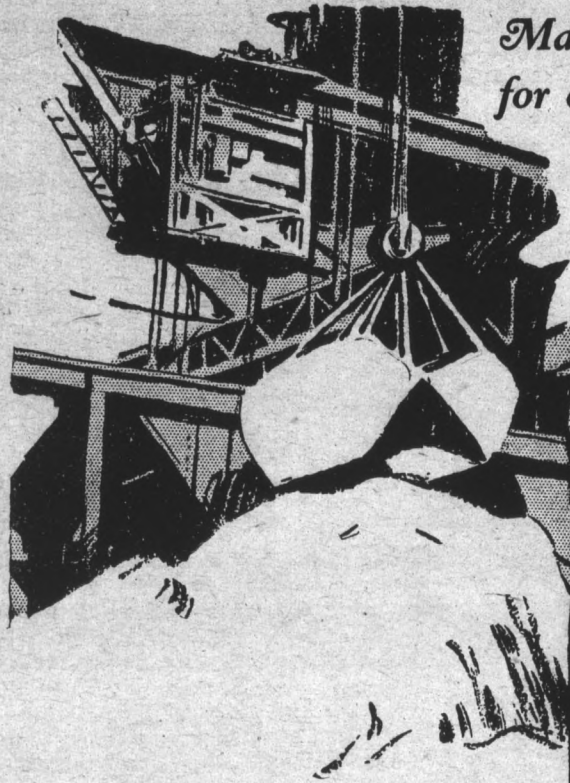
While prices of farm products are about thirty per cent lower than the average of the last ten years, they have made a gain of twelve per cent over one year ago. Meat animals have also advanced during the last year, the average prices on July 1 being 14.6 per cent higher than on the same date last year.

With a condition uniformly above the United States level for each crop, and an outlook for slightly better than average yields within the state, yet without prospects of excessive surpluses, and with improved prices the outlook for the farmers of Michigan is on the upturn and far less gloomy than last year. Michigan's diversified farming reacted last year to the advantage of its farmers in comparison with the more specialized types of agriculture in the big corn belt states. With this advantage in the beginning and excellent prospects for the current season, Michigan may congratulate herself on being in a highly satisfactory agricultural position in relation to her sister states.

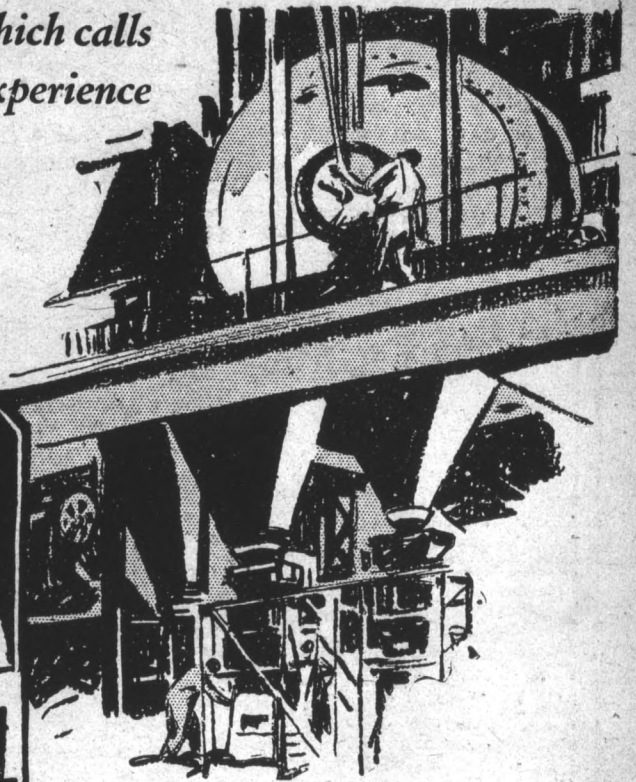
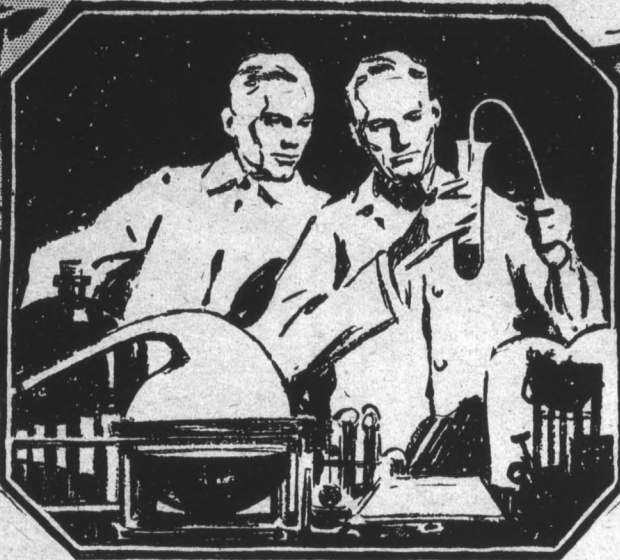
# Swift's Red Steer Fertilizers and why "it pays to use them"

*Making fertilizers right is a big job which calls for expert knowledge and practical experience*

*Skilled chemists and experts in plant and soil research maintain constant laboratory supervision of Swift's Red Steer Fertilizers, thereby assuring the right fertilizer for each crop and soil*



*Demand requires that a season's fertilizer shipments be made in a few weeks' time. With modern machinery like the above Swift & Company can handle a large volume and make prompt shipments*



*Huge mixing mills like the above assure Swift's Red Steer Fertilizers being uniformly and thoroughly mixed. They distribute evenly, thus giving each plant its proper proportion of plant food*

**T**HE farmer who uses 200 pounds of fertilizer to the acre actually applies less than one ounce—no more than he can hold in his closed fist—to each square yard of soil.

And yet this small amount of fertilizer must supply the essential elements of plant food to nourish not one but a number of growing plants.

Fertilizers must be evenly and accurately mixed to supply each plant with just the right amount of plant food. This requires modern mixing and grinding machinery such as is used by Swift & Company in the thorough mixing of Swift's Red Steer Fertilizers, and huge storage facilities which permit of curing and shipping fertilizer in perfect mechanical condition.

### *The Swift reputation*

For over fifty years Swift & Company has steadily maintained the reputation of making each Swift product the best of its kind. This reputation stands back of every bag of Swift's Red Steer Fertilizers.

When you buy Swift's Red Steer Fertilizers, you are getting the most for your money because only the highest grade and most productive sources of plant food are used. The kind and amount of each fertilizer ingredient is based on practical field results and scientific investigation, insuring a fertilizer that meets the needs of your soil and crop.

It pays to use Swift's Red Steer Fertilizers because they are made right. It pays to use them because they are backed by all the resources and the reputation of a great manufacturing institution.

It pays to use them because experiment stations of the leading winter wheat states have conclusively shown an average increase in yield of 80 bushels of better quality wheat for each ton of fertilizer used.



*Dealers: Above is reproduced the well-known Swift Red Steer Fertilizer bag. It is a mark of dependable fertilizers. We have a worth-while agency proposition to offer in territories where we are not represented. Write for details*

### *Order Swift's Red Steer Fertilizers now*

To grow more and better wheat, to help get a good clover catch, to make the most profit per acre and per man—use Swift's Red Steer Fertilizers.

On most soils use Swift's Champion Wheat and Corn Grower, 2-12-2, applying from 200 to 400 pounds per acre.

On soils rich in available nitrogen and potash, see the local Swift dealer regarding the best brand to use.

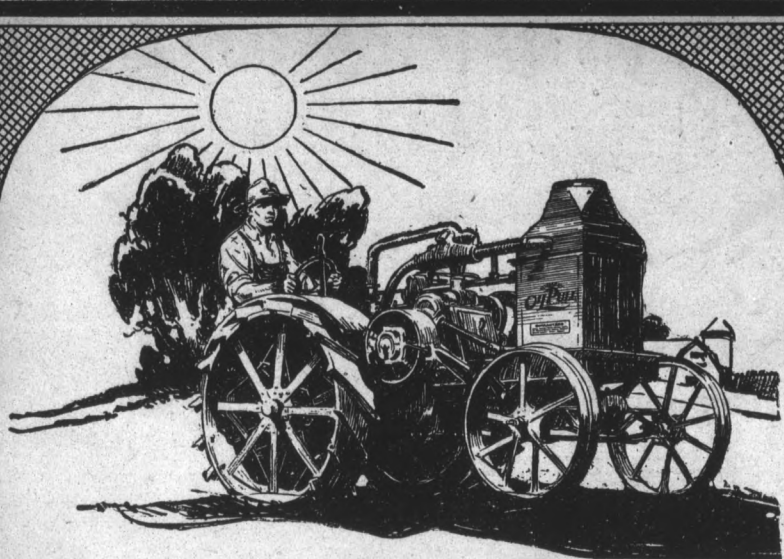
Buy brands containing 14% or more plant food. The cost of freight, labor, bags, etc. is the same per ton regardless of the plant food content, just as your labor, interest on investment, taxes, etc. is the same whether you grow 15 bushels or 30 bushels of wheat per acre. Buy from our local dealer or write us.

**Swift & Company**

DEPARTMENT 46

Fertilizer Works, Hammond, Ind.

**"IT PAYS TO USE THEM"**



## A Profitable Worker in Hot Weather

Hot weather makes no impression on this sturdy, oil-burning, oil-cooled OILPULL Tractor.

Triple Heat Control prevents overheating. The powerful, twin-cylinder, oil-burning motor actually runs cooler under heavy loads than under light loads. There is no evaporation, hence no refilling. Your work, whether it is plowing, road work or belt jobs, goes along steadily 10, 12, 18 hours and even longer on hottest days. That is profitable service.

### OILPULL

"The Cheapest Farm Power"

The OILPULL saves money in any weather. It saves 39% in fuel. It saves 50% on upkeep. These figures are proved by authoritative tests and comparisons. And it is such savings that make the OILPULL so economical to operate and so very cheap in the end. OILPULL life averages more than 10 years. This means a big saving in depreciation.

All in all, the OILPULL, because it is a quality machine and because it is the only tractor with Triple Heat Control, is the cheapest tractor to own, summer or winter.

If you want further proof, see the local Advance-Rumely dealer. In the meantime, please write in for a copy of our widely read booklet, "Triple Heat Control."

## ADVANCE-RUMELY

Thresher Co., Inc.

Battle Creek, Mich.

The Advance-Rumely line includes kerosene tractors, steam engines, grain and rice threshers, alfalfa and clover hullers, husker-shredders and farm trucks. Serviced through 30 Branch Offices and Warehouses



## Francisco Farm Notes

By P. P. Pope

### A Live Stock Scheme

COOPERATION is not yet complete—the foolish are not all dead. There is a matter which by your county agents until you thoroughly believe in them, but so far you have been brought to my attention from time to time in the past, but more vividly of recent date, that I feel calls for some publicity. Just what to say and what to leave unsaid is a question, but we will do the best we can and abide by the results. What I refer to is the practice of selling the services of pure-bred sires, and collecting in advance, fees that represent several times the value of the sire. Let me explain it thus: A smooth salesman comes to you with a proposition to place a pure-bred registered sire in your neighborhood free of cost to you, providing you and your neighbors will pledge a sufficient number of cows to his services.



Now, you have pure-bred sires preached to you through the farm press, the agricultural college and have not seen your way clear to take care of the first cost. So this new proposition looks good to you at first sight and you fall for it and spend a day or so helping the salesman to interest your neighbors. The result is, he very soon gets away with the cash or its equivalent to pay for the services of fifty, sixty or seventy cows at \$3.00 each for three years, or \$9.00 each. The next job for the salesman is to shift his responsibility, so he very kindly offers to sell you the bull outright for a merely nominal sum, or perhaps without paying anything extra, if you will simply care for the bull and fulfill his guarantees. Ownership is sweet, so you get a bill of sale for the bull you haven't seen, at a cost apparently of only a few service fees paid in advance, and a lot of responsibility.

You may not know it, but the salesman's next move is to find the bull he has told you so much about, so he hunts up the man who has him to sell and buys him for the bottom dollar. He is buying him to sell again, so cannot afford any but very conservative prices, \$100, \$125, \$150, delivered. Of course, he buys the best bulls he can for the money, but the profits are of first consideration, and in this respect the sky is the limit. I recently sold a bull for \$150 and learned upon delivery that he had been sold on the above plan and that the salesman had walked out of the community with \$450 for him. A friend of mine sold a bull some months ago for \$200 and he was placed in a community only a few miles away at a cost of \$600. I saw a bull last fall, a poorer individual than either one of these. He came from Canada and I do not know what he cost the buyer, but he cost the community in which he was placed \$800. So much for the facts, now for the comments.

Any method that encourages the use of pure-bred sires will mean much to the community to which it is applied. These bulls will do a lot of good in their respective communities. The plan used in financing the deal is admirable and makes it easy for any community to own a good sire. But the deplorable thing about it is that any community of farmers should allow themselves to be thus duped into paying three prices—one for the bull and two

to the salesman. A little community cooperation would secure the same results and save the community two-thirds of the cash. But for lack of a little initiative, a little local leadership, a little community cooperation, it pays an enormous toll and allows itself to be exploited outlandishly. Oh, will we farmers ever come out of the wilderness? Will we ever get our eyes open, or will we forever be content to hold the bag? Verily, cooperation is still an infant. The fools in our own pack are not all dead.

#### HOW TO USE A HOE.

SOMEONE has said that a gardener is no better than his tools. Even if the tools themselves are all right, ignorance of their care and use may cause the loss of much time and effort.

In small gardens the hoe is the principal tool. Buy a large, strong one; good width in the blade will save many strokes that are necessary when the blade is narrow and cuts but two-thirds as much as a stroke. Naturally too, a heavy head does cleaner, more effective work because of the greater momentum of its fall.

I have used the terms "stroke" and "fall," but properly, there should be little of the chopping motion in a hoe's manipulation. The expert's style could better be called dragging—with just enough pressure to uproot the weeds, yet impose no fatiguing strain on the worker's arms. A hoer should not hump over; it is not only tiresome but unnecessary. Most novices bend far over when they have to work close around plants, but after some practice, accuracy of stroke will cure this. One farmer tells me that a man who understands hoeing will do fifty per cent more work in a given time than a beginner.

Much depends on the hoe's sharpness. The American factory mechanic is reputed to spend three times as much time as the European workman sharpening his tools, but he produces nearly twice as much finished product thereby. The same principle applies to the use of garden tools; keep them sharp and in good working order.

A good, fine file is the best sharpener for your hoe—and good also for the spade, grass shears and lawn-mower. Hold the hoe firmly, preferably in a vise, and aim to keep the bevel flat and at an angle of about forty-five degrees. Though the hoe wears faster, it pays (in better, easier work) to have the square edge inside. Keep the points of the blade square by carefully shaping them with the file. Learn to hoe both right and left-handed, as it is better for the tool as well as economical of strength.

Don't use one file forever. Particularly if it is used on a number of tools and for various purposes, a file gets dull, and wastes times for its user. Clean it out occasionally with the point of an awl, and use a little machine oil when filing the hoe.

I think every garden worker should have his own hoe, particularly if the workers are of greatly different height. I have said that a hoer should not stoop too much, but he will have to if the angle of hoe-blade with the handle is too acute. The blade should set at just enough less than a right angle to give the desired cutting effect when the gardener stands comfortably erect—the exact angle will depend on his height.—L. E. Eubanks.



You can tell the genuine by the world trade mark.

Every farm should use this "watch dog of weights"—when buying or selling.

### Fairbanks Scales

CHICAGO 900 S. Wabash Avenue  
NEW YORK Broome & LaFayette Streets  
And Forty Other Principal Cities in the U. S.

## The Genuine FAIRBANKS SCALE

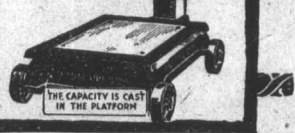
500 Lb. Size

\$16<sup>15</sup>

1000 Lb. Size \$18<sup>90</sup>

Both F. O. B. Factory

See it at your local dealers



# SPENCER'S HAY PRESS

The Speediest, Most Durable Press Built

Full Line of Box and Power Presses. Write for Catalogue and Prices.

J. A. SPENCER FOUNDRY AND MACHINE WORKS, Established 1881. DWIGHT, ILLINOIS Not Incorporated



**HANDY STONEBOAT.**

THE following gives details for the construction of a handy boat which will save much work in removing large stones from fields.

**Bill of Materials.**

Two hardwood planks two inches by twelve inches by six feet; one hardwood plank two inches by six inches by twenty-eight inches; two three-quarter inch by five-inch bolts with washers.

This stone boat is very handy in moving stone which are one to three feet in diameter. The best asset of the machine is that it requires no labor or "back work" in loading or un-



loading. It costs practically nothing and can be made from materials on every farm.

It is made by rounding off an end of each plank and boring a two-inch hole in that end for the chain to which the team can be attached. The plank are placed side by side four inches apart. The inside edges are bevelled. The short plank is bolted across the end opposite the round points, one bolt in each plank.

When a stone is to be moved the plank are spread so that one goes on each side of the stone. A chain to which the team is attached is fastened to the hole in each plank. As the team goes ahead the planks close together and the stone is lifted and moved to a desired point. To unload, the chain is removed from one plank so the team can spread the boat, allowing the stone to rest on the ground.

**WAR EXPLOSIVES FOR FARMERS.**

A REPORT from the office of the secretary of agriculture indicates that the use of picric acid for land-clearing purposes has been very successful.

In Minnesota 744,000 pounds were distributed to 3,511 farmers. This cleared about 35,000 acres of land, at a saving of about \$70,000 to the farmers of that state.

There is now available about 6,000,000 pounds of picric acid, of which 1,500,000 pounds is available to the farmers of Michigan.

The government makes no charge for this explosive, but it is necessary to dry it out and cartridge it before its usage. For this the government makes a charge on the cost basis.

**LAW AGAINST FILLED MILK.**

THE dairy forces of the nation are happy over the victory against filled milk in Wisconsin. The supreme court there upheld the constitutionality of the state filled milk law. It seems sure that this state victory is a great step for a more complete victory in the passing of the federal act, which will prohibit the addition of vegetable oils to skim-milk for sale purposes.

# And Now, Profit in Farming Without the Drudgery

*A century ago our grandfathers replaced oxen with horses. Today, a far greater change is taking place. Mechanical power now supersedes the horse!*

THE power-farmer of today presents a striking figure, a living symbol of the new agricultural era—the era of Fordson Farming. Now, with mechanical power he accomplishes in *days* what formerly required weeks—sometimes months of labor. His crops are bigger, his profits greater, his time for pleasure doubled. And, what is perhaps the greatest reward, the toil, the slavery, the drudgery of old-fashioned farming is rapidly passing.

This remarkable advance in farming methods is made possible by the perfect combination of the Fordson and the Standard Equipment specially designed to be used with it.

In developing this line of Standard Equipment, the manufacturers have provided economy of first cost and economy of operation that is such an outstanding feature in Fordson Farming.

During the time the Fordson was being perfected, the Oliver No. 7 Plow was undergoing its exacting tests. So, when the Fordson tractor was completed the Oliver No. 7 became its plowing partner. The plow is so constructed that the center line of draft is in perfect alignment with the center line of draft on the tractor. This scientific alignment avoids side draft, and the plow turns a clean furrow. Nor is there any loss of power.


The Oliver No. 7 is so light running that there is no stress on the tractor. No effort is required by the operator to do the most thorough plowing.

Every unnecessary part has been eliminated. Strength that means long life is built in every detail. Steel parts are heat

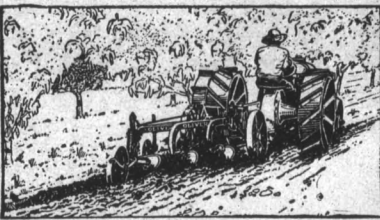


Oliver No. 7—the plowing partner of the Fordson


treated and castings are of tested strength. To adjust the depth of plowing is merely a matter of working a lever to operate a jack. This jack arrangement—which is an exclusive Oliver feature—



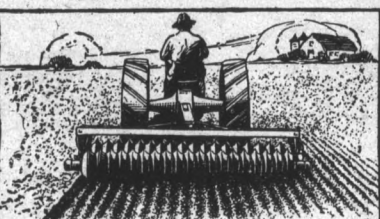
**Oliver Single Bottom Sulky**  
For deep mouldboard plowing in trashy conditions with the Fordson. Similar in construction to world famous No. 7 gang.




**Special Oliver Orchard Plow**  
Fordson orchard plowing is done thoroughly with the Oliver special orchard gang. Branches and trunks are not injured.




**Roderick Lean Automatic Harrow**  
Fitting the Seed Bed the Fordson way with the Roderick Lean Automatic Tractor Disc—a special Fordson Harrow.




**Good Work With Roller Pulverizer**  
Final Fitting of the seed bed with Fordson power and the roller pulverizer has meant more bushels for many farmers.




**Roderick Lean Orchard Harrow**  
Orchard discing with Fordson speed with gangs set in or extended with the Roderick Lean Automatic Orchard Disc.



