

# MICHIGAN FARMER

AND LIVE STOCK JOURNAL  
PUBLISHED WEEKLY  
ESTABLISHED 1843.

VOL. CLVI. No. 25  
Whole Number 4153

DETROIT, MICH., SATURDAY, JUNE 18, 1921

ONE YEAR \$1.00  
FIVE YEARS \$3.00

## The Michigan Experiment Station

By Robert S. Shaw, Director

THE Michigan Agricultural Experiment Station is one of a group comprising the seven leading parts into which the agricultural college is organized. The other six units are the divisions of agriculture, engineering, home economics, science and letters, veterinary science and agricultural extension. Many of these divisions are subdivided into groups representing special lines of training in technical and scientific work. The military and physical training departments serve all divisions of the institution.

The establishment of agricultural experiment stations in connection with the land grant colleges in the United States, resulted from the enactment of federal legislation known as the Hatch Act passed in 1887. The purpose of these experiment stations is described in Section 2, of the act as follows, viz.: "That it shall be the object and duty of said experiment stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under the varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test the comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs

of the respective states and territories."

In 1906 the Hatch Act was supplemented by the Adams Act for the further endowment of agricultural experiment stations. The provisions of this latter act required that the funds accruing "be applied only to paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States."

Financial support for the Michigan Agricultural Experiment Station: The Hatch Act of 1887 appropriated immediately and for each successive year indefinitely the sum of \$15,000. The Adams Act appropriated for

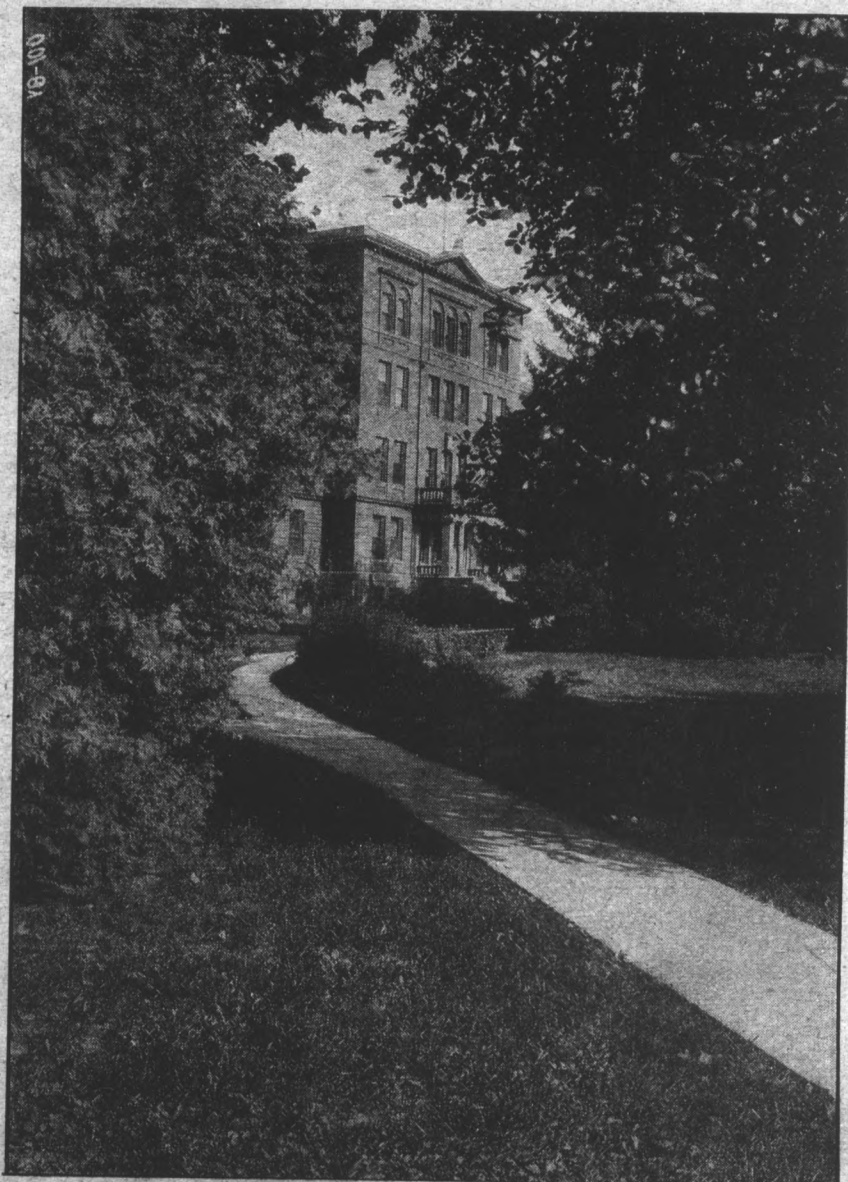
the year 1906 the sum of \$5,000, "and an annual increase to the amount of such appropriation thereafter for five years by an additional sum of two thousand dollars over the preceding year."

Since 1911 the two sources of revenue netted the station \$30,000 annually. Prior to 1908 supplementary appropriations from state sources were practically negligible, except for a few special items of buildings and receipts from sales, together with fees. Appropriations from state sources have continued to increase steadily in the form of apportionments made by the State Board of Agriculture until the sum for the year ending

June 30, 1920, amounted to \$139,700.73, which together with the Hatch and Adams funds made a total of \$169,700.73 for that year. The financial support of the station, particularly during the earlier years, was very meagre indeed, considering the work to be done, and especially in comparison with other states. The above sum is a small item when compared with the two billion dollar agricultural valuation of the state which it is supposed to support, stimulate and protect.

No other state in the whole country has a greater number of more varied and complex problems relating to agriculture awaiting solution. Some of the factors contributing to an unparalleled variety in production of both animal and plant life are disclosed in studies of the geographical location; environmental conditions—virtually two peninsulas almost surrounded by water, some of which is contributed by warm southern streams, some from ice cold sources, with influences resulting from a commingling of the two. Then there are greatly varied soil conditions existing under as greatly varied environmental influences. If the needs of the agricultural interests are to be met adequately, generous amounts of funds, together with a large staff of properly trained scientific investigations must

(Continued on page 740).







Published Weekly Established 1843 Copyright 1921

**The Lawrence Publishing Co.**  
Editors and Proprietors  
1632 Lafayette Boulevard Detroit, Michigan  
TELEPHONE CHERRY 8384

NEW YORK OFFICE-95 Madison Ave.  
CHICAGO OFFICE-111 W. Washington St.  
CLEVELAND OFFICE-1011-1013 Oregon Ave., N. E.  
PHILADELPHIA OFFICE-261-263 South Third St.

M. J. LAWRENCE President  
PAUL LAWRENCE Vice-President  
J. E. CUNNINGHAM Treasurer  
F. H. NANCE Secretary

I. R. WATERBURY Associate Editors  
BURT WERMUTH  
ALTA LAWSON LITTELL  
FRANK A. WILKEN

I. R. WATERBURY Business Manager

**TERMS OF SUBSCRIPTION**  
One Year, 52 issues \$1.00  
Two Years, 104 issues \$1.50  
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 \$1.65 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 CLVI. NUMBER TWENTY-FIVE

DETROIT, JUNE 18, 1921

## CURRENT COMMENT

## Covering Farmers' Risks

**C**OVERING a reasonable portion of human risks has become a big business in the development of our modern civilization. The sum of human experience has taught us that the various risks some, if not all, of which everyone of us must unavoidably encounter in our personal and business life, impose too great a handicap upon us to make it profitable for us to undertake to carry them alone. The gradual recognition of this fact regarding the different classes of risks with which we are normally confronted gave birth to the idea of insurance, through which our risk could be reduced to the terms of the law of averages, plus the cost of pooling individual risks under and in accordance with that law. And its more general recognition has resulted in the rapid development of the insurance business in an ever widening field, until almost every conceivable human risk can be at least partially covered by insurance.

The first and most universally accepted application of this principle is the matter of fire insurance. This is most natural for the reason that fire loss is a very prevalent, visible and serious danger. It is the first risk of which all of us think in connection with the term insurance, and the risk which is most universally covered by property owners of all classes. The property owner who does not carry some insurance as a partial coverage of this risk is a rare exception. The amount carried is generally in proportion to the property owner's estimate of the hazard or risk to which he is subject, although in many cases farmers particularly have not increased their coverage in proportion to the increased value or replacement cost of the property covered to the same extent as have the majority of business men engaged in other lines of business and often carry heavier obligations. This is a mistake which many farmers have occasion to regret every year. It is a most natural mistake for the reason that farm fire insurance policies are generally written for a longer term than is the case with the average of other fire risks. Also farm risks are more isolated and the farmer's attention is less likely to be directed to the risk which he is carrying than is the case with the man whose property is located in nearer proximity to other similar risks and whose attention is likely to be more often directed to the

likelihood of fire losses and to the business advisability of keeping his risk well covered. But the farmer's risk is proportionately greater because of his lack of fire protection and the greater likelihood of his suffering a total loss of the insured property, and for this reason it is the part of business wisdom for him to give this question most careful attention, since the cost of adequate protection is nominal as compared with the benefit derived in case of loss and the feeling of security which adequate protection affords.

Unfortunately, too, we believe, farmers as a class have not given the attention to covering other classes of risks with insurance which has been given this subject by other business men. This is not due to superior intelligence or judgment on the part of the other classes of business men, but rather to the fact that they have been more readily accessible to insurance salesmen, who have impressed them with the desirability of coverage on their risks of various natures. In other words, we buy fire insurance because we recognize it as an almost indispensable item of business safety, but most other forms of insurance have to be sold to us on the basis of a business investment which we have not recognized as indispensable.

Life insurance, for example, is not generally looked upon by the average man as in the same class with fire insurance from a business standpoint, yet in a large percentage of cases it is quite as important from a business standpoint, to farmers as well as to other business men. The same may be said of health and accident insurance, of windstorm insurance, of hail and crop insurance, of employers' liability insurance, of live stock insurance, of automobile insurance.

Practically all of these classes of insurance are available on the basis of a straight pooling of risks in mutual companies, or by the assumption of the risk at a fixed fee based upon insurance experience, or by variations or combinations of these two plans. And all of this business is made the subject of governmental regulation in the interest of the insured to the practical exclusion of any possible loss of the protection purchased or contracted for. It has been well said that next to education, insurance has been the greatest stabilizing factor in modern civilization. Every farmer is a sufficiently keen student of economics to sense the fact that adequate coverage of his unavoidable risks would be good business on his part if he would pause to give the matter his serious and thoughtful consideration. There is, of course, a practical limit to the application of this idea to the farm business, but we believe it to be a wholly safe assertion that that limit has been reached in comparatively few cases.

## State Income Tax

**T**HE opponents of the state income tax, in other words, the corporate influences of the state, succeeded in having the proposition of the submission of a constitutional amendment which would make possible the enactment of such a law killed in the state senate during the special session of the legislature. The members who were instrumental to this end have, of course, prepared a new alibi, just as they did during the regular session, to pacify the farmers of the state who were so generally and solidly aligned for this proposition. They are not opposed to the principle of a state income tax! Of course not! But it would greatly simplify matters if some arrangement could be made whereby government and state income tax could be collected at once and the proceeds divided between the federal government and the state.

More buncombe, of course, and of a

low order which will not "get over" with any farmer constituency. Nor will it prevent the submission of this proposed amendment, which will undoubtedly be initiated by petition before the next general election. The best that can be said of the men who successfully opposed the submission of this proposed amendment to the people by legislative action is that they kept faith with the corporations which, we are advised by the press, accepted the emergency corporation tax without protest on the understanding that the income tax proposal would be dropped.

Regardless of whether or not they are personally in favor of such a proposal, there is small justification for the action of any coterie of legislators in refusing to submit to a vote of the people a proposition for the removal of constitutional restriction against the passage of any law which is favored by a substantial element of the people of the state as was the case in this instance. Having taken this action, there is still less justification for cheap attempts to camouflage it.

## MICHIGAN FARMERS' AUTOMOBILE TOUR ASSOCIATION REUNION.

The following program has been arranged for the Michigan Farmers' Automobile Tour Reunion at the Michigan Agricultural College, June 22-23, 1921. J. H. Brown, Battle Creek, is general manager; E. E. Ball, Albion, president of the Tour Association, and Mrs. Dora H. Stockman, vice-president and chairman of the program committee.

## Wednesday, June 22.

10:00 A. M.—Making camp on the Campus; drive in at picnic grounds; headquarters at Senior House.  
11:30 A. M.—Dinner.  
2:00 P. M.—Address of welcome, by President Frank S. Kedzie. "The Farmer's Viewpoint," Dean R. S. Shaw. "The Industrial Depression, and the Outlook," Prof. David Friday.  
4:00 P. M.—Business session of the Tour Association in gymnasium, President Ball presiding. Report of secretary-treasurer J. H. Brown. New and unfinished business. New members' registration. Arrangements for the tour in August.  
4:00 to 6:00 P. M.—Sports, in charge of C. L. Brewer, director of athletics at M. A. C., and Rex Forrester, State Grange Recreation Manager. Baseball, teams from Clinton, Jackson, Eaton and Lenawee. Quoit pitching; swimming in pool at gymnasium; community games.  
6:00 to 7:00 P. M.—Seeing M. A. C. at the barns. In charge of F. M. Stockman, Professor Reed, of the dairy department, Professor Brown, of the animal husbandry department, and Professor Burgess, of the poultry department.  
7:00 to 7:30 P. M.—Campfire in Sleepy Hollow on parade ground; program of movies, music, pageants, community singing; illustrated lecture on consolidated rural schools, by Lee Driver; agricultural films; music.

## Thursday, June 23.

6:00 A. M.—Breakfast in and around the cars in the Tour Association Camp.  
6:45 to 8:00.—Seeing M. A. C. Farm, Leader F. M. Stockman, with Dean Shaw, Professor Cox, Professor Elliott and Professor Halligan.  
8:00 A. M.—Program. "The Country Church," by Dr. McCune, People's Church, Lansing, and Dr. Diehl, First Methodist Church, Albion.  
9:00 to 10:30 A. M.—Cooperation in agriculture. Hale Tennant, chairman. Discussion, by President Nicol, State Farm Bureau; Master A. B. Cook, of Michigan State Grange; President Alfred Allen, State Farmers' Club Association; chief of the Gleaners; George B. Horton, State Grange Contract Agent; President N. P. Hull, of State Milk Producers' Association.  
10:30 to 12:00 A. M.—"The Family on the Farm." Mrs. Edith Wagar, Director State Farm Bureau; Mrs. I. R. Johnson, State Association of Farmers' Clubs secretary; Miss Jennie Buell, Secretary of Michigan State Grange; Boys' and Girls' Club Work, by State Club Leaders; Women's Home Demonstration Agents, Mrs. Louise Campbell, State Leader. Visiting exhibits in women's building.  
12:00 M.—Dinner.  
1:30 P. M.—R. E. D. Flag Ceremony. President L. G. Blackman, of Michigan Rural Letter Carriers, and Lansing and Ingham Rural Carriers will take

part. Lansing city officials and band will also take part in this portion of the program.

2:30 P. M.—"A Woman's Task," by Dean Mary E. Sweeny, M. A. C.

3:15 P. M.—"Health on the Farm," by Dr. Ward Giltner.

4:00 to 6:00 P. M.—"Farm Machinery, Farm Conveniences," by Professor Musselman and assistants.

6:00 to 7:00 P. M.—Supper in the Tour Association Camp.

7:30 to 9:00 P. M.—Recreation night. Everyone should follow the program.

Don't scatter. Dairy products will be for sale at the dairy building. Tour Association members take notice of this.

Ingham County Pomona Grange Reception Committee C. F. Hart, Ray Corwin, Daisy Sturgis, Pearl Terrill and James Hulett.

## News of the Week

Wednesday, June 8.

**A** SMALL party of extremists who attempted to interrupt King George and Queen Mary's visit to the trade union at Plaostow was hooted down and expelled from the hall.—Lincoln, Nebraska, citizens ask government action to prevent the Dempsey-Carpentier fight, in petition to Secretary of State Hughes.—Jackson Anna-Hootz, traditional chief of Alaska natives, took totem pole from his back yard, declaring he would no longer follow the odd customs of his forefathers, but would in the future be a plain American citizen.—Four days' flow of hot water from a volcano causes destruction of many houses in Victoria, Salvador.

Thursday, June 9.

**A**LL able-bodied citizens of Pueblo, Colo., were ordered by military officials to clean up debris resulting from recent flood.—Great Britain defeated the United States in international professional golf at Glenn Eagles, Scotland.—The allied packers petition United States District Court for privilege to reduce wages of nearly one hundred thousand employees.—Wine growers and merchants of Portugal have millions of litres of expensive wines on hand for which there is no market.—Mexican president issues a decree that petroleum companies operating in Mexico must pay an increase of twenty-five per cent in export taxes on their products beginning July 1.—The Ford Motor Company will not close their plants at Detroit this summer at harvest time, as has been the policy in the past to help the farmers, as there is plenty of farm labor.

Friday, June 10.

**O**VER five hundred Detroit business men, members of Board of Commerce, make annual cruise of great lakes on Steamer Noronic.—Secretary of Agriculture Wallace opposes bill to restrict grain exchanges, stating that the present system is the best method for making prices yet discovered.—There has been a general strike called in Christiana, Norway.—The Underwood Typewriter Company makes fifteen per cent reduction of wages of four thousand employees.—Senate orders immediate investigation by senate naval committee of Admiral Sims' speech in London.—President Obregon of Mexico, insists that the United States recognize Mexico before the beginning of treaty negotiations.

Saturday, June 11.

**A**MERICAN Railway Association announces an increased demand for coal and box cars, resulting from general business improvement.—Twenty-five mills of the International Paper Company remain idle as result of the paper makers' strike.—Attorney-General Daugherty orders unconditional release of nineteen I. W. W. prisoners in Leavenworth federal penitentiary.—Secretary Hoover puts plan before conference of farmers and financiers to liquidate grain credits by using warehouse receipts as negotiable securities with national guarantees behind them.—California fruit growers plan to ship large portions of their fruits and vegetables through the Panama Canal to Atlantic ports.—Secretary of the Brooklyn Laundry Association says that the laundry industry is not feeling the effects of the business depression.

Sunday, June 12.

**S**ECRETARY of the Navy Denby revokes Admiral Sims' leave of absence in England and orders him home immediately.—Ten carloads of clothing and shoes contributed by the people of Michigan on "Bundle Day" leaves Michigan Central freight yards in Detroit to relieve Armenian sufferers.—The federal trade commission, in re-

(Continued on page 756).



# How the Wise Settler Proceeds

*Methods Followed by the Most Successful Settlers.*

By D. L. McMillan,

*Supt. Chatham Experiment Station*

**T**HE many problems which arise in connection with development work in northern Michigan logically come under two heads and must be considered separately. First, there is the individual or company that buys a large tract of land and has money or credit for development work. Second, one finds the individual of small means who desires a home.

The main object of the first is to make a profit on money invested, with possibly a home as secondary consideration. The latter wants a home first with accumulation of money or its equivalent second.

We will first consider the individual or company that plans to develop a large farm. He usually has capital and considerable credit. He knows something about credit systems and business management, and the volume of his business will warrant the expenditure of considerable money for equipment and trained assistants. As this is primarily a live stock country, he undoubtedly will plan on operating a sheep, beef or dairy business. If he is wise he will hire a successful farmer who is operating under similar conditions to assist him in making the initial plans. Two heads are better than one. Together they decide on the approximate amount and quality of land desired, consider such factors as distance from good markets, remoteness from shipping points, etc. Then, they are ready to pick out a location. This should be no hasty job. This upper peninsula is a big territory and it has not yet been picked over and few men know the best locations. If he wants sand loam or clay soils with plenty of lime that will grow legumes as long as he lives, he can have it, or any other type he desires.

Look well to the timber the soil produced. An elm is rather particular about its feeding ground and also desires good company. The pines on the rich clay soils did not have to go deep to find food to grow big, while those on the light soil penetrated deep into the sub-soil and are hungry yet.

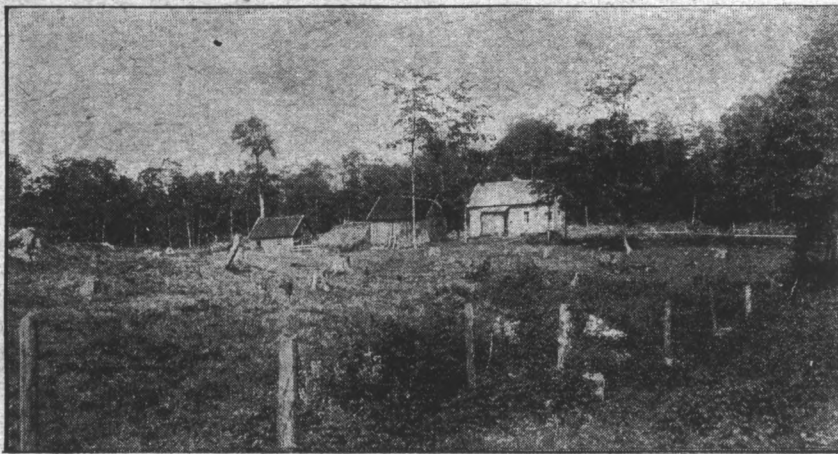
#### The Plans.

After purchasing the land, he makes a blueprint of it, showing as closely as possible the topography, general location, etc., and then he is ready to make plans for operations. A site for the buildings is located where there is good air and water drainage and the most suitable for operating the farm, as well as having good access to the main road. An estimate of the carry-

ing capacity of his pasture land in units of stock for the grazing season, and an estimate of the amount of feed his land to be cleared will produce, and the number of live stock this feed will winter, will give him a basis in calculating the size of barn that will ultimately be needed when his farm is completed.

The location of all buildings necessary should be drawn to scale and a

dynamite on nearly all large operations. The dynamite not only splits the stump up so that it is easily handled, but removes the greater part of the dirt, while the puller merely pulls the stump out. The amount of dynamite to use economically depends on the type and moisture content of the soil, the price of hand labor, and the price of powder. This can easily be estimated after operations have start-



Making a Home in Upper Michigan.

plat made after a careful study as to convenience, then plans for each building made so that they can be erected in sections, and additions to be made only so rapidly as the increase of business make it compulsory. This eliminates excess overhead.

#### Clearing the Land.

After the first buildings are erected, the big problem is land clearing. For convenience, we will consider land from which mixed timber had been cut six to ten years previous. Some stumps are rotten and others have green sprouts holding their roots green, and there is some green brush. His first operation is to cut and pile the brush, pull the scattered logs together, pull all stumps that a team can handle and pile on top of the log heaps, or any shape to get them together so they will burn. Pick up all small stuff, and at a favorable time burn the piles. Where the stumps are thick and the tops not too rotten, a power stump puller will work to good advantage, after using dynamite to split the large stump. There is a place for both the power stump puller and

ed. A home-made piler of the swinging boom type will be found very convenient for piling the stumps. Get all the labor-saving attachments that go with it as they are very convenient.

Use a low wagon with a flat rack to go over the field to hand-pick the small chunks, pile them on the stump piles, then burn. If the land has many cradle knolls, plow and scrape them down into the holes.

In plowing for the first time, use a strong breaking plow and heavy, steady teams, as many of the hidden roots can be plowed out. After plowing, pick up the chunks and roots that have been plowed out, harrow the land thoroughly with a spring-tooth and disk harrow, then seed. The big work is over.

#### Preparing for Live Stock.

When he balances his books, if this is his first land clearing operation, he probably finds that it has cost him from twenty-five to thirty-three and one-third per cent more than the original prospectus called for, and that it has taken fifty per cent more time. Now he wants to know what to sow.

His county agent can give him that information and can also tell him where good quality of seed can be purchased.

When he is assured of a good supply of winter feed, he is ready to buy live stock, and if he uses good judgment he will not buy more than he has feed to winter, unless he can purchase more nearby, as long freight hauls are something to be considered. If he is in the beef cattle or sheep business, he should also keep a few dairy cows, a brood sow or two and raise at least one cash crop. With capital enough for the size of his business, and by using good judgment in expending it, his chances are very good for making a success.

#### The Problems of Settlers with Limited Capital.

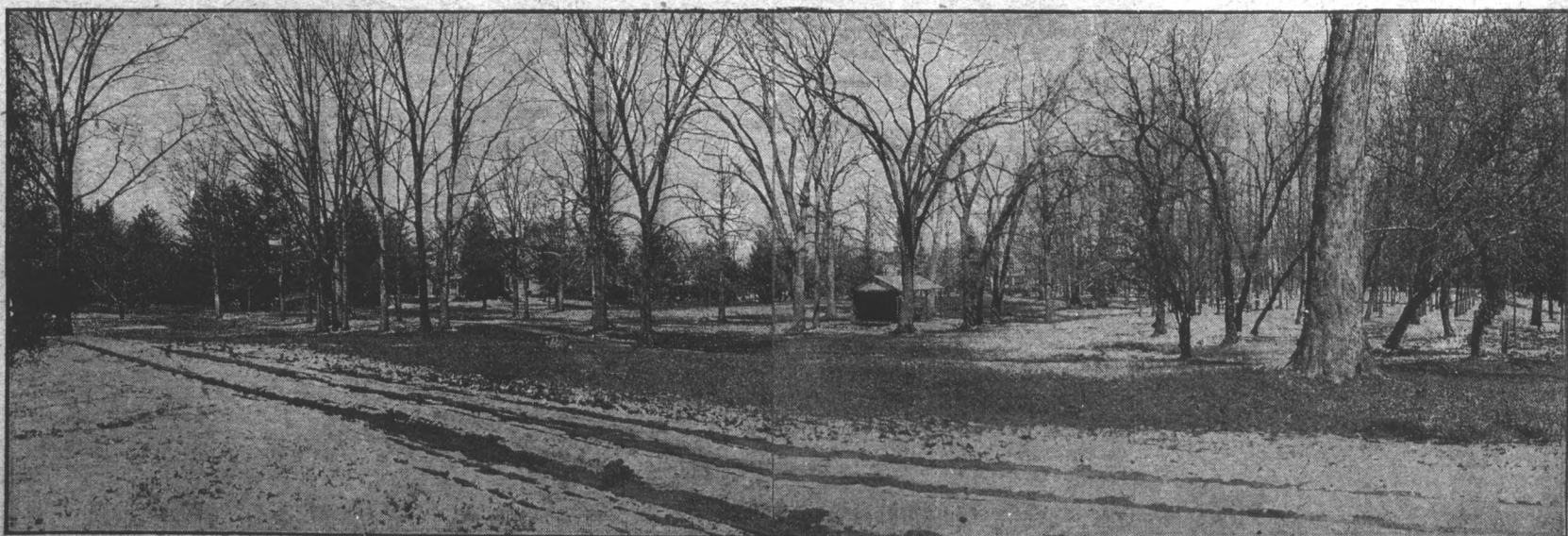
The settlers with small means are a very cosmopolitan people. They represent many nationalities and almost every phase of industrial life. Some are well educated and well trained in business methods, while others vary all the way to the other extreme.

The problems that come up in trying to assist the new settler are very numerous. Many new settlers are laborers in the mining or lumbering industry of the upper peninsula. After saving a little money they buy a forty or eighty in the locality in which they work, build a little house and move their families on to it, and when work is slack they clear land on their own place. They keep a small flock of chickens, a few cows, and a pig or two, and keep adding to the number of live stock as fast as their land will provide winter feed. In a few years they have sufficient cleared land and live stock so that it will pay them to spend their entire summers on the farm and work during the winter with their teams for wages. In a short time they are full-fledged farmers with sufficient work of their own to last the year around. Where their families are able and willing to stand the home life under these circumstances it is the quickest and surest way of winning success.

The other class usually come from outside this territory with a direct purpose of buying land. They are generally influenced in making this move by reading advertisements, seeing exhibits at fairs, talking with exhibitors or to land salesmen.

Just a few words of caution at this time may do some good, though I realize that free advice is seldom taken

## Where the Michigan Farmer Campers will Drive Stakes



This picture, taken on April 16 following an unseasonable fall of snow, shows the grounds on the M. A. C. Campus where the Michigan Farmers' Automobile Touring Association members will camp with their automobiles on June 22-23. A splendid program has been arranged for the occasion. This, together with the conference of leaders and others interested in country life work, should make the trip to the college worth while to all.



seriously. Get all the information you can from reliable sources before visiting the territory you are especially interested in. Write the agricultural agents, experiment stations, the dean of agriculture at East Lansing, and the development bureau at Marquette. They will be glad to give you all the information they can. Do not be too hasty about buying the first good land you see unless you are reasonably sure it is what you want. The best quality of land that is reasonably easy to clear is always the cheapest in the end. Do not pay too much attention to the "knockers." You will find them in any territory, whether good or bad. Do not try to develop a cutover farm unless you have money enough to make your first payment and to keep your family up for two years, as you should not expect much from the farm before the third year. Some get along with less, but it is uphill work.

#### The Successful Settler.

Now, we will consider the one type of settler—the one that is most sure to make a success. Be he from the town or country makes but little difference, except that the town man has more to learn. He is not afraid of hard work, loves live stock and open air work, and greatly desires a home of his own. He necessarily must have a wife of similar qualifications.

After picking his land and the wife O. K.'s his choice, they are ready to make permanent plans for development. They have but little money, consequently must be careful. They cannot afford expensive buildings,

neither can they afford to put up temporary shacks that would have to be torn down in two or three years. They should plan their little farm as they hope to see it ten years hence, also their buildings with their locations. Too much emphasis cannot be laid on this point.

#### Equipment Required.

A team and farm machinery will not be needed the first year, consequently a barn need not be built. A brush scythe, axe, spade, cant-hook, crosscut saw, hoe and a few carpenter tools will be necessary. With plans made for a complete house, only the kitchen and possibly the dining-room and bedroom need be built, and with this part the hardwood floors, siding and paint can be postponed until the farm will pay for it. Heavy building paper for the outside will do nicely for a few years and the expense is much less. One convenience is very desirable from the start and that is a pump and drain in the kitchen, thus eliminating the carrying of water in and out of the house. Few people realize the energy wasted in carrying water each year in the house. Physical energy is the new settler's greatest asset.

A chicken coop is the next thing to build, and possibly a place to keep a pig and a cow. Then they are ready for land clearing. A place for a permanent garden should be the first work, and if the season is not too far advanced, potatoes and a few hardy vegetables could be planted.

At odd times, a little shrubbery and a few trees taken from the woods near-

by could be planted about the house. With a plan in mind for the first field, start cutting the brush, throwing it in piles around stumps or logs, pick up and pile all chunks that can be handled, leaving the logs and stumps until the following year when they will have a horse. Occasionally it will be necessary to hire a team, but the feed and care of a team for a year would cost too much for the work they have the first year. They will find that the first summer has been very profitably spent in building, cutting brush, piling and burning and keeping up a garden and that their expense has been comparatively light.

#### Don't Tie Up Money Unnecessarily.

Too many new settlers are only too anxious to tie up their money in buildings, farm machinery and live stock before the necessity for them shows up, and do not consider depreciation, interest on money invested and feed bills until it is too late. The first winter can be spent cutting wood, posts and a few sawlogs if there are any on the newly purchased land. The wood, other than enough for domestic use, can be sold, the posts used during the following year, and the logs made into lumber for the new barn.

If good progress has been made during the first year, then they are ready to purchase and use to good advantage a team and some equipment, such as a plow, spring-tooth harrow, a single cultivator, and a wagon. A small barn can be built and two or three cows added to the live stock inventory. Every effort should be made to get

enough land into crops of oats, peas and a few rutabagas to furnish feed for the stock during the following winter. Potatoes will probably be found to be the best cash crop on the loam soils.

#### Should Have a Farm by the Third Year.

If they keep constantly working at the land clearing during the second year, they will be in a position to classify as farmers during the third year. We will leave them here because if they have used good judgment and perseverance up to this time their future is assured.

#### Credit Needed.

One of the greatest obstacles to agricultural development is the present credit system. It has been developed to meet industrial conditions where the turnover of business is two or more times a year. The six months' credit is a curse to the new settler and should be used as little as possible.

Too much credit is also a handicap as it is easy to figure how a sum of money will make good interest and a profit, but if carried too far it is hard when the notes come due. This is not theory, as I write from personal experience that is still fresh in my mind.

Agricultural development is not the only kind that will progress in this upper peninsula. Each settler will want to buy groceries, feed, shoes, clothing, etc. There will be need for many more stores, banks, schools, churches, and for every line of professional work that the old farming sections now enjoy.

## OUR SERVICE DEPARTMENT

### ASSESSMENT FOR DRAINS.

A drain is being dug with dead ends one-half mile from my land, which receives no benefit thereby, but my land has been assessed \$42 for the drain. What can I do about it?—Subscriber.

By Compiled Laws (1915) Section 4906, the county drain commissioner is authorized to apportion the assessments and benefits on parcels of land benefited by a ditch, and his determination thereon, unless appealed from, is final and conclusive, and not open to collateral attack. That the land you own is or is not benefited by the drain is a question of fact and the legislature has seen fit to delegate decision of that fact to the county drain commissioner.

By Section 4907, Compiled Laws of Michigan (1915), provision is made for appeal to the probate court of the county by anyone who may conceive himself aggrieved by the assessment made by the county drain commissioner. This appeal must be taken within ten days after the review of the assessment. As the time for appeal in your case has long since passed, as we understand your letter, we see no recourse for you but to pay the taxes.

J. R. R.

### STOVER SILAGE EXPERIMENTS.

As to the experiment with stover silage I would like to have you give some information as to just how you handled the stover silage; if it was shocked and how long it stood in the shock. Or did you let it lay on the ground like some of the rest of us, until you had time to fill. Also, what time of year did you fill? I have 250 acres of land and two silos and would like to know just how to handle it to the best advantage. Was this corn in the best of condition. I was at the M. A. C. October 29 or 30 and if my memory serves me right you were filling and the fodder was all bleached out so I would consider it as almost worthless.

J. W. J.

The corn crop which was made into stover silage in the fall of 1920 was

at no time allowed to lay on ground. Owing to a shortage of help and the fact that we were expecting a silo filler and husker combined, to arrive at most any time, the corn was not cut until the machine arrived and we were ready to fill. This was October 28, when the corn was cut and hauled to the silo immediately. We had not had a frost at this time. The corn had dried out. Owing to the fact that this field was protected by a windbreak of pine trees not many of the leaves had blown off. At the time of filling, an abundance of water was added so that at the time when the silage was fed out the stover silage contained a slightly greater amount of water than the normal silage.

The figures which were given out were not meant to be absolutely conclusive, but rather were given as the result of one year's work. It is our plan to repeat this experiment on three successive winters. This year we aim to shock the corn and place it in the silo just as soon as we feel that the ears will keep in the crib. Rest assured, however, that stover silage will have just as fair a trial as we can possibly give it and the experiment will be repeated not less than three times.—G. A. Brown, Professor of Animal Husbandry, M. A. C.

### POTATOES FOR MILK COWS.

We are shipping milk and milking eight cows. We have a lot of little potatoes and want to cut them up and feed them to the cows twice a day, but I have heard that potatoes will dry them up. Is that correct, and is it a good plan to feed potatoes to a cow about a week or so before calving? Have a Holstein that is seven years old that came in December 12 and she has not come in heat. What is good to feed her to make her come in heat?—Oakland Co.

N. H. C.

There is nothing in the idea that potatoes will dry up milk cows. Raw potatoes are not a very concentrated food, and if you would feed an exces-

sive amount of potatoes and cut down on hay and grain, perhaps your cow would shrink in milk, because you would not be feeding her a full ration, but if in addition to the hay and grain you are feeding now you feed say one-half bushel of potatoes night and morning, I would expect to get an increase in the flow of milk.

With regard to the cow that came in last December not breeding. I think this is a case for your local veterinarian. I don't believe unless one had a chance to make a careful examination of the case that one would be warranted in prescribing.—C. C. L.

### UTILIZING MARL.

I would like some information about marl, its value compared with lime when it tests eighty-five per cent. When is the best time to use it? What tools are best to get it with?—J. L. K.

Marl, eighty-five per cent, is worth, in the dried state, eighty-five per cent of that of limestone. From a practical point of view, two yards of this material is worth as much as a ton of limestone.

Many methods of application are being practiced in the state, the most practical method I have found, was spreading with a manure spreader. With a little manipulation the speed of the apron and depth of the marl in the manure spreader can be gauged to put on the amount desired.

I have read your letter with interest. Every marl situation has its own factors. For example, I know of four locations in Michigan where marl hills are found. Obviously that is a different question from handling the stuff under water. But there are several ideas that are generally applicable. The problem is essentially the same as handling clay under the same circumstances. The type of dredging machinery for taking out clay would be similar to that of taking out marl.

The solution of the marl question is largely bound up in the matter of

community effort. Any individual or group of men can hire a dredge company to take the stuff out at less than twenty-five cents a yard, if farmers will promise to buy the marl. Getting the volume of business, that is, signing up the proper number of yards, is not at all a difficult matter where farmers realize how important lime is to their business. There is every reason to believe that an arrangement could be made with the dredge companies who are doing drainage work in all parts of Michigan to take out marl. Many of these large drains cross marl beds. It would be a simple matter to throw out a certain number of yards which farmers have previously agreed to take, instead of digging a narrow ditch across the marl bed. It merely means getting the drain commissioner, the farmer owning the marl, and the farmers together, and marl would be furnished for no more than thirty-five cents a yard to many farmers in the vicinity of the drain.—E. L.

### POSSIBLY TOO MUCH SALT.

I feed my cow cornstalks, alfalfa hay and a little March hay, and twice a day about four quarts of bran, which I soak up in warm water, and put in a small handful of table salt. The cow has acted a couple of times like she was sick. She doesn't chew her cud, and she cuts her milk yield. This lasts a couple of days and then she is all right again. Please tell me if the feed is right.

E. A. N.

The foods you mention are all good foods and ought not to make a cow sick. I am inclined to think that it would pay you to feed ground corn meal or ground oats with the bran as a ration, as bran is pretty light food when used alone for grain. You say you give the cow one handful of salt each day. An animal ought not to have over two ounces of salt and can get along with less. Possibly you are giving the cow more salt than you should. A tablespoon of salt is about right.—C. C. L.



SEEK IMPROVEMENT IN WAREHOUSING GRAIN.

AFTER preliminary conferences with representatives of farm and grain handling groups, Secretaries Hoover and Wallace issued an invitation for a more extensive conference to be held in Washington on June 13, to consider the following plan for improvement in warehousing grain. Somewhat similar plans are in operation now in a few states.

Representatives of various farm organizations, elevators and grain dealers, insurance companies and other associations interested, have been invited to attend.

The proposal is to provide a method by which the farmer can be given unlimited storage facilities for his grain and receive a warehouse certificate in such form and under such conditions that it would pass as an order for delivery of the grain. It would thus greatly increase his borrowing power and would relieve him of the pressure of selling his grain except at his own option. It would enable him to haul his grain at the time of the greatest farm economy without being compelled to sell at that time. It would extend his credit area far beyond his local bank. It would place him in the same position as to credit as is the grain dealer.

If the plan can be made practicable, the farmer will have a prime collateral which will open to him a much wider circle of credit than that of his own local bank. Through the sale of his certificate he would be able to place his grain on the market at any time he wished under no compulsion by seasonal or financial reasons to accept a market price at variance with his own opinion.

THE CONDENSED MILK MARKET.

THERE is little life to the condensed milk market. If anything, there is less activity at the present time than for the last several months. The situation is again becoming serious as unsold stocks are increasing very rapidly. That, of course, is due to the increased flow of milk and to the fact that a high percentage of the factories throughout the country are operating to practically full capacity. More serious, however, is the decrease in unfilled orders. That decrease during the month of May was fully twenty-five per cent.

Domestic consumption of condensed milk seems to have decreased materially of late and there are practically no foreign price inquiries and orders from abroad are absolutely lacking. There were rumors during the past week that there would be a large order placed for spray process powdered milk by a Central Europe organization but as yet nothing has developed to confirm those rumors.

It usually follows with the coming of spring that large orders are placed for bulk quantities of both condensed and evaporated milk. Those orders have been far below expectations this spring. The coolness of the season has served undoubtedly to curtail the consumption of ice cream, in which a high percentage of condensed or evaporated milk is incorporated. It is expected that demand for bulk goods will be greatly stimulated with the coming of hot weather.

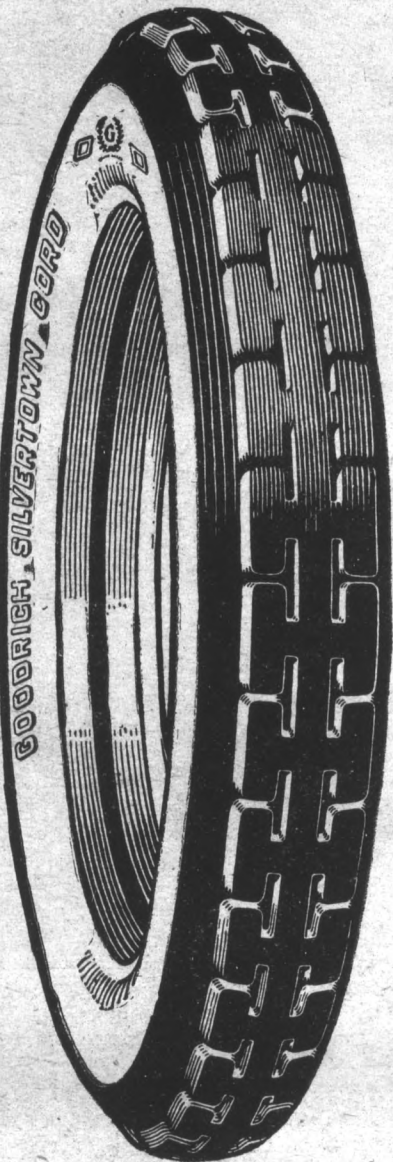
There is a tendency for values of all grades and classes of condensed and evaporated milk to decline. However, there has been no actual fall in prices of advertised brands. As a whole, manufacturers are disappointed because of the inactivity in the condensed milk market and do not view the situation with any degree of optimism.



# Goodrich Tire Prices reduced 20 per cent

The last word in Quality  
The best word in Price

## Silvertown CORDS



Anti-Skid Safety Tread  
SILVERTOWN

SILVERTOWN CORDS		
SIZE	Anti-Skid Safety Tread	TUBES
30x3½	\$24.50	\$2.55
32x3½	\$32.90	\$2.90
32x4	\$41.85	\$3.55
33x4	\$43.10	\$3.70
32x4½	\$47.30	\$4.50
33x4½	\$48.40	\$4.65
34x4½	\$49.65	\$4.75
33x5	\$58.90	\$5.55
35x5	\$61.90	\$5.80

### Fabric Tires

Smooth	30x3	\$12.00	Safety	32x4	\$26.90
Safety	30x3	\$13.45	Safety	33x4	\$28.30
Safety	30x3½	\$16.00	Safety	33x4½	\$37.15

THE B.F. GOODRICH RUBBER COMPANY  
Akron, OHIO

## 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, Minneapolis, Oakland, Kansas City



**Cut Cost  
Ditch, Terrace**

Grade roads, build dykes, levees with the *Martin* Farm Ditcher and Grader.

Works in any soil. Makes V-shaped ditch or cleans ditches up to four feet deep. Horses or tractor. Get my great labor and cost saving story. **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.,** 118 West 31st Street, New York

### LIGHTNING RODS

Exclusive agency and quick sales to Live Dealers selling "DIDDLE-BLITZEN RODS". Our copper tests 99.96% PURE. Write for agency. Prices are right. **L. D. DIDDLE CO.,** Marshfield, Wis.

## U. S. Army Muson n Shoe

Guaranteed 6 months. Made of leather. Chrome Solid Oak Broad Soles. Double Thick Soles. Dirt and Water Proof. Belows Tongue. Sizes 6½ to 12.

**\$4.45 Guarantee**

You must be entirely satisfied or we will refund your money.



Pay Postman Send no money. Just send your name, address and size. Your shoes will be sent by return mail. (Pay Postman \$4.45 and postage on arrival.)

**Civilian Army & Navy Shoe Company** Dept. 238, 461-8th Avenue, New York



**SAVE ONE MAN**

**Fordson Owners:** Operate your tractor from seat of binder or any implement with Repking One-Man-Attachment. 10 days' trial. Free particulars on request. **Repking Mfg. Co.,** Danville, Illinois.

**Agents** Mason sold 18 Sprayers and Autowashers one Saturday. Profits \$3.00 each. Square Deal. Particulars free. **RUSLER COMPANY,** Johnstown, O.



# ACTIVITIES OF FARM BUREAUS

*Latest News From Local, State and National Organizations*

## STATE FAIR EXHIBITS.

SECRETARY C. L. BRODY, of the State Farm Bureau, in charge of the agricultural building of the State Fair at Detroit, announces that this year half the building will be devoted to an exhibit of farm crops by counties. Two thousand dollars in prizes will be offered. Only the first eighteen counties to enter will receive space as there will not be room to accommodate more. There will also be a special farm crops show for individual entries where \$1,000 will be distributed in prizes.

## FARMERS APPRECIATE PROMPT GRADING.

PROMPT grading of wool on delivery has paid the grower, says the wool department. Last year the wool came into central warehouses all summer and had to be graded during the fall and winter. This year the wool comes to the grader in the best possible condition, not after it has lain in a bag for some time and has lost some of its brightness. The difference has been reflected in better returns to the farmer and he is for prompt grading.

Pooling, grading and selling will be going on simultaneously in a few weeks, according to the department plans. Under the present system of pooling when the last pound of wool has been pooled the last pound will have been graded. At that time every grower will have received his fifty per cent cash advance and the disposal of the pool will be well under way through the channels of farm bureau

manufacturing and sale of wool as blankets, yarn and suitings and the sale of raw wool to mills. Present indications are that quick, systematic work will feature the disposal of the 1921 pool, according to the farm bureau.

Grading dates as announced for the week of June 20 are as follows:

Monday.—Martin, Grindstone City, Nashville, Chelsea and Ida.

Tuesday.—Caledonia, Deckerville, Middleville, Dexter and Owosso.

Wednesday.—Grand Rapids, Crosswell, Hastings, Bridgewater and Owosso.

Thursday.—Grand Rapids, Marlette, Delton, Manchester and Vernon.

Friday.—Coopersville, Avoca, Albion, Saline and Vernon.

Saturday.—Greenville, Memphis, Marshall, Howell and Vernon.

## NORTHERN ALFALFA SEED FOR MICHIGAN FARMERS.

FIRST-CLASS northern-grown pedigreed Grimm and Cossack alfalfa seed for Michigan farmers is the mission that has taken J. W. Nicolson, manager of the State Farm Bureau Seed Department, on a three weeks' tour of the great northwest registered alfalfa seed growing country. Mr. Nicolson is lining up the growers of Utah, Montana, Idaho and Colorado in the interests of Michigan agriculture. Last year the State Farm Bureau performed a great service for the farmers of the state in increasing the registered Grimm acreage of the state by more than five hundred per cent. This year it expects to increase that figure.

Michigan may always have to import most of her alfalfa seed, says Mr. Nicolson. The state has so much rainfall that growing alfalfa for seed is a very uncertain proposition. On the other hand, conditions here are declared ideal for alfalfa as a hay crop. In the northwest where irrigation makes moisture control possible, the growers have that dry weather which is so essential for the production of a high-class seed crop. That territory produces the best seed for Michigan purposes and the farm bureau plans to insure a steady supply of the best for Michigan planting.

The demand for certified beans has been exceedingly active despite the cry that Michigan farmers were going to quit growing beans because of the present price depression.

## ELEVATOR EXCHANGE TO INCREASE SALES.

BEGINNING July 1, under the direction of a trio of specialists, the elevator exchange of the State Farm Bureau expects to increase its daily sales to thirty cars of grain, hay and beans, according to L. E. Osmer, manager of the exchange. Two new salesmen have joined the exchange since it has expanded and moved into new quarters at farm bureau headquarters in Lansing. They are C. S. Benton, formerly of Detroit, a specialist on beans, and Don Soule, of Sandusky, Michigan, a hay salesman of long experience, who took charge of the exchange's hay department June 15.

Michigan farmers belonging to the exchange took advantage of the recent

upturn in the wheat market to unload their stocks. For more than a week the exchange disposed of 200,000 bushels of grain daily. Another surprise developed in the bean market during the week of June 6. After the bean market had dropped to \$3.40, farmers with one accord stopped selling beans. The market reacted promptly and came back around \$3.70, with but few beans being offered.