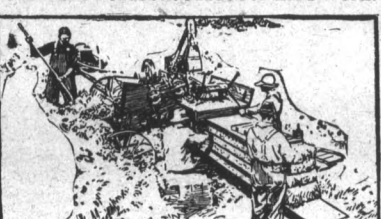
**The Amsco Tractor Drill**  
Tractor speed and accuracy utilized by the Fordson owner with the Amsco special drill. Force feed makes positive planting.




**The Amsco Two-Row Cultivator**  
Cultivating corn is easy for the Fordson farmer with the Amsco Cultivator—special for the Fordson. Made for hard work.



**Money-Maker Ensilage Cutter**  
Fordson silofilling with the Money-Maker done quickly and cheaply. Strength and scientific design give perfect work.



**The Money-Maker Hay Press**  
Baling hay with the Fordson and Money Maker baler is an important operation to the farmer with large hay acreage.



**Wood Bros. Individual Thresher**  
The Wood Individual Humming Bird Thresher and Fordson make short work of threshing. All grain is saved.

gives such a purchase on the lift that it is extremely easy to change the depth of the bottoms without stopping or without even slowing down. The power lift is tripped by simply touching a lever that is so conveniently placed that the operator need not turn his head. Sixty-five years of plow build-

ing experience is one good reason why the No. 7 is built so well that it has been known from the beginning as Standard Plow Equipment with the Fordson. The long, profitable service built into the plow as a result of that experience is your assurance of plowing satisfaction the Fordson way.

**Ford Dealers Everywhere Sell Standard Fordson Equipment**

**Apple Barrels--Lumber**

Now is the time to order your barrels to insure delivery. Can ship in carload lots or less, either nested same as baskets, with head and top hoops out, or in regular made up stock. Can furnish vinegar barrels or kegs down to ten gallons.

Let us have your inquiries for lumber, shingles, lath, oak and maple flooring. If contemplating building any barns or outbuildings, it would pay you to investigate our method of furnishing plans and blueprints. Ask our salesman to call on you.

**BLISS & VAN AUKEN LUMBER CO.,**  
Saginaw, W. S., Mich.

**Ten Extra Fine** fox hound pups three months old: none better, males \$15, females \$10.  
W. E. LEOKY, Holmesville, Ohio.

**FARM HELP**

**Wanted Position** Having sold our large farms, we desire to place our superintendent. He made good in every way. Is 35 years of age, widower, no children. Is man of finest character, well educated, a real man 6 ft., 200 lbs. and a hustler. Address him, Herman R. Bransen, Ephrata, Pa.

**Wanted** Single man for yr. Prefer stock feeding experience, good wages and good home, position open at once. Chas. D. Harsch, Siloam, Mich. Iosco Co.

**THE HICKS LIGHTNING ROD CO.**  
Tecumseh, Mich.  
More than forty years experience  
Work guaranteed.

When writing to advertisers please mention the Michigan Farmer.



# \$ 1375

## REO SPEED WAGON

Designed Expressly  
For the Farmer's Needs

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

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

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

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

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

We knew that certain factors were necessary to success.

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

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

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

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

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

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

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

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

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

### PRICES

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

Cab Express	
(Illustrated)	\$1375
Canopy Express	1375
Stock Rack	1400
Carry All	1400
Double Deck	1400
Stake Body	1400
Grain Body	1425

Chassis only \$1185

### Reo Passenger Car Models

Six-Cyl. Light 7-Pass. Touring Car	\$1595
New Reo Phaeton	1745
4-Pass. Coupe	2355
Reo Sedan	2435
Reo Taxicab—Complete	2150

All prices F. O. B. Lansing, Plus Federal Tax

Write for Catalog

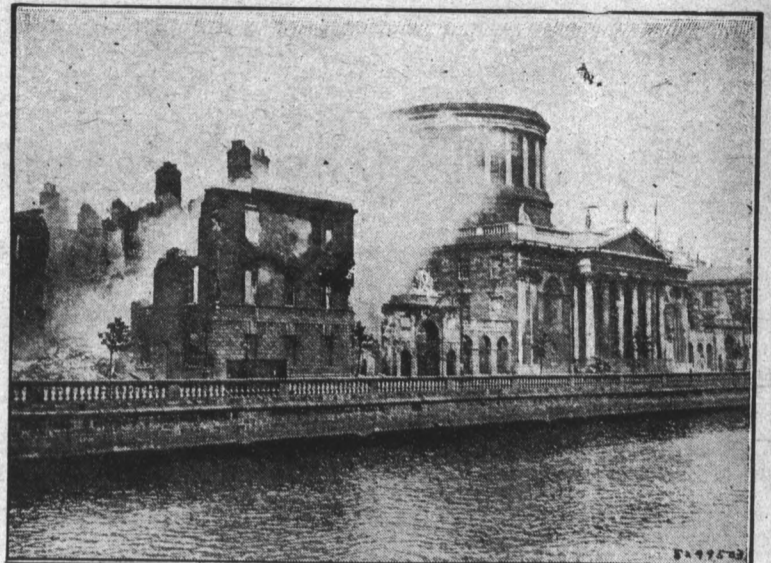
Over 75,000 Now In Use

Reo Motor Car Company, Lansing, Michigan

# WORLD EVENTS IN PICTURES



Eight children at play were instantly killed when a croquet mallet hit a war shell, which was being kept as a souvenir in a yard in Watertown, New Jersey.



This is what the Irish uprising has done to the Four Courts of Dublin. Many valuable documents, and other famous treasures, were lost by fire.



A tiger cub makes a good pet, especially when it is young, says Miss Gertrude Sheehan.



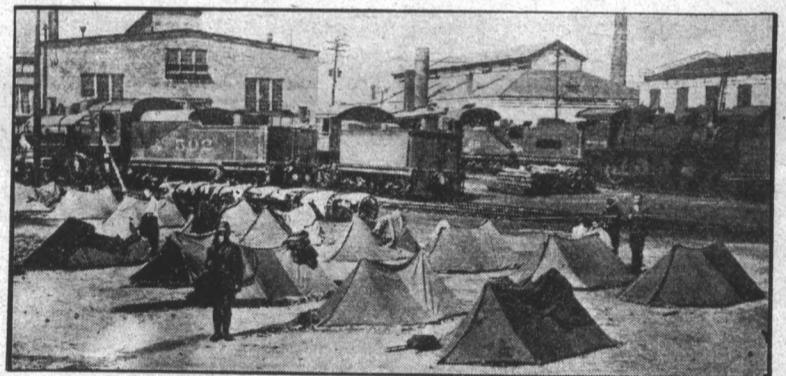
The Elks, while in convention at Atlantic City, New Jersey, took their morning's "dip" in regular military style. All were dressed alike from head to foot.



Harry Keenan is a fellow you have to look up to, because he is seven foot three inches.



It would be a good thing to move your house to Fairfax, California, if it is going to catch fire, as you will then have these flapper fire girls to put it out.



A machine gun company is camped in the Chicago railroad yards at Bloomington, Illinois, to guard the roundhouses there during the railroad shopmen strike.



Chief Justice Taft apparently enjoyed planting a Yew tree at the home of George Washington's ancestors in England.



A good way to eat a hot-dog in a cool spot. The horseshoe life preserver is for luck.



This Virginia spot, ten miles from the White House, is where you will want to rush to, for they have found gold there.

# THE CROSS-CUT *—By Courtney Ryley Cooper*

Copyright, 1921, By Little, Brown & Company

"I hope not." Then quickly she withdrew her hand, and somewhat flustered, turned as her companion edged closer. "Maurice, this is Mr. Fairchild," she announced, and Fairchild could do nothing but stare. She knew his name! A second more and it was explained: "My father knew his father very well."

"I think my own father was acquainted too," was the rejoinder, and the eyes of the two men met for an instant in conflict. The girl did not seem to notice.

"I sold him a ticket this morning to the dance, not knowing who he was. Then father happened to see him pass the house and pointed him out to me as the son of a former friend of his. Funny how those things happen, isn't it?"

"Decidedly funny!" was the caustic rejoinder of the younger Rodaine. Fairchild laughed, to cover the air of intensity. He knew instinctively that Anita Richmond was not talking to him simply because she had sold him a ticket to a dance and because her father might have pointed him out. He felt sure that there was something else behind it—the feeling of a debt which she owed him, a feeling of companionship engendered upon a sunlit road, during the moments of stress, and the continuance of that meeting in those few moments in the drug store, when he had handed her back her ten-dollar bill. She had called herself a cad then, and the feeling that she perhaps had been abrupt toward a man who had helped her out of a disagreeable predicament was prompting her action now; Fairchild felt sure of that. And he was glad of the fact, very glad. Again he laughed, while Rodaine eyed him narrowly. Fairchild shrugged his shoulders.

"I'm not going to believe this story until it's proven to me," came slowly. "Rumors can be started too easily. I don't see how it was possible for a man to fall into a mine shaft and not struggle there long enough for a man who had heard his shout to see him."

"Who brought the news?" Rodaine asked the question.

Fairchild deliberately chose his words:

"A tall, thin, ugly old man, with mean squint eyes and a scar straight up his forehead."

A flush appeared on the other man's face. Fairchild saw his hands contract, then loosen.

"You're trying to insult my father!"

"Your father?" Fairchild looked at him blankly. "Wouldn't that be a rather difficult job—especially when I don't know him?"

"You described him."  
"And you recognized the description."

"Maurice! Stop it!" The girl was tugging at Rodaine's sleeve. "Don't say anything more. I'm sorry—" and she looked at Fairchild with a glance he could not interpret—"that anything like this could have come up."

"I am equally so—if it has caused you embarrassment."

"You'll get a little embarrassment out of it yourself—before you get through!" Rodaine was scowling at him. Again Anita Richmond caught his arm.

"Maurice! Stop it! How could the thing have been premeditated when he didn't even know your father? Come—let's go on. The crowd's getting thicker."

The narrow-faced man obeyed her command, and together they turned

out into the street to avoid the constantly growing throng, and to veer toward the picture show, Fairchild watching after them, wondering whether to curse or kick himself. His temper, his natural enemy toward the two men whom he knew to be his enemies, had leaped into control, for a moment, of his tongue and his senses, and in that moment what had it done to his place in the estimation of the woman whom he had helped on the Denver road? Yet, who was she? What connection had she with the Rodaines? And had she not herself done something which had caused a fear of discovery should the pursuing sheriff overtake her? Bewildered, Robert Fairchild turned back to the more apparent thing which faced him: the probable death of Harry—the man upon whom he had counted for the knowledge and the perspicacity to aid him in the struggle against Nature and against mystery—who now, according to the story of Squint Rodaine, lay dead in the black waters of the Blue Poppy shaft.

Carbide lights had begun to appear along the street, as miners, summoned by hurrying gossip mongers, came forward to assist in the search for the missing man. High above the general conglomeration of voices could be heard the cries of the instigator of activities, Sam Herbenfelder, bemoaning the loss of his diamond, ninety per

cent of the cost of which remained to be paid. To Sam, the loss of Harry was a small matter, but that loss entailed also the disappearance of a yellow, carbon-filled diamond, as yet unpaid for. His lamentations became more vociferous than ever. Fairchild went forward, and with an outstretched hand grasped him by the collar.

"Why don't you wait until we've found out something before you get the whole town excited?" he asked. "All we've got is one man's word for this."

"Yes," Sam spread his hands, "but look who it was! Squint Rodaine! Ach—will I ever get back that diamond?"

"I'm starting for the mine," Fairchild released him. "If you want to go along and look for yourself, all right. But wait until you're sure about the thing before you go crazy over it."

However, Sam had other thoughts. Hastily he shot through the crowd, organizing the bucket brigade and searching for news of the Argonaut pump, which had not yet arrived. Half-disgusted, Fairchild turned and started up the hill, a few miners, their carbide lamps swinging beside them, following him. Far in the rear sounded the wails of Sam Herbenfelder, organizing his units of search.

Fairchild turned at the entrance of the mine and waited for the first of the miners and the accompanying gleam of his carbide. Then, they went within and to the shaft, the light shining downward upon the oily, black water below. Two objects floated there, a broken piece of timber, torn from the side of the shaft, where some one evidently had grasped hastily at it in an effort to stop a fall, and a new, four-dented hat, gradually becoming water-soaked and sinking slowly beneath the surface. And then, for the first time, fear clutched at Rodaine's heart—fear which hope could not ignore.

"There's his hat." It was a miner staring downward.

Fairchild had seen it, but he strove to put aside the thought.

"True," he answered, "but any one could lose a hat, simply by looking over the edge of the shaft." Then, as if in proof of the forlorn hope which he himself did not believe: "Harry's a strong man. Certainly he would

know how to swim. And in any event he should have been able to have kept afloat for at least a few minutes. Rodaine says that he heard a shout and ran right in here; but all that he could see was ruffled water and a floating hat. I—" Then he paused suddenly. It had come to him that Rodaine might have helped in the demise of Harry!

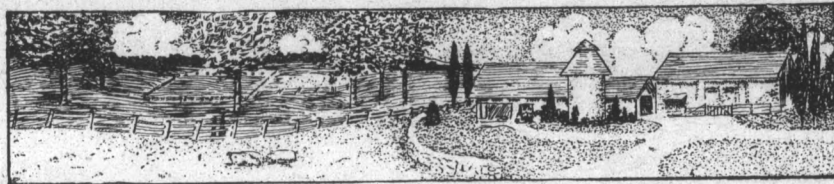
Shouts sounded from outside, and the roaring of a motor truck as it made its slow, tortuous way up the boulder-strewn road with its gullies and innumerable ruts. Voices came, rumbling and varied. Lights. Gaining the mouth of the tunnel, Fairchild could see a mass of shadows outlined by the carbides, all following the leadership of a small, excited man, Sam Herbenfelder, still seeking his diamond.

The big pump from the Argonaut tunnel was aboard the truck, which was followed by two other auto vehicles, each loaded with gasoline engines and smaller pumps. A hundred men were in the crowd, all equipped with ropes and buckets. Sam Herbenfelder's pleas had been heard. The search was about to begin for the body of Harry and the diamond that circled one finger. And Fairchild hastened to do his part.

Until far into the night they worked and strained to put the big pump into position; while crews of men, four and five in a group, bailed water as fast as possible, that the aggregate might be lessened to the greatest possible extent before the pumps, with their hoses, were attached. Then the gasoline engines began to snort, great lengths of tubing were let down into the shaft, and spurting water started down the mountain side as the task of unwatering the shaft began.

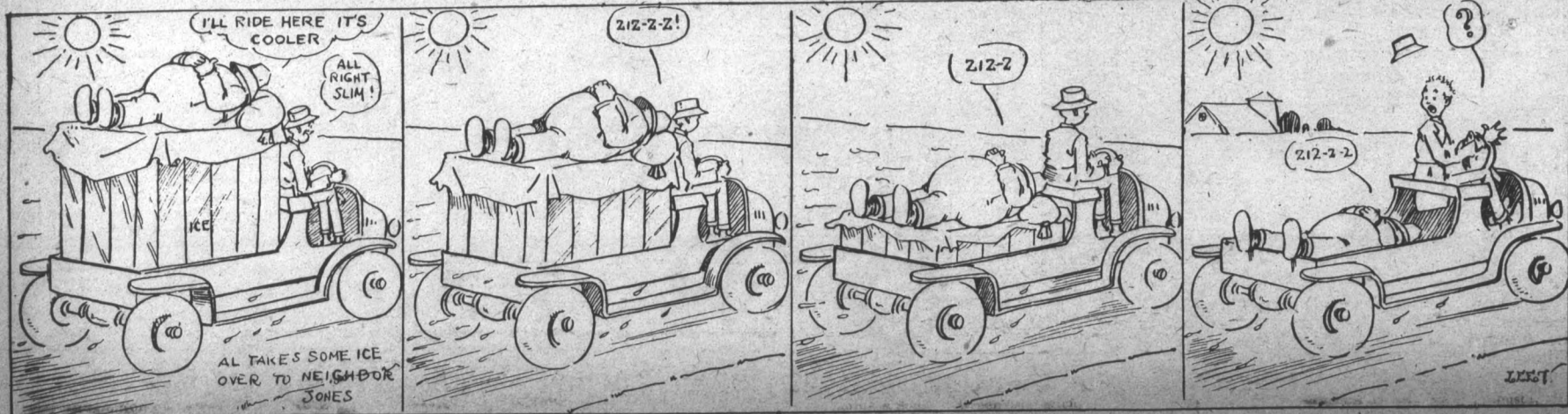
But it was a slow job. Morning found the distance to the water lengthened by twenty or thirty feet, and the bucket brigades nearly at the end of their ropes. Men trudged down the hills to breakfast, sending others in their places. Fairchild stayed on to meet Mother Howard and assuage her nervousness as best he could, dividing his time between her and the task before him. Noon found more water than ever tumbling down the hills—and most of Ohadi was there. Fairchild could distinguish the form of Anita Richmond in the hundreds of women and men clustered about the opening of the tunnel, and for once she was not in the company of Maurice Rodaine. He hurried to her and she smiled at his approach.

(Continued next week.)



AL ACRES—Slim Finds Melting Ice is an Easy and Cool Summer's Job.

—By Frank R. Leet



**RURAL HEALTH**

By Dr. C. H. Lerrigo

**MORE ABOUT BLOOD PRESSURE.**

THE Michigan Farmer has already given its readers one talk on blood pressure this year, but so many and varied inquiries are received for further information that we will reopen the topic. The latest inquirer, Mrs. A. H., is thirty-three years old and has a blood pressure of 145. She wishes to know what is normal for that age and if there is always hardening of the arteries with high pressure. She says that sometimes her doctor makes light of her trouble and at others refers to it as if it were a very serious matter, so she would like to know what the probable outcome really is.

There is no absolutely fixed blood pressure rate. It may vary with the individual, the conditions of living, the sex, emotions, time of day, hunger, heat, cold and many other factors; but the variation is not very great except for disease. It is safe to estimate normal blood pressure at 120 for the average person of 20, and add a half point for each increasing year of age, so that this patient of thirty-three should have a pressure of 127. As years increase there are many irregularities of life that will easily cause a variation of as much as ten points without any radical departure from a state of health.

Hardening of the arteries always causes high blood pressure, but it is a mistake to suppose that the two things always go together, for many cases of high blood pressure have normal arteries.

As to the gravity of high blood pressure, I am bound to say that usually it is a serious matter. It depends upon the systematic disturbance that is at the bottom of it. If this can be discovered and cured all is well. But all too often the trouble is not discovered until the curable stage is a thing of the past and no more can be done to palliate. A good plan is that of having a thorough overhauling once each year so that irregularities may be detected while still at a curable stage. You should not be content with the mere statement that you have high blood pressure. You should insist that your doctor find out why it is high and direct his treatment to the organ at fault rather than attempt only to palliate the high blood pressure. You must give your doctor plenty of time in such cases and have lots of patience for it is often a very difficult job and there may be cases in which the most patient efforts will be unsuccessful. In such instances the doctor will lay down for you certain rules of living and you will probably be able to put in a number of very satisfactory years in spite of your disability.

**ACHING FEET.**

My feet ache very easily if I walk much, but soon become comfortable when I am off them. The aching is almost unbearable at night after working all day.—B. F.

This is probably due to weak arches. You can improve the muscular tone by such exercises as rising forward on the toes, walking with your weight on the outer border of the foot, and walking without quite allowing the heel to touch the ground. In severe cases it is sometimes wise to use artificial supports, but no young person should rely upon them.

When mother's heart is in her shoes, and her feet hurt, and the view out the window is only "those same old fields," that's a pretty good time to get out the paint brush and brighten up the kitchen.

# Goodrich

announces

## new tire prices

—lowest cost mileage ever known

Effective July 20th, Goodrich established a revised price list that is a base line of tire value. It gives the motorist the buying advantage of knowing that whatever size tire he selects is of the same quality—the Goodrich one-quality standard.

It gives him the longest mileage, the most satisfactory service and the highest quality his money can buy. Results will prove that it is impossible to buy tire mileage at lower cost.

Think of being able to buy

# Silvertown Cords

at such prices as these:

SIZE	BASE LINE PRICE	SIZE	BASE LINE PRICE
30 x 3½ Cl.	\$13.50	34 x 4 S.B.	\$30.85
31 x 3.85 "	15.95	32 x 4½ "	37.70
30 x 3½ S.B.	15.95	33 x 4½ "	38.55
32 x 3½ "	22.95	34 x 4½ "	39.50
31 x 4 "	26.45	35 x 4½ "	40.70
32 x 4 "	29.15	33 x 5 "	46.95
33 x 4 "	30.05	35 x 5 "	49.30

New base line prices are also effective on Goodrich Fabric Tires:

SIZE	BASE LINE PRICE	SIZE	BASE LINE PRICE
30 x 3 "55"	\$ 9.65	32 x 4 S.B. (Safety)	\$21.20
30 x 3½ "	10.65	33 x 4 "	22.35
32 x 3½ S.B. (Safety)	16.30	34 x 4 "	22.85

No extra charge for excise tax. This tax is paid by Goodrich.

This revised price list affords the motorist a definite guide to tire prices as Goodrich Tires are the definite standard of tire quality.

THE B. F. GOODRICH RUBBER COMPANY, Akron, Ohio

## Before You Compare Quality and Prices Buy A Silo



The first patent ever issued on a silo was awarded Kalamazoo over 30 years ago. Experience has again proved a good teacher.