## TRAFFIC DEPARTMENT ASSISTS STRAWBERRY GROWERS.

STRAWBERRY growers in the western part of the state were given much-needed assistance in marketing their crop this year by the farm bureau traffic department. At a time when the crop was ready to move, the growers found that they could not get express cars. The efforts of individuals failed to meet the situation and the aid of the farm bureau was enlisted, says the report of the traffic office. Hastening to the express company headquarters in Chicago the farm bureau traffic commissioner and an official of the Michigan Fruit Growers' Exchange succeeded in inducing the carrier to place twenty cars at principal strawberry shipping points in time to move the crop.

Traffic Bulletin No. 2, prepared by the traffic office of the farm bureau, has been distributed to county agents and cooperative association for the service of Michigan farmer shippers. The bulletin answers questions that perplex the shipper and tells him how to protect himself financially on his shipments.

# LATE AGRICULTURAL NEWS

## ENORMOUS TONNAGE IS HAULED

ELEVEN principal crops of the United States afforded 86,500,000 tons for hauling on country roads in the yearly average of 1915 to 1919, or twenty-seven tons per one hundred acres harvested. The difference between high and low costs of hauling due to the poor or good condition of roads reaches a large figure in the hauling of this great tonnage, or a large fraction thereof.

## THEY DESIRE HOMES.

THE majority of settlers who are finding their way into our undeveloped territory have come largely with the desire that they may establish homes where they can raise their families and live from the fruits of the labor of their own hands and brains. Many a leader who is anxious to assist in working out problems confronting these newcomers, does not have the viewpoint of the home-loving settler and is therefore apt to think that their conditions are much worse than they really are.

## CHINCH-BUG OUTBREAK PROB-

THE chinch-bug, which is likely to be serious this year, is best controlled by forming a barrier around the wheat fields at harvest time to stop the migrating hordes from entering nearby corn fields. About one binder width should be plowed around the wheat field with the land-side toward the corn so as to form a sharp wall up which the chinch-bug cannot climb. It may be necessary to dig a

few holes in the furrow bottom to act as traps. As the insects fill the holes, kerosene may be used to kill them.

## TEST PLOTS SHOW VALUE OF LIME.

FARMERS in southwestern Michigan will have opportunity to observe the effect of lime on catches and growth of leguminous crops in the rolling, sandy soil of that section when the large demonstration plots near Cassopolis are inspected on Saturday, June 25.

These plots, the largest established by the M. A. C. soils department, were planted by G. M. Grantham, extension specialist. They were treated with lime, commercial fertilizer and green manure and sowed to rye, sweet clover and red clover. Experiments have been made with the fineness of the division of lime, the effect of the different rates of lime applications and the time of application.

Among the college specialists who will be present at the field meeting are Prof. M. M. McCool, C. E. Millar, C. W. Simpson and Mr. Grantham. Farmers from Cass, Berrien, Van Buren, Kalamazoo, St. Joseph and other counties are expected to attend.—H.

## POULTRY CULLING PAYS IN ST. CLAIR COUNTY.

A SAVING of \$1,725 for poultry owners of St. Clair county as a result of culling work carried on in the county is reported by the M. A. C. Poultry Department. The culling was done by Miss Clara Waldron, the county home demonstration agent. Out of 2,136

fowls looked over, 690 were culled as non-producers.

## THE MICHIGAN EXPERIMENT STATION.

(Continued from first page).

be maintained. Up to 1908 not more than eighteen individuals were engaged in agricultural investigational work and many of these giving but a portion of their time. The number of investigations has continued to increase to about sixty-five, including both full and part-time workers. During this period the building and laboratory facilities have been greatly increased.

The eleven departments of the agricultural division all participate in agricultural investigation work in addition to their educational and other duties. In addition to this several departments of other divisions are included. At the present time over one hundred and fifty officially recorded projects are under way.

State-owned lands now under the direction of the experiment station comprise 1,895 acres distributed as follows, viz.: At the Michigan Agricultural College, 1,020 acres; Upper Peninsula Station at Chatham, 760 acres; Graham Horticultural Station at Grand Rapids, 100 acres, and the South Haven Sub-station, fifteen acres. It is the intention in succeeding articles to discuss in detail the work and functions of the various units where agricultural investigations are being carried on.

During the war period it became extremely difficult to maintain the work and some of it had to be suspended. No less than forty young men connected with the experiment station and

agricultural division of the college left to participate in some form of war service. With but one or two exceptions all returned to the former positions held open for them by the State Board of Agriculture. It has required much time and effort in the reorganization work.

Though American agricultural experiment stations as such were not organized until 1887, this date does not stand for the beginning of agricultural experimental work, for in Michigan much was accomplished by the college between its opening in 1857 and the enactment of the Hatch Act in 1887. These results are included in the reports of the State Board of Agriculture; we are planning to review the work of this period.

The publications of the experiment station are issued free of charge under government postal frank to all who care to receive them. They are classified into seven distinct groups for general or special issue and into ten groups according to subject matter. An individual may have his name listed for one or more groups or for all of them. There are now about 45,000 names on the mailing list. A station quarterly is issued four times a year, furnishing practical, timely information.

Experimental work, pertaining to agriculture, is basic to both agricultural education and extension. It is also the source of much of the information upon which agricultural writings are based. It should therefore receive the support, encouragement and direction that will make it the real, substantial and useful foundation of agricultural knowledge and attainment.



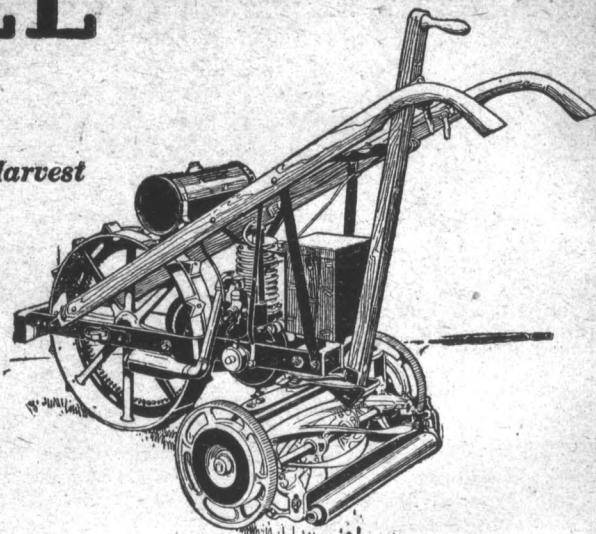
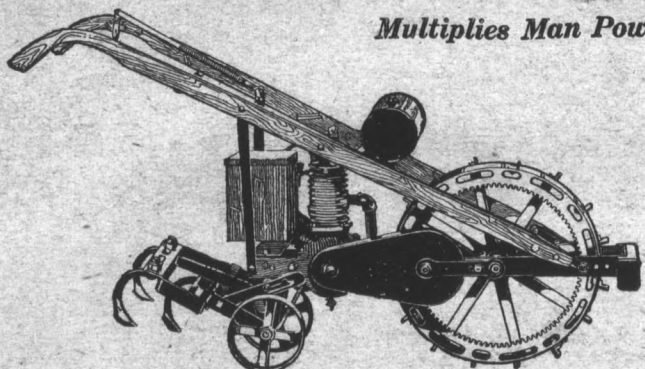
# SPRYWHEEL

## The \$150 Tractor

F. O. B. Boston, Mass., Crating Extra

*Multiplies Man Power by Five from Seedtime to Harvest*

*One Gallon  
One Day's Fuel*



## Don't Overlook Sprywheel

*It practically eliminates the biggest item of cost in truck farming—hand hoeing*

**Y**OU can't tell what prices your crops will bring. But you can figure the cost of those same crops in fertilizer, seed, capital and labor invested. And labor—hand labor—is the great big item that is so often partly overlooked in fixing costs. Almost the only way to lower your crop cost is to reduce the labor cost or in some way increase the yield per plant and per acre.

Sprywheel makes both of these things possible.

### *How Sprywheel increases the yield per acre*

Sprywheel makes both practical and economical the continuous and late-season cultivation which agricultural colleges and farm experiment stations have definitely proved yields crop increases far in excess of the cost of the additional labor—even when hand hoes and wheel hoes are used. Using Sprywheel this cost is reduced to a fifth of the cost of doing the work by hand.

Sprywheel also permits planting rows so close together that plants have just enough room to attain full maturity—an important advantage on high-priced, heavily fertilized land.

Besides, Sprywheel insures uniform and timely cultivation—turns and mixes the soil more evenly and thoroughly than is possible by hand or wheel hoes, keeps the top soil loose, conserves moisture and keeps down weeds. Cultivates rows right up to maturity, long after the height and spread of the plants makes multiple row cultivation impractical.

For these reasons Sprywheel cultivation means extra bushels per acre—added profits.

### *How Sprywheel cuts crop costs and increases profits per bushel*

Sprywheel substitutes machine power for muscle power. It enables one man to do more and, better cultivat-

ing than five men with hand or wheel hoes.

Up and down the rows of lettuce, onions, cabbages, tomatoes, seedling trees or small fruits, tobacco, corn or cotton, Sprywheel goes. At from 1½ to 4 miles an hour, it weeds, mulches, hoes or hills—works all day long on one gallon of gasoline.

Fifteen miles of row is not an exceptional day's work for Sprywheel. When the rows are close together and the plants small, the row mileage cultivated can be largely increased by the use of a two or three-row attachment.

By cutting down your time and labor cost per bushel, Sprywheel cultivation increases your profits per bushel.

### *A labor saver for market gardeners, nurserymen and home gardeners*

Sprywheel has power and traction enough to pull sets of weeding rakes, cultivating teeth, hoes, right and left hilling shovels or a small plow for running seeding furrows. It practically eliminates hand-hoeing.

Hundreds of half-acre home gardeners, horticulturists, nurserymen and market gardeners have found Sprywheel the greatest labor-saving and money-making investment they ever made. You should own one or more. Uses the same tools as your wheel hoe.

### *In five minutes a power lawn mower*

By loosening two bolts, the cultivator tool assembly is dropped. Substitute the Sprywheel Lawn Mower Attachment. Fasten in place with the same two bolts, and you have a power lawn mower—remarkably sturdy, simple, efficient, and easily guided. Especially suited to country estates, country clubs, parks and cemeteries.

### *Sprywheel's improved fuel economizer*

One of the many engineering improvements which Sprywheel embodies is the Sprywheel Slow Speed Plug. It applies a new principle of carburetion—gives greater power at slower speed with a real saving in gasoline consumption. With the slow speed plug you get maximum horse power at 1½ to 2½ miles per hour. Remove the plug and you get the same horse power at 2½ to 4 miles an hour—two speeds and no gears. It's a great invention.

### *Leading implement dealers demonstrate and sell Sprywheel*

Authorized Sprywheel dealers are experienced and responsible. They will be glad to send you a full and detailed description of what Sprywheel is and what it will do. They will demonstrate Sprywheel for you. All Sprywheel dealers maintain a stock of parts, tools and attachments—are equipped to render prompt service to every Sprywheel owner in their territories. Please address your inquiry to the nearest Sprywheel dealer. If you don't know who he is, write us and we will see that you are taken care of.

There is still a little open territory. It will stay open till we find live dealers. If you are the man we should tie up with, write or wire.

## SPRYWHEEL DIVISION

H. C. Dodge, Inc.

Dept. M.

280 Madison Avenue, New York City





# Lowe Brothers



## Which Brings Most at Auction?

Which would you all buy right now. A wagon with the paint all off, or one that has been kept painted? Would you pay all those dollars more for it, just because it *looks* better? Or because it *is* better?

Because it *is*, of course! It is better, because old-weather pieces-weather can't get his finger at it. If you'd pay more for a painted wagon, seeder, cultivator or plow,

then why don't you paint all yours up?

You may not want to sell them, but it will keep you a lot longer from having to buy new ones. We make a special paint just for the purpose. It's so good, it's used on the best of trucks and tractors. So that's why we started calling it, Truck and Tractor Paint. Next time you are in town trading, just ask about it.

**The Lowe Brothers Company**

499 EAST THIRD STREET, DAYTON, OHIO  
 Boston New York Jersey City Chicago Atlanta Memphis  
 Kansas City Minneapolis Toronto  
 Factories: Dayton Toronto

# Paints

## Tastes Fine, and Better for Health POSTUM CEREAL

is a pure, wholesome cereal beverage, containing nothing harmful to nerves or digestion.

It should be boiled at least twenty minutes. Then Postum Cereal will reveal a true coffee-like richness of color and flavor.

**"There's a Reason"**  
 Sold by grocers everywhere.

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



Mention The Michigan Farmer When Writing to Advertisers

## News From Cloverland

By L. A. Chase

### OTTER LAKE AGRICULTURAL SCHOOL.

A RECENT account report of conditions at the Otter Lake Agricultural School, Houghton county, which is the parent school of the new consolidated rural school system of Michigan—states that six acres of grain have been put in this spring, while an additional tract of land is being cleared of stumps by blasting for the reception of its first crop. With the addition of several new families in this section, the principal expects a crowded enrollment of the school next term, with probably two hundred pupils in attendance. It is planned to add a ninth grade and another teacher next year. Houghton county has taken over the Otter Lake road leading south sixteen miles from Houghton into this district of the county, and work on it began the week of May 23. This, it is expected, will result in the opening of several lateral highways from the main road, resulting, in turn, in further opening up the country. The principal of this school expresses his pleasure at the passage of the new law permitting school districts to erect teacherages for the housing of teachers, since, without such provision, he hardly would expect to return to this school next year. This merely illustrates how the housing problem for rural school teachers, in some sections of the state, is of vital importance.

### MINERS TURNING FARMERS.

I SAW Agricultural Agent L. M. Geismar, in Houghton on June 4. Mr. Geismar was very optimistic regarding agricultural conditions in Houghton county. He has reason for being so. Mining is flat there now, but agriculture is very promising. Miners out of work are getting back to the land. Indeed, it is quite common in the upper peninsula to find farmers who once were miners. Mr. Geismar instanced the case of two men who had formerly worked as partners underground, one of whom had later left mining for farming in the same county. He recently sold his farm for ten thousand dollars, and this was not the extent of his accumulation of property. His partner is out of work and with little money saved against this, his rainy day. Some of these farmers have farms now worth forty thousand dollars, the agent states. The fact is, as I know from personal observation, Houghton county has little land that is not good for agriculture. Much of it was once hardwood land with a deep, strong soil. Since climatic conditions are also favorable, Mr. Geismar is right in declaring that, if southern Michigan farms are worth \$200 per acre, these north Michigan lands are also entitled to a high price per acre. I found two men in the agent's office in quest of farms in the Otter Lake district, where, however, much, or quite all, of the land from which the timber has been removed, is already taken up, Mr. Geismar reports.

### TNT FOR LAND CLEARING.

AT the request of the Upper Peninsula Development Bureau, W. Frank James, member congress from this district, has made inquiries of the Bureau of Public Road of the United States Department of Agriculture, with reference to the available supply of TNT for farm use. Mr. James states that at present the bureau is out of this explosive but expects a supply in three or four months. It is expected, too, that Mr. Livingston, recently en-

gaged as land-clearing expert for this district by the Michigan Agricultural College, will take hold of his work in this field soon after July 1. Other information indicates that it will be very hard to pry any more TNT from the war department.

### PARKS FOR CLOVERLAND.

MR. BURT WICKHAM, secretary of the Michigan State Park Commission, has given assurances to the Upper Peninsula Development Bureau that the subject of state parks in the upper peninsula will be brought to the attention of the new conservation commission, now in charge of state parks, at their meeting to be held about the middle of June. So far, the upper peninsula has fared badly in regard to the location of state parks, although it has many of the most eligible sites in Michigan, and it is anxious to have positive action in the near future.

### DESTRUCTION OF WOLVES AND COYOTES.

IN laying out the work for the destruction of wolves and coyotes in upper Michigan, Mr. J. S. Ligon, of the United States Bureau of the Biological Survey, has been operating recently in the region between Bergland and Kenton on the line of the Duluth, South Shore & Atlantic Railroad, and to either side of the line, including the Porcupine Mountain area. The student hunters furnished by the state conservation department are on the ground and getting their instruction. Already, Mr. Ligon reports to the development bureau, these hunters have taken numbers of young coyotes and some bobcats, but in this instruction period it is not expected that many animals will be taken. Mr. Ligon is leaving the peninsula for a time, but will return, it is expected, in the late summer, when a new camp of instruction will be established near Marquette. Mr. Ligon expresses high appreciation of the hearty cooperation which he has received in Michigan, and expects to build up a fine organization for this very essential work.

### CLUB ACTIVITIES IN CLOVERLAND.

IRONWOOD, Erwin and Bessemer townships have each engaged club leaders recently. It is planned to broaden the scope of club work in Gogebic county to include potato and live stock work. It is stated that not less than one thousand boys and girls have been enrolled in the county's garden clubs in every season since this work was started during the war. It is now thought that potato clubs also have great promise of success, and it is suggested that a potato marketing association might well be established to assist the boys and girls in disposing of their output. Unlike some other upper peninsula counties, Gogebic does not supply its own potato requirements.

Mr. Gunderson reports that Club-leader K. P. Silberg, the county agent, and three teachers of Erwin township, hearty supporters of club work, held a very interesting and successful meeting with some sixty-five boys and girls in the Central Erwin School on May 9. Potato and live stock club work was fully discussed. It was agreed unanimously that projects along these lines should be undertaken in addition to their regular club work. Thus book-learning in agriculture, acquired in school, will be given a practical demonstration.



## SCOPE OF THE DAIRY INDUSTRY.

THE dairy cow is the basis of one of the most important manufacturing industries in the country. A preliminary statement of the 1920 census of manufactures shows that there are 3,737 butter factories, 3,370 cheese factories, and 410 condensed milk factories, a total of 7,677 factories engaged in the manufacture of dairy products. The value of the annual output of these dairy plants is given as follows: Butter, \$583,216,000; cheese, \$143,708,000; condensed milk, \$339,570,000, a total of \$1,065,794,000.

In comparison with butter the oleomargarine industry is insignificant, the census showing thirty-nine factories with a total production of \$69,903,000. Without some sort of protection from oleomargarine, however, when it is sold colored in imitation of butter, the compound product would affect the price of real butter very disastrously, working great injury to the dairy industry.

## VALUE OF MILK IN THE DIET IS SHOWN WITH RAT EXHIBIT.

A STRIKING exhibition of the value of milk in the diet has been prepared by the Dairy Division of the United States Department of Agriculture for use in educational milk campaigns. The exhibit consists of two stuffed and mounted rats, one a large-boned healthy specimen, the other an undersized weakling with skin clinging to its poorly developed bones.

The illustration compares an adequate diet containing all the food essentials with an inadequate, poorly chosen diet, lacking some of the food essentials. The large, well-developed healthy rat had its cereal diet supplemented with milk, and the advantage accruing is shown by the well-developed tissues, muscles, and bones, the smooth hair, the bright eyes, and the healthy color of the living rat. The protein of milk is capable of building muscular tissue. The mineral of the milk, especially lime, builds strong bones, and the food accessories (vitamines) of the milk insure growth and health.

The small rat was deprived of milk and other adequate sources of these necessary food constituents; hence the weak, gelatinous bones, thin muscles, lack of growth, and constant loss in weight and size. Both rats had wheat biscuits, but only one had milk with the biscuits.

These rats were chosen from two cages, each containing six rats. On March 24 each group weighed 485 grams. All rats were young and the same age. On May 4 both groups were again weighed. The six rats receiving milk had gained 542.5 grams. The others showed a loss of 17.1 grams each, or 102.7 grams for the lot of six.

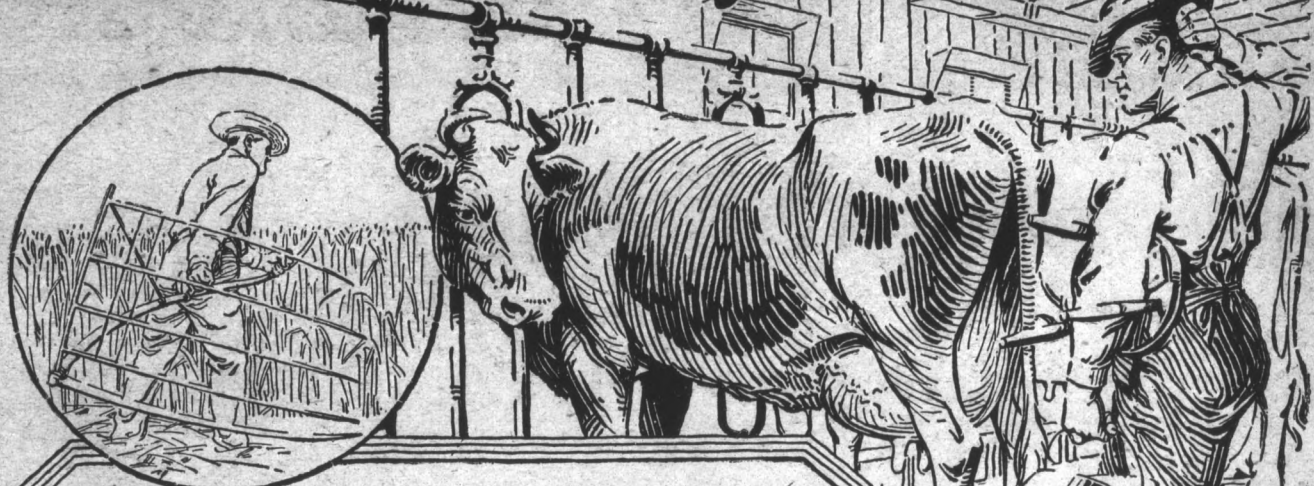
This is not considered a scientific experiment, but a simple exhibit to show the effects of an inadequate diet, as proved by experimental research.

## HURON COUNTY FARM NEWS.

FRANK KINCH, member of the executive committee of the Huron County Farm Bureau, has contracted to grow forty acres of sugar beets this year, and Andrew McGeachy will put in twenty acres.

A pig club was organized Tuesday night, May 3, at Grindstone City. Any boy and girl between ten and eighteen years of age, who can attend the meetings at the city school the last Tuesday of each month, is eligible for membership. The contest opened June 1 and the stock will be judged October 15. The contestants will give a note to the bank for the money to buy the pigs, and will keep account of feed, time required and other outlay. The best story on "How I Raised My Pig," will count in awarding of prizes.—M.

## No More Reason why You Should Milk by Hand than Harvest by Hand



## The De Laval Milker

saves more time during a year than a grain binder or any other labor-saving device a dairyman can own. In addition it increases the production of milk, many De Laval users say, to such an extent that the increased flow alone pays for the milker.

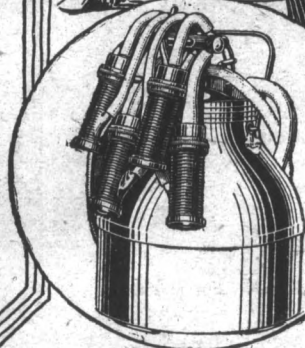
EASY TERMS can be arranged so that you can use the De Laval Milker while it pays for itself. Send for complete information.

## THE DE LAVAL SEPARATOR COMPANY

NEW YORK  
165 Broadway

CHICAGO  
29 E. Madison Street

SAN FRANCISCO  
61 Beale Street



A Better Way of Milking

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

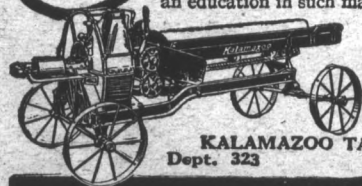
## Record Holders

Wood Silos—Tile Silos—Silo Filler

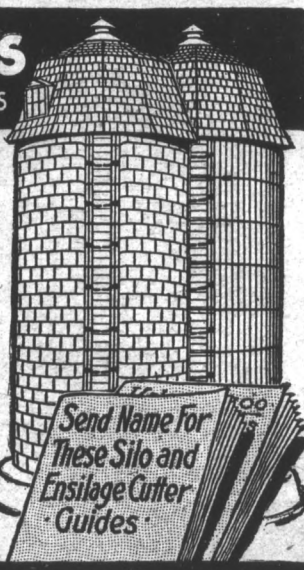
The Kalamazoo is the only wood silo made that holds record of 30 years service without a flaw. We make both wood and tile. Special construction keeps silage in most nutritious condition; no waste. Kalamazoo Cutters are the world's standard. None better in any way.

### Kalamazoo

Facts FREE. Write TODAY  
Send for these silo and cutter books. They are an education in such matters. Don't buy a silo or cutter until you have read them. Read about the matchless Center Shear cut on Kalamazoo Ensilage Cutters. It's all in the free books. Write today.



KALAMAZOO TANK & SILO CO.  
Dept. 323 Kalamazoo, Mich.



Send Name For These Silo and Ensilage Cutter Guides

## MICHIGAN LIVE STOCK INSURANCE COMPANY

INDEMNIFIES Owners of Live Stock—Horses, Cattle, Sheep and Hogs  
Against Death by Accident or Disease  
308 Davidson Building, Bay City, Michigan

**BROWN'S BARGAIN FENCE BOOK**

**Free Fence and Gate Book**

Send for my New BARGAIN FENCE BOOK showing the biggest line and lowest prices on all kinds of wire fencing. My latest direct-from-factory prices save you a lot of money. 150 STYLES—FREIGHT PREPAID. We use heavy GALVANIZED wire—outlasts all others. Book and sample to test—FREE by return mail. (1)

THE BROWN FENCE & WIRE CO., Dept. 149 CLEVELAND, O.

## Feeders Attention

We can sell you Salvage Oats for feeding at prices low enough to store until Fall if you have no stock on feed now. This is the opportunity. Write at once for samples and prices delivered in carlots.

C. E. Dingwall Co., Milwaukee, Wis.

Mention The Michigan Farmer When Writing Advertisers

## OTTAWA

1 1/2 H-P ENGINE IS Now only \$35.50

Other sizes 2 to 22 H-P at proportionally low prices.

90 Days Trial—10 Yr. Guarantee

Good engines at low prices because made in large quantities and sold direct from factory.

Stationary, Portable, Saw, etc. Kerosene, Gasoline. Most sizes to choose from.

FREE ENGINE BOOK—Get our low prices before you decide on any engine.

OTTAWA MFG. CO.

1383A King Street

OTTAWA, KANSAS

## Shoo-Fly THE ANIMALS' FRIEND

For keeping Flies Gnats and many other insects off animals. Used and endorsed since 1886 by leading dairymen. Cows give 25% to 35% more milk during fly season if sprayed with Shoo-Fly.

\$1.50 worth \$20

in milk and flesh alone on each cow in a single season. Excellent for galls. Alays itching. Aids in healing cuts and sores. Excellent for lice and mites in poultry houses.

Send \$1.50 for enough Shoo-Fly to protect 10 cows 2 weeks, also our 8-tube gravity sprayer. Money back if not satisfactory. Name Express Office. Booklet FREE.

SHOO-FLY MFG. CO., 1334 N. 10th St., Phila.



## Red Raspberry Culture

By R. G. Kirby

**R**ED raspberries are produced on the wood which grows during the previous year. Right after harvest the old canes should be pruned out to give the new wood a chance to develop to better advantage. The old wood harbors insect pests and fungous diseases and should be burned to destroy them. Raspberry patches are sometimes ruined because cane blight, anthracnose or cane borers obtain a start. It pays to control these troubles as much as possible by clean culture, and the destruction of diseased and pest-ridden canes.

Cane blight causes the fruiting canes to wilt and die. It often occurs just before harvest time when there are good prospects for a crop. Such canes must be cut off close to the ground and burned. We have seen the blight spread half way down a row and kill every fruiting cane. And the remainder of the row would be healthy and produce a heavy yield of fruit. The control of this disease is not fully understood and it makes extensive red raspberry growing rather risky.

Anthracnose causes grayish spots with purple margins near the base of canes. It is a common trouble but we have not seen it appear as often as can blight. Three applications of lime-sulphur have proven to be of some value in controlling anthracnose. A mixture of two and a half gallons of lime-sulphur to fifty gallons of water is used when the leaves start. A mixture of one and a quarter gallons to fifty can be applied when the shoots are five or six inches high. The same is used again before blossoming time.

About June the female cane borer may puncture raspberry canes near the tips and lay eggs in the incisions. The little worms that hatch burrow down into the pith and cause the canes to die. When the infested canes are seen to wilt the tips containing the worms should be nipped off and burned. The prompt burning of the old canes after the fruiting season is also of value in destroying this pest. There are several other insects and fungous diseases which slightly injure red raspberries but the above are the only ones that have caused us losses. It seems as if considerable more scientific investigation of raspberry insects and diseases will be necessary before the production of berries on a large scale will be attempted by the average farmer.

Red raspberry canes will grow very tall on rich soil and they must be cut back to a height of about five feet, or supported by a wire stretched between two posts. If they are not cut back they will produce a heavier crop for a short time, but when they are pruned back the fruiting period extends over a longer period. The suckers that grow between the rows should be taken out or the patch will soon be a tangle of growth and the fruit very difficult to harvest.

When red raspberries are grown in hills all but about six of the most sturdy canes are pruned out. If too many canes are left it is apt to result in a growth of spindly canes the next year and the fruit may be small and lacking in quality. It sometimes seems like a waste to take out any of the thick healthy canes capable of fruiting the next year, but experience proves that the crop does not pay as well when this pruning is neglected.

If the pruning is all done in the fall it saves work during the spring, but even then it pays to go through the patch in the spring and note if any of the canes are broken down or deceased. If these are found they must very promptly be removed and burned. If

(Continued on page 751).

## A Time Saver on the Farm

**I**NTERNATIONAL Motor Trucks are big time savers on the farm. One farmer living ten miles from town makes the round trip with an International in less than three hours. It used to take a whole day with horses.

There are fewer chores than when horses do the hauling. The sturdy, reliable International requires little attention. Unsurpassed International service prevents delays and assures low cost operation. This saving in time alone makes the International

truck more than worth its cost on the farm.

The four-cylinder block-cast, valve-in-head engine has abundant power and sturdiness to meet all farm hauling demands. Every part measures up to the rigid standard of quality set by International engineers. Capacities range from 1,500 to 10,000 pounds. Body types include grain-tight boxes, stock racks, hay racks and other styles.

Let the nearest International Motor Truck dealer show you why International trucks increase farm profits.

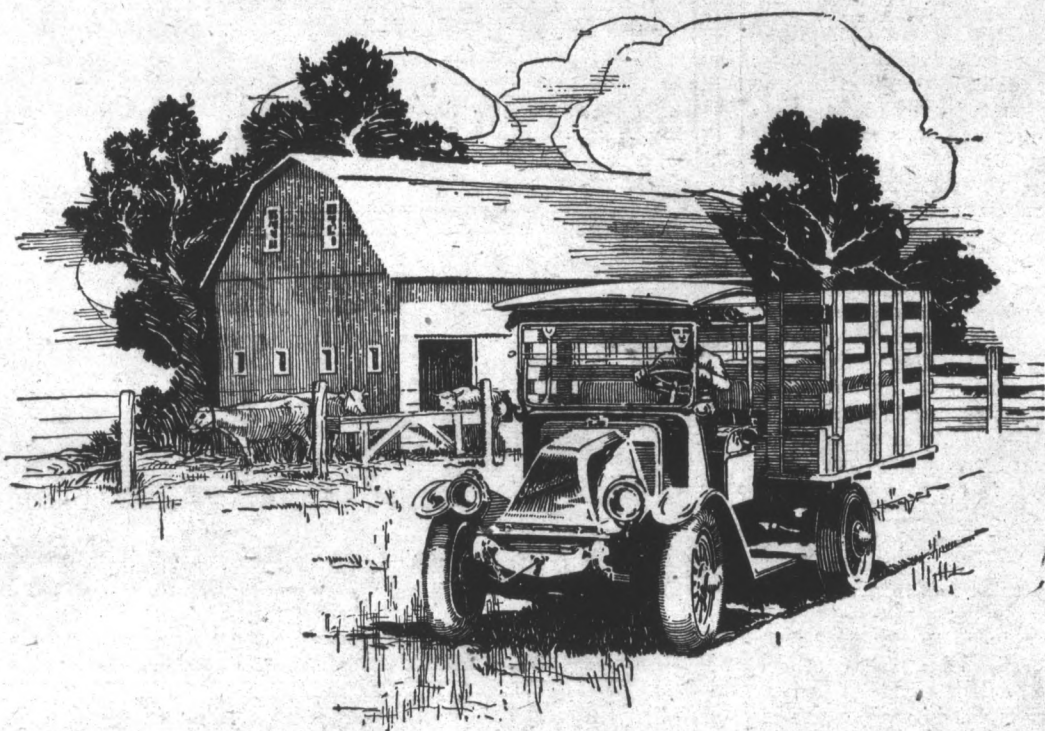
### INTERNATIONAL HARVESTER COMPANY

CHICAGO

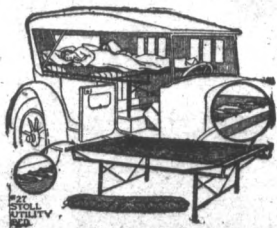
OF AMERICA  
INCORPORATED

U S A

92 Branch Houses and 15,000 Dealers in the United States



## For That Auto Tour



Auto Tents, Campbeds, Stools, Tables, Camp Stoves and Cooking appliances suitable for Auto Touring.

Will have full line of equipment at M. A. C. East Lansing, June 22 and 23.

**The J. C. Goss Co.**  
Detroit, Mich.

Cor Bates and Woodbridge, near Interurban Station.

## WAX-LINED PAPER BERRY BASKETS

Prices postpaid to points within 150 miles of Lansing as follows;

200 postpaid	\$1.95
600 " "	5.35
1000 " "	8.25

Deduct 10c per hundred for orders by freight or express. Can make immediate shipment.

**M. H. HUNT & SON,**

Box 525,

Lansing, Mich.

### Best Standard Twine

500 ft. to the lb. Insect Proof. Guaranteed satisfactory. Cash with order \$6.40 bale of 50 lbs. gross weight. Ton lots \$6.30 bale. Pure Manila Hay Rope 1 inch 6 1/2 c per ft. Quick shipments. Garden seeds half off now. Write for Bargain List B.

**A. H. FOSTER CO.,** Water St., Allegan, Mich.



**NOW** This 2 HP. WITTE Only \$39.95 F.O.B. K.C.



From Pittsburgh, \$5 More.

90-Day Test—Lifetime Guarantee

Big reduction all other sizes—3, 4, 6, 8, 12, 16, 22 and 30 H.P. You buy direct. Cash or easy payments. Liberty bonds face value. Any size or style outfit you want. Big Engine Book, FREE.

**WITTE ENGINE WORKS**

2197 Oakland Ave., Kansas City, Mo.  
2197 Empire Bldg., Pittsburgh, Pa.

**\$24** 95 American Upward CREAM SEPARATOR

On trial. New, well made, easy running, easily cleaned, perfect skimming separator. Skims warm or cold milk. Different from picture which shows larger capacity machines. Our guarantee protects you. Get our plan of easy

**MONTHLY PAYMENTS**

and handsome free catalog. Whether dairy is large or small, write today.

Western orders from Western points.

**AMERICAN SEPARATOR CO.**  
Box 8061 Bainbridge, N. Y.

**Barn Paint \$1.35 Per Gallon**

Get factory prices on all paints. We guarantee quality. We pay the freight.

**FRANKLIN COLOR WORK,** Dept. M, Franklin, Ind.

**BUY FENCE POSTS** direct from forest. Prices delivered your station. M. M. care of Michigan Farmer





# WORLD EVENTS IN PICTURES



Charles Seeger, composer, and his wife, a violinist of distinction, enjoy gypsy life after tiring of civilization.



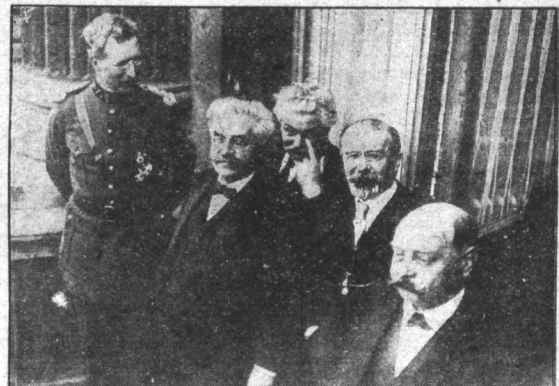
French war veteran pays tribute to Theodore Roosevelt by placing floral tribute at his grave in Oyster Bay.



Caruso, famous tenor, and wife in palatial suite aboard steamer enroute to Italy.



Alma Mann, eleven-year-old girl wonder, makes four-story dive.



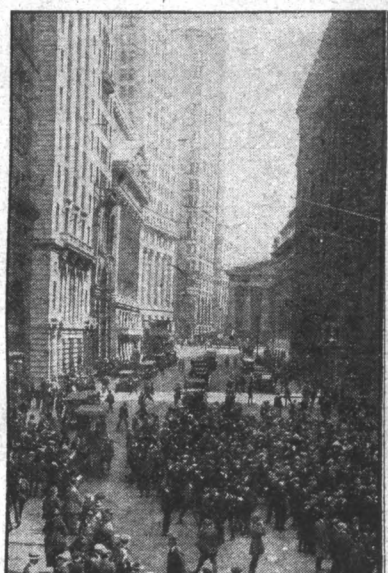
King Albert of Belgium, is guest of President Millerand of France at gymnastic festival.



Marriage apparently is no joke to Buster Keaton, film comedian.



These American polo players are ready for international contest with English team. A hot contest is expected.



New York curb market will soon occupy its own building.



Archery, an ancient sport which develops a steady hand and a keen eye, is revived by Wellesley College girls.



President Harding delivers address before thousands at impressive memorial services at Arlington Cemetery.



# THE CLAN CALL

By HAPSBURG LIEBE Copyright 1920, Doubleday, Page & Co.

"I've got to go and wash and iron my new white dress. Acause—because I'm a-goin' back to Mrs. McLaurin, like I promised I'd go. Ye might as well inform pap to hatch up my railroad money, mother."

She promptly forgot all about the new white dress, broke off another full-blown marigold and began to tear it to pieces, which fluttered unnoticed to her bare feet.

Just then By Heck stopped before the gate.

"Do ye want to go home along as I go, maw?" he asked.

The three women turned their eyes toward the lanky moonshiner. He was standing straighter than they had ever seen him standing before, and he held his repeater across one of his thin shoulders in a manner that was almost soldierly. There was a queer look in his black eyes on his lean face, a look that seemed much at variance with his former easy-going air. It was as though he had just discovered a hitherto unknown depth to himself.

The truth was that he was carrying a secret that was great, and almost too much for him.

His aged mother rose with a rheumatic groan. "Looky here, By," she demanded, "what on earth's the matter of ye? Ha' ya done went and swaltered a rifle's ramrod, or a fishin' pole, that ye walk so cussed straight and look like a plumb dadblamed fool?"

"No, maw," grinned her son. "Nothin' like it. I'm jest hongry, that's all. My gosh, ef I don't feel hongry enough to eat a whole raw yaller dawg! And top it off with a couple o' baked house-cats. Durn my eyes and blast my forehead. I wisht ye'd come and go home along as I go, maw, and git me some dinner."

"All right, By, all righty." To Mrs. Littleford, "Come down and bring yore knittin', and spend the day wi' me. Good luck to ye, Babe, honey, when ye go back to the city!"

When they were within a hundred yards of their cabin home beside the river, Granny Heck said to her son, whose mind seemed inordinately busy:

"Who d'ye reckon killed Black Adam, the hound dawg o' Torment, By, darlin'?"

"I'm a-lookin' fo' rain today," very quietly said By Heck.

"I axed ye, sonny boy," the witch-like old woman went on, "who did you reckon killed Black Adam?"

"The's rain in the air," as though he had not heard. "Ef it don't rain today, it'll shore rain tonight."

"Now looky here!" snapped Granny

Heck. "I said who did you think killed Adam Ball?"

By Heck did not smile, nor did he frown. "Ef it don't rain today nor to-morrow," he drawled, "it'll shore rain to-morrow. I tell ye, mother, the's rain in the air."

"By! By! Ye dadblamed idjit!" protested the old woman vehemently. "Now you answer me what it was I axed ye!"

Said Samuel Heck, unperturbed:

"Grandpap Moreland still has to take his old grey cat down off o' the front po'ch roof every mornin' of his life. Jim Littleford's wife's son's grandpap's son-in-law is named Jim Littleford. Abner Moreland's got a old speckled oxen 'at ain't got but one

I git you a dadslatted bite to eat ontel yo gi' me a sensible answer! Who, I said, dang it all, did you think it was killed Black Adam, the hound dawg o' puggatory?"

"Don't talk so infernal loud, mother," and By Heck smiled a pale smile. "I don't think who killed Black Adam: I know who killed Black Adam. But, igod, it needn't to worry Bill Dale none! Git this here, mother, dear—whoever it was done it shore ain't a-goin' to let nary hair in Bill Dale's head suffer fo' it!"

One of old Granny Heck's bony fingers shot out toward her son like a weapon.

"It was you, By!" she accused. "It was you killed Black Adam Ball! But

and a high school, a courthouse, a jail, and a theatre.

It was a little after nightfall when Dale and the other two men rode through the shaded streets. Dale noted that the people they met under the swinging lights spoke cordially and with marked courtesy to his companions. It was very evident that the officer and Major Bradley were in high standing in their home town.

Sheriff Tom Floyers drew in before a hitching-rack that stood in front of the courthouse, a great old wooden building with a clock in its tower.

"We'll dismount here," said he.

They did. The major took the rein of Dale's horse.

"I'll see that the animal is well cared for, sir," he said to Dale. "And as soon as I have seen to our horses, I'll be with you. I wish to talk matters over with you. Suppose I bring supper for us both, eh?"

Dale thanked Bradley, and turned away with the officer. They walked a short block and entered a low, square building of brick and stone, of which the windows were small and high and barred with iron. Dale knew that it was the Cartersville jail, and his heart sank in spite of him. Just as death by violence had been entirely new to him, so also was this entirely new to him.

Flowers took a ring of heavy keys from the hand of the jailer, and led the way down a whitewashed corridor. It was not yet bedtime, and the other prisoners were still up; some of them were reading newspapers, others were trying to mend their clothing, still others were doing nothing. A few of them called out boldly and bade the new prisoner welcome—and each of these received a gruff order from the sheriff to keep quiet. Dale paid no attention whatever to his would-be tormentors.

At an iron door at the end of the corridor, the officer halted and faced about.

"If there could be such a thing as a comfortable cell here," he said in low and kindly tones, "it's this one." He went on earnestly: "Now I want you to believe me when I tell you that it is with real regret that I put you behind a door of iron. But if I didn't do it, somebody else would do it; and it's possible that I can be a little more decent about it than another officer would be."

"I realize all that, y'know," replied Dale, "and I'm very much obliged to you, sheriff."

Flowers unlocked the door, and Bill (Continued on page 753).

## SCHOOLIN' --- By LeRoy W. Snell

Never had no education.  
Never studied 'rithmetic.  
Have to do 'bout all my fig'rin'  
Cuttin' notches in a stick.

Didn't study none o' grammar  
Can't much more'n read and spell.

But there's one thing that I studied  
And I learned it mighty well.

When the sun is kinder misty  
An' the ripples on the lake  
Get to sploshin' soft and sleepy  
Then it's time to dig some bait.

good eye. Isaac Littleford talks through his nose. Little Tom Moreland's pap's old 'coon dawg ketched a big, pore 'possum last night with one foot gone whar it had been gnawed off in a trap. Babe Littleford's got to be the hell-roarin'est, purtiest gyurl in the world. Bill Dale he said a man who'd say 'eyther' and 'neyther' in place o' 'eether' and 'neether' would part his hair in the middle and wear a bow on the back o' his hat and ribbon in his onderclo'es. Maw?"

"Whut!"

"Le' me ax ye a question," with a mock solemnity that was ultra-ridiculous. "Please don't try to joke wi' me, yore pore hongry che-ild. Maw, hawnest to goodness, will ye tell me the truth?"

Hopeful, she bent toward him. "O' course, honey boy, I'll tell ye the truth. What is it, darlin'?"

He whispered it: "Maw, don't deceive me. What was my maiden name?"

Granny Heck became so angry that she trembled. To her, baffled curiosity was but little better than torture. She caught her son by an arm and shook him as hard as her poor strength would allow.

"I wisht I may drap dead right here in my tracks," she declared shrilly, "ef

ye know dadblamed well 'at I won't never say nothin' about it. Not a durn do I keer fo' a lowdown Ball. Now own up to me, son, and I'll bake ye some cownbread with aigs and hawg-renderin's in it. Wasn't it you that done it?"

By Heck passed a hand caressingly and longingly across his hungry stomach. Then he looked toward some fleecy white clouds that were sailing slowly, like ships of silver and pearl in a sunny cerulean sea, over the rugged crest of the majestic Big Pine.

"The's rain in the air," he drawled. "Ef it don't rain today, it'll rain to-night; and ef it don't rain tonight, it'll rain to-morrow. Yeuh; the's rain in the air, mother, shore as shootin'."

### CHAPTER XV.

#### Jailed.

CARTERSVILLE nestles close between the points of two outlying foothills, and it is a delightfully lazy and old-fashioned town. For the most part it is made up of gabled old brick houses, which have pretty settings of green lawn, roses, honeysuckles and trees. Even in the small business district, the streets are lined with trees. They have electric lights there, and water mains, a common school

AL ACRES—Al Engages a Cure-em or Kill-em Doctor.



—By Frank R. Leet



# We Are Living Now

*Our Weekly Sermon—By N. A. McCune*

FOR David, after he had served his own generation by the will of God, fell asleep, and was laid unto his fathers, and saw corruption." It is not a bad thing to be reminded of the fact that the only generation we will see, is the generation in which we live. We may wish we had lived in the long ago, when there were knights and jousts and crusades, and moated castles. We may look forward and sigh to live a hundred years hence, when there will be more extraordinary inventions than we see now, and new nations may have arisen. But we must come back to the fact that none of these delightful dreams will eventuate. We can neither go back nor ahead. We are living now. This is our generation, and it is more unalterable than the famous laws of the Medes and Persians. Even so many-sided a man as David could only live in his own generation, and the very greatest service he could render was the one referred to in the passage above: he served his own generation by the will of God. No man can do more. Thousands do less.

We are living now. That sounds too simple to print. But many do not sense the fact. They act as though they were going to live here forever. They appear not to realize that the course of history will be shaped by what we do. They do not think that the next generation and the next are certain to be better or worse, because they had us for their ancestors. We inherit great things from those who have gone before. And these institutions exist today because those men and women back there a hundred years or a thousand years, served their generation to the highest light they had. For instance, there is our Federal Constitution. It is said by foreign statesmen to be the greatest document of its kind ever written. But it was a tremendous piece of work to get it adopted. At first none of the thirteen states would accept it. Each feared the other was scheming to get the advantage over the rest. But they had passed through seven years of war, and they knew they were in a rather defenseless condition. Money during the Revolution had become so worthless that a colonel's monthly salary would hardly buy the oats for his horse. And so little Delaware led the way, and her representatives signed the constitution. Big, brotherly Pennsylvania followed, New Jersey, Georgia and Connecticut came next, and then there was a long pause. Massachusetts would not sign. John Hancock had to be induced to lend his aid, by hints of the presidency. After long delay and much oratory, Massachusetts ratified, by a very small vote. All finally ratified but Rhode Island, and she had to be coerced by threatening to isolate her and treat her as a foreign power.

WHAT the United States is today is due to the action of the thirteen states one hundred and thirty-one years ago. Those statesmen were living at that time. They were using the present. They employed the conditions of the time to bring about a wonderful achievement. The constitution could not possibly have been confirmed a few years before that. There were times later when jealousy and domestic ill-will would have prevented it. But it was possible in 1788-1790. That is what is meant by saying that we must live now. We must use the openings for good, for service, that are about us now. We must capitalize opportunity.

Take the immortal incident of Moses and the Israelites. He capitalized the conditions of the time to make a great move. It was a master stroke. His

fellow Hebrews were oppressed, ill-treated and mutinous. Daily the cry of the overworked people arose. They were ready for almost anything. All that was wanting was a match, to light the fire of rebellion. When a leader appeared there was nothing he could not do with such a people. The leader appeared. He told them of a land far away, that was awaiting them. It was a most fertile land, and a beautiful, a land that flowed with milk and honey. If they rebelled against their taskmasters and followed him, God would lead them safely to this beckoning country. The people responded, two millions of them, and the famous Exodus began.

TAKE the case of prohibition. A few years back, national prohibition was only a dream. Many people said it would come some day, but not for a long, long time. Here and there a state had adopted prohibition, but it was far from being national. Then something happened. There was war. People went with scanty coal, families doubling up to save fuel. But the breweries continued to consume thousands of tons, the smoke from their stacks blackening the towns and cities north, south, east and west. The people were asked to give up all white flour. They did so, and used bran, middlings, various mysterious substitutes. But the liquor-makers continued to devour thousands of bushels of wheat and other grains. People could get but little sugar, and for long periods no white sugar at all. But the breweries were able to get whatever sweetening they needed for the manufacture of their product. The hour had struck to introduce national prohibition. People were seeing the selfishness and folly of consuming useful foodstuffs for making liquor. The prohibition amendment was ratified so fast that it made us dizzy. Every week brought the names of states that had ratified. The most ardent teetotalers could hardly believe it.