### Kalamazoo Tile and Wood Silos

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

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

**Our Wood Stave Silos** have stood the test of 30 years. Airtight joints, deeply grooved, tongued and splined. Shipped ready to erect. No nails or screws needed. Both tile and wood silos fitted with our famous continuous door frames of heavy galvanized steel.

**Kalamazoo Glazed Building Tile** has many uses about the farm. It is permanent, everlasting, economical construction. Reduces fire risk and insurance, beautifies the farm. There's a difference in tile. The book tells you how to judge tile. Write for a copy and our new low prices today.

Kalamazoo Tank & Silo Co. Dept. 223 Kalamazoo, Mich. Ask us about our Ensilage Cutters

## CIDER Making Pays

With Mt. Gilead Hydraulic Cider Presses

Big Money made on small investment.

Demand for cider greater than ever.

Quick, clean profits with little labor and expense. Sizes up to 460 bbls. daily. Also Hand Power Presses for Cider, Grape Juice, Fruits, etc., and a full line of accessories, such as juicers, evaporators, pasteurizers, etc. New Cider Press catalog gives full details.

HYDRAULIC PRESS MFG. CO.

186 Lincoln Ave. Mount Gilead, Ohio



## THE GUNN BEAN HARVESTER

AS STANDARD AS A HOE

1 MAN - 1 "GUNN" - 1 DAY can readily harvest 2½ acres of beans. Wet weather need not stop the bean harvest if you have a "GUNN" ROOTS are really left in the field. Beans dry much faster - threshing is cleaner. NO EASIER CHEAPER way to HARVEST BEANS.

ONLY \$5

F. D. BULLOCK, Sales Agent

1716 Palmer Avenue KALAMAZOO, MICHIGAN

DEALERS WRITE FOR TERMS



## PAINT—\$1.17 PER GALLON

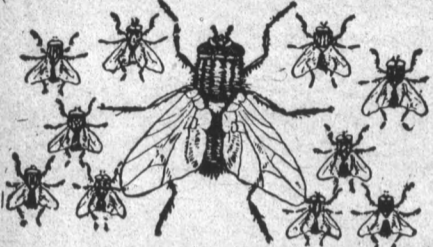
Get factory prices on all paints. We guarantee quality. We pay the freight. Write today. Franklin Color Works, Dept. M., Franklin, Ind.

Please Mention The Michigan Farmer When Writing to Advertisers

## EASY NOW TO RID YOUR PLACE OF FLIES

Widely Known Scientist Discovers Wonderful Chemical That Is Fatal to Flies, Not a Poison—Harmless to Stock.

Flies are one of the most dangerous and annoying things with which the farmer has to contend. Now, through the discovery of E. R. Alexander, widely known scientist, you can rid your house and barns and livestock of these pests almost instantly, and with no trouble at all. This discovery is in the form of an organic chemical that is fatal to flies, and similar pests, such as chiggers, mosquitoes and moths.



This new discovery which is called Alexander's Rid-O-Fly, is not a poison. Though it kills flies like magic, farm animals and human beings are not affected by it at all. In addition to killing these insects, Rid-O-Fly is a strong repellent. Flies will not come near stock or buildings where Rid-O-Fly has been used. Rid-O-Fly is particularly valuable for cows and horses, as it is a known fact that flies do untold harm to these animals.

So confident is Dr. Alexander that his discovery will rid your house, barns and livestock of these pests that he offers to send a \$2.00 supply for only \$1.00 on the guarantee that if Rid-O-Fly does not solve your fly problems it will cost you nothing. Two big Kansas City banks guarantee the reliability of this offer.

SEND NO MONEY—just your name and address to the name below and this introductory offer will be mailed at once.

ALEXANDER LABORATORIES,  
1546 Gateway Station, Kansas City, Mo.

## CAPITAL BRAND PAINTS

No better paint made. Compare our formula with any other.

### OUTSIDE WHITE

- 75% Pure White Lead
- 20% Pure Zinc Oxide
- 5% Magnesia Silicate
- 90% Pure Refined Linseed Oil
- 10% Cooked Oil and Shelac Drier.

### OUTSIDE COLORS

- 70% Pure White Lead
- 20% Pure Zinc Oxide
- 10% Ground Colors
- 90% Pure Raw Linseed Oil
- 10% Cooked Oil and Shelac Drier.

We guarantee our paint. Write for prices and free color card. Agents wanted. Excellent proposition in unoccupied Territory.

### Consumers Paint Co.

1600 Herbert St.  
LANSING, MICH.

### World's Best Roofing

at Factory Prices

"Reo" Cluster Metal Shingles, V-Crimp, Corrugated, Standing Seam, Painted or Galvanized Roofings, Sidings, Wallboard, Paints, etc., direct to you at Rock-Bottom Factory Prices. Save money—get better quality and lasting satisfaction.

#### Edwards "Reo" Metal Shingles

have great durability—many customers report 15 and 20 years' service. Guaranteed fire and lightning proof.

**Free Roofing Book**

Get our wonderfully low prices and free samples. We sell direct to you and save you all in-between dealer's profits. Ask for Book No. 167.

**LOW PRICED GARAGES**

Lowest prices on Ready-Made Fire-Proof Steel Garages. Set up any place. Send postal for Garage Book, showing styles.

**THE EDWARDS MFG. CO.**  
817-867 Pike St. Cincinnati, O.

**FREE**

Samples & Roofing Book

## TWO in ONE

### Lighting And Cooking Service

For the FARM HOME

Write for Actual Estimate of cost in your home.

**Night Commander Lighting Co.**  
Jackson, Michigan

To be good is noble, but to teach others how to be good is nobler—and less trouble.  
—Mark Twain.

## Woman's Interests

### Household Service

WE wish to offer to our subscribers through this department, a service to clear whatever questions they have in mind. Those of general interest will be answered through this column. If a personal reply is desired enclose stamped, self-addressed envelope. Always give name and address with each inquiry.—Eds.

J. L. F.—Any mayonnaise dressing is as good as you buy in bottles, if it is made with the best of materials, pure olive oil, a good grade vinegar, and fresh eggs. Here is a recipe for mayonnaise.

Two egg yolks, one teaspoon salt, one-fourth teaspoon cayenne, one teaspoon mustard, one tablespoon vinegar, one tablespoon lemon juice, one cup olive oil, one-fourth teaspoon paprika.

Mix dry ingredients and add egg yolks. The dry ingredients are mixed best and most quickly by using a sieve. Then beat until the egg yolks thicken slightly. Add olive oil drop by drop and beat until thick. When four tablespoons of olive oil have been added, it may be added faster. When the mixture gets too thick thin with the lemon juice and vinegar.

To make Thousand Island dressing, add one cup of chili sauce to half the quantity of dressing you have made.

Boiled Salad Dressing.—One tablespoon sugar, one teaspoon each of salt, mustard and flour, one egg, one-half cup milk, one-fourth cup vinegar, tablespoon butter. Thoroughly mix dry ingredients, beat in the egg, add milk, stir well, and put in double boiler. Add the vinegar slowly as the mixture cooks, stirring constantly. When thickened, remove from fire and add butter. A second egg yolk may be substituted for the flour. The recipe may be doubled or trebled.

Is it proper for a married woman to wear short sleeves like pattern 4020? I would like to have a pattern something like 4020, with real short sleeves. I am twenty-six years old, but measure is forty inches.—H. S.

Would advise pattern No. 4025 or 4028 for you, rather than 4020. Short sleeves are very much in style this season, but pattern 4020 would be entirely for afternoon and evening wear, while either of the other patterns would make a dress suitable for all occasions. However, if pattern 4020 is especially pleasing to you, the sleeves may be made elbow-length by cutting the lower sleeve longer and finishing with a lace edging. This would then be suitable for street wear.

Please tell me where I can get an attachment for my sewing machine to do hem-stitching, also the price of same.—Mrs. A. P.

You do not give the make of your machine, so cannot give definite information. Would advise you to write or call the nearest agency selling your make of machine.

R. O., Highland.—The Michigan Children's Home in St. Joseph sends out children to board. A letter addressed to the superintendent will bring you an answer giving you all the information you need about boarding children. The home has an agent in

several large cities, there is one in Detroit. They are always in need of good homes for boys and girls, especially boys.

### "Modesty"

AFTER reading Mrs. B. O. R.'s ideas on the subject, I feel as though I should like to present the other side—the side of a girl who is nineteen and conservative. One who uses neither powder nor rouge, just enough talc to take the shine off of the end of her nose. Is that immodest, too?

Right here I should like to say that people who are looking for "sights" and bad things, are always going to see what they look for, and to spare.

"Those were the good old days," when women were modest and wore hats perched like gigantic rhubarb leaves on their foreheads, and a yard or two of drapery hitched to the rear belt line and lying in sanitary fashion along the ground, where they could wipe up all stray dust and germs—in those same days when women laced until the waist could be spanned with



Neither Comfortable Nor Natural.

the thumb and finger and the organs were squeezed either above or below. It is much saner to go to the other extreme.

Policemen say there are less accidents among women now since skirts are shorter. Why, short skirts and natural, uncorseted waistlines must be healthier when they allow unhampered movements.

Right here I'd like to say that we young folks never think about present-day dress being immodest until something is said about it. We don't remember when people wore any other kind of clothes. Why, these are comfy and we just accept them as a matter of course until some spectacled, high-necked prude comes along and says they're wrong. Then we girls and boys who never gave a thought to the subject before just dig in to find out why they are wrong. Do we ask mother or father why? You bet we don't. Somehow—somewhere, the article has made us think we were bad and the very most extreme person we know of—the girl who carries a regular drug store on her face and wears the worst



peek-a-boo blouses, and knows why she does it (which the rest don't), is the one to ask. Oh, yes, we find it out and then proceed to live up to the worst expectations of us.

Did B. O. R. ever learn to swim? Did she do it in a sleeved bathing suit, with shoes and stockings and a corset on? Why round, muscled chests and strong, flat back, and tanned rosy cheeks come from swimming in an Annette.

No, in these days of traveling to and fro in our Ford, and going to high school, we don't blush. We are out more among people.

About the cigarettes—those will pass—they are just a fad, but the English lady royalty smoked before Queen Victoria died, and women have as much right to smoke as men. It ought to be against the law for anyone to smoke cigarettes.

There are extremists now, just the same as in any age, but people as a whole will always be much like they are now and always have been—inside. We're not less modest—we're just franker.—Mary Jane.

### CANNING THE BERRIES.

Huckleberries.—Now that berries are ripening in all parts of the state and prospects are good for a bumper crop everyone will want to can a good supply for the coming years. For canning huckleberries practically the same methods of canning may be used as with other berries.

Glass jars or enamel-lined cans are needed. The condition of the fruit will have much to do with the quality of the product. Berries should be gathered in shallow trays or baskets, and not in deep vessels which allow them to be bruised or crushed. They should be uniformly ripe and sound, and as large as possible. Clean the berries carefully, removing stems and leaves. Place a shallow layer of berries in a large colander or strainer and wash carefully by pouring water over them. Pack in cans as closely as possible without crushing. This may be done by putting a few berries at a time into the can and gently pressing them into place. Three-fourths of a pound, or three-fourths of a quart of most berries measured as purchased, will pack into one No. 2 can or pint jar. Fill can with hot medium syrup, seal and process in steam cooker. No. 2 cans or pint jars, ten to fifteen minutes; No. 3 cans or quart jars, fifteen to twenty minutes. Remove cans, cool quickly, in cold water, wipe dry, label and store away. Glass jars are removed and sealed at once.

If, in making the syrup for berries, the berry juice is used instead of water, the resulting product will be much better, both in color and in flavor.—G. O. S.

Raspberry and Currant Ice.—Boil two cups of sugar and four of water twenty minutes. Mash raspberries and currants separately and strain the juice through jelly bag. Add to the cooled syrup, and freeze. The addition of the stiffly beaten whites of two eggs or a tablespoon of gelatine softened in cold water, and dissolved in the hot syrup, gives more body.

# Weekly Sermon

By N. A. McCune

## THE ROMANCE OF CHURCH BUILDING.

THE interest of the world in the tiny land of Palestine, which is about the size of Connecticut, never wanes. Always something is happening there that keeps it in the eyes of the world. And if nothing ever did happen there any more, enough of history attaches to the land to keep it fresh and green in the eyes of the men for unknown ages. Whittier writes of it: "Blest land of Judea! thrice hallowed for song, where the holiest of memories pilgrim-like throng; in the shade of thy palms, by the shores of thy sea, on the hills of thy beauty, my heart is with thee. With the glide of a spirit I traverse the sod made bright by the steps of the angels of God." Palestine has been owned (or governed) by as many nations as any spot on the globe. Beginning with the Canaanites, you then have the Hebrews, then the Assyrians, next the Persians, the Egyptians, the Greeks, the Romans, the Turks, then the Christians, then the Turks again.

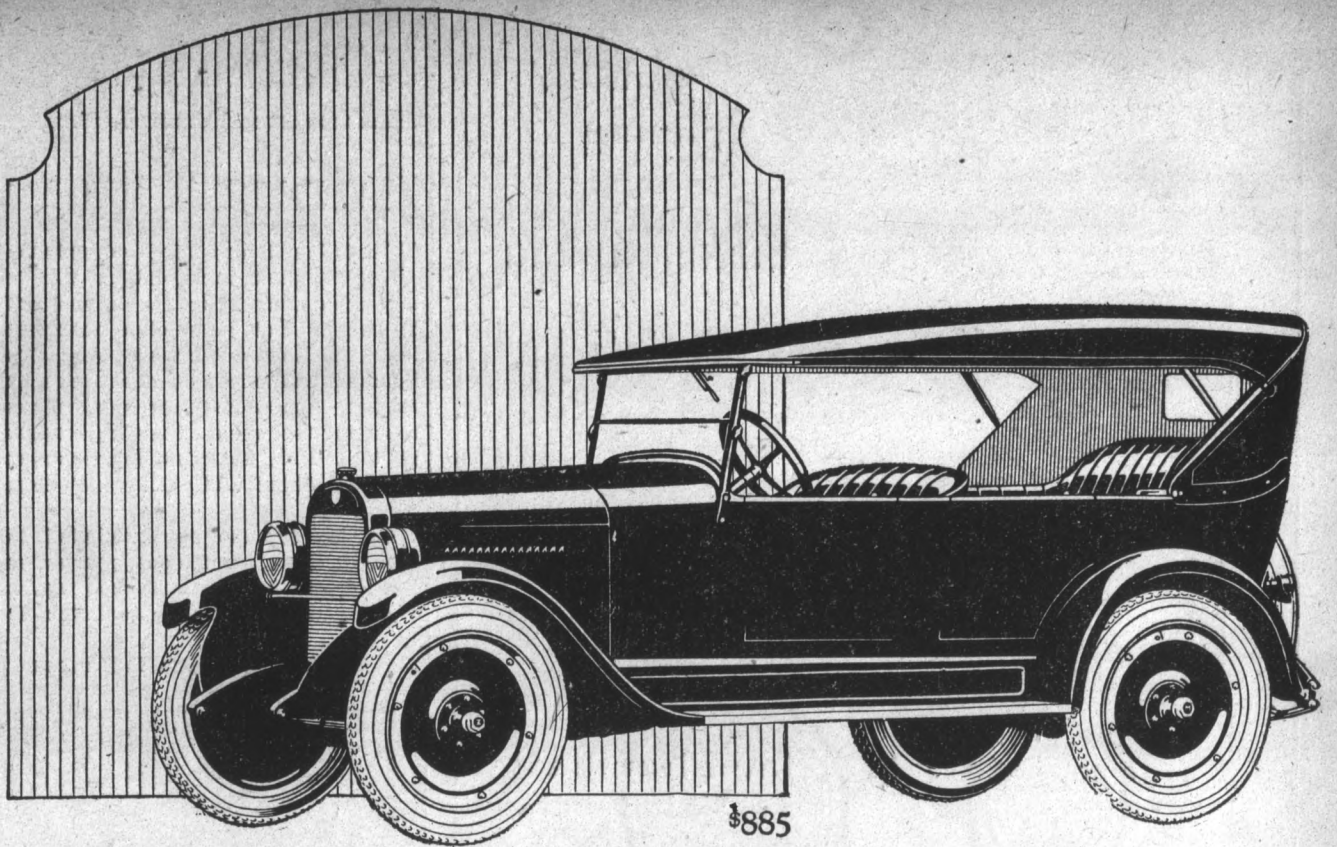


down to very recent years, when once more the land has come into the rulership of a Christian nation, and, at least most of us, hope that it will remain under that nation's kindly domination. And this list is only partial.

At the present time there is a vast interest in Palestine on account of the Zionist movement. Much is written of it, and the daily papers contain occasional references to it. Zionism is a doctrine of certain Jews to the effect that Palestine is to be populated by the Jews once more, in fulfillment of prophecy. All, or most, of the Jews of the world are to dwell once more in the land made sacred by the memories of David and Elijah and Moses and Isaiah. The very thought of such a thing is of supreme interest. It seems to bind the present with the past. It takes us, at a thought, from the present whirling age of steam and electricity and speed to the age when men made their journeys on camel-back, or rode on asses. There is a fascinating romance about it that is hard to beat. And the lesson we have today is one that naturally brings this subject to our minds. The people are rebuilding the temple, and setting the holy city once more in order. And they succeed in doing so. Will some such movement be repeated? Will Zionism be an accomplished fact?

Will the fifteen million Jews of the world return there to live? The passages that have been interpreted as meaning that the Jews would all return to Palestine, it seems, must be studied again and interpreted in another way. Already such passages have been realized in part, when the people returned after the exile, as in the lesson of today. But a large number preferred not to return. Life was very satisfactory where they were. And the modern Jew looks upon the Holy Land much as they did in those times. One eminent authority says: "There is nowhere in Scripture the slightest indication that the Jewish people are to return to their ancient land. Those long lists of texts on which millenarian interpreters love to dwell, have not the remotest reference to such a reassembling of Israel in Palestine in the present or at any future time." They

(Continued on page 129).



\$885



Cord tires, non-skid front and rear; disc steel wheels, demountable at rim and at hub; drum type lamps; Alemite lubrication; motor-driven electric horn; unusually long springs; clutch and brake action, steering and gear shifting, remarkably easy; new type water-tight wind-shield.

First among the virtues of the good Maxwell are the ruggedness and reliability which the farmer wants and needs in his motor car.

MAXWELL MOTOR CORPORATION, DETROIT, MICH.  
MAXWELL MOTOR CO., OF CANADA, LTD., WINDSOR, ONT.

The Good

# MAXWELL

**A House Full of Clean Heat at Little Cost**

Write Today for Free Book on Scientific Heating and Cooking

## Your Home Can Be Heated With One Register

YOUR Home can be heated thoroughly with one register and at a great saving of fuel.

A GLOBE Pipeless Furnace can be set up in a few hours. No pipes, no tearing up of floors, walls or ceilings. One register directly over the furnace heats your whole house evenly and thoroughly. Clean, warm, moist air is distributed in every room without dust or dirt. A GLOBE Pipeless gets every bit of available heat from the fuel—hard or soft coal, slack, wood or coke. It creates no unnecessary heat in the cellar and holds fire from twenty-four to thirty-six hours.

It is sold only through high class dealers.

Write us today for further information and the GLOBE BOOK on Scientific Heating and Cooking. It is free and places you under no obligation.

The Globe Stove and Range Company  
Department H-8 Kokomo, Indiana

# GLOBE FURNACES

**DRY YOUR FRUIT** and Vegetables by steam in two hours on the "GRANGER" Home Evaporator

Cheaper than canning—No jars—No sugar—Less work—No loss—Cost \$6.00 up. Send for catalog!

EASTERN MFG. CO., 259 S. 4th St., PHILA., PA.

NATURAL LEAF TOBACCO, CHEWING, 5 lb., \$1.75; 10 lb., \$3; smoking, 5 lb., \$1.25; 10 lb., \$2. Send no money; pay when received. TOBACCO GROWERS' UNION, Paducah, Ky

CRUDE-OIL at a bargain, let us supply your wants. Write today. It is guaranteed absolutely pure. Address, The Nottingham Oil Company, Fort Wayne, Indiana.

**Land Clearing Book FREE**

LAND-CLEARER'S GUIDE

Most valuable book ever published on land clearing. 80 pages, illustrated in colors, written by men who have made land clearing profitable. Don't pay taxes on idle land. LAND-CLEARER'S GUIDE tells how to clear easy—cheap—fast—and which method to use. Free to you.

**Kirstin One-Man STUMP PULLER**

has proved best on thousands of acres. Works on wonderful leverage principle—gives you pulling strength of 900 men. You, alone, without extra help, can pull big tough stumps—quick, easy, and cheap. New models have latest improvements. Prices reduced. Easy terms—big discount to demonstrators during next 30 days. Write for our offer and FREE book—TODAY.

30 day Trial 3 year Guarantee

301 Lud St. A. J. Kirstin Co., Escanaba, Mich.

**CORN HARVESTER** Self Gathering for cutting Corn, Cane and Kafir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only \$25 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "3 years ago I purchased a Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Higgins, Spearmore, Okla., "Works 5 times better than I expected. Saved 40 dollars in labor this fall." Roy Apple, Farmersville, Ohio, "I have used a corn shucker, corn binder and 2 rowed machines, but your machine beats them all and takes less time of any machine I have ever used." John F. Haag, Mayfield, Oklahoma, "Your harvester gave good satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo., "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.