"There is a tide in the affairs of men, which, taken at the flood, leads on to fortune." We have been wise in some things of late. We have not been so wise in others. Like King David, we have served our generation by the will of God. In other respects we have let golden opportunities slip by, unchallenged. It is easy to teach a little boy. He will believe anything you tell him. When he is twenty-five it is not so easy to teach him. When he is fifty-five it is still more difficult. This era is yet in the little boy stage. It is easy to teach the country, or the world now. It will not be so easy in twenty years. We can teach this age disarmament, if we will.

WHAT in the name of horse-sense is the use of spending ninety-three cents out of every dollar of federal money for war? And seven cents for peace, (agriculture, education, commerce, etc.)? This is now being talked everywhere. Japan, England, the United States are all talking it. In the Charlestown Navy Yard one may see the "Constitution," the famous old war ship. It is only a plaything now. In like manner your children will be able to enter a museum some day and look at a battleship, as long as a city block and as big as a village. Beside it will rest a huge wasp, called a submarine, its stinger no longer dangerous. This will be possible, if the present agitation against huge armies and navies is capitalized, and used to the full extent. God opens these doors from age to age. The fathers made good use of the openings of their day. May we be as wise and courageous now.

## U S MUTUAL AUTOMOBILE INSURANCE COMPANY

*The Farmer's Own Company*

### Offers You a Protection That Astonishes

If you want positive protection, and positive protection is what each motorist **MUST HAVE**, you will demand the U. S. [5 point] Full Coverage Policy, and insure your car and yourself against:

- 1--Fire
- 2--Theft
- 3--Collision
- 4--Property Damage
- 5--Liability

And, all for \$1.00 per Horse Power, plus the small membership fee of \$1.00 annually!

#### The U. S. as a Company

The U. S. Company has been so successful and prosperous because of the capable men behind it, this having been proven time and time again through the satisfactory settlement of many claims. Those who have presented claims are more than ever convinced of the benefits received through membership in the U. S. MUTUAL. Just a glance at the officers' names below should convince the most skeptical that the ideals and principles of the U. S. MUTUAL must be right.

#### The U. S. Mutual Idea

MUTUAL in the sense of UNITED PROTECTION, THE U. S. protects farmer members without building a reserve to pay for the city man's risks, realizing the low hazards in country driving. Each farmer pays according to his own risks at actual COST. Extreme care and judgment is exercised in accepting memberships, making this practical. Complete Property and Personal protection is, consequently, given farmer members because the U. S. is only obliged to take care of losses plus running expense.

#### Auto Clubs in Each Community

Colonel Augustus H. Gansser, U. S. Director and General Manager, is very successfully organizing Motor Troops throughout the State. These comprise:

- A Motor Troop For Each Community.
- A Motor Squadron For Each County.
- A Motor Corps For Each State.

This protective feature is working out so beneficially for U. S. Policy Holders, that Colonel Gansser's plan meets with success everywhere. In fact, he is repeatedly called upon to present his practical idea to foresighted farmers.

Be the organizer in YOUR community. Write Col. Gansser, Bay City, Michigan AT ONCE, and learn all about the formation of Community Motor Troops and U. S. 5 POINT POLICIES.

## U S Mutual Automobile Insurance Company

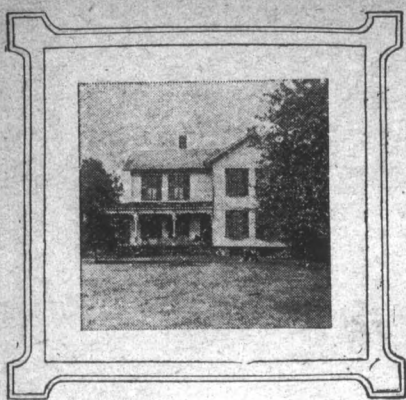
Executive Office

Grand Rapids, Michigan  
Colon C. Lillie, Pres.

Home Office

Bay City, Michigan  
F. F. McGinnis, Sec. and Treas.  
Col. A. H. Gansser, Director and Gen. Mgr.





There are two sorts of content. One is connected with exertion; the other with habits of indolence. The first is a virtue, the other a vice.—M. Edgeworth.

## Woman's Interests



# The Tragedy of Old Age

*Can be Prevented by Sowing Seeds of Love in Early Life*

By Deborah

WE read much of the tragedy of old age, but isn't it rather the tragedy of youth? After all, isn't the tragedy simply the crop which youth sowed back there in the spring of life, and which middle age carefully tended and brought to harvest time? Can old age be anything different from the crop of habits sown? Can we expect the miracle to happen at the last, and all the things which should have been pruned off years ago to be made right, just because the person has grown old? We reap what we sow as truly in human life as in seed life.

The tragedy of old age is not poverty, but loneliness. And harsh as it may sound, most old people are lonely because they are unlovely. And they are unlovely because they have never taken pains to make themselves beloved. Who does try to make himself agreeable and loved by all, in the days of youth and strength? We should worry whether folks like our ways or not; the world is wide and if one doesn't like us what does it matter? Someone else will. We may not deliberately try to be disagreeable, but we take little pains, in life's morning and noon, to be really thoughtful of others. Indeed it is so seldom that a person does conscientiously try to be considerate, that when we meet such a one it gives cause for remark.

Our thoughtlessness, really our selfishness, doesn't make much difference to us while we are strong and able to hit back. But in the days of helpless old age, when we can't pack up and leave the things we don't like, the reaction is different. The ill-temper in which we occasionally indulged earlier in life has become cantankerousness. Our firmness of purpose has degenerated into pigheadedness. Having never learned how to adjust ourselves to fit into the lives of others, we find it too hard to learn now. We think the whole world is hard and unfeeling towards the aged, when really it is only the natural outcome of the life we have lived. No one can expect the entire family to dance attendance on his whims, just because he has grown old. And no one would expect it in old age if he had not demanded it in youth.

The only way to escape the tragedy of old age is to begin to fight it off in childhood, and keep up the fight right on through. One family shelters the two sorts of old folks, an old lady of eighty and a man of seventy-eight. The woman is the widow of a minister, and has been in training for old age ever since she was a girl. Now, far be it from me to say that all clergymen's wives make it a practice to make themselves fit their circumstances, and to try to live with others. But this one always has been the one to compromise. Very early in life she learned that someone has to give up first if there is friction, and being anxious to help make her husband a success, she formed the habit of being official giver-up for the family. She learned that hardest of all lessons, how to

get along with folks; all sorts of folks, pleasant and cranky, rich and poor, learned and ignorant. She knew that she couldn't move on every time she found a neighborhood where the folks weren't just to her liking. She moved when the bishop said she might. And being a wise woman she didn't spend her time in fault-finding; she looked for the best in everyone.

The old man in this family didn't see life that way. When he didn't like things he told the world, and most of the time he didn't like anyone or anything. When things got too bad in one neighborhood for him he moved on to another, and he has lived in a good many places.

Now, by a freak of fate these two folks are thrown under the same roof, though they are the most remote of in-laws. The contrast between them is so marked, that every chance caller

remarks on it. There is no tragedy of old age about the woman. She is the bright spot in the family life, always busy, always considerate, always thinking of others, full of bright little anecdotes of folks she has known, and never asking a thing for herself. But the man fairly oozes old age tragedy. He glowers in his corner, only speaking to find fault or make an inconsiderate demand for attention. He feels that he is neglected and abused, because folks don't swarm about him as they do the old lady. It never once occurs to him that it is his own unlovely nature which drives would-be friends away.

Of course, old age has its hardships even for the bright and cheerful. There is sickness, pain, sorrow, all too often poverty. But none of these spell tragedy if one has friends. And friends can only be had by the making.

## The Ideal Kitchen

I WONDER if every woman is possessed with a mania for ripping to pieces and making over. There's the matter of houses. I never moved into a house—with one exception—that I didn't immediately want to move a few rooms around, stretch some out and make some smaller, no matter how well I thought I was going to like it before. Especially the kitchens. Of course, men growl at this propensity, but that is because they do not have to do the work. The

reason most houses do not suit women is because a man plans and builds them. Very seldom do you find a house planned by a woman. That is why in most kitchens the sink is so low you nearly break your back every time you wash the dishes. I was in one the other day where the only way a woman of medium height could ever make use of the sink would be to sit down. The cupboards are invariably in the wrong corner of a man-made kitchen, the stove as far from the ta-

ble as it can be put, and the pantry, if they condescend to give you one at all, as far from the stove and your table as it can be put.

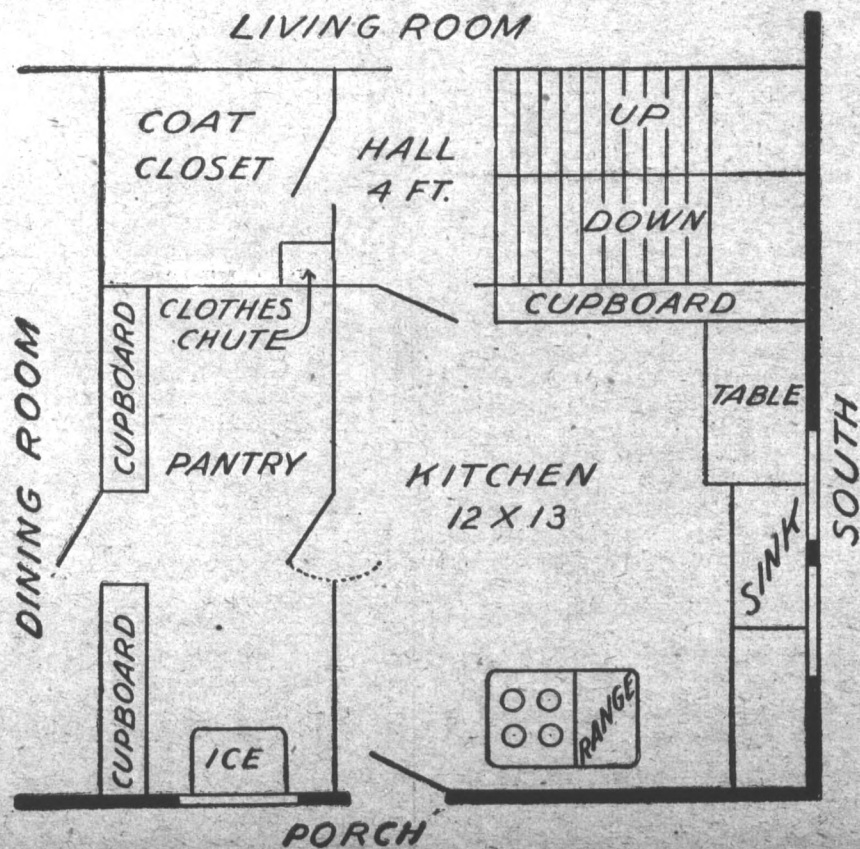
I have had six kitchen workshops in my housekeeping days, and only one has suited me. Of course, it was a city kitchen, but the arrangement would be perfectly practical for a country home. With a washroom adjoining, it would be large enough, too, for the real work of a kitchen, preparing food.

This kitchen was 12x13 feet. The entry from the living-room was through a hall, out of which went both cellar stairs and stairs leading to the upper rooms. This hall made it possible to keep the smells of cooking from the living-room. It opened into the kitchen in the east side, next to the north wall. From this doorway to the south wall were cupboards with two doors, reaching from floor to ceiling.

In the middle of the south wall were two windows five feet from the floor, beneath which was the sink, with pipes going into the wall instead of into the floor. This made it easy to clean around under the sink, as there were no pipes to catch the dirt back of them, but this arrangement proved the one flaw in an otherwise perfect kitchen. In building, the pipes had not been perfectly protected from the cold, and every winter they froze up. Builders have told me, however, that this might have been avoided, by protecting the pipes where they entered the wall with an extra coat of cold-defying material.

The sink was high enough from the floor to allow me to stand upright. Indeed, I could rest my arms on the edge while I washed dishes. It was large enough to hold both dishpans at once. At the left of the sink, between it and the cupboards, was a built-in table, covered with zinc, and with one broad shelf beneath. This made an ideal cupboard for dishpans, scouring material, extra soap, baking tins, etc. The remaining space in the bottom of the cupboards was divided into space for a flour bin and drawers for dishtowels, kitchen aprons, cutlery and paper. I kept the spices, flavoring, etc., in the cupboard over the flour bin. Without moving from the table I could reach everything I needed with which to bake.

At the right of the sink was a wooden drip board, grooved, running from sink to west wall. Along side of this stood the range, and just north of the range the door leading into the yard. Over this door was a transom. With the transom open and the kitchen window open a tiny crack at the bottom, odors and steam were sucked outside. Standing at the sink I could by one step reach stove or cupboard. Baking was a dream, and meal-getting took so few steps you couldn't get tired. The entry to the dining-room was on the north side, opposite the sink. Between the two rooms was a pantry with immense cupboards which held dishes





and dining-room supplies. There were drawers here for table linen and silver. Under the window was space for the refrigerator, with outside drip, and the clothes chute, for dropping soiled linen into the laundry in the basement.

To me it was an ideal arrangement. Some women might object to the pantry between kitchen and dining-room, but the few extra steps it made were to me more than offset by the fact that it effectually shut off a view of the kitchen from the dining-room, and also helped to keep out odors. There was no room in the kitchen for loungers, only space for one chair next the pantry door, and this was so obviously in the way that it discouraged visitors sitting there long. This might also be a drawback to some women, but if you are one of the sort who can't work and talk, and do not like to stay in the kitchen forever, it is a good plan.

I always kept a high stool slipped under the sink board for my own use. It was the work of a moment to pull it out and sit down to prepare vegetables or fruit for a meal, or even to dry dishes.

#### TOMORROW'S DINNER.

Creamed Crab Meat      Riced Potatoes  
Asparagus on Toast  
Strawberry Salad      Crackers  
Pineapple Cake      Iced Coffee

If you can not secure canned crab meat any canned fish or the leftover bits of chicken may be creamed. For one pint of meat use one pint of rich milk and thicken with the yolks of two eggs.

Asparagus on Toast.—Soak the asparagus in strong salted water one hour to draw out insects. Cook tied together in a bunch in hot water to cover, cooking just until tender. There should be only a tablespoon or two of water left when it is done. Salt and pepper to taste, add a generous tablespoon of butter, add lay on slices of toast on individual plates.

Strawberry Salad.—Select large berries, hull, wash thoroughly and chill, first sprinkling with powdered sugar. When ready to serve arrange in crisp lettuce leaves and cover with whipped cream to which has been added a third as much salad dressing. A few chopped nuts sprinkled over the cream adds to the salad.

Pineapple Cake.—Frost your favorite cake with the following: One cup of grated pineapple and one-fourth cup of granulated sugar boiled ten minutes. Stir in powdered sugar to make it thick enough to spread.

#### RHUBARB JAM.

Household Department.—I have a very fine rhubarb jam recipe. Eight cups of rhubarb, cut up, five cups of sugar, one cup of raisins, and the pulp of one orange. Put sugar over rhubarb and let it stand several hours, then add raisins and orange and boil slowly for several hours. Can be cooked in the oven when it will not take so much watching. Or set it on asbestos mat.

C. S. T.

#### SHIAWASSEE COUNTY ACTIVITIES.

Shiawassee County.—A two-year-old child was brought to the agent, suffering temporary loss of the use of its limbs. Inquiries showed its diet consisted principally of bread and meat, with coffee and tea. It did not care for fruit or milk. The mother was given help with arranging a diet, and a second child suffering with malnutrition was also prescribed for. Dress form schools were held in Ovid and Durand. Miss Edna V. Smith, specialist from the agricultural college in household management, gave talks on household conveniences at two community meetings.

# WILLYS-KNIGHT

*Sleeve-Valve Motor Improves with Use*

## Now \$1895

## Reduction \$300

Smart, alert, handy, its price has always been *Low* among fine cars—its economy of service has always ranked *High* among all cars. Its gasoline average is above 20 miles per gallon. Its motor is remarkably free from care and cost.

*Prices f. o. b. Toledo, Ohio*

Touring, \$1895; was, \$2195      Coupe, \$2550; was, \$2845  
Roadster, \$1895; was, \$2195      Sedan, \$2750; was, \$2945

*Long, Liberal, Easy Payments Available*

**WILLYS-OVERLAND, Inc.,**  
Toledo, Ohio

### DO YOUR CANNING

by the

### Cold Pack Method

*To Save Money  
To Save Waste  
To Save Labor*

### The Duncanette Water Seal STEAM COOKER AND CANNER

COLD PACK CANNING, as encouraged by the United States Government, can be easily and quickly done with the Water Seal Kitchen Canner.

The food is cooked in the container by Live Steam. This method of Canning assures positive results. The fruits and vegetables retain their original flavor and form. The Cold Pack Method eliminates the waste which occurs when canning the old way. The housewife does not have to stand over the hot stove for hours. No stirring is necessary. 25 to 40 percent less time is consumed than when canning the old way.

**This Model Only \$9.50**

Our wonderful book, "Food," is given free with each Cooker. This book gives recipes and formulas on different processes of Cooking and Canning. Also a great deal of other very valuable information.

Send for descriptive circulars

If your dealer does not carry it write us direct giving dealer's name.

**DUNCAN MFG. CO.**  
542 Railway Exchange Bldg., Chicago, Ill.

**MICHIGAN FARMER PATTERN SERVICE.**

Send fifteen cents in silver or stamps for our up-to-date spring and summer 1921 catalog, containing over five hundred designs of ladies', misses and children's patterns, a concise and comprehensive article on dressmaking, also some points for the needle, (illustrating thirty of the various, simple stitches), all valuable to the home dressmaker.

### Coffee at Wholesale

Direct from Roaster to you

Order your Coffee from us and serve your guests and family delicious full flavored coffee made from our selected OLD COLONY Blend. The taste tells, so in order to become acquainted we offer you our fine OLD COLONY Blend Coffee, which is roasted in our modern plant daily, at 3 pounds for \$1.00, or 10 lbs. for \$3.20, insured parcel post prepaid to your door. State if you want coffee whole, or ground fine, medium, or coarse.

If you enjoy choice tea we can furnish you 5 lbs. of Black, Green or Mixed Tea or a special blend for Iced Tea, for \$2.50, or 1 lb. for 50c, if sent with coffee order.

Several hundred Michigan Farmer readers have compared the fine quality of OLD COLONY Blend bought at our wholesale price with other blends for which they paid much more, and are now our regular customers.

Order today, and if not thoroughly pleased we will refund your money. Send check or Money Order.

**John E. King Coffee Company,**

Established 1889

Importers and Roasters

160 Jefferson Ave. E., Detroit, Mich.

No. 3527.—Ladies' Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size requires 6½ yards of 44-inch material. The width of the skirt with plaits extended is about 2¾ yards. Price 12c.

No. 3544-3541.—Ladies' Costume. Blouse 3544 cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. A 38-inch size will require 3½ yards of 27-inch material. Skirt 3541 cut in six sizes, 24, 26, 28, 30, 32 and 34 inches waist measure. It may be cut with or without a center front seam. Without the center front seam a 26-inch size requires 2¾ yards of 48-inch material; if cut crosswise of the goods, and 2½ yards if cut lengthwise and of 54-inch material. Cut with center front and back seam and straight

at the front edge it will require 2¾ yards of 54-inch material. With bias edges 2¾ yards will be required. The width of the skirt at the foot is 2¾ yards. Two separate patterns, 12c for each pattern.

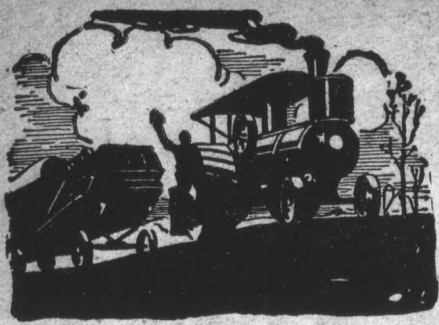


No. 3550.—Girl's School Dress. Cut in four sizes, 6, 8, 10 and 12 years. A 10-year size will require 4½ yards of 27-inch material. Price 12c.



No. 3092.—Girl's Dress. Cut in four sizes, 6, 8, 10 and 12 years. Size 10 requires 3¾ yards of 44-inch material. Price 12c.





## Is Your Thresherman Welcome?

Of course, you're glad to see him go. But you'll be glad to see him come if you choose the thresherman who owns a

# Red River Special

The Machine that saves you money by doing good work quickly. The "Man Behind the Gun," the Big Cylinder, the Beating Shakers—all help to save your grain.

Nearly three-quarters of a century of experience are back of Nichols-Shepard threshing machinery. Every year sees more Red River Specials in the field.

Save the price of your thresh bill this year by threshing with the Red River Special. If your crop is large enough to justify buying an individual machine, ask us about our "Junior," Red River Special.

Write for Circulars

**Nichols & Shepard Co.**  
(In Continuous Business Since 1848)  
Builders Exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Traction Engines.  
Battle Creek, Michigan



## Don't Let Your Tires Go This Way

They will unless you keep the proper amount of air in them. Correct air pressure in your tires means MORE MILEAGE, EASIER STEERING, INCREASED SAFETY.

## The Schrader Universal Tire Pressure Gauge

will always tell you when your tires have the air pressure prescribed by the Tire Maker. Price \$1.50 in U. S. A. At your dealer's, or

**A. Schrader's Son, Inc.**  
Brooklyn, N. Y.  
Chicago Toronto London

**A Full Year's Wear In Every Pair**  
—is both our slogan and the guarantee which goes with every pair of

**No-Way Stretch and EXCELLO SUSPENDERS**

Billions know them by their comfort-giving qualities. Slip-loop back permits free bodily action. Four sets of Phosphor Bronze Spiral Springs give double elasticity—stretch 25% without losing their pull.

**Ask Your Dealer**  
If he hasn't them, send direct, giving dealer's name. Insist on No-Way or Exello. None genuine without guarantee label attached to buckle. Accept no substitute.

**No-Way Stretch Suspender Co.**  
Adrian, Mich.

**The No-Way Line**  
No-Way and Exello Suspenders - 75c  
Men's Garters - 50c  
Ladies-Miss-Children's Hose Supporters 25c  
Ladies' Corset "Sew-On" Hose Supporters 35c

**Trained American** Fox Hounds Rabbit and Skunk dogs all ages. Send stamp. **R. W. LECKY**, Holmeville, Ohio

# Our Boys' and Girls' Department

## Pin-Money Methods

*Young Folks Learn Money-Making Ways Through Club Work*

WHEN a city girl feels the need of money—her own money, to pay for the things girls imagine they must have these days—she goes to work in an office, a store, or a factory, according to her education and opportunity. In the country a girl, with much the same longings for nice things and "good times," looks to the poultry yard, the milk house, or the garden for her spending money. If her parents are the right kind, if they are intelligent enough to help her and encourage her in her work, she will soon establish herself as a semi-dependent member of the family. If, as often happens, the parents are not disposed to have

of an acre at a cost of \$31.40 and net returns of \$109. With the same expense her sister, Fannie, grew 3,020 pounds and had a net return of \$107.89. Ada Rosamond grew 2,803 pounds, costing \$27.42, with a net return of \$76.66, and Ruby Waddell at Bonnerville, had 3,070 pounds costing \$29.91, with net returns of \$68.

### THE SHINING STARS.

SITUATED on the beautiful shores of Mullet Lake in Cheboygan county, Michigan, is the resort village of Topinabee. In and around this village lives a happy lot of girls. Perhaps this

## Some Work and Some Play Make a Good Day



There Should be Playtime as well as Worktime, for "All Work and No Play Makes Jack a Dull Boy" and Jill a Dejected Girl. Cheboygan County Club Members have a Rousing Time Playing Games on their Achievement Day.

such goings-on, and there is no home demonstration agent, no girls' club, no extension work of any kind in the community, the country girl goes to the city and the farming regions have lost one more potential home and family.

No doubt exists in the minds of men and women of large experience in the extension work carried on by the United States Department of Agriculture in cooperation with state agricultural colleges that the economic appeal is the entering influence needed in getting their clubs or bureaus started in rural regions. Once the young people have learned a way to earn money the desire for the things it will buy asserts itself, and the home betterments and improved living conditions follow naturally.