PROCESS MFG. CO. Salina, Kansas

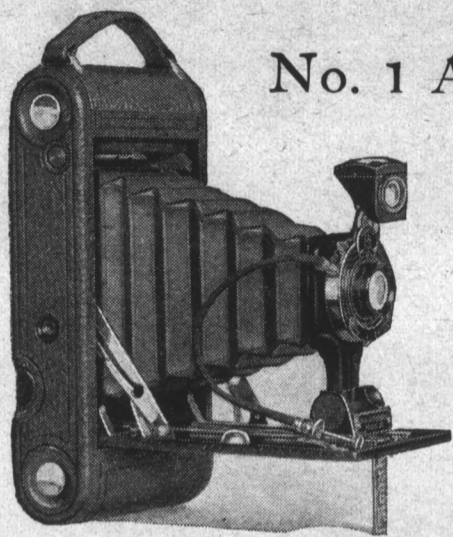
**ATWATER KENT** SCIENTIFIC IGNITION For The FORD All Models

Equip your Ford with the same high quality ignition used as standard equipment on America's foremost cars. Write for Literature

Atwater Kent Mfg. Co. Dpt. Q, Phila.

SYSTEM COMPLETE INCLUDING CABLES AND FITTINGS Price \$11.75

For fun on the farm and for practical pictures of the business of farming



No. 1 Autographic Kodak Jr.

\$12

The popularity of the 1 Junior is explained in a moment—it is easy to pocket, inexpensive to buy, and so simple to operate that you can be sure of success from the start. The picture size is 2 1/4 x 3 1/4 inches.

The lens is carefully tested; the shutter, with automatic snapshot speeds of 1/25 and 1/50 second as well as bulb and time actions, is thoroughly accurate and dependable, and with the autographic feature the date and title of every picture can be noted on the film at the time.

See the 1 Kodak Junior at your dealer's

Eastman Kodak Co., Rochester, N. Y.

## Our Boys' and Girls' Page

### Annual Club Week at M.A.C.

THE Fourth Annual Boys' and Girls' Club week was held at the College from July 10 to 14. It was open to county and state club champions from the Lower Peninsula only. Two hundred and one club champions and leaders from twenty-four counties were there for the week. Boys were housed at Wells Hall, the boys' dormitory, and girls at Abbot Hall, the girls' dormitory.

Classes for the boys included live stock judging, farm crops, poultry, and handicraft; for the girls, cooking, art work, sewing, music appreciation, and hygiene.

Both boys and girls had access to the College swimming pool for certain hours each day.

Teams representing various counties were chosen on Thursday afternoon and a field and track meet was held. This meet was won by the team composed of Washtenaw, Eaton, Branch and Genesee counties.

Club movies were enjoyed on Tuesday night, a picnic at Pinetum on Wednesday night, and on Thursday night the State Board of Agriculture gave the champions a complimentary banquet at which some of the boys and girls and members of the State Board of Agriculture responded to toasts.—R. A. Turner.



Club Champions at State Department of Agriculture Building.

## Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

We have been taking the Michigan Farmer for the last few months. As I have come from Chicago I have never seen or heard of the Michigan Farmer, (I wish I had). My parents just bought the farm here and we intend to make our home here.

I enjoy two kinds of sports, baseball and track sports. In Chicago I was on the West side track team. I would like to correspond with some boy (or girl) who is as interested as I am. I will close, hoping not to take up too much of your valuable space.—Your nephew, Arthur Irwin, Moore Park, Mich.

We welcome you to rural Michigan and to our Boys' and Girls' Department. I hope you will use the department to your greater enjoyment and benefit.

Dear Uncle Frank:

I hope I am not writing too often. But as I have started the ball rolling from Redford I want to keep it rolling. I have received six letters from girls and one from a boy. I am sorry I haven't answered, but as I had the great honor to be the county champion of the Hot Lunch Clubs, and also to go to the Michigan Agricultural College for a week, I haven't had time to write yet. I enjoyed each and every letter and will write as soon as I have time.

I am proud, but sorry, to say I was the only champion from Redford.—Your Redford Niece, Lucille Stuckey, Redford, Mich.

Congratulations, Lucille. I bet you had a nice time at M. A. C. You are probably in the picture on this page.

Dear Uncle Frank:

I would very much like to become one of your nephews. I have read the Michigan Farmer through every week since we have subscribed, and I have learned lots of things about other boys and girls.

I always thought I would never like the farm, as I lived mostly in small

towns. But I have learned that I can have more freedom in the country, as you don't have to be careful not to step on somebody's lawn or throw your ball into somebody's window.

I can go fishing when I like when my work is done, and I don't have to walk miles and miles to get to a stream.

I wish some of the boys and girls would write to me.

I am twelve years old and still have great hopes ahead.

Best success to all the boys and girls and to Uncle Frank.—Rex Ellis, Reed City, Mich.

Glad to hear from you, Rex, and to know that you have great hopes ahead. A boy of twelve ought to.

Dear Uncle Frank:

I am another farmerette who is interested in "Our Letter Box." I have been reading the letters and am sending my answer to the contest.

I am fourteen, and will be in the tenth grade when school begins. Meanwhile I am having a delightful vacation on our eighty-acre farm.

I have lived on the shore of Lake Michigan for a long time, and also at East Lansing. I think it is very interesting to live in a college town, and I also enjoyed swimming in Lake Michigan. We have a Collie dog who will swim like a fish as long as we will let him stay in the water.

I am a Camp-fire Girl and we have splendid times at camp. Are any of my cousins Camp-fire Girls?

I have to walk half a mile every day for our mail, and I would be pleased to be able to carry back letters from my uncle and cousins.

Wishing you good luck, Your niece and friend, Georgia Brown, Hastings, Mich.

Some of the other girls have mentioned they are Camp-fire Girls. Maybe next time you can carry back a letter from me.

Says Sam: Some teamsters make me wish horses weren't so patient.

**Why Not PUT THIS NEW MILL ON YOUR OLD TOWER**

**ALBION**

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main frame bearing subject to wear. This is oilless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your chore hours now with a good Windmill? This is your chance—F. O. E. Albion. Erect it yourself. Ask your dealer, or write direct to

Union Steel Products Co. Ltd.  
No. 528 N. Berrien Street,  
ALBION, MICHIGAN, U. S. A.

**DO DITCHING THIS FALL**

Prevent winter rains smothering the soil. Put land in shape for early spring work. Get your ditching and terracing done now with

**The Martin Farm Ditcher**

Works in any soil. Makes "V"-shaped ditch or cleans ditches down 4 ft. deep. All steel; reversible; adjustable. Write for Special Fall Demonstration Offer. OWENSBORO DITCHER & GRADER CO., Inc. Box 315 Owensboro, Ky.

**10 Days Free Trial**

**BOOK ON DOG DISEASES And How to Feed**

Mailed free to any address by the Author

**H. CLAY GLOVER CO., Inc.,**  
129 West 24th Street, New York

America's Pioneer Dog Medicines

FOR 50 YEARS

**MILLER-BEAN HARVESTERS**

HAVE LED ALL IMITATORS.

Write Le Roy Plow Co., Le Roy, N. Y.

**You Can Make Money Milling Flour**

One of the best paying and most dignified businesses you can get in, or put your boy in now—days, is flour milling. On a comparatively small investment, and without any previous milling experience you can own and run the wonderful "Midget" Marvel Mill and make good money from the start.

**"Midget" Marvel Self-Contained Roller Flour Mill**

Saves the high freights on wheat out and flour and feed in. "The first eight months I made a net profit of over \$8000," says A. H. Ling, Jetmore, Kan.; "My profit from the "Midget" Marvel average right around \$40 per day," China, M. McKinney, Cooper, Tex.; "Was \$6000 in debt when I bought my 25 barrel "Midget," and the little mill pulled me clean out of the hole long before I bought my 40 barrel mill from you," says M. A. Kamm, Oxford, Mich.

Capacities: 15, 25, 50 and 100 barrels of fine roller patent flour a day as any mill can make. Write for free book, "The Story of a Wonderful Flour Mill," trial offer, terms, etc.

Anglo-American Mill Company, Inc.  
2180-2186 Trust Building, Owensboro, Ky.

**Fill a Big Job**

**\$150 to \$500 a month in Auto and Tractor Business**

Qualify in 8 weeks in the great shops of Rahe for high paying positions. Through my training Louis Beimer was made Foreman at the age of 24. Hundreds of others have done as well or better.

**Big Jobs Open**—I get calls every day from Garages, Battery Stations, Auto Repair, Welding Shops and other successful firms, for Rahe men. Big concerns need trained men right away and they know where to look for them.

**Special Offer**—In order to fill these openings at once I am making an offer no one has ever made before—free railroad fare, free board and complete set of high-grade tools free. I cannot hold this open long. Send for details and Big Free Book on Auto Business. Write before it's too late.

**RAHE AUTO & TRACTOR SCHOOL**  
Dept. 2591, 4445 Grand Blvd., Chicago



# The Work I Like, and Why

By The Prize Winners

**G**UESS boys and girls don't like work, judging from the small number who entered the contest. But the papers received were good ones. Below are the prize winners.

No contest this week as I will be gone on a trip. But next week we will announce a Snap-Shot Contest. Prizes will be given for pictures of scenes on the farm.—Uncle Frank.

By Rex Ellis, Reed City, Mich.

There are many occupations which are attractive for themselves alone. I love all living things, but I'll take gardening for mine. Why?

Have you ever watched closely, the tiny seeds after they have been placed in the ground, how they swell and burst and force the ground up so they can peep through?

First one leaf and then another, till one of God's many creations have grown to bear the vegetable it was intended for.

It is God's own handiwork and he has shown us, that by working the ground and giving them plenty of water, we have promises of abundance.

By Kathryn Dittrich, Mt. Clemens, Mich.

I love gardening best of all work. I love to see the pretty green plants come up in the spring and know that with good care they will, in the course of time, bear lovely and fragrant blossoms. And is it not somewhat like our own lives? Those, who have conquered the weeds, bloom out in a profusion of loveliness and virtue. While the weaker ones, who have let the weeds conquer them, are cast out with the weeds.

By Harold E. Arney, Jones, Mich.

The work that I like best is school work. Although some boys and girls may not like it, it is my favorite. In after life if you do not have an education, you can not do much in this world, for there is not an occupation you can do good without an education. Not even farming can be done scientifically without an agricultural education, and it is the same with other branches of labor. We need smart men at the head of our government that we can trust.

This is why I like school work the best.

By Elmer J. Smith, Age Sixteen, Battle Creek, Mich.

Of all occupations I have ever heard of, farming appeals to me the most.

A farmer spends his days in open fields where sunshine, pure air, and nature is in abundance.

Beautiful scenery and blue sky are on all sides and serve to inspire the farmer to his daily task.

Food is in abundance and direct from nature. It is supplied by the farmer to the whole world and what man can point with more pride to the products of his labor than can our own Michigan farmer?

By Ida Cryderman, Age Fourteen, Twining, Mich.

The work I like best is cooking and my reasons are as follows:

First, it is easy and pleasant and very necessary and important, for the health and strength of the young depends on the quality of the meals served them by the family cook.

Secondly, it is a real science, the study of which is always interesting, as there is always something to learn.

Thirdly, a good cook has a great many chances to earn money at home, and as everyone eats she is always popular.

## THE ROMANCE OF CHURCH BUILDING.

(Continued from page 127).

dealt with the fortunes of the ancient

nation." Many people will not agree with this interpretation, but I give it here so that we may see how many Bible scholars view the question.

There are also other facts which are pertinent. The present population of Palestine is 650,000, of whom one-tenth are Jews. The country is able to support about one million people. But this will be possible only when the agriculture is brought to a very high level. Large tracts are not in cultivation, and were not in Old Testament times. It is thus apparent that this tiny state can never be the abode of fifteen million Jews, besides the Christians and a large Mohammedan population. Modern machinery is being introduced, we are told. Tractors will soon be plowing the fields where Ruth gleaned, and where Gideon was threshing when he was carried to fight the Midianites. It seems well-nigh impossible to think of these things in connection with the land where these events took place, and where the feet of the Savior trod. But the idea of a Jewish state has been very dear to many Jews in every age, and there are many now who look forward to that consummation. These are the nationalists, the poets and the dreamers. They are working toward that end now. But to others it seems unjust to give the Jews absolute control and to drive out those who now live there when Palestine is as dear to the Christian as it is to the Jew. The Jew had the country and lost it. The Bible teaches that it was his unbelief that caused him his disaster and loss. Most modern Jews do not regard the Zionist movement as one in which they will take part.

Henry Morgenthau, America's most noted Jew, formerly United States ambassador to Constantinople, says the Zionist movement is "politically unjust," "spiritually sterile, economically unsound." The American Conference of Rabbis in 1918 passed this resolution: "We are opposed to the idea that Palestine should be considered the home land of the Jews. Jews in America are part of the American nation. The idea of the Jew is not the establishment of a Jewish state, not the assertion of Jewish nationality, which has long been outgrown." This brief study of the Zionist idea connects this lesson on the rebuilding of the temple closely with modern times.

Is it not a heartening picture here, this enthusiasm of the people over the building of the temple? "Many shouted aloud for joy: so that the people could not discern the noise of the shout of joy from the noise of the weeping of the people; for the people shouted with a loud shout; and the noise was heard afar off." No wonder that the temple was rebuilt. Such gladness in the work of God would build or rebuild anything. Traveling through Europe one comes upon great cathedrals which have been standing for several centuries. These are wonderful structures, both in size and beauty. Many of them were built by all the people of the community. Not the church members alone, though most of the people were members of the church, but by all classes of people giving time or labor or artistry to the work of building. That is the attitude that ought to prevail in any community.

### SUNDAY SCHOOL LESSON FOR AUGUST 6.

SUBJECT:—The Temple Rebuilt and Dedicated.

LESSON:—Ezra 3.1 to 6.22. Devotional reading, Psalm 100.

GOLDEN TEXT:—"My soul longeth, yea even fainteth, for the courts of Jehovah."



## The Safety Razor of the Fields!

You need never again have trouble, and lose your time and temper with a riveted-up mower knife. You can now have

# A-M-F SICKLE BAR

It has instantly renewable blades. Just remove a small key and the blade drops out. Put in the new blade and replace the key and the blade is in, tighter than if it were riveted. It is double locked and must stay rigidly fixed until you unlock it. And a dozen blades can easily be carried in the tool-box, right on the machine.

See Our Exhibit when at the State Fairs

- Sedalia, Mo.
- Erie, Pa.
- Des Moines, Iowa
- Columbus, Ohio
- Milwaukee, Wis.
- Detroit, Mich.
- Hamline, Minn.
- Sacramento, Calif.
- Lincoln, Neb.
- Hartford, Conn.
- Elmsmere, Del.
- Indianapolis, Ind.
- Huron, S. Dak.
- Syracuse, N. Y.
- Louisville, Ky.
- White River Junction, Vt.
- Hutchinson, Kans.
- Springfield, Ill.
- Nashville, Tenn.
- Springfield, Mass.
- Yakima, Wash.
- Oklahoma City, Okla.
- Pueblo, Colo.
- Trenton, N. J.
- Salem, Ore.
- Helena, Mont.
- Birmingham, Ala.
- Salt Lake City, Utah
- Richmond, Va.
- Dallas, Texas
- Little Rock, Ark.
- Raleigh, N. C.
- Jackson, Miss.
- Shreveport, La.
- Savannah, Ga.
- Jacksonville, Fla.

You replace a broken blade right in the field—in a minute's time—and go on with your mowing. You don't have to take the A-M-F Sickle bar out of the machine.

You save time—time that's worth more than money—when you are hurrying to finish before the weather changes. You can't afford to keep on having to change knives, or to go back to the barn to rivet up a new blade.

You save money too—because you don't have to keep two or three complete knives on hand. All you need is a box of a dozen A-M-F Blades.

Guaranteed against breakage:

Any bar or head which breaks within a year from date of purchase will be replaced FREE.

There is an A-M-F Sickle Bar built for every make of mowing machine on the market. It is only a matter of a few minutes to attach one to your machine.

Send for new folder describing the A-M-F Sickle Bar. If your dealer doesn't carry them, send us his name.

American Machine & Foundry Co.  
511 Fifth Avenue, New York, N. Y.

## The NEW JENNEY SILO FILLER HUSKER SHREDDER

### 3 Machines in ONE

Fills Silo—Husks Corn—Shreds Fodder

The Jenney more than pays its cost in one season

#### Fills Your Silo

with green silage, just like any silo-filler, but does it much better.

#### Husks Your Corn

and fills your silo with stover silage at one operation—giving you double value from your corn crop.

#### Shreds Your Fodder

With its special shredder head this machine husks the corn and shreds the fodder better than ordinary shredders.

#### Saves Your Ear Corn

When ear corn is put in the silo it must be fed to all stock alike, whether they need it or not. With this machine you can make stover silage out of the fodder and put your ear corn in the crib to be fed any way you wish. This saving in one crop more than pays for a Jenney Silo-Filler, Husker, Shredder.

10 Money-Saving Advantages Fully Explained in Valuable FREE BOOK Write for it Today



### Valuable Silage Book Free

By all means send for this valuable FREE Silage Book—it tells the food value of Stover Silage compared to corn silage—when to make it—how to double the money you now get out of your corn crop. A postal brings it, postpaid. Also illustrates and describes this wonderful 3-in-One, money-saving machine.

HALL MANUFACTURING CO. Dept. A Cedar Rapids, Ia.

## THE AUTO-OILED AERMOTOR

### A Real Self-Oiling Windmill

Oil an Aermotor once a year and it is always oiled. Every moving part is completely and fully oiled. A constant stream of oil flows on every bearing. The shafts run in oil. The double gears run in oil in a tightly enclosed gear case. Friction and wear are practically eliminated.

Any windmill which does not have the gears running in oil is only half oiled. A modern windmill, like a modern automobile, must have its gears enclosed and run in oil. Dry gears, exposed to dust, wear rapidly. Dry bearings and dry gears cause friction and loss of power. The Aermotor pumps in the lightest breeze because it is correctly designed and well oiled. To get everlasting windmill satisfaction, buy the Aermotor.

Write today for Circular. AERMOTOR CO. Chicago Des Moines Kansas City Minneapolis Oakland



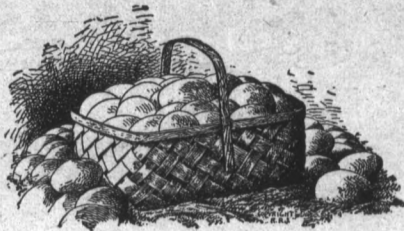
Mention The Michigan Farmer When to Writing Advertisers

# PULLETS

## EGGS

IN SEPTEMBER  
OCTOBER  
NOVEMBER  
DECEMBER

We have White and Brown Leghorn and Ancona Pullets; also Barred Rocks, White Wyandottes



White and Buff Orpingtons; and a limited number of Pullets in a few other breeds.

There is one lot of:

### 1000 Three Months White Leghorns

Ready to sell now and that should begin to lay in September and that will give you eggs all through this fall. Here is a chance to buy Money-Making Stock for the high egg price fall period.

If you want extra early fall layers send your order now for these three months old White Leghorn Pullets.

The price of eggs will be high, the same as every fall. Pullets are a safe investment.

"I ordered 50 chicks, English S. C. White Leghorns, and 50 husky chicks were sent to me. I believe as time went on about 6 died, and the remainder grew to be very large. I got 20 fine pullets and a rooster that's got them all beat. I think the pullets were laying at 5 months, and are greatly admired by the neighbors. These pullets have laid all through the cold weather, and during those very cold days some of them froze their combs but did not stop laying. Have been getting one dozen eggs a day. During January they paid me a profit of 200 per cent. My plan is to keep at least 100 this coming year".

Yearling Hens, especially in White and Brown Leghorns and Anconas; but also in the other breeds.

Cockerels, White Pekin Ducks, White Embden Geese and Bronze Turkeys.

Send for a copy of our quarterly publication Homestead Farms, and for other matter describing the Pure Breed Practical Poultry.

### STATE FARMS ASSOCIATION,

201 Chase Block, Kalamazoo, Michigan

## Pullets Cockerels Pullets

Chicks—Eggs—Breeding Stock—From Proven Layers  
**BARRED ROCKS ENGLISH WHITE LEGHORNS**

**ROCKS.** Official Records 213 to 257 at M.A.C. In Dec. at Nat'l Laying Contest No. 4 Pullets averaged 24.5. I have won 5 specials so far at this contest, some records. **WHITE LEGHORNS.** Won cup best utility pen Zeeland [22 pens]. Mr. Foreman Judging. 1st and 2nd pens Holland Fair. 1st Hen West Mich. State Fair. Why take chances when you can buy stock of this kind at bargain prices. Special prices on May, June, July chicks. Write for catalogue.

G. CABALL, Box M, Hudsonville, Mich.

### PULLETS & COCKERELS

Now Three Months Old

**WHITE LEGHORNS AND MOTTLED ANCONAS** Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. C. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hoganized flocks on free range on separate farms. Where our chicks are raised.