Many girls have made, as well as saved, money, by baking, dress-making and millinery work. Home-baked bread is always in demand if it is good and in several cases girls have worked up a good trade supplying bread to town people.

Popcorn culture and canned goods have helped one Michigan girl to get started in college, and she is going back to the farm this summer to rely on these two things again. In addition she will have a pickle patch to help the finances out.

Down in Arkansas a girls' canning club started a contest to determine which of the members could produce the most tomatoes at the least expense, and with the lowest percentage of waste. Annet Sargo, on the Mount Valley route, near Hot springs, grew 3,140 pounds of tomatoes on one-tenth

is because of cool breezes and the smell of the pine, but I will tell you the real reason.

Early in June, 1920, someone told these girls about the Junior Boys' and Girls' Clubs in Michigan. Of course, they had heard of them before but had never had one. So one afternoon all the girls met with a lady who loves boys and girls and believed in club work. She told the girls that she would be willing to be their local leader and then she told them about the "Projects." The girls decided to have a cooking club. All summer long they met at their leader's home and learned about cooking and club work. And had such a good time. There was the day they learned to make ice cream, and at the club picnic these girls surprised everybody by furnishing the cakes to go with the ice cream.

They named their club the "Shining Stars," and how proud they were when they learned that one of their members, Francis Koyiak, was awarded second place in the state in cooking.

When winter came the Shining Stars changed to a sewing club. Mrs. Rose Spencer was again their local leader and taught them to draft patterns, use a thimble, select material, etc.

And Miss Vasold, the assistant state club leader, told the girls how to test materials and about the correct kind of shoes to wear. She brought some very interesting pictures to illustrate her talk on "Shoes."

The county club leader, Miss Banks, told the girls about their Achievement Day at Wolverine. They held a lantern show and earned money enough to go. Their garments looked so pretty, neat-

ly arranged on the walls and tables. And when they learned that Margaret Monzo, their secretary, won first place in the county in sewing, they felt very happy indeed.

And now it's June again and the Shining Stars will organize their second-year cooking club.—ANN R. BANKS, County Club Leader.

## Poultry Lessons

By R. G. Kirby

### Lesson XV.—Plans for Enlarging Business.

THE boy or girl who succeeds with poultry on a small scale naturally thinks of the prospects of developing a larger business. Such ventures must be approached with great care. Poultry keeping requires capital and the investments must be properly balanced so there will be something of everything. A large incubator means many hens to lay the eggs and colony hovers to protect the chicks.

The large flock means larger feed bins and more expenses. The cost of poultry buildings is quite an item when large flocks of poultry are owned. It is best for the boy or girl to manage his enterprise on rather a small scale as it is then safer and will require as much time as a boy or girl can spare from school work.

But to grow in knowledge of poultry problems is a good aim for the farm boy or girl. How is this done? First, by reading and studying the poultry department of the farm paper, the bulletins of the experiment station and the good books about poultry culture that are frequently appearing.

The poultry business changes rapidly as new ideas are brought forward and proved practical by the experiment stations and commercial poultrymen. The boy or girl who likes poultry should plan to visit poultry farms and farm poultry owners who make a special study of their hens.

The information that is constantly gained by reading and thinking about poultry problems is very helpful in managing a flock of birds profitably. But this information will not be of as much value unless it can be tried out at home. The lessons learned by practical experience will remain long after much of the book learning has been forgotten.

An increase in the small flocks of poultry owned by boys and girls will mean an increase in their poultry problems. The editors of their farm paper and their friends will be glad to help them to succeed by giving them all of the practical information they have learned by experience and constant study.

Poultry owning on a small scale is a pleasure to those that like to work with birds. But it is also a business capable of producing the cash that can be turned into clothes, games, vacation trips and educations. The market for fine quality eggs is far from being supplied. And food is never going to be as cheap as it was at one time. It takes work to make poultry profits, but the boy or girl who likes poultry will enjoy studying about them and giving them the proper care. This will bring success and increase the satisfaction of living on a farm where the raising of poultry can be made the most profitable.

And the boy or girl in the town also has a chance to succeed with hens because of the table waste that can often be obtained for feed and the closeness to market. So poultry raising is a great game for us all.

THE END.



## GOMBAULT'S CAUSTIC BALSAM

The Perfect Liniment

For External Use on

### The Human Body

It is astonishing how quickly Caustic Balsam relieves Stiffness and Lameness, Rheumatism, Neuralgia, Strains, Sprains, Lumbago, Backache, Sore Throat, Chest Cold, Stiff Joints, etc.

Serious results through Blood Poisoning are liable from scratches, cuts or wounds from rusty nails or other metal. This great remedy applied at once will prove a preventive, is a perfect antiseptic, soothes while it heals. *What it has done for others it will do for you.*

Write us for any information desired. \$1.75 per bottle at druggists or sent parcel post on receipt of price.

THE LAWRENCE-WILLIAMS CO.  
Cleveland, Ohio

**We Pay Postage**

**Genuine All Chrome Work Shoe**  
Only \$3.99  
Easily Worth \$6.00

A real Big Value in a genuine all chrome work shoe at \$3.99—a shoe that sells even in our own chain stores for \$6.00. And you know Rambler's extra low priced genuine chrome uppers, specially tanned, resists barnyard acids. Two full oak soles. Solid leather heels. Pull bellows tongue, keeps out dampness, stitched and reinforced with clinch nails. A shoe with a value hard to beat anywhere. Send for your pair today—now!

**SEND NO MONEY**

Send No Money, just your size, name and address. Shoes are shipped post-paid, pay \$3.99 when they arrive. If you are not satisfied with this big value return them and get your money back. Money saving catalog on request. Over \$1,500,000 last year.

Established a quarter century.  
Rambler Shoe Co., Dept. 46 New York City

**\$54.50 PUTS 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 Pitman 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—an Albion direct from the manufacturer, fully guaranteed. Write today for catalog.

Union Steel Products Co. Ltd.  
No. 525 N. Berrien Street,  
ALBION, MICHIGAN, U. S. A.

**H. Eikenhout & Sons**  
Berry Boxes  
Baskets  
Fruit Packages

ONE  
or  
CAR  
LOAD

Grand Rapids,  
Mich.

**OTTAWA**

Patent Applied For.

**11-MAN FASTEST CUTTING LOG SAW,**  
falls trees, cuts branches  
4-H. P. Light weight.  
Does the work of 10 men.  
Easy to move. Does half  
work. 30 Days' Trial.  
Cash or Easy Terms.  
10 Year Guarantee. Free  
Book. Get new low factory  
direct price today.

OTTAWA MANUFACTURING CO.  
1501 Wood St.  
OTTAWA, KANSAS.



Most powerful stump puller machine in the world. Capacity 450 tons, low easy draft or team, pulls vertical or horizontal on hills or valleys. Full facts. Send for catalog today.

Pontiac Industrial Works, Inc.  
Pontiac, Mich.

Mention The Michigan Farmer When Writing Advertisers

### SUMMER SCHOOL AT M. A. C.

RURAL education in Michigan is expected to take further advance strides in the future as a result of the revised and enlarged courses to be given at the summer session at M. A. C. from June 20 to July 29.

A demonstration one-room school will be conducted in connection as a means of laboratory practice. East Lansing children of various ages will be taught subjects to be correlated with agriculture, nature study and household art and science. Besides Profs. W. H. French, and B. J. Ford, of M. A. C., Miss Effie Caskey, principal of the Ionia County Normal, will assist in giving instruction.

The two most significant courses in rural education to be offered take up methods of teaching and the consolidated school. Sanitation, equipment and organization will be stressed. Another course expected to be popular will be given under the head of general science and will take up birds, insects and plants in succession. Prof. W. B. Barrows, zoology; Prof. R. H. Pettit, entomology, and Dr. E. A. Bessey, botany, will take charge of the work.

Special instruction in rural recreational activities, physical training and coaching of competitive games will be given under the leadership of Athletic Director Chester L. Brewer.

The vocational guidance school will be continued throughout the summer term for partially disabled veterans, training them for farm management, dairying, poultry husbandry, bee-keeping and extension service.

### RED RASPBERRY CULTURE.

(Continued from page 744).

the canes are not headed back in the fall or properly supported, many of them may be broken down by snows and heavy winds. In our experience rabbits will not injure raspberry canes but they are very greedy for blackberry canes during the winter and will often do severe injury to them.

Among the varieties of red raspberries the Cuthbert meets with the most favor. The canes grow tall and vigorous and produce abundant crops of large red berries. They are excellent in flavor when eaten fresh and make the finest of jams for winter. For the commercial berry patch it is hard to beat and for this reason we would recommend it in preference to all other varieties.

The St. Regis Everbearing raspberry is sometimes planted in home gardens where it will produce a fair crop at the regular harvest time and continue to fruit until fall. But we find that the berries are inferior to the Cuthbert in quality and size.

When picking raspberries the grower likes to find an abundant crop so that the boxes will fill rapidly. Then he can finish the berry harvest and go about other work. An everbearing red raspberry patch is not a satisfactory commercial proposition according to our experience, as there is always a few berries to hunt for—but seldom enough at one time for profitable picking. We shall hoe out all of our St. Regis berries and extend the Cuthberts as they are an ideal market crop and bear heavily when berries are needed during the canning season.

The home berry patch is of greater value to the farmer. Fruit of some kind is needed on the farmer's table at all seasons. We know of few crops of fruit that can be produced quicker or with more pleasure than red raspberries. They are so expensive on the market that a farmer will seldom feel able to buy them for canning. And the quality of the boxes which have been jostled during transportation is never equal to the home-raised fruit. Raspberries and cream for breakfast are possible on the farm, but in the city cost prevents their frequent use.



ROOFING  
—AND—  
SHINGLES

Reg.  
U.S. Pat. Office

FOR beauty, permanence and less cost per years of service, buy MULE-HIDE.

Discriminating dealers have it in roofing and shingles.

**The Lehon Company**

MANUFACTURERS

44th to 45th St. on Oakley Ave., Chicago

## OHIO RAKE FARM IMPLEMENTS

Reduce Hay Making Costs

With Our

Hay Rakes—Tedders—Loaders

There's a Dealer Near You.

Write for His Name and Circular on Hay Tools.

**THE OHIO RAKE CO., Dayton, Ohio**  
ESTABLISHED 1884

### BINDER TWINE

Farmers get our low factory price and save money. Agents wanted. Sample free.

THEO. BURT & SONS, Melrose, Ohio

**Wanted** Second Hand Kirstin Stump Puller in good working condition.

A. W. DORBERT, 8 East Broad St., Columbus, Ohio

### Farms and Farm Lands

**\$1400 Secures 210 Acres With Horse, 25 Dairy Cattle, Crops**

Modern machinery, poultry, full equipment; buildings estimated worth \$8000; income last year \$5000; wood and timber to nearly pay for all; convenient all advantages; 100 acres machine-worked, 3 tons hay, 350 bu. potatoes, 125 bu. corn to acre; apple orchard; fine 9-room house, 100-ft. barn, etc.; prosperous owner wishing to retire, sacrifices, \$6500 gets everything; only \$1400 down, easy terms. See page 32 Illus. Catalog 1100 Bargains. FREE. STROUT FARM AGENCY, 814 BC Ford Bldg., Detroit, Mich.

**\$1.00 Per Acre Down**

**Gladwin County Farm Lands**

Buy first class cut-over Gladwin Co., Michigan lands near R. R. Markets and Schools. \$1.00 per acre secures immediate possession, balance easy payments. Be independent. Send for literature "Opportunities in Gladwin County".

U. G. REYNOLDS, Gladwin, Mich.

**60-Acre Farm on Improved Road Crops, Horses, 4 Cows and**

Heifers, harnesses, vehicles, equipment included; big bargain in well-improved productive farm close big city markets; famous farming section; near bustling RR town, easy auto drive Flint; 60 acres rich loamy fields cutting 2 tons hay acre; 10-cow wire-fenced pasture, lots apples, pears, plums; good 2-story 8-room house, piazza, beautiful shade, broad open view, fine 50-ft. barn, metal roof, granary. A farm you will be proud to own. Urgent interests force quick sale; \$8700 takes all, easy terms. It will pay you to investigate. D. A. JONES, Durand, Mich.

**198 A. Level Productive Farm**

only 1 mi. from town, 6 mi. from Kalamazoo. Fine apple orchard of 30 trees, other fruit for family use. 40 a. seeds, 19 A. alfalfa. All tillable but 14 A. timber. Bordering on beautiful resort lake, fine fishing and bathing; 100 cottages. Home with bath, furnace, and lights, beautiful yard, fine barns. Price \$20,000 terms. OSCAR E. BURNHAM, 507 Kalamazoo Nat'l Bank Bldg., Kalamazoo, Michigan.

**New York State dairy, alfalfa, fruit, poultry, grain and hay farms of 5 to 1,000 acres have these advantages:** low prices, productive soil, good buildings, near markets and railroads, macadam roads, many schools, unexcelled growing season and healthy climate. Our free bulletin lists 3,400 farms. F. J. Carr, Department of Farms and Markets, Albany, N. Y.

**Wanted to Hear** from owner of land for sale. O. K. HAWLEY, Baldwin, Wisconsin.

**FARMS** Poultry, truck, stock, and grain farms cheap. FIGGS & NOCK, Salisbury, Md.



## Royal Baby Chicks



### S. C. White and Brown Leghorns

**\$9 Per 100 Postpaid for July Shipment**

Place your order now for some of these high-grade chicks from pure-bred stock that has been bred to lay for the past 10 years. Just the kind of stock you need on your farm to bring you a good profit. Our many years of hatching experience enable us to give you chicks that are started right and will grow right. Any size orders accepted. Safe arrival guaranteed. Order direct to save time, or send for catalog.

**Royal Hatchery, R. 2, Zeeland, Mich.**

## CHICKS At Reduced Prices CHICKS

20,000 large, strong, well hatched chicks every Tuesday hatched from eggs laid by selected hens on free range insuring healthy, vigorous chicks that will live and grow into money for you.



Barron S. C. White Leghorn heavy weight and heavy layers American S. C. White Leghorns heavy laying strains S. C. Brown Leghorn the most beautiful Leghorn and a good layer.

S. C. Anconas great layers.

PRICES FOR JUNE AND JULY	Per 25	Per 50	Per 100	Per 500	Per 1000
S. C. White Leghorns	\$2.50	\$4.50	\$9.50	\$45.00	\$85.00
English W. Leghorns	2.75	5.00	10.00	47.00	90.00
S. C. Brown Leghorns	2.75	5.00	10.00	47.00	90.00
S. C. Anconas	3.00	5.75	11.00	52.00	100.00
Broiler Chicks	2.00	4.00	7.50	35.00	

We Ship By Parcels Post and Pay the Postage to Your Door.

We guarantee the chicks to reach you in good condition. Catalogue free.

**WYNGARDEN HATCHERY, Box M, Zeeland, Mich.**

## Day Old Chicks \$9 per 100

FROM

### Standard Bred Brown Leghorns and Standard Bred White Leghorns

The stock has been bred to lay for the past twelve years, and are now good laying strains. We also have English type White Leghorns which are a little heavier, and have very large combs and lay a large white egg. Those looking for the English type and a heavy laying strain, make no mistake when ordering from us. 100% safe arrival guaranteed by parcel post. Write for our catalog.

Order Direct from Ad. and Save Time.

**Wolverine Hatchery, R. 2, Zeeland, Mich.**

H. P. Wiersma, Owner and Manager

## Baby Chicks Pure Bred 800,000 in 1921

To your door Prepaid by us. Guaranteed live delivery. All our stock is of the Standard and free range and of heavy egg production at the price to meet times. And they are all No. 1 only



S. C. White Leg. } 10c each  
S. C. Brown Leg. }  
S. C. Buff Leg. }  
Broilers }  
Barred Rocks }  
White Rocks }  
S. C. & R. C. Reds }  
White Wyandottes }  
Anconas }  
B. Orpingtons }  
W. Orpingtons }  
18c each

Give us a trial order and you will always come back for more of our chicks get our big offer on chicks and brooders. Order direct from this ad and save delay. Circular Free.

**WOLF HATCHING & BREEDING CO., Dept. M, Gibsonburg, Ohio.**

## Big Special Stock Sale

**Yearling Hens and Male Birds. Pullets and Cockerels from 6 Weeks Old on Up.**

We have several thousand to select from. Can furnish stock of Utility, Exhibition and Laying Quality, at reasonable prices. When you write us, plainly state just what you want. Now if you want stock that is bred for high egg production and quality don't fail to grasp this opportunity and don't wait too long to order. We can more than please you for the money, guarantee you satisfaction.

**Huber's Reliable Hatchery, East High St., Fostoria, Ohio**

### POULTRY

**Barred Rocks** Hatching eggs from Parks 200-egg strain. Rich in the blood of Parks best pedigree pens. \$2 per 15, \$6 per 50, \$12 per 100. Prepaid by parcel post in nonbreakable containers. R. G. KIRBY, Route 1, East Lansing, Mich.

**CHICKS** English Strain White Leghorns the heavy laying strain at only \$15 per 100; prepaid by mail safe arrival guaranteed send cash with order special rates on 500 or more. **JAMESTOWN HATCHERY, Jamestown, Mich.**

**Baby Chicks** Good big, healthy chicks of show room quality at utility prices. Catalogue free. **Sycamore Hatchery, Sycamore, Ohio**

**Barred Rock and Ancona Chicks** \$12 per 100 for pure bred, safe arrival. H. H. Pierce, Jerome, Mich.

**CHICKS** English Strain White Leghorn. Bred to lay Brown Leghorn and Anconas. Bargain prices for our quality stock kept on free range. Order now for early deliveries. **Hilleide Grove Hatchery Farm, R. 1, Holland, Mich.**

Additional Poultry Ads. on Page 753

## A Review of the Egg Market

*How the Present Situation Looks to a Student of Marketing*

THE farmer was badly hurt early in the collapse of the war bubble, but singularly enough the farmer's wife remained relatively immune for a while, as prices on eggs, butter and poultry all remained at a high level. One by one these have bowed to the inevitable and both eggs and butter are now in the columns of thoroughly deflated commodities.

The fall in prices of eggs during the late winter and spring of 1921 deserves to take its place along with Humpty-Dumpty's great fall in the chronicles of eggdom. Almost every circumstance that could prepare the way for a spectacular decline was present in the situation.

The 1919-1920 egg season was a money-making one for both producers and storers. The outcome was an increase, estimated at twenty-five per cent or more, in the number of fowls raised in the spring of 1920. But the number of eggs stored was below normal so that prices became very high last fall and early winter. When grain prices dropped and eggs remained high, the returns from eggs were so much larger than from sales of grain at the elevators that production was further stimulated. At times a dozen of eggs would bring as much as two or three bushels of grain.

The winter was one of the mildest on record, with a mean temperature about ten degrees above normal. To make the picture complete, the spring weather arrived unusually early. Much balmy weather occurred in February and March even in northern states. The situation was ideal for the heavy production of eggs and the spring increase appeared early. Southern eggs began to show up first, then Pacific Coast eggs, but early in March, nearly a month ahead of normal, they began to come from all sections and the markets were flooded with them. The four chief cities actually received more eggs by over ten thousand cases during the first half of March this year than in the first half of April, 1920. Total storage holdings on April 1, which usually marks the start of the storage season, were 1,831,000 cases this year, against 121,733 cases last year.

The light stocks of storage eggs accumulated in the spring of 1920 prevented any pressure of excess supplies from showing up early last winter. At the four leading cities, Chicago, New York, Philadelphia and Boston, cold storage holdings were only 1,090,053

cases on December 1, 1920. The holdings on the corresponding dates of preceding years were:

	Cases.
1919	1,805,812
1918	1,177,107
1917	1,592,300
1916	1,400,000
1915	1,662,500
1914	1,577,000
1913	1,222,000
1912	1,690,000

It is apparent that the stocks last fall were the smallest of any recent year. Wholesale prices for storage eggs reached the enormous price of seventy-two and a half cents on January 15 as a result of scarcity at that time. From this point prices tumbled quickly to twenty-two cents in a few short weeks when reserves began to pile up. Loan limits by storage warehousemen were hastily reduced during the decline from \$9.00 a case to \$6.00 a case.

After reaching bottom, prices recovered slightly and then held relatively steady for a number of weeks. Eggs suitable for storage have been absorbed readily, weather conditions became less favorable for production in late April and early May and lower prices were less attractive to producers.

At first, storers in large markets were skeptical as to whether prices had reached bottom and the bulk of the storing was done by country dealers who were more optimistic and prices at some of the smaller points were above those in large cities. When further declines failed to develop confidence became more general.

The market has had a setback or two as the storage stocks have continued to accumulate and some holders became afraid that if the rate of production were maintained there would be a surplus of storage eggs over normal needs during the coming fall and winter. The season is not yet complete so that the matter must remain undetermined. Storage holdings on May 1 were 4,918,000 cases, compared with 2,135,000 cases on May 1 last year. During April, the net storage was 2,773,000 cases. In April last year net storage was only 1,804,000 cases. The excess this year was due to increased production rather than decreased consumption.

Does a heavy early lay mean a lighter production later in the season? The scientists are disposed to answer affirmatively but the natural law may work out differently in a commercial way.

## Some Habits of Hens

By R. G. Kirby

HENS seem to each have an individuality of their own much the same as all farm animals. Some hens are scary and will squawk and fly with every fright, while other hens will busily scratch and sing and pay little attention to minor disturbances. The busy hens with peaceful dispositions are apt to be the best layers.

Hens seem to depend upon their instincts to get along and we have never obtained direct evidence of any great use of brain power by a hen. At an early age small chicks will spy a hawk at a great distance away. The old hen will call them and they will run for protection. The roosters have a peculiar call which always means hawks. When this call is sounded even the dog has reasoned out that it means a hawk and he runs out and begins watching the sky to locate the bird. But the dog, according to our opinion, used a certain amount of intelligence in reasoning out the relation between the rooster's call and the hawk. The

poultry seem to have the power given to them by instinct.

A hen will fly over a fence and then at night she will walk back and forth trying to enter the yard until it becomes dark and she rests outside the fence to spend the night. It never seems to occur to the bird that she might fly back as easily as she came over. Some hens will run back and forth trying to go through a fence when the gate is open within three or four feet of the place they are trying to pass. They never figure out the best way of getting through in a quick and sensible manner. A dog or a pig would locate the gate right away and in the future they would always remember the exact spot where the gate was located and expect to get through at that point.

Many hens like to roost in the same place every night. They will fight for that place if another bird obtains it first. If the roosts are built ladder-fashion many of the hens will fight



for the top roost. This is done because their instinct tells them that the upper roost is the safest. Roosts are now built at an even level above the dropping-boards to keep the hens from quarreling and fighting every night at sundown.

Some hens have a mania for hiding their nests and if they are fastened in the laying-house at all times they will build a stolen nest in the litter far to the back of the house beneath the roosts. Other hens will always seek the nest boxes and lay in them, even if all the litter happens to be scratched out. When we think of it in one way, it is really quite wonderful that hens ever lay in the man-built nests when they have a range containing a hay mow, mangers, straw stacks and clover fields where they can hide eggs. How does the hen figure out that the section of boxes are placed in the house to obtain eggs where the owner can find them easily? After a hen-house is built, place even a couple of soap boxes full of straw in the corner of the house and the hens will soon seem to realize that they were placed there to contain eggs. When the new section of nests are built, many of the laying hens will come in and inspect the nests as carefully as a housewife will inspect a new flat in which she expects to move.

Roosters also have their traits of character. Some will fight and chase the other birds. Others are of a docile disposition. Generally the male with the most pugnacity will soon teach the others that he is the flock boss and after that is thoroughly understood there will be less quarreling. However, if the flock boss becomes weakened by illness or accident some other bird will soon find out that he can lick the former king and he will do it and then begin his reign in the barnyard. The saddest bird on the farm is the weakest of two cockerels in the flock when there are only two male birds. The stronger bird will fight the weaker and drive him from the feed hoppers and away from the flock. He is constantly suffering the humiliation of being beaten and driven by his rival. Even the hens lose respect for him, though sometimes he will obtain one or two friendly hens who will consent to ranging with him far away from the other birds.

If the weaker male tries to fight his stronger rival he is apt to be driven until exhausted and we have known of one fine looking Barred Rock cockerel to kill another almost as good by constantly driving him until he expired from weakness. When there are more than two cockerels in a flock they are apt to break in on each other whenever a fight starts, and the weaker bird receives some protection from his brothers in the flock.

A good male bird is a gentleman at feeding time and will always save the fine fat worms for the hens. Such a bird may actually starve himself and his condition must be watched during the spring to see that he gets enough food to keep in good physical condition. It is necessary to handle the bird carefully at inspection, as a rooster has so many feathers that they can conceal much of his bodily lack of development.

## The Clan Call

(Continued from Page 746)

Dale walked in. Flowers locked the door and went away.

Dale began to inspect his quarters. To all appearances, they were at least clean. There was a narrow bed covered with a pair of gray blankets, a stool and a soapbox, and nothing more. The light in the corridor behind him made snaky black lines of bar-shadows on the brick partition walls and the outer wall of stone. Dale shuddered in spite of himself. He put up one hand and turned on a small light,

which dissipated the uncanny shadows—and showed him a line from Dante's "Inferno" that to him seemed very miserable; some former occupant of that cell had written it with charcoal on the whitewashed outer wall.

Then Dale sat wearily down on the narrow bed, leaned his head upon his hands, and began to think.

He had always wanted difficulties to overcome, barriers to surmount, a work to do, a right to fight for himself. In full measure he had found them every one. He did not doubt his ability to overcome the difficulties, surmount the barriers, do his work well and fight his fight as a good man fights, and win—if it were not for the charge of having shot and killed Black Adam Ball. It seemed to him now that that must end all that was worth while for him. For that was more than a difficulty, more than a barrier.

He firmly believed that it had been his bullet that had finished the earthly existence of the giant hillman. True, it had been an accident. But how was he to convince a jury that it had been an accident? Would the jury take his word for it? The jury would not, of course.

The mysterious third shot, that had come from a little distance—but he could not reasonably expect deliverance from that source. If only he had held down his abominable, savage temper; if only he had—

Major Bradley interrupted his unpleasant train of thought.

"No brooding there, my boy!"

Dale looked up. The old attorney, as neat in appearance as though he had not even seen a saddle that day, was standing just outside the hateful door of bars; he was fingering his well-kept moustaches delicately, smiling broadly, his blue eyes a-sparkle. Beside him stood a whiteclad negro boy with a big tray of steaming food on one hand and a pot of steaming coffee in the other.

The jailer came and unlocked the door; also he very considerably brought another stool and fresh water. The major entered the cell, and the negro followed.

An amused twinkle appeared in Dale's eyes as Bradley put the tray down on the soapbox. There was enough for five threshing-machine hands! The black boy was sent to the front door to wait.

"I thought you'd be as hungry as I am, and I'm as hungry as poor old By Heck ever was!" laughed the major, as he sat down and began to pour the coffee. "Riding always made me as hungry as a bear in April. Light right into it, Dale. There's nothing like a good steak, for any meal, when a fellow is half starved; eh, Dale? Try that one, won't you? I told Massengale I'd cause his beheadment if these steaks weren't perfect. Massengale," he added, "runs the hotel here, the Eureka Funeral Parlors, and the One-Price Clothing Emporium."

"I wonder," smiled Bill Dale, "what he does with his spare time?"

Bradley laughed, his eyes twinkling merrily. Dale found that he too was hungry, now that savory odors had invaded his nostrils. A minute later, and he had pronounced his steak delicious.

"Massengale shall not suffer beheadment," said the major; and he began to carve his own steak.

It was an excellent meal, the grim surroundings notwithstanding. When it was over, the negro boy came and took away the dishes, and received with a gladsome grin the two silver coins that were given him. Then Bradley produced a handful of cigars, and two of them were promptly lighted.

(Continued next week.)

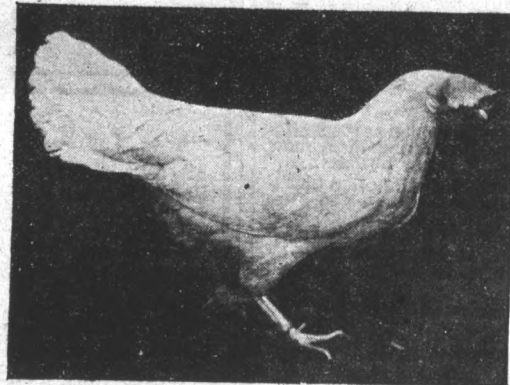
Get the child to thoroughly understand a principle and then he will soon begin to educate himself by applying that principle to the every-day things of life.

## SUPERIOR BABY CHICKS

June and July Chicks Make Best Winter Layers

We now offer Baby Chicks from our purebred farm raised, free range flocks at the following low prices. We ship by Parcels Post Prepaid to your door and Guarantee live arrival and complete satisfaction. Order direct from this Ad. and save time.

English  
White  
Leghorns,  
Anconas  
at  
10c  
each  
Broiler  
Chicks  
eight cents



American  
White and  
Brown  
Leghorns  
at  
9c  
each  
Ship any  
amount 25  
to 5000

Trap-nest record of 276 Eggs in one year.

**SUPERIOR POULTRY FARMS & HATCHERY,**  
Box 203, Zeeland, Michigan, G. D. Romeyn, Prop.

## ChicksChicks

Great price cut for June and July deliveries to lower than pre-war prices. Better chicks at a real bargain price. LOOK

Pure S. C. W. Leghorns \$9.00 a 100, \$4.50 for 50  
Pure Barron Eng. Leg. 11.00 a 100, 5.50 for 50  
Pure S. C. Anconas 11.00 a 100, 5.50 for 50  
Pure B. P. Rocks 14.00 a 100, 7.00 for 50

Hatch every Tuesday, order direct. Prompt shipment on all varieties by Parcel Post mail. Full count strong lively chicks on arrival. For quick service and an entirely satisfactory deal send us your order. 13 years reliable dealings. Fine instructive catalog and price list free.

**W. Van Appledorn**  
R. 7, Holland, Mich.

## B-A-B-Y-C-H-I-X

Crescent Strain S. C. W. White Leghorns, Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, Rhode Island Reds, Barred Plymouth Rocks, (also White), Wyandottes, (Silver laced and White) and Mottled Anconas. WE HATCH eggs from flocks on range on separate farms. Send for booklet, containing much of value to poultry raisers. CRESCENT EGG COMPANY, Allegan, Mich.



**Buff, Barred, Columbian**  
Partridge, Silver Penciled, White Rocks; Anconas, White Wyandottes, Rouen Ducks. \$2 setting. Catalog 2c. SHERIDAN POULTRY YARDS, R. F. D. 5, Sheridan, Mich.

## DAY-OLD CHICKS

\$16.00 per 100 and up. Hatching eggs, \$2.00 to \$15.00 per setting and \$9.00 to \$15.00 per 100. From 25 varieties of pure bred, farm raised fowls: Chickens, Geese, Ducks, Turkeys and Guinea. Price list and circular free. Plenty of nice breeding stock. Book now for early spring delivery. WILMINGTON HATCHERY & POULTRY CO., Wilmington, Ohio.

**Fowler's Buff Rocks** Egg prices cut one-half for balance of season. R. B. FOWLER, Hartford, Mich.

**S. C. WHITE LEGHORN CHICKS**  
Send for Catalog SNOWFLAKE POULTRY FARM, Route 1, Grand Rapids, Michigan

**Barred Rocks** egg contest winners, eggs from strain with records to 280 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

**John's** Big Beautiful Barred Rocks are hen hatched, develop quick, good layers, fine show quality, 30 eggs \$3.50, 50 \$5. Postage paid. Photos. circulars. JOHN NORTON, Olare, Mich.

**Barred Rocks** 8 to 12 week pullets, cockerels, hens and cock birds. Leading pen at M. A. O. for December averaging 22 eggs each. 1 pullet laid 27 eggs in both Dec. and January. 1 pullet laid 80 eggs in 91 days, winners at largest shows in state. Write for price list. G. Caball, R. 4, Hudsonville, Mich.

## LOOK. BABY CHICKS

at 8 cents and up. Announcing our summer prices for 1921.

W. Leg. 10 cents Buff Leg. 11 cents  
Br. Leg. 11 cents Anconas 12 cents  
Barred Rocks 13 cents Reds 13 1/2 cents  
Buff Rocks 13 1/2 cents W. Wyandottes 15 cents

Deduct 5% for orders of 500 or more, 10% for orders of 1000 or more. We prepay parcel post charges and guarantee live delivery. Send for free catalogue and earliest delivery date. Ohio Poultry Yards & Hatchery, Marion, Ohio

## BABY CHICKS of Superior Quality

Hot from the Hatchery, right to your door safely, by prepaid parcel post. BIG Strong, fluffy fellows hatched from eggs of selected flocks, and under our own supervision. ROCKS, LEGHORNS, ANCONAS, REDS and MINORCAS. Chicks that live and grow into money. Bred for EGG PRODUCTION and the SHOW ROOM. Save money by sending for our catalogue NOW. THE SUPERIOR CHICK HATCHERY, Lock Box 197, Prairie Depot, Ohio.

## Extra Good Chicks

Plan now on more eggs next winter. June and July chicks lay when eggs are high. Eng. White Leghorns, \$11-100; Brown Leghorns, \$11-100; Anconas, \$12-100. Postpaid anywhere. Catalog free. Monarch Poultry Farms and Hatchery, Zeeland, Mich.

## LOOK [75,000] CHICKS

Our Hi-Grade profit paying Bred-to-Lay. M. A. O. tested and exhibition chicks, at reasonable prices. Hatching eggs, 8 varieties, Circular FREE. Lawrence Poultry Farm, R. 7, Grand Rapids, Mich.

**R.C. Br. Leghorn** Eggs, \$1.50 for 15. Pekin duck, \$1.50 each. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

**BEST** Breeds, Chickens, Ducks, Geese, Turkeys, Guinea, Hares, Dogs, Stock and eggs. Write your wants. Catalog free. H. A. Souder, Box 94, Sellersville, Pa.

**Chicks**, for May and later delivery. Leghorns 13 1/2 S. C. Reds 15 dollars hun. Circular FREEPORT HATCHERY, Box 12, Freeport, Mich.

**Baby Chicks** \$11 a 100 and up. Postage PAID, 95% live arrival guaranteed. FREE feed with each order. 40 breeds chicks, 4 breeds ducklings. Select and exhibition grades. A hatch every week all year. Catalogue free. Stamps appreciated. NABOB HATCHERIES, Gambier, Ohio

**100,000 CHIX 11c UP.** Best selected utility trapnested exhibition stock ever produced. Always 2,000 chix on hand 5 to 15 days old. 18 varieties. Hatching eggs. Hens, ducks. Early bookings, avoids disappointment. Catalog. Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

## PULLETS

4,500 White and Brown Leghorn and Ancona 8 weeks old pullets; also 10,000 yearling Leghorn and Ancona hens. Send for prices and description of stock. STATE FARMS ASSOCIATION, Kalamazoo, Mich.

**USEFUL ANCONAS** June and July chicks. Eggs half price \$2.50 per 100. \$3.50 per fifty. Hogan tested, beauty and utility combined. Specialty breeder S. C. Mottled Anconas. Send for booklet. (Useful facts about Useful Anconas). It is free. College View Farm, R. 3, Hillsdale, Mich.

**WHITTAKER'S R. I. REDS** Both Combs. Michigan's Greatest Color and Egg Strain. We are offering some unusual bargains in Chicks and Hatching eggs for June and early July. Write for Free Catalog. INTERLAKES FARM, Box 39, Lawrence, Mich.

**Baby Chicks** and eggs for hatching. Reduced prices after May 25th. Leghorns 11 cents. Rocks and Reds 16 cents for May and 13 cents for June and July. Get your order in early at these prices. Hatch every Tuesday. Interesting catalogue free. Brummer's Poultry Farm, R. 8, Holland, Mich.

**Baby Chix**—12,000 Standard Quality every Tues. at greatly reduced prices; Mottled Anconas, English and American White Leghorns, Brown Leghorns and Barred Rocks; all single comb, Parcel Post paid, safe arrival guar. Knoll's Hatchery, R. 3, Holland, Mich.

**HEASLEY S. C. Buff Leghorns**, eight-week-old pullets and cockerels and breeding hens at bargain prices. Bred from officially certified egg bred winners, original Dr. Heasley flock. Chicks at special prices. Henry DeFree, R. 8, Box 137, Holland, Michigan

**English White Leghorns** chicks 10c, pullets 75c and up. Our choice breeders reasonable. Discount on large orders. Robt. Christopher, R. 4, Holland, 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.

**S. C. Black Minorcas** Eggs from No. 1 pen will be \$1.50 per setting of 15, for the bal. of the season. R. W. Mills, Saline, Mich.

**PULLETS**: Extra selected, high grade Barred Rock and White Leghorn pullets. 1 lb. and over at right prices. Model Poultry Farm, R. 4, Zeeland, Mich.

**Quality Chicks** Black Minorca, Light Brahma, 25c each. Barred Rock, R. I. Red, 15c each. Tyrone Poultry Farm, Fenton, Mich.

**White and Brown** Leghorn chicks from selected flocks 1c each, thereafter. Other breeds 12 cts. Order from this ad. DERR & ADAMS, Litchfield, Mich.

**White Wyandottes**: 207 egg average Hatching eggs, \$2.00 per 15. Baby chicks 23 cents each. Cockerels, hens and pullets. FRANK DeLONG, R. 3, Three Rivers, Mich.

**White Wyandotte** and Barred Rock eggs, half price balance of season. HOWARD GRANT, Marshall, Mich.

**Pullets** S. C. W. Leghorns for June, July and August 8 to 10 weeks old \$1 each. HENRY WATERWAY, R. 4, Holland, Mich.

Additional Poultry Ads. on Page 757



## BREEDERS' DIRECTORY

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

THE HOME OF

Imp. Edgar of Dalmeny

Probably

The World's Greatest  
Breeding Bull

Blue Bell, Supreme Champion at the Smith-  
field Show 1919, and the Birmingham Show  
1920, is a daughter of Edgar of Dalmeny.

The Junior Champion Bull, Junior Cham-  
pion Female, Champion Calf Herd and First  
Prize Junior Heifer Calf, Michigan State Fair,  
1920, were also the get of Edgar of Dalmeny.

A very choice lot of young bulls—sired by  
Edgar of Dalmeny are, at this time, offered  
for sale.

Send for Illustrated Catalogue.

WILDWOOD FARMS  
ORION, MICHIGAN

W. E. SCRIPPS, Prop.

Sidney Smith, Supt.

## Woodcote Angus

Trojan-Erica and Blackbirds (Blackcaps)

Herd Bulls

Imp. Elcho of Harviestoun.

Imp. Edgardo of Dalmeny

Write for 1921 Sale List.

Woodcote Stock Farm, Ionia, Mich.

## CLOVERLY ANGUS

Cows and Heifers Bred to

Blackcap Brand of Woodcote 2nd

GEO. HATTAWAY &amp; SON, Ovid, Mich.

REGISTERED Aberdeen-Angus. Ten heifers, six  
bulls from eight to fourteen months. Best of  
breeding, the growthy kind that make good. Reason-  
able. Inquire F. J. WILBER, Olio, Mich.

## Reg. Aberdeen Angus

bulls and heifers of the very best of breeding, from  
12 to 15 months of age. For next 30 days will price  
bulls at \$100.00. Real bargains. Inspection invited.  
RUSSELL BROS., Merrill, Mich.

## GUERNSEYS

Bull calves for sale. Sired by Anton's May King that  
sold for \$7,000. Farmers' prices and guaranteed to  
please. GILMORE BROTHERS, Camden, Mich.

REGISTERED Guernseys. Bull calf ready for light  
service—out of our old Foundation Cow—Primrose  
Hessie—and one of the best May Rose Bulls in the  
state, \$100 buys him. Never had a reactor—no abortion.  
Herd Fed. Tested. J. M. Williams, No. Adams, Mich.

GUERNSEYS—REGISTERED  
BULL CALVES  
Containing blood of world champions.  
HICKS' GUERNSEY FARM, Saginaw, W.S. Mich.

Guernsey Bulls of May Rose Breeding  
Their dams have records  
420 to 650 lbs. fat, also a few cows and heifers are  
offered. H. W. Wigman, Lansing, Mich.

For Sale 5 young imported Reg. Guernsey cows  
for \$250 each. Also May Rose herd  
bull; his 5 nearest dams average 725 lbs. fat, \$300  
E. A. BLACK, Howard City, Mich.

Guernsey bulls, grandsons of Carrie of Hillhurst  
3rd A. A. Glass Leader, and out of cows on test.  
Also a 2 yr. old out of a 3 1/2 yr. old with a 500 lb. record.  
Priced to sell. Federal tested. Satisfaction guaran-  
teed. G. W. and H. G. RAY, Albion, Mich.

Reg. Guernsey bulls for sale cheap. State T.B. test-  
ed and from good producing and A.R. cows. Age 1  
to 12 mo. C. E. Lambert & Sons, Linwood, Mich.

Guernsey prices. Females of superior breeding, at reduced  
Tuberculin tested. Send for  
sale list to day. G. A. Wigent, Watervliet, Mich.

Guernsey Bull grandson of Langwater King of May  
3 yrs. old, quiet and sure, price right.  
Apply The Jennings Farms, Bailey, Mich.

## WinnWood Herd

Registered

Holstein-Friesian Cattle

We breed them to sell. If you  
are looking for seed stock, we  
have it.

John H. Winn, [Inc.]  
Rochester, Mich.

## USE PURE-BRED SIRES!

Estimates furnished by the Dairy Division of the  
United States Department of Agriculture show  
that the dairy cows of the country average only  
4,500 lbs. of milk per year.

A good Holstein bull will increase the production  
of the ordinary herd 6 per cent in the first gener-  
ation.

Let us help you find a good one to use on your  
herd. You cannot make a better investment.

The Michigan Holstein-Friesian  
AssociationH. W. NORTON, Jr., Field Secretary,  
Old State Block, Lansing, Michigan

## HOLSTEIN CATTLE

E. W. McNitt, Route 9, Grand Rapids, Michigan,  
writes:

"We bought our first registered females in 1906, and  
now we have over one hundred head of females and  
several good sires, and we think we owe our success  
mostly to the Holstein breed. We can sell them faster  
than we can raise them." Send for Free Booklets.

The Holstein-Friesian Association of America  
164 American Bldg., Brattleboro, Vermont

## O. I. C. HOGS

all ages sired by Callaway Edd 1918 world's grand champ. boar and C. C.  
Schoolmaster 1919 world's grand champion also Wonder Big Type and Giant  
Buster. Write your wants, all stock shipped on approval.

CRANDELL'S PRIZE HOGS,

Cass City, Mich.

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

## BLYTHEFIELD FARMS

If you want to get a pure bred Holstein Herd Sire  
from a Dam who produced 752 pounds of milk and  
nearly 34 pounds of butter in seven days, write to  
JOSEPH H. BREWER, Grand Rapids, Mich.

Reg. Holsteins for sale at all times either  
sex. Bulls or heifers, prices  
reasonable. Write or come and see them.  
HENRY S. ROHLFS, R. 1, Akron, Mich.

"Alcartra Pontiac  
Butter Boy"

(136933) is the Sire of the  
State Champion Jr. 2 yrs. old  
both 1919 and 1920. Why not  
get a son of one his daughters  
from that wonderful young  
sire Judge Joh. Lyons.

Sindlinger Brothers,  
Lake Odessa, Mich.

## Here Is a Good One

Born June 2nd. by Maplecrest De Kol Hengerveld,  
a sire having three sisters each having records of over  
1200 pounds of butter in a year. Two of them former  
world champions, calf's dam by an own brother to  
Highland Hartog De Kol yearly record of 1247.95  
pounds. This combination of breeding will give re-  
sults. HILLCREST FARM, Kalamazoo, Mich.

## "Top Notch" Holsteins

Buy a "milk" Bull of Quality from the Breeders  
of the world's only cow to produce 800 lbs. milk in 7  
days, having an 800 lb. daughter.

Our herd is rich in the blood of Olantha 4th Jo-  
hanna, the only cow that ever held all world's records  
in every division from one day to one year at the same  
time. She produced 651.70 lbs. milk in 7 days. We are  
offering for sale a bull, whose dam exceeds this record  
by over 7 1/2 lbs. in 7 days.

His dam's records are—  
Milk 1 Day 100.1 lbs.  
Milk 7 Days 659.3 lbs.  
Butter 7 Days 26.31 lbs.

His name is  
KING VALE CORNUCOPIA WAYNE, No. 312599

Born February 6, 1920

His dam and sire's two nearest dams average

Butter 7 Days 33.02 lbs.

Milk 7 Days 607.3 lbs.

Handsomely marked about one third white.

\$250.00 f. o. b. Howell.

McPHERSON FARMS CO., Howell, Mich.

All herds under U. S. Supervision.

## A Proven Blood Line

KING SEGIS transmitted to his sons the power to  
transmit to their daughters the greatest of produc-  
tion over long periods. It is his offspring that has  
recently made the greatest yearly production ever  
dreamed of 37,381.4 pounds of milk in a year.  
We have for sale at moderate prices,  
Beautiful individuals of show type KING SEGIS  
BULLS.

GRAND RIVER STOCK FARM,  
315 N. East Ave., Jackson, Mich. O. J. Spencer, Owner,  
Under State and Federal Supervision

A Good Note accepted in payment of finely bred reg-  
istered Holstein bull calves. Quality  
of the best, and at prices within reach of all. Write,  
GEO. D. CLARKE, Vassar, 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.

## Cluny Stock Farm

Offers

Cluny Konigen Colantha Silver 326205  
Born May 29, 1920

A white bull with a few black spots.  
His sire a 30 lb. son of King Segis Pontiac Konigen.  
Sire's 7 nearest dams average 32,301 lbs. butter 624.1  
lbs. milk in 7 days.

His dam has a Jr. 3 year old record of 17,683 lbs.  
butter from 418.7 lb. milk and is a granddaughter of Colan-  
tha Johanna Lad.

2nd dam—a 21 lb. cow that our barn records show milk-  
over 145,000 lbs. in 14 milking periods producing 15  
calves.

pedigree on application.  
Price \$250.00. Federal Accredited Herd.

R. Bruce McPherson, Howell, Mich.

## Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscrib-  
ers. 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.

Dog Has Tapeworm.—My dog is  
passing tapeworm segments. Will you  
tell me what to give him? L. H., Sil-  
verwood, Mich.—For each pound of  
body weight give two grains of pow-  
dered areca nut in capsule. Fast dog  
for twenty-four hours before giving  
the medicine; also give full dose of  
castor oil two hours later. Medicate  
dog twice a week, until you fail to find  
worms in excrement.

Warts on Teats.—I have a cow that  
has warts on one of her teats. J. S.  
P., Davisburg, Mich.—Clip off the long  
warts, apply olive oil after milking her  
twice daily.

Caked Udder.—One-half of my cow's  
udder is caked, three of her teats milk  
fairly well, but the other is blocked.  
W. F. C., East Leroy, Mich.—Apply one  
part iodine and ten parts fresh lard to  
caked portion of udder and to blind  
teat, once a day.

Sore Eye.—We have a cow that has  
an injured eye, the lower corner is the  
part that was hurt. We applied white  
vitriol and water. Part of eye ball  
has escaped. She is not sick, gives  
plenty of milk and is thrifty. C. W.  
L., Lansing, Mich.—Dissolve a tea-  
spoonful of boric acid and a teaspoon  
ful of borate of soda in one pint of  
clean water and apply to eye two or  
three times a day.

Grubs (Warbles).—Have a heifer  
that has a few grubs in back; would  
like to know how to treat her. W. G.  
W., Galesburg, Mich.—Enlarge open-  
ing in skin with a clean penknife,  
squeeze out and kill grub, dust on  
some boric acid and wound will soon  
heal.

Warbles.—Have three cows, their  
backs are full of grubs; tell me what  
to do for them. W. H., Marine City,  
Mich.—Pressure properly applied to  
the swellings will cause the grubs to  
"pop out" if they have reached a late  
stage of development. In my practice  
I often remove them with slender for-  
ceps, but if unable to do so, I slit the  
skin with a sharp knife, after which I  
press them out and always kill the  
grub. Apply any good home healing  
remedy to wounds daily.

Udder Ailment.—Ever since the ear-  
ly part of April my cow has been trou-  
bled with a bunch in udder; it is hard  
and spreading, until now half of bag  
is involved. A. N. D., Montague, Mich.  
—If she has not been recently tested  
with tuberculin and failed to react,  
have your veterinarian do so. Her  
symptoms are somewhat suspicious.  
Iodine ointment is a proper remedy to  
apply.

Barrenness.—I have a six-year-old  
cow that came fresh two weeks before  
time; since then she has been served  
five different times without getting with  
calf. E. H., Fenton, Mich.—Flush the  
vagina daily with salt and water—a  
tablespoonful in half a gallon of water.