Send for Price List.  
**CRESCENT EGG COMPANY**  
Allegan Michigan

### Baby Chicks \$12.00 per 100 and up

Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are listing 17 varieties of pure bred fowls; Chickens, Geese, Ducks & Guinea, also breeding stock. Send for prices and circular. Booking now for early delivery. **OLINTON HATCHERY & POULTRY FARMS,** Wilmington, Ohio.

### Barred Rock Cockerels

Parks' 200-egg strain. From stock from Parks' best pedigreed pens. Vigorous, early hatched birds \$3 each. R. G. KIRBY, Route 1, East Lansing, Mich.

### Barred Rocks egg contest winners, eggs from strain with records to 290 a year. \$2.00 per setting prepaid by P. P. Olrcular free.

FRED ASTLING, Constantine, Mich

### BABY CHICKS

We have just the chicks you have been looking for, the large, strong, vigorous kind from free range flocks that have been culled for heavy egg production. Shipped prepaid parcel post. Safe arrival guaranteed. Ask about 8 wk. pullets. Catalog free. Gilt Edge Poultry Farm, Zeeland, Mich

### WHITTAKER'S R. I. RED CHICKS

CUT PRICES FOR JULY  
Grade "A" Both Combs, \$21 per 100. Grade "B" Rose Comb, Hatches of July 5th and 12th, \$15 per 100. July 19th, \$14 per 100. July 26th, last hatch, \$13 per 100. Single Comb one cent per chick less than Rose Comb. Add one cent per chick on all orders for only 25. Michigan's Greatest Color and Egg Strain. All breeding stock blood tested for white diarrhoea by Dr. H. J. Stafseth of M. A. O. Order from this adv. to secure prompt delivery, or write for free catalog and culling chart. **INTERLAKES FARM,** Box 39, Lawrence, Mich

### JUST-RITE LOOK! Baby Chicks

A Hatch Every Week All Year  
POSTAGE PAID, 95% live arrival guaranteed. MONTH'S FEED FREE with each order 40 Breeds chicks, 4 breeds ducklings, select and exhibition grades. Catalog free, stamps appreciated. **NABOB HATCHERY,** Dept. 15, Gambler, O.

**S. C. Black** Minorca Hatching Eggs. Our choice strain, settings \$1.50; for 50 \$3.00; 100 \$6.00. **C. J. DEEDRICK,** Vassar, Mich.

**Single Comb Buff Leghorn** Early hatched okls. Willard Webster, Bath, Mich

### Pure PULLETS Bred S. C. W. LEGHORNS OUR SPECIALTY

2000 April Hatched Pullets for July delivery. We sell our own stock only. Bred and raised on our own farm from our strain of American English Leghorns carefully bred for Egg Production. None Better any where at our price.

8 Weeks Old Pullets ..... \$1.00  
Choice Breeding Cockerels ..... 1.50  
Yearling Hens ..... 1.00

**SIMON HARKEMA & SONS,** HOLLAND, MICHIGAN

### CHICKS

Three Leading Breeds. Tom Barron English White Leghorns. Parks Barred Rocks. S. C. R. I. Reds.

White Leghorns	\$2.50	\$5.00	\$10.00	\$47.50	\$95.00
B. Rocks & S.C.R.I. Reds	3.00	6.00	12.00	57.50	115.00
Broiler Chicks			7.00	35.00	

We can fill orders for Leghorns the same week received. Strong healthy chicks from tested heavy producing stock correct in plumage and color as well as being excellent layers. 100 per cent live delivery guaranteed. Interesting catalogue free. Importer, **BRUMMERS POULTRY FARM,** Holland, Mich

Box 30, Holland, Mich

### S. C. Anconas and S.C. White Leghorn

yearling hens at bargain prices. Write your wants.

**M. D. Wyngarden,** Zeeland, Mich.

### 200,000 Baby Chicks FOR 1922

Shepard's Anconas, English Type White Leghorns and Brown Leghorns and Barred Rocks. Why pay two prices when you can buy direct? Our chicks are from strong, vigorous flocks of fine quality and excellent layers. Chicks are shipped prepaid with 100% live arrival guaranteed. Order now, catalogue free.

**KNOLL HATCHERY,** Holland, Mich. R. 12,

**July, Aug. and Sept. Chix**  
Order now. Barred on White Plymouth Rocks, R. I. Reds, Black Minorcas, White Leghorns or Anconas \$14.00 per 100 prepaid, 15c each in 25 or 50 lots. 100% live delivery guaranteed. Our 12 year producing chix that please. Order direct from this ad. **Green Lawn Poultry Farm,** R. 3, Fenton, Mich.

## Farm Poultry

### CONTROLLING POULTRY LICE.

ON hens and chickens there are found seven species of lice, on ducks, geese and turkeys, three.

These lice stay on the fowls practically all the time. Therefore, the only effective treatments are those which are applied directly to the fowl. At present the most economical and the most effective remedy is sodium flouride, a white powder which can be purchased at any drug store. A little of this powder held between the thumb and forefinger and dusted among the feathers next to the skin on the head, neck, back, breast, under the wings and below the vent will keep these various kinds of lice under control.

injured by being soaked and chilled. As they become large and vigorous there seems little danger from rain. Leg weakness in goslings is difficult to cure when it occurs but is usually prevented by keeping the birds on a grassy range on a balanced ration so they will make a normal growth. Lack of vigor in the breeding stock may be responsible for some losses.

### CONTROL OF SCALY LEG.

IT has been found that the oil drained from the crank case of an automobile is excellent for the control of scaly legs, or for painting roosts, etc., to control mites.

A rough scaly condition of a hen's



One pound of sodium flouride is considered enough to treat one hundred fowls.

Mites are those insects which infest poultry only at night, and hide in the crevices of the roosts and nests during the day. They can best be controlled by keeping the poultry houses and roosts clean, and by spraying the roosts and nests thoroughly with crude oil, kerosene, or some heavy coal tar preparation.

### SELL EXCESS COCKERELS.

EXPERIENCE has shown that the spring cockerels sell best when they weigh about two pounds, so now is about the best time to put them on the market. Also the broilers are bringing less every day and the market for them cannot be expected to pick up during the summer.

There is another reason why excess cockerels should be disposed of. The rapid growth of both male and female birds has likely caused a crowding of roosting accommodations, which is a serious thing during warm weather. If the cockerels are sold now, the pullets will have about twice as much room.

### CARE OF GOSLINGS.

Will you please tell me what ails my goslings? They are about four weeks old, their legs give out, and they can not walk, will just sit right down. How old do they have to be before you can leave them in the rain? How old before you can let them eat anything but grass and water?—C. B. L.

A good mash for goslings consists of two parts wheat middlings and one part cornmeal. This is made into a moist, but not sloppy mash and given four or five times per day. Only fine fresh grass is needed for the first two days. At the age of one week some breeders give scalded cracked corn and furnish a grassy range. Some breeders use bread and milk as a starting feed for goslings. The bread is soaked and squeezed dry. It is best to have goslings where they can be driven into a shed or colony house at the approach of rain storms. They are

### SICK CHICKS AND POULTS.

Would like to know what is the trouble with my young chickens and turkeys. The chickens are nearly three months old, have had free range, fed cracked corn and some wheat, and all the sour milk they would eat, but for the last month four or five died every day until I have almost none left. They sit around a few days and hang their wings, do not eat, and finally die. Have some three weeks older that seem to be all right yet. The turkeys are from two to six weeks old and are being raised by hand in a small yard which is changed every day, fed a small amount of oatmeal and sour milk. Up until a few days ago they were all fine and well, but now they die off like the chickens except that they aren't sick as long, some only a few hours.—E. S.

It will pay you to perform a post-mortem on the turkeys and chickens that die and note the condition of the internal organs. The symptoms indicate digestive disorders. Turkeys are seed and insect eaters and need free range to thrive. In a small yard it is difficult to raise them even with the best of care.

Possibly the chicks are overcrowded at night and this weakens their vigor. Look for lice on both the chicks and the turkeys. Teach the three-months-old chicks to roost if they are now crowding together. The use of one of the commercial growing mashers may help you to hasten the growth of the late-hatched chicks and build up their vigor.

Jehovah will command the blessing upon thee in thy barns, and in all that thou puttest thy hand unto, and he will bless thee in the land which Jehovah, thy God, giveth thee.—Deuteronomy, XXVIII.



## Radio Department

Conducted by Stuart Seeley

### INTERFERENCE AND HOW IT MAY BE PREVENTED.

THERE are other things beside static which mar the pleasure of a radio concert or lecture. Some of them are unavoidable and others may be done away with when the cause is discovered and the proper remedy applied.

Often there are noises which seem to come and go at regular times each day. These are usually caused by motors or other pieces of electrical machinery in a near-by shop or factory and the hours when the interference is bad will usually be found to coincide with the operating hours of the manufacturing plant. There is seldom anything that can be done to remedy such a condition although the operation of a motor which causes interference with the radio receiving sets is prohibited by law. Usually the operator of such a motor is ignorant of the fact that he is causing any disturbance.

Street cars are a great source of annoyance in the city. In the heart of a big city are so many electrical machines and appliances in operation near by that the ether is never quiet and clear reception is impossible. The neighbors' vacuum sweeper or sewing machine motor will often cause all manner of uncanny and decidedly annoying noises. So-called Violet Ray machines are always a source of interference. Cases have been known where a machine of this kind has interfered with a receiving set over a mile away.

All of the a-forementioned causes of interference are unavoidable. There are others just as numerous, however, that can be disposed of if the source is discovered. Chief among these is the young lad with his home-made transmitting outfit. Nothing seems to please him more than to sit and hammer the key by the hour. The easiest way to remedy this trouble is, to hunt out the lad, tell him he is interfering, and ask him to have a little more consideration. Threatening him will usually make the matter worse.

If the receiving aerial is run parallel to high tension power lines it is usually found that interference will result. This kind of disturbance is a constant low hum, which does not stop at any hour of the day. Placing the aerial at right angles to the power line will usually do away with this trouble.

Nearby receiving sets, if they are of the vacuum tube regenerative type, interfere to quite an extent. This type of interference is similar to that caused by two or more high-powered 'phone stations operating at the same time. It is a little shrill whistle, which runs up and down the scale and makes discords with the music of the concert. If the interfering receiving set is located close by, the best thing that can be done is to arrange to take turns with the other listeners.

If it is your own washing machine motor or vacuum sweeper that seems to be causing the trouble, try placing a large-size fixed condenser across the terminals of the machine. This can best be done by the use of a double socket. If this fails to help, try grounding the motor through the condenser.

Outside interference can usually be located by the use of a loop, or direction-finder aerial mounted on an automobile or other conveyance so that it may be moved about while connected to the set. On several occasions the writer has found it necessary to resort to this means of locating troublesome noises and the origin of the disturbance was usually found without much difficulty.

### FORTY-FIVE YEARS OF LAMB MARKETING.

(Continued from page 115).

the members each year. For a quarter of a century or more George W. Jackson, Tom Drake and J. D. Peay have been chosen each year to act as "commissioners." It is interesting to know that when lambs are sorted by this triumvirate have been shipped to the central markets, their grades have always been accepted without hesitation by the packer buyers and the lambs sold accordingly.

The Goodlettsville Lamb Club now has forty-two members. They produce about 4,000 lambs annually, or practically all the lambs grown in the Goodlettsville district. The club levies no dues, but each member is charged seven cents per head for each lamb marketed through the club. This pays the cost of market day, which consists chiefly of a dinner given to the buyers and a fee of \$3.00 each to the commissioners.

A set of rules was drafted many years ago, the most important of which reads that every member must keep a pure-bred ram of some recognized breed. It isn't enforced by expelling the man who uses a grade buck, but by putting most of his lambs where they belong—in the second grade. Mr. Jackson informed me that in his many years' experience in grading the Goodlettsville lambs, he had seldom seen a bunch of lambs sired by a grade that was good enough to go into the No. 1 classification, most of them usually being rejected, and therefore net the growers much less than that received by his neighbor whose lambs were sired by a well-selected ram of good breeding. The result is that the pure-bred ram rule is practically self-enforcing, and only now and then does a member attempt the short-lived economy of buying a grade ram.

When the club was established, the sheep industry was hazardous on account of dogs. The club made lamb-raising profitable, hence dogs waned somewhat in popularity. That made it possible a number of years ago to establish a rule assessing every member \$1.00 for each canine owned. Withing a year it reduced the number of dogs in the community more than one hundred—better than most dog laws. The club is chiefly responsible for changing Goodlettsville from a dog community to a sheep community, one man there told me.

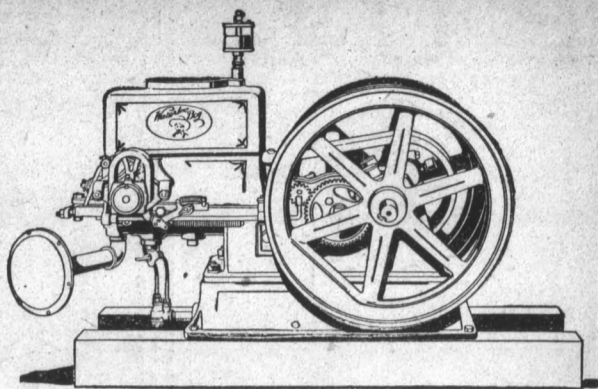
The Goodlettsville Lamb Club also handles the wool clip of its members. The wool is delivered at a warehouse, graded by the commissioners, and sold on grade. Bids are received the same as on lambs, and accepted or rejected at the pleasure of the committee. This plan has been followed since 1877. So well established are the Goodlettsville grades that mills a hundred miles away bid on the wool by wire. Sometimes the wool is stored for better prices, but it is usually sold at the same time as the lambs. The clip averages a little more than ten thousand pounds annually.

### RAPE FOR PASTURE.

IN North Dakota they have found that an ideal fall pasture can be provided by sowing two or three pounds of rape seed per acre in the corn at the last cultivation. If the corn is to be hogged off, rape will furnish an ideal pasture for the fall season. It is especially valuable because it is not injured by light frosts. In fact, it has been found good for forage purposes until time of severe freezing.

Says Sam: There's three kinds of folks: those who think things couldn't be worse; those who allow that after all, things might be a lot worse, and those who roll up their sleeves and say, "Things can be bettered!"

## A Real Farm Helper



### Waterloo Boys Meet Every Farm Need

You can get Waterloo Boys in 2, 3 and 5 H. P. gasoline type and 2, 3, 5, 7, 9, 14 and 25 H. P. kerosene type—there's a size to fit your needs.

### See Your John Deere Dealer

Ask him to show you how easily the Waterloo Boy starts, how smoothly it runs, how well it is built. Write us for literature that tells all about them. Simply ask for Package EA-822.

From the time your Waterloo Boy goes on its first job you will recognize it as a real farm helper. It is always ready for work—never tires—works day and night on any job within its power.

## WATERLOO BOY

For only a few cents a day the small-sized Waterloo Boy will pump your water, churn, wash, grind, spray, separate the cream—thus relieve you or the women folks of jobs that take time and muscle. The larger sizes will grind your feed, fill the silo, saw the wood, shell corn—do all this work when you want it done and save you money besides.

Waterloo Boys are smooth-running, long-lasting engines.

Simple in design; easy to understand; high-grade materials used throughout; parts subject to greatest wear are hardened—wear resisting. Adjustments, easily made, are provided, assuring smooth, dependable and economical operation for years to come.

Perfectly balanced—no vibration at any speed. Magneto equipped—dependable ignition and easy starting in all kinds of weather. Sight feed lubricator; grease cups; spring cap oilers, all easy to get at; simple mixer fuel strainer; governor—speed easily changed while engine is running—these are a few of the refinements on these better-running, longer-lasting engines.

# JOHN DEERE

THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

## Instantly—completely it melts like snow



Tests prove that Colonial Special Farmers Salt dissolves three times as fast as ordinary salt.

Each tiny speck of Colonial Special Farmers Salt is like a flake of snow—soft and porous. Melts instantly and completely. Free from moisture. Does not cake or lump. More economical. Best for cooking, baking, meat curing, butter making and table use. Ask for it by name. Write for free booklet.

The Colonial Salt Company  
Akron, Ohio

Chicago Buffalo Atlanta

## COLONIAL SPECIAL FARMERS SALT

For Stock Salt, Use Colonial Block Salt—Smooth—Hard—Lasting—Won't Ch!p  
Made from Evaporated Salt

## GET-A-WITTE

Kerosene Engine  
Cash or Payments,  
Save \$15 to \$50. Big  
Catalog sent FREE.  
WITTE ENGINE WORKS  
2191 Oakland Ave., Kansas City, Mo.  
2191 Empire Bldg., Pittsburg, Mo.

### POULTRY

## PULLETS

Barron Strain S. C. W. Leghorn.  
8 weeks old \$1.00 each \$90.00 per 100  
12 weeks old \$1.25 each \$115 per 100  
Yearling hens \$1.00 each \$95.00 per 100  
Good healthy selected birds, no culls or weaklings.  
FINE BAY POULTRY FARM.  
R. 4. Holland, Mich.

## SINGLE COMB WHITE LEGHORN

baby chicks from our flock of high producing hens, raised on free range. Price \$9.00 per 100. Safe delivery guaranteed. Ralph S. Totten, Pittsford, Mich.

## Bred-to-Lay White Wyandottes

59 hens laid 1170 eggs in Jan. Eggs \$2.00 per 15; \$10 per 100. EVERGREEN POULTRY FARM, Blanding & Sons, Greenville, Mich.

PREMIER WHITE LEGHORNS  
Lay 265 to 301 eggs per year. Winners at 50 shows.  
Chicks, eggs, pullets, hens and males shipped C.O.D. at low prices. Write today for catalog and complete information to the World's Largest Leghorn Farms.  
GEO. B. FERRIS, 934 UNION, GRAND RAPIDS, MICH.

### ANCONA PULLETS

I have 300, 3 months old, utility selected Ancona pullets which I will sell at \$1.30 each. Order at once and avoid disappointment. Thomas Beyer, R. 4, Zeeland, Mich.

Barred Rock and W. Wyandotte Breeding Stock at bargain prices now.  
HOWARD GRANT, Marshall, Mich.

### RHODE ISLAND WHITES

win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks.  
H. H. JUMP, R. 5, Jackson, Mich.

W. Chinese goose eggs 40 each. Pekin duck \$1.50 for 8. R. C. Br. Leghorn \$1.50 for 15 \$8.00 per 100. Mrs. Claudia Betts, Hillsdale, Mich.

### WHITE WYANDOTTES

207 egg average. Eggs all matings, \$2.00 per 15, \$10.00 per 100. Cockerels, hens and pullets \$5.00 each.  
FRANK DELONG, R. 3, Three Rivers, Mich.

Bourbon Red Turkeys We have them. Order your Birds and Eggs now.  
SMITH BROS., R. 3, Augusta, Mich.

**BREEDERS' DIRECTORY**

Change of Copy or Cancellations must reach us Ten Days before date of publication



Edgar of Dalmeny

George Henry

They possess the Marked Degree of **Inimitable Quality**

They are Distinctly Handsome. They are Obviously High Class.

The Name

**Edgar of Dalmeny**

is an assurance of quality in the world of Angus cattle just as the name

**George Henry**

presupposes excellence in Belgian Draft Horses. The services of our Grand Champion Stallion, George Henry are available.

Your Correspondence and Inspection are invited.

**Wildwood Farms**

ORION, MICHIGAN

W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

Registered Aberdeen Angus cattle for sale Everything sold until fall. Watch for ad later. Come and inspect our stock. Inquire of F. J. WILBER, Olio, Mich.

**Brookwood Guernseys**

Birmingham, Mich.

During the past year, we have completed Advanced Registry with 7 Guernsey Cows—two of which were heifers with their first calves.

The average butter-fat production of these cows was 650 pounds, and three of them were leaders of their respective classes for the State of Mich.

We have for sale a number of good bull calves from these cows and their daughters, sired by Rosetta's Marshall of Waddington, No. 54420, Grand Champion Bull at the Michigan State Fair last year.

Our herd is not large, but it is select. Visitors are always welcome at the farm. Prices are reasonable, considering the quality of the stock.

**JOHN ENDICOTT, Proprietor**

**Registered Guernseys**

Another crop of calves. Choice bull calves \$75, their breeding and records will please you. J. M. WILLIAMS, No. Adams, Mich.

**GUERNSEYS**—REGISTERED BULL CALVES. Containing blood of world champions. A. R. cows. Federal inspected. **HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.**

For Sale 2 Guernsey Bulls, one 4 mos. old and one 7 years old. Registered, accredited certificates, reasonable price considered. Full description by communicating with 2730 Jefferson Ave., E., Detroit.

**GUERNSEYS**

3 fine heifers, 1 bull, all registered, \$400, if sold this month. W. W. BURDICK, Williamston, Mich.

**WINNWOOD HERD Registered Holsteins**

It was through the daughters of **Flint Maplecrest Boy that Sir Ormsby Skylark Burke**

Our Junior Herd Sir:

produced the Junior Champion and Reserve Grand Champion Heifer, at the Michigan State Fair this year, in a class of 38.

His get won first in Calf Herd, also first in get of sire, in a class of 13.

A son of either of these great bulls will help the individuality and production of your herd. We have bulls at dairymen's prices, and we also have bulls at the breeder's price, from dams with records up to 38 lbs. of butter in seven days, and 1168 lbs of butter in one year.

Ask us about a real bull, a Maplecrest or an Ormsby, **JOHN H. WINN, Inc., Rochester, Mich.**

**The Traverse Herd**

We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

**TRAVERSE CITY STATE HOSPITAL** Traverse City, Mich.

**For Sale King Segis Breeding**

Bulls of show type that are out of A. R. O. Dams.

**Grand River Stock Farms**

Cory J. Spencer, 111 E. Main St. JACKSON, MICHIGAN

**Registered Holstein Bull**

born Nov. 2, 1919. Dam at 8 yr. 22,920 milk, 895 lb. butter; at 7 yr. 205 days 16,281 milk, 654 lbs. butter. She has three A. R. O. daughters, one above 25 lbs. in 7 da. 99 in 30 days. He is sired by a 24 lb. grandson of Colantha Johanna Lad. Also three heifers 2 yr. old, one fresh heifer calf by side. Other two due in May. Bred to sire above. State and Federal full accredited herd. Priced for quick sale. Pedigrees and photo on request. **VERNON E. CLOUGH, R2, Parma, Mich.**



**Dog Days—**

"Dog Days" are at hand when dairying is most difficult without a separator, and when the increase in quantity and improvement in quality of cream and butter are greatest through the use of a good separator.

A De Laval Cream Separator bought now will easily save its cost before the end of the year, and it may be bought for cash or on such liberal terms as to actually pay for itself.

**The De Laval Separator Co.**

New York Chicago  
165 Broadway 29 E. Madison St.  
San Francisco  
61 Beale St.

Sooner or later you will use a **De Laval Cream Separator and Milker**

**Whitney Farms Holsteins**

We are offering our herd sire, Wallana Fobes Colantha, a good grandson of Colantha Johanna Champion. An excellent individual and prepotent sire. Also offer several bull calves of good type from high producing dams. Priced to sell. Fully accredited herd, dueing dams. **WHITNEY FARMS, Whitney, Mich.**

**32 Lb. Bull, \$150**

Pure bred, registered, federally tested. Dam, a daughter of King Segis Pontiac, 37 lbs. Good individual, mostly white, 1 yrs. old. Guaranteed healthy and breeder. Priced to sell quickly. Pedigree on request. **ALBERT G. WADE, White Pigeon, Michigan.**

Registered Holsteins for sale at all times both sexes best of breeding and priced right. Our herd sire a 26 lb. grandson of Maplecrest Koradyke Hengervold. Herd under state and federal supervision. **HENRY S. ROHLFS, R. 1, Akron, Mich.**

**\$75.00 Buys** A yearling bull ready for light service. The six nearest dams of sire average 33.34 lbs. butter for 7 days. Dam has 18.33 lb. record made at three years old. **OSCAR WALLIN, Unionville, Mich.**

**Holstein** Friesian heifer and bull calves, purebred registered and high-grade. Price \$20 up. Splendid individuals and breeding. Write us your requirements. **Browncroft Farms, McGraw, N. Y.**

**Holstein-Friesian** pure-bred bull calves, tuberculin tested herd. Prices are right. Larro Research Farm, Box A, North End, Detroit, Mich.

**A Good Note** accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write **GEO. D. OLARKE, Vassar, Mich.**

**TWENTY** head registered Holstein-Friesian cows and heifers. Heavy producers, excellent type. Tuberculin tested. **L. F. Stautz, Manchester, Mich.**

**FOR SALE.** A fully accredited foundation herd of Registered Holsteins, good type, no culls. 11 females and herd bull has 28 A. R. O. daughters, 2 over 30 lbs. females have or from A. R. O. cows. Will sell all or part of herd, other interests involved, act quick. **HOWARD T. EVANS, Eau Claire, Mich.**

Reg. and high grade Holstein cows and heifers due to freshen this fall, priced reasonable. Bulls all ages priced to sell. **E. B. Reavey, Akron, Mich.**

**856 lbs. butter** 19600 lb. milk largest 4 yr. semi-official record made in Wayne Co. For yearly production get a Hazellet. Federal tested. **M. L. McLaulin, Redford, Mich.**

**250 Money-Making HEREFORDS**

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

**50 Registered Cows and their 50 Sucking Calves**

Registered 25 Bred Heifers—Registered 25 Yearling Heifers—Registered 50 Grade Cows Unregistered and their 50 Sucking Calves 10 Extra Good Bulls, various ages.

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

**T. F. B. SOTHAM & SONS,** [Cattle Business Established 1835] Saint Clair, Michigan Phone 250

**HEREFORDS** for sale. A few extra good fall calves for sale. **RALPH CALHOON, Bronson, Mich.**

**Dairy Farming**

**VARIATION OF BUTTER-FAT.**

WHENEVER there is a variation in the butter-fat tests, the tester is usually to blame. There are, however, a number of other things which will cause a variation in the test. One of them is the Babcock test itself, which will sometimes give readings that vary two-tenths of one per cent on the same sample of milk tested and duplicated at the same time.

The fat percentage will also change when the milker fails to milk out the strippings, the richest part of the milk. Dogs chasing the cows, or the milker using the milk stool on his cows, or permitting loud talking in the stable at milking time will also cause variations in the fat test.

Cows in heat, those that hold up part of their milk, and others that are underfed or slack in their water supply will show a variation from their normal test.

**WATCH YOUR SEPARATOR.**

RUSSELL HARWOOD, the cow-tester in Kent county, has been checking up on the separators. One he found left 1.5 per cent butter-fat in the skim-milk. One hundred and sixty pounds of milk were being separated daily through this machine. Assuming 150 pounds of skim-milk resulted daily, then 2.25 pounds of butter-fat was simply slipping away from the farmer. At thirty-five cents a pound this would mean a loss of seventy-eight cents daily, or \$23.40 per month.

It would not take many months to pay for several years of cow-testing association service on this basis. Also an extremely high rate of interest was being paid out by this member on an inefficient cream separator.

**ANOTHER COW-TESTING ASSOCIATION.**

MR. WILLIAM MURPHY, county agricultural agent, Macomb county, has long been desirous of establishing a cow-testing association in Macomb county. Recently, through his efforts and the assistance of A. C. Baltzer, of the Dairy Extension Division, Michigan Agricultural College, enough members have been enrolled to again establish the Macomb County Cow-testing Association. Twenty-five members are the required number to fill the necessary months' work and to hire the cow-tester to do the cow-testing association work. The membership will have a total number of cows that will perhaps be the largest in the state, namely about 375 cows.

Mr. Murphy's aim in Macomb county has always been towards efficient production in the dairy business. A former cow-testing association was active in weeding out about eighty-five unproductive cows from the herds of its members. This weeding out process is the distinctive feature in all the cow-testing association work carried on in Michigan. Thousands of cows in the state are just giving a small amount of milk and butter-fat, but when totalled makes a large bulk which causes in many cases a depression of milk and butter-fat prices by

creating a surplus on the market.

The members in cow-testing associations know quite definitely the difference between old Betsy at one end of the stable and Molly at the other end. They know whether Betsy is returning for every bushel of corn an ample amount of milk and butter-fat, or whether she is a losing proposition. The man who milks cows, more than any other, should know the production of each individual in his herd.

Mr. Murphy says this is just a start for better dairying in Macomb county. Additional efforts are being put forth through the assistance of Mr. S. J. Brownell, of the Dairy Division, Michigan Agricultural College, toward future organization of cow-testing associations and bull associations. Mr. Murphy has set himself a goal of having at least two, and perhaps three, cow-testing associations in his county by September. Efforts of this kind will result in a more efficient dairy program for Macomb and will mean better dairy farming by her dairymen. —A. C. B.

**APHIS (PLANT LOUSE) RUINS THE PEA CROP.**

IN sections where peas are grown extensively as a canning crop, the crop has been seriously injured this year by the aphid (plant louse). The late varieties (sweet peas) have practically been ruined. Whole fields have been completely destroyed. In many instances the outlook early in the season was quite favorable, even up to time of blossoming. Then all at once myriads of these insects appeared and in a few days the field looked as if a fire had devastated it.

These insects are sucking insects and cannot be poisoned, and actually suck the sap or juice from the plant so that they dry up, wither and all growth ceases.

This year the early variety (Alaska peas) were attacked to some extent. This variety is not usually affected, at least, has not been in the past.

The canners have done everything in their power to help the farmer save the crop. Experiment stations have been pressed into service and rendered all assistance possible. But they were not prepared to combat the enemy successfully.

Tobacco dust or sulphate of nicotine seems to be the only remedy. Some sprays or dustings seemed to be fairly effective, and it is now claimed that if an application of the right strength had been applied earlier, just before blossoming, that the indications are it would have been effective. This, however, can only be determined in a practical way another year. This year's crop is gone.

We are advised that this condition is not local to Michigan, over the whole country where peas are grown as a field crop the same condition prevailed. Therefore, peas will be peas the coming year. The packers will have very few to offer. The consumer must forego this appetizing side dish and peas will be sky high in price.

Lightning rods are ninety-eight per cent protection against fire by lightning.





**Clean, Fast Cutting**  
**The Easy Running Cutter**  
**Kalamazoo**  
**ENSILAGE CUTTERS**  
 are known from coast to coast as the standard. Strong, reliable, speedy, trouble-proof, easy-running, with a successful record dating back over a quarter of a century. Backed by a Guarantee that means absolute satisfaction and protection.

**Ten Superior Features**  
 Unbreakable knife wheel, center-shear cut, triple feed rollers, no vibration, "lifetime" channel steel frame, reversible shear bar, and other features are explained in the book. Send your name today.

**FREE BOOK**  
 Kalamazoo Tank & Silo Co.  
 Dept. 123 Kalamazoo, Mich.



**HICK'S DEVIL CAPSULES**  
**Guaranteed to Kill and Remove Hog Worms in 24 Hours.**  
 Devil Worm Capsules are the quickest, surest, easiest and cheapest method. Used and recommended everywhere. Money back if dissatisfied for any reason. *Send trial order now.*

**100 Red Devil Capsules, set of instruments, full instructions, prepaid to you, for \$5.75.**  
 Extra capsules sent prepaid; 25-\$1.50; 100-\$4.75; 500-\$20.00; 1,000-\$39.00.

**CHAS. M. HICK & CO.**  
 1018 S. Wabash Ave., Dept. 56 Chicago, Ill.

**ABSORBINE**  
 TRADE MARK REG. U.S. PAT. OFF.

Reduces Bursal Enlargements, Thickened, Swollen Tissues, Curbs, Filled Tendons, Soreness from Bruises or Strains; stops Spavin Lameness, allays pain. Does not blister, remove the hair or lay up the horse. \$2.50 a bottle at druggists or delivered. **Book 1 R free.**

**ABSORBINE, JR.,** for mankind—an antiseptic liniment for bruises, cuts, wounds, strains, painful, swollen veins or glands. It heals and soothes. \$1.25 a bottle at druggists or postpaid. Will tell you more if you write. Made in the U. S. A. by **W. F. YOUNG, INC.,** 268 Temple St., Springfield, Mass.



**NEWTON'S** for Heaves, Coughs, Distemper, Indigestion. Use two cans for Heaves—if not satisfactory, money back. One can often sufficient. \$1.25 per can. Dealers or by mail. **Newton Remedy Co., Toledo, O.**

**CATTLE**

**Herefords**

Repeaters, Beau Donalds, Fairfaxes, and Farmers represented in our herd. Repeater 173rd, a son of old Repeater, at head of herd. Both sexes and all ages for sale.

**ALLEN BROS.,**  
 (Farm at Paw Paw, Mich.)  
 Office 616 So. West St., Kalamazoo, Mich.

**Brookwater Farm**

**JERSEYS and Duroc JERSEYS**  
 Bred sows and gilts, boar pigs. Jersey bulls from tested dams. Tuberculosis free herd. Come to the farm or write for prices.

**BROOKWATER FARM,** Ann Arbor, Michigan  
**H. W. Mumford, Owner, J. B. Andrews, Lessor.**

**Jersey Thoroughbreds**

Few cows and bull calves. Best breeding line. Guaranteed. Tuberculin tested twice a year. If you have no money will take bankable note. E. W. Vasvary, 509 Free Press Building, Detroit, Mich., Main 1267.

**JERSEY BULLS**

nearly ready for service. Spermfield Owl breeding. Herd tuberculin tested. **FRED L. BODIMER,** Reese, Mich.

**BUTTER BRED JERSEY BULLS**

FOR SALE  
**CRYSTAL SPRING STOCK FARM,**  
 Silver Creek, Allegan County, Michigan.

**For Sale Jersey Bulls**

ready for service; Raleigh, Oxford Lad, Majesty breeding. **WATERMAN & WATERMAN,** Packard Rd., Ann Arbor, Mich.

**Lillie**

Farmstead Jerseys For sale, 12 heifers bred to freshen this fall, 6 bull calves, 6 to 9 mo. old. **Colon C. Lillie,** Coopersville, Mich.

**Jersey Bull,**

exceptionally well bred. Four years old. Reasonable price. **J. G. Armstrong,** 175 E. Larned St., Detroit, Mich.

**Milking Shorthorns**

Bull calves for sale. Also 2 cows. **ROSEMARY FARMS,** Williamston, Mich.

**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.

**Shoulder Soreness.**

I have a western mare that I bought last January. She had been driven for about two months without shoes. When I bought her she was in a run-down condition, but I have fed her plenty of corn and oats, but she does not eat enough hay. Have worked her, also rode her some, but she has gone lame. I locate her trouble in shoulder. Had I better apply a blister? She is only twelve years old and I dislike to have her remain a cripple. **R. J. T.,** Six Lakes, Mich.—If you are certain that the lameness is in the shoulder apply equal parts of turpentine, aqua ammonia, raw linseed oil, daily. If her hoofs are brittle or feet tender, stand her in wet clay for two hours or more every day.

**Weakness.**

Could you tell me what ails our hens? They have red combs, but are inclined to sit down, some of them hold head high and tail feathers hang. **M. A. S.,** Frankfort, Mich.—Doubtless your birds are suffering from a form of leg weakness which may be caused from intestinal parasites, or perhaps to an error in feeding, or possibly from lack of exercise. Give each bird a teaspoonful of epsom salts, or a dessertspoonful of castor oil. Three hours before you give the physic, give fifty or sixty drops of turpentine in some sweet milk or olive oil. Make a complete change of diet. The cause of an ailment of this kind is not always easily found, but you should suspect their food or water supply, and don't allow the birds to eat decomposed meat of any kind.

**Lice.**

Again I ask you to tell me what remedy to use to kill lice on my chickens. I clipped from your column an article and filed it away, but now I am unable to find it. **J. E. W.,** Felch, Mich.—Go to drug store and purchase some mercurial ointment, add one or two parts vaseline, place a piece about the size of a pea on end of finger, rub it well in on flesh under vent and each wing. Night is the best time to apply it. One ounce of mercurial ointment thoroughly mixed in two ounces of vaseline on pane of glass, should be enough to treat seventy birds.

**Tuberculosis.**

I have a six-months-old shoat that breathes hard, coughs some, and has a very poor appetite. **C. J. B.,** Charlotte, Mich.—Tuberculosis affecting the throat glands and bowel glands is perhaps what ails him. The flesh may be fit for food, but the carcass should be inspected by someone who is competent to judge.

**Cow Gives Bloody Milk.**

Ever since last April my cow has given bloody milk from one quarter of udder, worse in cool weather; she will come fresh about September 1. **H. M. M.,** Rosebush, Mich.—Dissolve quarter pound of sugar of lead in one gallon of cold water, apply to bruised quarter twice daily, after milking. Rough milking is a common cause of this ailment.

**Sitfast.**

Have been unable to use one of my horses since last spring on account of his having hard bunch on shoulder, which is the size of a tea cup. This bunch is not painful, but it is growing. **H. N. W.,** Hesperia, Mich.—A bunch of necrotic tissue such as this cannot be dissolved by drugs, but it can be cut out without risk, and the wound will soon heal.

**Shy Breeders.**

I have five cows which have failed to get with calf after being served four or five times, and by different sires. **W. G. R.,** Wayne County.—After cleaning vagina with soap and water, flush with yeast lotion, made by dissolving one cake of fresh compressed yeast in one quart of tepid water, let it stand for two hours then use. It will not be necessary to use the soap and water more than once, but use the yeast for several days before breeding.

**BIDWELL SHORTHORNS**

BUY A BULL

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

**BIDWELL STOCK FARM,**

Box D, Tecumseh, Michigan  
 Clayton Unit Shorthorn Breeders' Assn. Scotch, Scotch Top and Milking Shorthorns for sale all ages. **W. J. Hinkley, Sec'y,** Flushing, Mich

**FOR SALE**

**Polled Shorthorn Cows & Heifers** in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil. We can please you in richly bred cattle with quality at farmers' prices.  
**GEO. E. BURDICK, Mgr.**  
 Branch County Farm, Coldwater, Mich.

**RICHLAND SHORTHORNS**

We are offering two splendid white yearling bulls by Imp. Newton Champion and a few extra good heifers and young cows at very attractive prices. For full particulars write to  
**C. H. PRESCOTT & SON,**  
 Herd at Prescott, Mich.  
 Office at Tawas City, Mich.

**Claradale Milking Shorthorns**

We invite the discriminating breeder and farmer, who is in need of a real bull, that will transmit the combine qualities, beef, milk, high in butter fat, type, character, beauty. We do state official milk testing. Come and see us or write for circulars and reasonable prices. **F. W. Johnson,** Custer, Mich., Mason Co. Box 26

**WANTED REGISTERED SHORTHORN AND HOLSTEIN BULLS**

Twelve to eighteen months old. Describe as to conformation, breeding, condition of flesh, color and price. **Box P. E. 4,** Michigan Farmer, Detroit, Mich.

**Central Mich. Shorthorn Breeders' Assn.**

offer for sale both milk and beef breeding, all ages  
 Write **M. E. MILLER, Sec'y,** Greenville, Mich.

**Milking Shorthorns**

of best Bates breeding, bulls, cows and heifers for sale.  
**E. H. KURTZ,** Mason, Mich

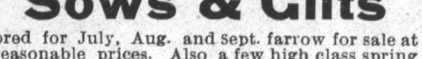
**Shorthorns**

for sale. ENTIRE herd just passed State Tuberculosis test. **J. A. BARNUM,** Union City, Mich.

**Don't you want**

a good Shorthorn, priced in keeping with the times?  
**ROBERT MARTIN,** R. 3, Woodland, Mich.

**HOGS**



Spring pigs by Walt's Orion, First Sr. Yearling Detroit, Jackson, Gd. Rapids and Saginaw 1919

**Phillips Bros, Riga, Mich.**

**Sows & Gilts**

bred for July, Aug. and Sept. farrow for sale at reasonable prices. Also a few high class spring and fall boars ready for service and one 2 yrs. old boar, a grandson of Panama Special, at a bargain if you can use him. We guarantee satisfaction. Write for prices and description or better come and see them. Visitors always welcome. Sows bred for spring farrow all sold.  
**Thos. Underhill & Son,** Salem, Mich.

**Collinsdale Duroc Farm, Lyons, Mich., P. I.**

**Greatest Blood Lines in Duroc Hogs**

Herd Boars by Great Orion Sensation, Pathfinder, Duration and Great Wonder I Am. Now have for sale three yearling boars by Wolverine Sensation. For sale at all times, sows, gilts or boars registered. Sold under a positive guarantee and worth the money. Write for prices,  
**L. A. BURHANS, OWNER**

**You Want One**

of the best Duroc sows obtainable. We have them for sale. Fall gilts and tried sows. Our herd boar headed 2nd prize aged herd at 1921 Illinois State Fair. **MICHIGANA FARM,** Kalamazoo County, Pavilion, Mich.

**DUROCS**

Extra Sow pigs, March 1st and later, 125 lbs. down; big bone, big litters, 75 to select from. \$10 up. Satisfaction or money back. **B. E. Kies,** Hillsdale, Mich.

**AM SELLING**

a great offering of bred Duroc sows and gilts March 4th. They are mostly bred to Orion Giant Col., son of Ohio Grand Champion. Get on mailing list for catalog. **W. C. TAYLOR,** Milan, Mich.

**Woodlawn Farm Duroc Hogs**

A well kept herd, best of blood lines, with size and breeding qualities, stock of all ages for sale at reasonable prices. **W. E. BARTLEY,** Alma, Mich.

**DUROC JERSEYS:**

A few choice bred gilts for sale. **CAREY U. EDMONDS,** Hastings, Mich

**Pure-Bred Duroc Jersey Hogs:**

we usually have good boars and sows of all ages for sale. Reasonable prices. Larro Research Farm, Box A, North End, Detroit, Mich.

**Duroc Jerseys**

heavy boned, low down type breeding stock for sale.  
**CHAS. BRAY,** Okemos, Mich.

**Westvie Duroc Bred Sows**

all sold. Have two spring boars left at a reasonable price. Will book orders for April & May Pigs.  
**ALBERT EBERSOLE,** Plymouth, Mich

**Duroc Jersey**

Bred sows and gilts bred for Aug. and Sept. farrow. A few choice ready for service boars. Shipped on approval. Satisfaction guaranteed. **F. J. Drott,** R. 1, Monroe, Mich.

**Oakwood Farm**

offers choice gilts of Orion Cherry King and Walt's Top Col. breeding bred to Pathfinder Orion for Aug. and Sept. farrow.  
**RUSH BROS.,** Romeo, Mich.

**DUROC-JERSEYS**

Do you want a good Pathfinder boar pig?  
**E. D. HEYDENBERG,** Wayland, Mich.

**BIG TYPE CHESTER WHITES**

The prize winner kind from the best prize winner bloodlines. Early developers, ready for market at six months old. I have started more breeders on the road to success than any man living. I want to place one hog in each community to advertise my herd. Write for agency and my plan.  
**G. S. BENJAMIN,** R. F. D. 10, Portland, Mich.

**Big Type**

Chester White March boars. Sired by Model's Giant and Hill's Big Buster. Out of granddaughters of Alfalfa Wonder.  
**LUCIAN HILL,** Tekonsha, Mich.

**O. I. C.**

and Chester White's. Strictly big type with quality. I have nothing to offer at present, as I have sold my largest herd and entire herd I was fitting for the large show to Earl Morrish, of Flint, Mich. I am confident Mr. Morrish, now has one of the very best herds in the State.  
**ALBERT NEWMAN,** R. 4, Marlette, Mich

**O. I. C. December Gilts**

From Big Type Wonder's Oct. by Silver Horde, extra good young boar direct from Silver's. Booking orders for spring pigs.  
**CHAS. H. STEEL,** R. 8, Eaton Rapids, Mich.

**CHESTER WHITES**

Start right with a Boar Pig from MONSTER No. 10735. They are hard to beat.  
**FRED L. BODIMER,** Reese, Mich.

**Chesters**

We are sold out of Boars. Choice spring pigs. For immediate shipment of spring pigs, write WEBER BROS., Royal Oak, Mich., 10 ml. and Ridge Rds., Phone 408.

**O. I. C. fall gilts ready to breed.**

Orders booked for O. I. C. spring pigs. Write or call and see our herd. We ship C. O. D. and Register free.  
**GEO. M. WELTON & SON,** Middleville, Mich.

**O. I. C. Gilts to farrow in Aug. and Sept.**

and March pigs. **CLOVERLEAF STOCK FARM,** Monroe, Mich.

**O. I. C. Bred gilts all sold.**

Orders booked for spring pigs. **A. J. BARKER & SON,** Belmont, Mich.

**O. I. C. Bred sow's all sold.**

Booking orders for spring pigs. **H. W. MANN,** Dansville, Mich.

**O. I. C. pigs at very reasonable prices for June and July shipment.**

**C. J. THOMPSON,** Rockford, Mich.

**O. I. C'S.**

last fall gilts due Aug. and Sept. Spring pigs not akin. Big Type. 1-2 mile west of Depot. Citizen Phone.  
**OTTO B. SCHULZE,** Nashville, Mich

**L. T. P. C. Boars ready for service also gilts.**

They are right, so is the price. Nuf sed.  
**M. M. PATRICK,** Grand Ledge, Mich.

**L. T. P. C. Fall Boars**

at bargain prices. Fall gilts open or with breeding privilege. Write or see them.  
**A. A. FELDKAMP,** R. 2, Manchester, Mich.

**Big Type Poland China**

Spring boars at \$15 each. Sired by Clansman Buster and Hovers Liberator. Also gilts bred for Sept. farrow at \$40 each. All stock shipped on approval. Come and see them or write.  
**DORUS HOVER,** Akron, Mich.

**For 30 years we have been breeding Big Type**

Poland China hogs on the same farm. We have sold over 100 head each year for the last 15 years for breeding purposes. There's a reason! The farmer has found our kind very profitable. We now offer 25 sows and gilts bred for summer farrow \$30-\$50.  
**JNO. C. BUTLER,** Portland, Mich.

**L. T. P. C. Gilts bred for Spring litters all sold.**

Am offering very choice Summer Gilts bred for June and July litters also Fall Boars and Spring Pigs. **Clyde Fisher,** R. 3, St. Louis, Mich.

**Francisco Farm Poland Chinas**

Big, stretchy Spring Boars as good as grow. Pairs and Trios not akin. Can spare two or three of our good herd sows bred for Sept.  
**P. P. POPE,** Mt. Pleasant, Mich.

**L.T.P.C. \$15, \$20 & \$25**

Spring pigs with real breeding at the above prices. We are also offering a few choice fall gilts bred for summer farrow. **Hart & Cline,** Address F. T. HART, St. Louis, Mich.

**LARGE TYPE P. C.**

Largest in Mich. Pig ready to ship, why not order from the herd that has given so many their start in the hog business, the kind that makes good, they have quality as well as size.  
**W. E. LIVINGSTON,** Parma, Mich.

**Big Type Polands**

We have a fine bunch of best blood lines and all cholera immune. We raise them to sell. If in need of a real herd boar prospect, come over. Visitors are always welcome.  
**WESLEY HILE,** Ionia, Mich.

**Big Type P. C. some very choice boars double im-**

munne, out 100 lb. sire and mammoth sows from Iowa's greatest herds. **E. J. Mathewson,** Burr Oak, Mich.

**Big Type P. C. Boar Pigs. Sows and Fall Gilts bred**

for Sept. to Big Bob Mastodon and Peter A. Pan, son of \$1075 Boar. **C. E. Garnant,** Eaton Rapids, Mich.

**BIG TYPE**

Poland Chinas, leading strains at lowest prices. Both sex, all ages, and bred sows and gilts.  
**G. A. BAUMGARDNER,** R. 2, Middleville, Mich

**LEONARD'S B. T. P. C. Herd headed by Leonard's**

Liberator. Orders booked for boar pigs wearing time. Call or write **E. R. LEONARD,** St. Louis, Mich.

**Large Type P. C. A few spring yr. gilts bred**

for Aug. and Sept. farrow.  
**H. O. SWARTZ,** Schoolcraft, Mich.

**P. C. Swine. Sows and pigs, sows bred for Aug. and**

Sept. farrow, spring and fall boars, best of breeding, satisfaction guaranteed. **R. W. Mills,** Saline, Mich.

**Hampshires**

book your order for spring boar pigs now. A few gilts, now ready for summer farrow.  
**JOHN W. SYNDER,** R. 4, St. Johns, Mich.

**SHEEP**

**Shropshires**

that will win at the State Fairs. I have them for sale. A big bunch of yearling rams as usual and priced reasonably.  
**KOPE-KON FARMS,**  
**S. L. Wing, Prop.,** Coldwater, Mich.



**GRAIN QUOTATIONS**

Tuesday, August 1.  
Wheat.

Detroit.—No. 2 red \$1.10 asked; No. 2 mixed and No. 2 white \$1.08.  
Chicago.—No. 2 red \$1.06 1/4 @ 1.08; No. 2 hard \$1.08 1/4 @ 1.10; September at \$1.05 1/2.  
Toledo.—Cash \$1.11; September at \$1.08 1/2.

**Corn.**

Detroit.—Cash No. 2, 72c; No. 3 yellow 71c.  
Chicago.—No. 2 mixed 62 1/2 c; No. 2 yellow 63 1/4 @ 63 1/2 c.

**Oats.**

Detroit.—Cash No. 2 white 39c asked; No. 3, 37c.  
Chicago.—No. 2 white 34 1/4 @ 38 1/2 c; No. 3 white 33 1/2 @ 35 1/2 c.

**Beans.**

Detroit.—Immediate and prompt shipment \$8.60.  
New York.—Choice pea beans at \$9.75 @ 10; red kidney \$9 @ 9.10.  
Chicago.—Michigan choice, hand-picked \$9.25 @ 9.30; red kidney at \$8.75 @ 9.

**Rye.**

Detroit.—Cash No. 3, 79c.  
Chicago.—75 1/2 @ 76c.  
Toledo.—83c.

**Seeds.**

Detroit.—Prime red clover cash at \$12; alsike \$10.50; timothy \$3.  
Toledo.—Prime red clover \$11; alsike \$10; timothy \$2.70.

**Feeds.**

Detroit.—Bram at \$25; standard middlings \$27; fine middlings \$30; cracked corn \$32; coarse cornmeal at \$29; chop \$25; per ton in 100-lb. sacks.

**Hay.**

Detroit.—No. 1 timothy at \$21 @ 22; standard and light mixed \$20 @ 21; No. 2 timothy \$19 @ 20; No. 1 clover \$16 @ 17; rye straw \$13 @ 14; wheat and oat straw \$12 @ 13 per ton in carlots.

**Fruit.**

Chicago.—Currants \$1.75 @ 2 per 16-qt. case; sweet cherries \$2.25 @ 2.75 per 16-qt. case; pears, Early Clapps \$1.50 @ 2 per bu; peaches, per six-basket crate \$1.50 @ 2; plums per 16-qt. crate 50c @ \$1; blackberries \$2 a 16-qt. case; black raspberries \$3 per 16-qt. case; blueberries \$2.50 @ 3.50 per 16-qt. case; red raspberries \$3 @ 3.50 per 24-pt. case. Above quotations are all for Michigan fruit.

**WHEAT**

The long expected export buying of wheat started last week with sales at Chicago, New York and via the Gulf, totaling approximately 16,000,000 bushels. Fear of a rail tieup probably was a stimulating factor. The rail strike has not affected the movement seriously as primary receipts for the week were 15,955,000 bushels which is 40 per cent above the ten-year average for the corresponding week. In spite of the large supply the enormous export sales checked the decline in prices and turned the market slightly upward. Based on present prospects for the new crop and domestic consumption in the last twelve months, the United States and Canada together should be able to export approximately 500,000,000 bushels this year. This would provide about 2,000,000 bushels daily for the next eight months which is equal to the estimated daily import requirements of the wheat deficiency countries. After that time importers will have access to southern hemisphere wheat again.

**CORN**

Corn prices have been maintained but not advanced by huge sales for export in the last two weeks. Domestic consumers also have been buying freely. The prospect of another 3,000,000,000 bushel crop was noticeable in the December delivery at Chicago which has declined about ten cents a bushel from the high point of the season. Primary receipts last week were approximately 5,500,000 bushels compared with a ten-year average for that week of 3,800,000 bushels. The visible supply at terminals is close to the largest on record for this season.

**OATS**

Oats prices are low enough to have discounted most of the bearish conditions which include the large visible supply, the slow demand, and the start of the new crop to market. Early threshing returns indicate a larger

yield than expected earlier in the season and the total crop may come up to the average of 1,250,000,000 bushels. Canada has a big crop but light crops in Europe may increase the export outlet this year.

**RYE**

Besides the large rye crop in the United States, Canada has a big yield and the prospective export surplus from North America promises to be the largest on record. Prices remain at a big discount. Germany is unable to buy freely with marks near the zero point in value.

**SEEDS**

No official forecast of the clover seed crop has been made as yet but the condition of clover is reported at about ten per cent better on the ten-year average and the acreage is fairly large. The price of cash prime red clover at Toledo holds close to \$13 a bushel while \$11 is offered for seed from the new crop to be delivered in October.

**FEEDS**

After a fortnight of firmness the feed market has weakened again. Demand for mill feeds is less urgent and flour mills are operating more extensively. Cottonseed meal has slumped sharply under heavy offerings of new crop meal at a big discount. Hominy feed is at the highest level of the year.

**HAY**

Nearly all the old hay crop has been sold, leaving an unusually light carry-over. Receipts of new hay at markets near the producing sections are increasing and prices are slightly easier although the rail strike has stimulated buying. The market may sag a little.

**POULTRY AND EGGS**

Egg prices dropped to the lowest level in six years last week. Weather favors maintenance of heavy production both here and in Canada. Re-

ceipts are dropping off, rather steadily but remain above the average for this season. The increase in storage holdings at the four leading markets alone during July has been enough to make a total of 10,000,000 cases for the entire country on August 1, or 28 per cent higher than ever before. The present price level for fresh eggs appears to have discounted these conditions, however, and an upward rather than a downward trend is to be expected.

Chicago.—Eggs fresh firsts at 20 @ 20 1/2 c; ordinary firsts 18 @ 18 1/2 c. Live poultry hens 18 @ 20c; broilers 22 @ 25c; roosters 13 1/2 c; ducks 22c; geese 14 @ 21c; turkeys 25c.

Detroit.—Eggs, fresh candled and graded 23 @ 24c. Live poultry, springers 35 @ 37c; light springers 25 @ 28c; heavy hens 26 @ 27c; light hens 22 @ 23c; roosters 15c; geese 13c; ducks 22 @ 23c; turkeys 30c.

**BUTTER**

Lower prices for butter attracted extensive buying by storage operators last week and caused a sharp upturn in the market, but the tone remains unsettled. Receipts have decreased steadily for six weeks but the total is above the average at this season and there is a large surplus if operators desire to store it. Domestic consumption of butter shows a big increase over last year and there is a probability of export demand with small imports at the present level of prices. Prices for 92-score fresh butter were:

Chicago 33 1/2 c; New York 34c. In Detroit fresh creamery in tubs sells for 31 1/2 @ 32c.

**POTATOES**

Potato prices declined further last week but receipts have dropped approximately to normal size for this season and the slump should be checked soon. Virginia, New Jersey, Mary-

land and Kansas are the leading shippers. Prices upon barreled Cobblers range from \$2.70 @ 3 in middlewestern consuming centers.

**APPLES**

Shipments of new apples up to July 24 amounted to 2,619 cars compared with 674 cars to the same date last year. Prices upon good Duchess and Transparent stock range from 75c @ \$1 a bushel wholesale in middlewestern cities.

**WOOL**

Passage of the 33 cents per pound clean duty on wool in the senate has given the wool market a firmer tone. Only small quantities are changing hands at present as mills are fairly well supplied and are waiting the outcome of sales of cloth and of tariff legislation. Buying from the American Woolen Company has been leisurely but the output of nine of its mills has been sold. Woolens are in better demand than worsteds. Stocks of wool in bond have increased heavily in the last six months and are much larger than the quantity imported in that time as wool is being held to enter after the permanent tariff bill has been passed. A shortage of merino wools exists abroad and the committee which has had the disposal of the war-time accumulations of Australia and New Zealand in charge has reduced its holdings of cross-breds by 40 per cent. Since world wool consumption seems to be outrunning production, a shortage of the lower grades of wool is expected to develop eventually.

**GRAND RAPIDS**

Grand Rapids markets were fairly glutted with potatoes and apples this week. Prices ranged from 75c @ \$1 a bushel on tubers, 50 @ 75c a bushel on Duchess apples, 75c @ \$1 a bushel on Red Astrachans, \$1 @ 1.25 a bushel on Early Harvests, Sweet Boughs and Yellow Transparents. The markets were steady on live stock with a little better demand for hogs. Grains were irregularly lower with receipts slowly gaining. Oat harvest is well advanced but few farmers are moving any of this grain to market. The supply of early fruits was large, peaches sagging to \$1.75 @ 2.50 a bushel; pears to \$1.50 @ 2 a bushel; plums \$1 @ 2 a bushel; blackberries \$2 @ 3 case; huckleberries \$2.50 @ 3 a case. Farmers are beginning to look to the kraut makers to take their cabbage crop off their hands, all the markets being oversupplied. Tomatoes were easier with the outdoor crop well advanced and the indoor about cleaned up. Prices 50 @ 75c per seven-pound basket. The market was weak on poultry at 20c a pound on fowls, 16 @ 18c on light broilers, 22 @ 24c on heavy. A few ducks are being offered at 24c a pound, live weight. Eggs were barely steady at 19 @ 20c a dozen.

**BEANS**

Late reports indicate that the bean crop is developing normally, especially in the majority of districts of Michigan. The market this past week was a little slow, particularly in the central areas. Growers who have been holding old beans are now letting them go on the market and this is helping to care for the current demand. Prices are little changed.

**DETROIT CITY MARKET**

The market for farm produce in the Detroit yards is being conducted with seasonal volume and at prices that are generally above those of a year ago. Apples are coming forward in increased quantities, with No. 1 Duchess and Transparents at \$1.25 @ 2 per bushel, and culls at 75c; Red Astrachans 75c @ 1.25; potatoes are generally held at \$1.25 @ 1.50, with the offerings increasing; butterbeans bring \$1 @ 1.50; cucumbers \$1.50 @ 2.50; cabbage 35 @ 40c; green corn 15 @ 30c; dry onions \$2; pickle onions \$3.50 @ 4; green pears \$3; summer squash \$1 @ 1.25; tomatoes, outdoor 50c @ \$1; do. hothouse 75c @ \$1; pears \$3.75; plums \$1 per 12-qt. basket; blackberries \$6 per 24-qt. case. The above prices are those reported by the Detroit Municipal Markets and they represent wholesale values and not the prices received for retail quantities.

**Live Stock Market Service**

Wednesday, August 2.

**DETROIT**

**Cattle.**

Receipts 387. Bulls 25c lower; other grades slow.  
Best heavy str., dry-fed... \$ 8.50 @ 9.00  
Handyweight bu., dry-fed... 8.00 @ 8.25  
Mixed str., hfrs, dry-fed... 6.50 @ 7.25  
Handy light bu., dry-fed... 5.50 @ 6.25  
Light butchers... 4.00 @ 5.00  
Best cows... 4.50 @ 5.75  
Butcher cows... 3.75 @ 4.25  
Common cows... 3.25 @ 3.50  
Canners... 2.50 @ 3.00  
Bologna bulls... 4.25 @ 5.00  
Stock bulls... 3.25 @ 3.50  
Feeders... 5.00 @ 6.25  
Stockers... 3.50 @ 6.00  
Milkers and springers... 40 @ 75

**Veal Calves.**

Receipts 410. Market steady to 25c lower.  
Best... \$11.00 @ 12.00  
Others... 9.25 @ 9.75

**Hogs.**

Receipts 736. Heavy grades slow; others steady.  
Mixed hogs and pigs... \$ 6.50 @ 11.00  
Roughs... 7.65  
Extreme heavies... 9.00 @ 10.25  
Stags... 5.00 @ 5.50

**Sheep and Lambs.**

Receipts 770. Market slow and 25c lower.  
Best spring lambs... \$12.00 @ 12.75  
Light to common... 6.00 @ 8.00  
Fair to good sheep... 5.50 @ 6.25  
Culls and common... 1.00 @ 2.50  
Fair lambs... 9.50 @ 11.00

**CHICAGO**

**Hogs.**

Estimated receipts today are 16,000; holdover 13,417. Best light weight are strong; others weak to 10c lower. Bulk of sales \$9.90 @ 10.70; tops at \$10.75; heavy 250 lbs up \$9.60 @ 10; medium 200 to 250 lbs \$9.90 @ 10.65; light 150 to 200 lbs \$10.65 @ 10.75; light lights 130 to 150 lbs at \$10.40 @ 10.65; heavy packing sows 250 lbs up at \$8 @ 8.45;

packing sows 200 lbs up \$7.25 @ 8; pigs 130 lbs down \$9.75 @ 10.50.

**Cattle.**

Estimated receipts today are 10,000. Market steady to strong. Beef steers medium and heavy weight 1100 lbs up \$10 @ 10.75; do medium and good \$8.15 @ 10; do common at \$6.65 @ 8.15; light weight 1100 lbs down \$9 @ 10.30; do common and medium \$6.50 @ 9; butcher cattle heifers \$5.25 @ 9; cows \$4.50 @ 8.25; bulls bologna and beef at \$4 @ 6.50; canners and cutters cows and heifers \$3 @ 4.15; do canner steers at \$3.75 @ 5.25; veal calves light and handyweight \$9.25 @ 10.50; feeder steers \$5.50 @ 7.65; stocker steers \$4.75 @ 7.65; stocker cows and heifers \$3.70 @ 5.75.

**Sheep and Lambs.**

Estimated receipts today are 11,000. Sheep are steady, lambs strong to 15c higher. Lambs 84 lbs down \$7.75 @ 12.85; do culls and common at \$7.75 @ 11.50; spring lambs \$8.50 @ 11; ewes \$8.25 @ 11.60; ewes cull and common \$2 @ 3.75; breeding ewes full mouths to yearlings \$5 @ 11.50; yearling wethers \$11.50 @ 12.50.

**BUFFALO**

**Cattle.**

Receipts 300. Market is active. Shipping steers \$8.50 @ 10.50; butchers \$7.50 @ 8.50; yearlings \$9 @ 9.75; heifers \$5.50 @ 8; cows \$2.50 @ 6; bulls at \$3.75 @ 5.75; stockers and feeders at \$5 @ 6; fresh cows and springers \$20 @ 110. Calves, receipts 750. Market is slow at \$4 @ 12.

**Hogs.**

Receipts 4,000. Market active. Heavy \$10.25 @ 10.50; mixed \$10.75 @ 11.50; yorkers at \$11.50 @ 11.75; pigs \$11.50 @ 11.75; roughs \$8 @ 8.25; stags \$4.50 @ 5.50.

**Sheep and Lambs.**

Receipts 1,200. The market is active. Lambs \$13.25 @ 13.75; yearlings \$7 @ 10; wethers \$7.50 @ 8.25; ewes \$2 @ 7; mixed sheep \$7 @ 7.50.

TRUCK CROPS IN MICHIGAN.

REPORTS from the field service of the United States Department of Agriculture supply the following information concerning truck crops in Michigan:

**Celery.**—The commercial celery acreage of Kalamazoo county is 1,040 acres, an increase of ninety acres over 1921, at Comstock and Portage. At these places the condition of the crop is ninety per cent of normal, at Kalamazoo, eighty per cent. From Kalamazoo, express shipments in less than carlots began July 5 and have been greater to July 12 than they were last year during the same period, with a daily average of about 1,600 crates of various sizes. It was expected that Comstock's daily express shipments of about 40 crates would grow to carlot shipments by July 14. From Portage, one refrigerator car of celery has been moving daily since July 5. The entire movement from this place may be 180 cars, or fifty-one cars more than last year. Transplantings of celery were being made at Decatur, Van Buren county, July 12, when the condition of the plants was above normal. The expected acreage was 343 acres, or twenty-five per cent above that of last

year. Carlot shipments will begin about October 10, and heavy shipments by October 20 to 25.

**Cantaloupes.**—The commercial cantaloupe acreage of Michigan is estimated at 1,055 acres, or 125 acres above 1921. Berrien county has 935 acres, a ten per cent increase; St. Joseph county, 120 acres, a fifteen per cent increase. The condition of the crop is ninety-five per cent of normal, and, with favorable weather conditions, the crop will move the last week in July and the peak of the movement will be reached about August 25. Hearts of Gold are fifty per cent of the crop, Osage forty per cent, and miscellaneous varieties ten per cent.

**Onions.**—At Decatur, Van Buren county, commercial onions cover 205 acres, a twelve per cent increase over 1921. Harvest may begin August 20, ten days to two weeks earlier than last year.

WISCONSIN POTATO GROWERS ALSO HAVE TOUR.

THE inspection of potato fields in the counties of northern Wisconsin will begin at Red Cedar Lake in Barron county on August 7, and end at Oconto city square on August 16. Field demonstrations, conferences, addresses and special outing programs of various kinds will characterize the tour.

THE SUGAR BEET CROP.

IT is estimated by federal crop reporters that there will be 5,132,000 tons of sugar beets produced in the United States this year for the production of sugar. The amount produced a year ago was 7,782,000 tons. The average for the five years from 1916 to 1920 inclusive, was 6,623,000 tons.

The total acreage for the country is 606,000 against 882,400 for 1921, and a five-year average of 826,700. It would appear, therefore, that the reduction in acreage has been more or less uniform throughout the various beet-growing states.

Michigan's acreage is placed at 106,400, as compared with 163,800 in 1921 and a five-year average for the above dates of 139,800. Michigan's acreage is exceeded only by that of Colorado.

The 1922 contracts provide, in most cases, for a minimum basic price of \$5.00 per ton in Colorado, Utah, Nebraska and Ohio, for \$5.50 per ton in Idaho and Michigan, for \$6.00 in Wisconsin, and for \$7.00 in California. These prices in most cases will be increased, providing the average selling price of sugar is more than a specified amount stated in the contract. The sugar content of the beets is also made a modifying factor in many of the agreements with producers. Only a comparatively few factories have contracted at other rates on sliding scales or at flat rates.

FILLED MILK BILL BEFORE THE SENATE.

ON August 1 the battle between the farmer-consumer public and the filled milk interests will begin anew before the senate committee. Experts galore are being produced by both sides. The data ought to be convincing. While the issue seems clear, there is every reason for those interested in the dairy business to be concerned, since such large and powerful financial interests are involved that nothing will be left undone to defeat the Voigt bill in the senate. Senators ought to be reminded from time to time of the attitude of farmers and consumers toward the great dairy industry of Michigan and the country.

Bodeaux on 56 Ohio farms gave an average of thirty bushels more to the acre. Not to spray is to take an almost certain loss from hopperburn and other troubles.

**Get Manufacturers' Prices Yourself**

**Pipeless Furnaces \$52.95 and up**

Why be without a good furnace when you can get the finest furnace that can be made—shipped direct to you from Kalamazoo manufacturers—at a wonderful money-saving price.

**Buy Now—Pay Oct. 1st**  
Send for Catalog  
Send and get our Oct. 1st payment offer on a Kalamazoo Pipeless Furnace. Easy to install. Cash or easy payments—money-back guarantee. Also get prices on new designs of stoves and ranges and other articles.

Ask for Catalog No. 909

**A Kalamazoo Direct to You**

Kalamazoo Stove Co. Manufacturers Kalamazoo, Michigan

**GOOD FARMING PAYS**

The WESTERN PULVERIZER, PACKER AND MULCHER, 3 machines in 1, saves labor, time and horse-power. It pulverizes and packs as deep as plowed, leaves a mulch on top to retain the moisture, and prevents baking, all in one operation. A perfect seed bed is the foundation for all crops and when prepared by a WESTERN, requires 1-3 less seed, and we GUARANTEE bigger and sweeter crops.

MADE IN 13 SIZES, 1 & 3 SECTIONS

THESE WHEELS ARE THE SECRET OF OUR SUCCESS.

Our FREE catalog describes our machine and its principle, shows the actual work it does in the field by pictures, proves results it produces by letters from many users; contains much other valuable information. "Worth its weight in gold." Send for it. Our low direct delivered price will surprise you.

WESTERN LAND ROLLER CO., Box 132, Hastings, Neb.

**For CUTS And WOUNDS**

Does Not Blister ON MAN OR BEAST.

**CORONA WOOL FAT COMPOUND**

8 oz. Tin, 50c  
28 oz. Tin, \$1.00

Sore Shoulders  
Barb Wire Cuts  
Cracked Hoofs  
Caked Udders  
Collar Boils

For sale at Drug Stores, Hardware and Shoeing Shops, or mailed by us. If you have never tried it send for FREE SAMPLE.

THE CORONA MFG. CO. Dept. 12 KENTON, OHIO

**MILK BOTTLE CAPS**

WILL FIT ALL STANDARD MILK BOTTLES. PARAFFINED AND PRINTED RED LINE DESIGN. BOX CONTAINS 1750 LIP CAPS OF 2000 WITHOUT LIP. PARCEL POST PREPAID.—ORDER A BOX NOW. A BOX THE AMERICAN MILK CAP CO. 5 NORTH WESTERN STATION, DETROIT, MICH.

**\$1.00**



Dependable  
**Champions**  
For Every Engine Everywhere

Save You Money



Type for Ford  
Champion X . . . now 60c  
Champion Regular now 75c

With no leakage of electrical current or compression, every drop of gasoline is utilized for power, and every drop of oil for lubrication

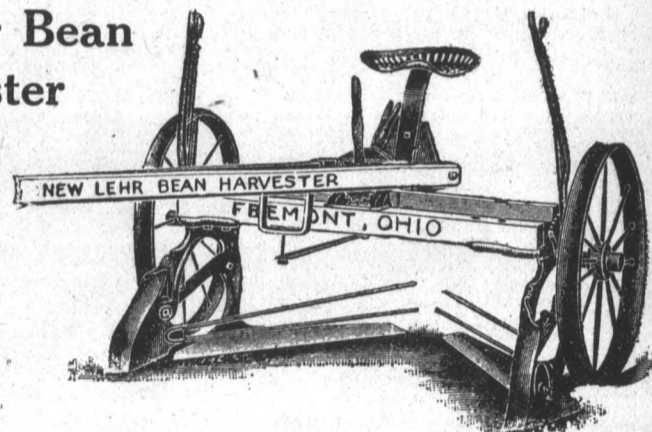
Ask your dealer to sell you a full set.

CHAMPION SPARK PLUG CO.

TOLEDO, OHIO

New Lehr Bean Harvester

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



Lehr Company, Fremont, Ohio

What's Wrong With That Lower "40"?

You didn't get the crop you expected. Couldn't be the manure—it had plenty. It's a hundred-to-one bet it needs agricultural

LIMESTONE

Perhaps the soil has become sour or all leached out. Most soil should be treated with limestone every four years at least. Resolve now to limestone your land. Let us send you booklet and our low prices.

Save \$10 to \$25 on Top Re-covers. Delivery Paid. Full Instructions Sent.

Chevrolet, Dodge or Maxwell; top, deck quarters and back with 7x14 beveled plate glass 34 oz. Long Grain goods, tacks, welts and fasteners. Roadster, \$10; Touring, \$14. Fords, 32 oz. Ford Rubber; Roadster will celluloid lights, \$5.20; Touring \$7. With 6x12 or two 5x8 beveled glasses, Roadster, \$7.20; Touring, \$9. Fords with gypsy style rear curtain, \$2 extra. Others \$3. Send half price and we will ship C.O.D. Give name of car, model and year to guarantee fit. For other cars ask for Bulletin T and samples. We pay war tax. SOUTHERN CEDAR PRODUCTS CO. 1221 Nicholas Bldg. Toledo, Ohio

Buy Your Fruit Trees At Once before you forget, and insure variety, prompt delivery and special low prices. Our handsome, vigorous peach trees, apples, cherries, berries, guaranteed healthy and true to name. Order now—pay next Spring. Our beautiful catalog of dependable trees free for the asking.

Celery City Nurseries, Box 76, Kalamazoo, Mich

For Sale at a Bargain, 28x48 Neww Reoaine Grain Thresher. Young Bros., R. 4, Niles, Mich.

FRUIT SHIPPERS FOR HIGHEST PRICES Quick Returns Consign to The E. L. Richmond Co., Detroit, Est. 1893.

WANTED Rosen Rye and Winter Vetch. Send samples and quote prices to THE A. C. HOYT CO., Fostoria, O.

Farms and Farm Lands

**\$800 Secures Farm, \$2350 Income**  
4 Horses, 8 Cows, 3 A. Potatoes,  
2 A. corn, acre vegetable garden, hay, poultry, hogs, tools, furniture included if taken now; 100 acres close RR town; city markets; rich loam tillage, 16-cow pasture; wood; timber to sell; good orchard; attractive 2-story 7-room house; spring water, cool porch, landscape views; 40-ft. barn, poultry house, etc.; insurance \$2300. Owner called away \$3000 takes all, only \$800 down. Details page 208 Big Catalog FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

**Must Be Sold** before October first. Owner going away, 200 acre, fully equipped dairy farm. Convenient to Detroit and Toledo, schools, colleges, and university over good roads. Farm divisible into two good homes and sets of buildings. Herd registered Holsteins, government accredited, producing Class A milk for local trade and Detroit hospitals. 80 acres seeded to alfalfa. Will sell either with or without stock and equipment on reasonable terms. Address Owner Lock Box 585, Ypsilanti, Mich.

**For Sale**—240 acres all cleared, fair house and good barn. This is a real farm for a real farmer that has plenty of help. Only one mile to R. R. Station, price 75 dollars an acre, good terms, price includes seventeen head of cattle, good team and extra horse, harness, new wagon, hay rack, mowing machine, hay loader, disc plow, cultivator, and all other tools on farm. This place was taken by us to satisfy a debt, and we will give a good man an extra good show. Address owners. The Citizen's State Bank, Clare, Mich.

**80 Acre Farm** all stumped, good buildings, running water, good well, all so all kinds of poultry buildings, terms, \$5,000. Owner BARTY GIBBS, R. 5, White Cloud, Mich.

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

If You Want To Sell or exchange farm or city property write, JEROME PROBST, Ann Arbor, Mich

**FARM** For Sale 160 acres 60 clear with good buildings, good well, small orchard and well fenced 1/4 miles from School, a real bargain. Address FRANK GLAWE, Oshtemo, Mich.

47 acre level loamy soil, 3 mile north and west of Mair. Fair big fruit, good water, garage \$3,500 terms or \$3000 cash. C. M. Heydlauff, E. 7, Ionia, Mich.

Mention The Michigan Farmer When Writing Advertisers

# EXTRA VALUE

for Every Penny You Spend at Sharoods

Extra Value for Every Penny! That's what you gain by buying from Sharood. And in this great cut-price sale now in progress, prices are even further slashed.

## Send No Money Now—Pay On Arrival

Not one cent now. A letter or postcard brings your purchase to you. Pay bargain price and postage on arrival. Examine it thoroughly, try on the garments, compare with others—show them to your friends. If you are not completely satisfied, we return your money cheerfully—instantly.

Mention Size and Color Wanted

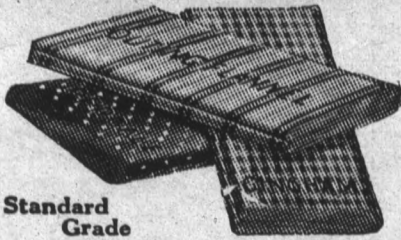


### Very Richly Embroidered Gabardine Dress

**\$3.49**

Sharood especially recommends this pretty model. A becoming style that is going to be very popular this Fall. Has wide flowing sleeves, two new fashion panels handsomely embroidered. Also embroidered at top of waist. Women's and misses: sizes 16 to 44. Order Brown No. 59E5519, Navy No. 59E5518. Send no money. Pay \$3.49 and postage. Money back if you're not satisfied. State size wanted.

### Save On WASH GOODS



#### Standard Grade 5 Yards Amoskeag 99c Gingham [32 in.]

An almost unheard of price for this famous gingham. Latest plaid, check and striped patterns in all desired colors, all fast and yarn-dyed. Order by No. 59F3414. Send no money. Pay 99c and postage on arrival.

#### 10 Yards Fancy Outing Flannel \$1.48

Ideal weight for nightgowns and underwear. In fancy stripes, checks and plaids, white grounds with pink, blue or tan designs. 27-in. width. State pattern and color. Order by No. 59F3423. Send no money. Pay \$1.48 and postage.

#### 10 Yards 36-inch Percale only \$1.49

Very choice patterns in fast colors. In white, grey, Calcutta and Indigo blue with neat stripes or dots. State color and pattern. Order by No. 59F3406. Send no money. Pay \$1.49 and postage on arrival.

#### 36 Inch Challis \$1.69 10 Yards

For house dresses, kimono, dressing gowns, comforter coverings, etc. Beautiful Persian and floral patterns. Standard quality and equal to any on the market. Predominating colors: Navy, Pink, Red, Tan, Green, and Blue grounds. State pattern and color. Order by No. 59F3404. Send no money. Pay \$1.69 and postage on arrival.

#### Soft Kid Slipper Black or Brown \$1.59



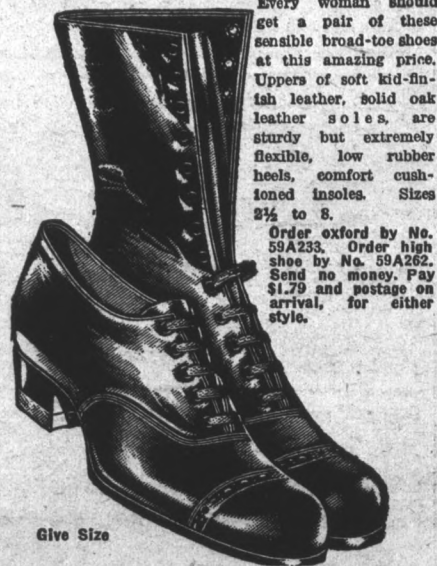
Soft kid leather slipper. Stylish strap model with two buttons. Medium round toe. Cushion insoles. Medium rubber heels. Solid leather soles. A bargain at our slashed prices. Sizes 2 1/2 to 8. Wide widths. Order black by No. 59A228. Order brown by No. 59A229. Send no money. Pay \$1.59 and postage on arrival. Always Mention Size.

#### This Stylish Oxford \$1.98



Women's black patent leather or brown oxford, with imitation shield tip and medallion, perforated vamp, imitation circular foxing and lace stay perforated. Medium rubber heel and medium narrow toe. Sizes 2 1/2 to 8. Order patent by No. 59A655. Send no money. Pay \$1.98 and postage on arrival.

#### Woman's Comfort Oxfords or High Cut \$1.79



Every woman should get a pair of these sensible broad-toe shoes at this amazing price. Uppers of soft kid-finish leather, solid oak leather soles, are sturdy but extremely flexible, low rubber heels, comfort cushioned insoles. Sizes 2 1/2 to 8. Order oxford by No. 59A233. Order high shoe by No. 59A262. Send no money. Pay \$1.79 and postage on arrival, for either style.

### Favorite Model Brown Leather Oxfords for Misses



Wing Tip Style

This is the last that every up-to-date young miss prefers. A classy wing tip oxford with medallion tip and perforations around vamp and heel foxings. Made of excellent soft brown leather with sturdy, genuine oak soles. Rubber heels. Wide widths. Order Child's sizes, 8 1/2 to 11 by No. 59A477, \$1.59. Order Misses' sizes 1 1/2 to 2, by No. 59A478, \$1.79. Order Big Girls' Sizes, 2 1/2 to 8, by No. 59A479, \$1.98. Send no money. Pay bargain price and postage on arrival.

### Popular Stitchdown Dark Brown Oxfords



Give Size

Classy stitchdown Oxford for women. Wonderfully comfortable and stylish. Uppers of dark mahogany leather. Smooth leather insole. Flexible stitched-down oak outsoles. Low rubber heels. Sizes 2 1/2 to 8. Wide widths. Order by No. 59A268. Send no money. Pay only \$1.98 and postage on arrival. Mention Size.

### Men's, Boys' and Little Boys' Gun Metal Blucher \$1.79 UP



State Size

Don't fail to take advantage of this splendid offer in a practical blucher. Sturdy dress shoe for men, boys and little fellows, of heavy, genuine gun metal veal uppers and solid leather soles. Low, broad heels. Be sure to get your order in at once. Big value. Order Men's Gun Metal Blucher, sizes 6 to 11, by No. 59A674. Pay \$1.99 and postage on arrival. Order same style for big boys, sizes 1 to 5 1/2, by No. 59A589. Pay \$1.89 and postage on arrival. Order same style for little boys, sizes 9 to 13 1/2, by No. 59A590. Pay \$1.79 and postage on arrival. Always mention size.

### Narrow Stripe Worsted Pants \$1.59



Nest narrow stripe pattern of Thorndyke cotton worsted. Celebrated for its durability. Ideal material for work trousers. Suspender buttons; belt loop; plain bottoms. Stoutly sewed waistband. Sizes, waist 30 to 42; inseam 30 to 34.

Order by No. 59B2575. Pay only \$1.59 and postage on arrival. Give your waist and inseam sizes.

### Blue Serge Pants Bargains

This price is so amazingly low that there will surely be a flood of orders for this number. Fine blue cotton whip cord serge of splendid weight material that assures good service. Made with 2 hip, 2 side and 1 watch pocket. Plain bottom. Strongly sewed waistband. Belt loops and inside suspender buttons. 30 to 42 waist; 30 to 34 inches inseam. Order by No. 59B2578. Send no money. Pay \$1.98 and postage on arrival. Mention necessary sizes. Order men's trousers of genuine all wool serge in same range of sizes by No. 59B2545. Send no money. Pay \$3.48 and postage on arrival. State size.

### Beautiful Cleo Sandal \$1.98



Give Size

Patent Leather or Brown calf-finished Leather. An unusually good-looking sandal with one front strap, fancy metal button and tassel. Imitation shield tip and medallion. Sizes 2 1/2 to 8. Wide widths. Order patent leather by No. 59A296. Order brown by No. 59A295. Send no money. Pay \$1.98 and postage on arrival. Money back if not satisfied.

### Women's Oxfords Unbelievably Low Priced \$1.98



\$1.98

Women's oxfords in Gun metal or brown leather. Made with imitation shield tip and medallion perforated vamp, perforated lace stay and circular foxing. Has medium rubber heel and medium pointed toe. Sizes 2 1/2 to 8, wide widths. Order gunmetal by No. 59A69. Order brown by No. 59A70. Send no money. Pay \$1.98 and postage on arrival. State Size.

### A Bargain for Men and Boys! Durable Outing Bal \$1.98

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



Be Sure to Give Size.

Order by No. 59A733. Send no money. Pay \$1.98 and postage on arrival. Order little boys, sizes 9 to 13 1/2 by No. 59A565. Price \$1.79. Order big boys' sizes 1 to 6 by No. 59A564. Price \$1.89. Pay bargain price and postage on arrival.

### Men's Hip Boots Bargains \$2.79



\$2.79

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

Order by No. 59A949. Send no money. Pay \$2.79 and postage on arrival for either style. State size.



### Brand New Standard Tires Guaranteed 6,000 Miles

#### 30x3 Size Now only \$6.48

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

#### BARGAIN PRICE LIST

No. 59D40—30x3	\$ 6.48
No. 59D41—30x3 1/2	7.89
No. 59D42—32x3 1/2	10.98
No. 59D43—31x4	11.29
No. 59D44—32x4	12.79
No. 59D45—33x4	12.98
No. 59D46—34x4	13.98
GUARANTEED INNER TUBES	
No. 59D20—30x3	\$ 1.09
No. 59D21—30x3 1/2	1.29
No. 59D22—32x3 1/2	1.39
No. 59D23—31x4	1.79
No. 59D24—32x4	1.79
No. 59D25—33x4	1.79
No. 59D26—34x4	1.79

Be Sure to Mention Sizes, Colors, Etc., and Send All Orders From This Page Direct to **SHAROOD'S CO.,** Dept. MINNEAPOLIS, 59 MINNESOTA