Sweeny.—Have a four-year-old mare  
that I am breaking to work that has  
developed sweeny, but it never showed  
until five days ago. Have only worked  
her half a day at a time. E. T., Big  
Rapids, Mich.—Apply equal parts tur-  
pentine, aqua ammonia and raw lin-  
seed oil to atrophied parts every day  
or two until she is well. The collar  
should fit properly.

Chronic Sweeny.—Some time ago I  
sweened one of my three-year-old colts  
and now the shoulder muscles have  
wasted away. Would like to know how  
to treat this case. H. S., Avoca, Mich.  
—Clip off hair and apply one part pow-  
dered cantharides and six parts fresh  
lard every ten days. This ointment  
will slightly blister the shoulder and  
stimulate a healthy action. Keep up  
this treatment until a recovery takes  
place.

Unthrifty Colt—Soreness.—Have a  
three-year-old colt that has not shed  
its old coat of hair; stands with head  
low and is seemingly not thriving. I  
also have a fifteen-year-old horse that  
is out of condition; when first starting  
he moves stiff, but soon limbers up  
and does not show it much. I do not  
believe he has been overheated. He  
is not thriving. R. H. S., Whittemore,  
Mich.—Give your colt thirty drops of  
fluid extract of nuxvomica and three  
drams of Fowler's Solution at a dose  
three times a day until it is in good  
condition. Give the fifteen-year-old  
horse one dram of salicylic acid at a  
dose in feed three times a day and let  
him run on grass, especially at night.

Reg. Holsteins and Berkshires, most any age, either  
sex, priced according to other commodities. Write  
or come. B. B. REAVEY, Akron, Mich.

## HEREFORDS

Cows with calves at side, open or bred  
heifers of popular breeding for sale. Also  
bulls not related.

Allen Bros. Paw Paw, Mich.

616 So. Westnadge Ave.,  
Kalamazoo, Michigan

Thumb Hereford Breeders Association  
now offering some excellent young males and fe-  
males of choice breeding. Can furnish one or a  
carload. Priced right. Your inspection solicited.  
Jas. R. Campbell, Secretary, Bad Axe, Mich.

FOR SALE: Full-blooded high-class Hol-  
stein Bull.  
Black & White Farm, Fremont, Mich.

## HEREFORDS

Two high class, registered bulls, nearly a  
year old, for sale. One double standard,  
and one with horns, good size, color, and  
markings. Both the making of show bulls  
COLE & GARDNER,  
HUDSON, MICH.

Registered Jersey bulls, some ready for  
service, sired by Ox-  
ford's Champion Fox 168881, out of Oxford Daisy's  
Princess, Register of Merit record 831 lbs. milk; 463  
lbs. butter with first calf, milked 50 lbs. per day with  
second calf. Sister to Sadie Crown Princess 16378 lbs.  
milk, 1031 lbs. butter in one year. The dams of these  
bulls are high producers, many of them are prize  
winners. Prices very low, quality considered.  
C. S. BASSETT, Kalamazoo, Mich.

BUTTER BRED JERSEY BULLS  
CRYSTAL SPRING STOCK FARM,  
Silver Creek, Allegan County, Michigan.

The Wildwood Farm  
Jersey Cattle, Majesty strain, Herd on State accredit-  
ed list, R. of M. testing constantly done. Bulls for  
sale. ALVIN BALDEN, Phone 143-5, Capac, Mich.

Thorobred Jersey Bull Calves Hood Farm  
breeding State  
and Federal accredited list, \$25.00 each. Also one  
yearling bull ready for service. Pedigrees on request.  
I. W. JAYNE & BEN BRAWT, Fenton, Mich.

JERSEY BULLS Ready for Service.  
and—Majesty breeding. Meadowland Farm, Water-  
man & Waterman, Packard Rd., Ann Arbor, Mich.

Lillie Farmstead Jerseys Bull calves from  
R. of M. cows.  
COLON C. LILLIE, Coopersville, Mich.

Registered Jersey Bulls ready for service from  
R. B. FOWLER, Hartford, Mich.

Jersey Bulls For Sale ready for service from R. of  
M. dams. T. B. tested. Will give time.  
SMITH & PARKER, R. 4, Howell, Mich.

Milking Shorthorns Young bulls with excellent  
pedigrees from best milk-  
ers. O. M. YORK, Millington, Mich.

Milking Shorthorns, bulls and heifers 5 mo. to 1  
year old for sale at reduced prices to make room  
for younger stock. E. R. KURTZ, Mason, Mich.

BIDWELL SHORTHORNS  
BUY A BULL

that will put weight on your dairy calves—the dif-  
ference 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

Shorthorns. Bull calves for sale from the  
best milking blood obtainable.  
ROSEMARY FARMS, Williamston, Mich.

## Richland Shorthorns

We offer a few choice Scotch heifers with calves  
at foot. This is good foundation stock and the  
calves are all from top sires. Prices reasonable.  
Write your wants and see the cattle.

C. H. PRESCOTT &amp; SONS,

Office at Tawas City, Mich., Herd at Prescott, Mich.

## The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford  
Welfare, in service. Stock for sale.

J. V. WISE, Gobleville, Mich.

Huron County Shorthorn Breeders Ass'n.  
offer for sale Scotch and Scotch topped males and  
females of all ages. 300 head to select from. For  
information address Jas. R. Campbell, Secretary,  
Bad Axe, Michigan.



### HOLSTEINS SELL AT GOOD FIGURES.

THE third state sale conducted by the Michigan Holstein-Friesian Association at Grand Rapids, was a decided success. Sixty-four animals sold for a total of \$26,620, or an average of \$416 per head. There were four sales above the thousand dollar mark and fifteen at \$500 or more. Six young males brought a total of \$2,375, or an average of \$396 and the fifty-eight females went under the hammer for a total of \$24,245, or an average of \$418. The sale was topped by Crest Farm Johan Pauline 423898, a three-year-old with two state records, consigned by Walter W. Hill, of Davison, Michigan, and bought by H. Chris Hansen, of Lansing, for \$1,650. The other sales are as follows:

Consigned by G. F. Baldus & Son, Diamonddale.  
Elzever Korndyke 208387, born April 15, 1912, to S. C. Field, Sparta, \$450. Consigned by Harold Barnum, Woodland.

Alice Segis De Kol Walker 519321, born June 30, 1919, to A. G. Finkbeiner, Middleville, \$225.

Pauline Walker Beryl DeKol 561693, born October 25, 1919, to T. J. Blanchard, Cedar Springs, \$130. Consigned by Boardman Farms, Jackson.

Fidessa Aaggie Ella 389842, born October 13, 1916, to H. C. Jones, Marion, \$250.

Unique Houwtje Abbot 168173, born August 29, 1911, to Oscar R. Rumsey, Hudson, \$250.

Stoneacres Pontiac Cordray 320318, born January 1, 1916, to Frank Jewell, C. and Rapids, \$220.

Consigned by J. F. Bowley, Ovid.  
Beauty Segis Korndyke Elzever 544075, born December 9, 1928, to Eddy Voss, Grand Rapids, \$225.

Idlewild Colantha Vale 516822, born December 11, 1918, to Voss Bros., Grand Rapids, \$300.

Consigned by John Buth, Grand Rapids.  
Traverse Clothilde 331904, born July 26, 1915, to M. Ossewaarde, Ada, \$700.  
King Sylvia Traverse Model 344111, (male), born March 10, 1921, to John W. Schippers, West Olive, \$165.

Consigned by W. R. Harper, Middleville.

Thornapple Veeman Pride 303897, born November 10, 1914, to Michigan School for the Deaf, Flint, \$465.

Thornapple Traverse Belle 629935, born April 28, 1919, to C. C. Bisbee, Moline, \$170.

Consigned by Walter W. Hill, Davison.

Genrida Netherland 408496, born September 24, 1916, to A. Sprout, Grand Rapids, \$225.

Hengerveld Hopes Zubrod 143826, born October 30, 1910, to John Buintendyk, Sparta, \$200.

Genrida Mercedes DeKol 351443, born March 16, 1916, to Boardman Farms, Jackson, \$275.

Genrida Durkje Pauline 615465, born July 15, 1919, to L. C. Ketzler, Flint, \$200.

(Male), born October 7, 1920, to Leon Henney, Lake Odessa, \$500.

Consigned by James Hopson, Jr., Owosso.

Lady Segis Hartog Pontiac 563302, born December 24, 1918, to Elden Hunsberger, Grand Rapids, \$210.

Consigned by S. F. Jenkins & Son, Eagle.

Dottie Korndyke 294209, born January 15, 1915, to John C. Buth, Jr., Grand Rapids, \$470.

Princess De Nijander Korndyke 596-995, born November 22, 1919, to P. Buth, Comstock Park, \$350.

Consigned by Jordan Bros., Woodland.  
Netherland Munk 2d 275505, born April 30, 1914, to W. E. Fellows, Flint, \$400.

Bessie Fayne Johanna 318672, born September 26, 1915, to Dudley E. Waters, Grand Rapids, \$400.

Consigned by Lannen T. Roberts, Howell.

Rose Pontiac Palmyra Fayne 330040, born October 24, 1914, to W. E. Fellows, Flint, \$400.

Consigned by R. Bruce McPherson, Howell.

Cluny Lorena Pontiac 389120, born October 19, 1916, to A. J. Barker & Son, Belmont, \$425.

Cluny Maplecrest Cantrilla Pietje 389125, born January 8, 1917, to Musolf Bros., South Lyon, \$380.

Consigned by Michigan School for the Deaf, Flint.

Dolce of Eden 250767, born September 13, 1913, to H. Chris Hansen, Lansing, \$900.

Canary Mercedes Pontiac Pet 394, 464, born December 24, 1916, to N. W. Wentworth, Battle Creek, \$775.

Traverse Crown Colantha 390225, born September 12, 1916, to Wm. Ka-boos, Ada, \$350.

K. L. Daisy Hengerveld Mercedes 239311, born September 12, 1913, to M. W. Wentworth, \$325.

X. L. Pansy Hengerveld Mercedes 174686, born August 19, 1914, to N. W. Wentworth, \$325.

Belle Perfection De Vries 4th 214561, born October 30, 1912, to N. W. Wentworth, \$1,050.

Consigned by S. H. Munsell, Howell.  
Starlight Genevieve Wayne 396017, born September 5, 1916, to Frank Jewell, Grand Rapids, \$225.

Consigned by H. W. Norton & Son, Howell.

Mapleside Segis Anna 3d 390863, born April 5, 1917, to Dan Buth, Belmont, \$175.

Consigned by Martin Ossewaarde, Ada.  
Pauline Altadale 210488, (male), born March 20, 1913, to A. J. Patterson, Grand Rapids, \$710.

Altadale Nudor Prince 317105, (male), born June 5, 1920, to Emil A. Rasmussen, Sheridan, \$325.

Consigned by H. E. Rising Woodland.  
Emaline Houwtje Hengerveld 290-416, born September 12, 1914, to F. D. Cutler, Wayland, \$510.

Consigned by Oscar R. Rumsey, Hudson.

Lady Nell DeKol Korndyke 545397, born November 21, 1918, to John Buintendyk, Sparta, \$300.

Jane Melchoir DeKol 2d 275678, born March 21, 1914, to Boardman Farms, \$300.

Rag Apple King Canary Korndyke born September 24, 1919, to Arthur N. Hallan, Dor, \$150.

Consigned by E. L. Salisbury, Shepherd.

Evalina Pietertje Korndyke 199937, born October 12, 1920, to F. S. Jenkins & Son, Eagle, \$380.

Hengerveld Fayne Sadie Vale 300-900, born December 8, 1914, to A. Cladder, Grand Rapids, \$310.

Consigned by George W. Schneider, Lake Odessa.

Rosa Bonheur Canary Queen 148576, born March 5, 1910, to John M. Tobin, Allegan, \$280.

Peter J. Pride Calamity 2d 307284, born January 25, 1915, to G. Waldeck, Caledonia, \$200.

Consigned by D. N. Stowell, Woodland.  
Maud Wayne Veeman Hengerveld 258445, born December 4, 1913, to John C. Buth, Grand Rapids, \$775.

Consigned by Traverse City State Hospital, Traverse City.

Traverse Segis Netherland 287731, born September 9, 1914, to N. W. Wentworth, Battle Creek, \$450.

Traverse Segis Netherland DeKol 361615, born August 14, 1916, to John C. Buth, Grand Rapids, \$300.

Traverse Princess Segis 469131, born March 11, 1918, to F. D. Cutler, Wayland, \$390.

Traverse Echo Sylvia King (male), born September 14, 1920, to T. W. Sprague, Battle Creek, \$500.

Traverse Aaggie Inka 469129, born February 24, 1918, to John C. Buth, Grand Rapids, \$225.

Consigned by H. L. Voepel, Sebawaing.  
Model Annie Wayne DeKol 387955, born May 27, 1917, to T. C. Rasmussen, Greenville, \$205.

Voepel Farm Hengerveld Annie, 619-463, born November 21, 1919, to Anthony Gless, Caledonia, \$105.

Barbara Pauline Clothilde 2d 251168, born October 15, 1913, to Lynn Bradford, Sparta, \$250.

Voepel Farm Champion Pauline, born November 12, 1920, to Lynn Bradford, \$150.

Consigned by M. W. Willard & Sons, Grand Rapids.

Utility Aaggie Hengerveld 271970, born September 3, 1914, to O. House, Sparta, \$275.

Consigned by Musolf Bros., South Lyon.

Emily Winona Calamity 189397, born September 15, 1911, to George D. Ferguson, Rushton, \$770.

Segis Pieter Butter Girl 598759, born November 30, 1919, to Carl & Simon Braun, Ann Arbor, \$650.

Pietertje Mercedes Colantha 188274, born October 15, 1911, to L. S. Hunter, South Lyon, \$400.

King Ona Pietertje, born December 28, 1920, to Tracy Crandall, Howell, \$275.

Korndyke Bernardo Sadie Vale 428-521, born February 4, 1917, to George Essex, Willis, \$1,250.

Consigned by E. M. Bayne, Romeo.  
Valet Pietertje Pride 300543, born January 15, 1915, to P. Buth, Comstock Park, \$600.

S F K P 6th Princess Bonte, Natoya 476457, born April 4, 1918, to Michigan School for the Deaf, Flint, \$325.

North Star Retta Clyde 38674, C H B, born March 25, 1915, to M. D. Buth, Comstock Park, \$1,350.

Queen Pauline Johanna 119399, born September 19, 1908, to P. Buth, Comstock Park, \$220.

### CATTLE

**BUY SHORTHORNS** of Central Michigan. Shorthorn Breeders' Association at farmers' prices. Write for sale list to M. E. Miller, Sec'y, Greenville, Mich.

**Shorthorn Bull** For sale. Fames Pride 72472. Two yrs. old nice roan with star in forehead. Very gentle and a fine specimen of the breed. Price \$225.00. W. E. BARTLEY, Alma, Mich.

We now have  
**FIVE BRED HEIFERS** that we will sell cheap if taken at once. Inquire about them or better come and see them. CARR BROS. & CO., Had Axe, Mich.

**Francisco Farm Shorthorns** and BIG TYPE POLAND CHINAS. Now offering 3 heifers, 2 bulls, all Scotch. Sows to farrow in Aug. and Sept. Spring pigs. 60 head to choose from. POPE BROS. CO., Mt. Pleasant, Mich.

**Shorthorns** Imp. Royal Pioneer in service. Bred by J. Burno. J. A. BARNUM, Union City, Mich.

Reg. Red Polled cattle, herd headed by Famous Chamer 75 same blood as Chamer 1919 Int. Gd. Champion. Herd State and Fed. tested. No cattle for sale at present. Westbrook Bros., Ionia, Mich.

### HOGS

#### Place Orders NOW

for BERKSHIRE boars or sows 6 to 8 weeks old Reg. and Trans. and delivered anywhere in Mich. for \$15, or a fine large bred sow at \$40.00. I also have an exceptionally fine 400 lb. boar for sale at \$40.00. He is a dandy and anybody in the market for him should never pass this up. He is a good one. C. H. WHITNEY, Merrill, Mich.

**Berkshire Bred Sows** and Gilts \$50 and up, for April, May and June farrow. Have a few good fall pigs at reasonable prices for sale. M. G. MOSHER & SONS, Osseo, Mich.

**Berkshire spring pigs**, either sex, \$10, \$12 and \$15 according to age. Also fall gilts and yearling sows. CHASE STOCK FARM, Marietta, Mich.

**Chester Whites** fall and spring pigs mostly sired by Chickaw's Ace, a real boar. Let me know what you need. ALBERT DORR, Clinton, Mich.

**Brookwater Duroc Jerseys** FALL BOARS OPEN GILTS

All of the right type and the best of breeding. Prices reasonable. Mail orders a Specialty. Satisfaction guaranteed.

**BROOKWATER FARM**, Ann Arbor, Mich.  
H. W. Mumford, Owner J. B. Andrews, Mgr.

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

**DUROC JERSEYS** Bred gilts, service boars and fall boar pigs at Bargain prices. Your correspondence or personal inspection is cordially invited.

RUSH BROS., Oakwood Farm, Romeo, Mich.

**Duroc Boars** at bargain prices large growthy hogs 15 months old at \$60. Will send C. O. D. and register in the buyers name. Orders booked for Apr. pigs to deliver June 1st. W. E. Bartley, Alma, Mich.

**Write Me** at once I have just what you want heavy bone registered Duroc Jersey boars ready for service. W. H. MAYES, L. B. 505, Durand, Mich.

**DUROC Jerseys.** Boars for spring service, heavy boned type, from the most popular blood lines at reasonable prices. Partridge Rock eggs from best laying strain \$2 per lb. Drott & Berns, Monroe, Mich.



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

**Phillips Bros, Riga, Mich.**

**Reg. Duroc Boars** wt. 125 lbs. \$30.00. Fine stock exp. paid. J. R. HICKS, St. Johns, Mich.

**Duroc Jersey Boars** of all ages, big, heavy boned smooth chin, real herd boars and priced to sell. First check for \$50 gets a 400 lb. April yearling, a grandson of Panama Special. Write for pedigree or come and see. Visitors always welcome. Satisfaction guaranteed. Thos. Underhill & Son, Salem, Mich.

**DUROC SOWS** and gilts bred to Jacks Cherry Orion King No. 169259 Son of the \$10,000 boar owned by Longview Farm, Le Summit, Mo. also young boars ready for service out of good sows. Apply THE JENNINGS FARM, Bailey, Mich.

Buy good hogs now. From one of the largest herds of 3 registered Durocs in the state. Open fall gilts at \$25. Sows and gilts bred for summer and fall farrow. Booking orders for spring pigs. Will accept a few sows to be bred to good sons of Great Orion Sensation and Duration. Michigana Farm, Pavilion, Mich.

**Registered Duroc Pigs \$10 Each** Write your wants. F. A. Lamb, Cassopolis, Mich.

**DUROCS** Bred sows all sold. A few choice fall boars for sale. W. C. TAYLOR, Milan, Mich.

**Duroc Jerseys** Am booking orders for spring pigs. Few fall gilts. E. D. HEYDENBERK, Wayland, Mich.

**DUROCS** A few choice, ready for service, boars for sale. HARRY FOWLER, Sturgis, Mich.

**O. I. C's.** Last fall gilts bred to farrow in Aug. boars for service, also spring pigs for sale. MILO H. PETERSON, Ionia, R. 2, Mich., Elmhurst Farm.

**O. I. C. Swine** Strictly Big Type with quality. A few gilts bred for last of April, and May farrow. A few Sept. and Oct. fall pigs either sex. Extra good ones. Of our State Fair prize winning blood lines. Will ship C. O. D. and record them free. NEWMAN'S STOCK FARM, R. 1, Marietta, Mich.

**O. I. C's** Choice gilts for April and May farrow, also fall pigs. Booking orders for spring pigs. A. J. BARKER & SON, Belmont, Mich.

**Write for Prices** on O. I. C. pigs of March and O. C. Callway Boy. Good long ones the kind that fills the Pork bbls. Some good Jersey bull calves of the Albertas Jubilee kind. All stock reg. in buyer's name. VILLAGE STOCK FARM, Jeddo, Mich.

## Central Mich. O. I. C. Swine Breeders Ass'n.

Hogs of all ages of popular blood lines. Every sale guaranteed by association.

**DR. H. W. NOBLES,** Sales Mgr. Coral, Mich.

**O. I. C's.** one yearling boar, last fall gilts bred for next fall farrow; this spring pigs not akin, big growthy stock, reg. free. City's phone. 1/4 mile west of Depot. OTTO B. SCHULZE, Nashville, Mich.

**O. I. C's.** Special prices on choice pigs of March and May farrow by C. O. Big Callaway. O. J. Thompson, Rockford, Mich.

**O. I. C.** Big type serviceable boars, weigh from 150 to 250 lbs. Gilts bred for May and June farrow. Write for prices. G. P. Andrews, Mason, Mich.

**O. I. C's** choice boars and spring pigs at farmers prices. CLOVER LEAF STOCK FARM, Monroe, Mich.

**O. I. C. GILTS** Bred for June and July farrow. H. W. MANN, Danville, Mich.

**Raise Chester Whites**  
**Like This**  
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at 4 months old. Write for my plan—More Money from Hogs. C. S. BENJAMIN, R. F. D. 10, Portland, Michigan.

## Spotted Poland Chinas

The hog with more outcrosses than any other breed. Which insures vitality and prolificacy. Why breed and feed grade hogs when you can buy registered hogs at special low prices. Write me your wants in bred gilts, boars or spring pigs. Cholera immuned. Satisfaction guaranteed.

**SAMUEL GERBER** R. 4, Bluffton, Ind.

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

Our top notch stretchy boar pigs are weaned and ready to ship. They are sired by such boars as Harts Block Price Cline's Big Boar, Right Kind Olan and Leonard's Big Bob. HART, FULCHER AND CLINE, Address F. T. Hart, St. Louis, Mich.

**Big Type Poland Chinas,** Choice spring boar pigs \$15 each when 8 weeks, sired by Clansmen Buster and their dam being a prize winner at the State Fair. Also gilts bred for Sept. farrow for \$40 and up. Guarantee Satisfaction. DORUS HOVER, Akron, Mich.

**L. S. P. C.** a few choice boars at farmers prices, bred gilts all sold. Also a grandson of The Clansman and Harrison Big Bob. H. O. SWARTZ, Schoolcraft, Mich.

**Big Type Poland Chinas.** A great litter by Checkers; dam a grand-daughter of Giant Buster, are for sale now. They were farrowed Mar. 11, and were purchased of Jim Bloomendaal, Afton, Ia. in dam. To you want the best the breed produces? Come over and see them. Wesley Hile, Ionia, Mich.

**Leonard Farm** BIG TYPE P.C. boar pigs at weaning time, \$25 from Mich. Champion herd. Satisfaction guaranteed. Call or write. E. R. LEONARD, R. 3, St. Louis, Mich.

**Big Type P. C.** some very choice boars double im-Bumne, out 1100 lb. sire and mammoth sows from Igwa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

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

**L. T. P. C.** If you are looking for something good, in bred gilts at a right price. Write W. J. HAGELSHAW, Augusta, Mich.

Sows bred for spring litters all sold. Have some Choice gilts bred for Aug. litters, also some Sept. boars for sale. Clyde Fisher, R. 3, St. Louis, Mich.

**L. T. P. C.** few choice bred gilts sired by T's Clansman L. Mich's 1920 Gd. Cham. bred to Smooth Buster 1st Jr. yearling 1920. A. A. Feldkamp, Manchester, Mich.

**For Sale: Poland China Pigs, Both Sex.** Fred Jewson, Walnut Ridge Farm, Allegan, Mich.

**Hampshire** bred gilts now ready for Aug. and Sept. farrow; spring and fall boar pigs at a bargain. JOHN W. SNYDER, R. 4, St. Johns, Mich.

**Hampshires** 1914 1921

A few choice boars of this spring farrow that sure will improve your herd if used for herd boars. They are bred right and are right, and will produce right. Write for description and prices. We are glad to answer inquiries.

**Steuben's Hampshire Farm,** Angola, R. 3, Ind.

**Pine Grove Hampshires** Bred sows all sold. We are offering 100 spring pigs of excellent breeding and quality. Either sex, order early. GEO. COUPAR & SONS, Marietta, Mich.

Please Mention The Michigan Farmer when writing to advertisers



# LATEST MARKET REPORTS

## GRAIN QUOTATIONS

Tuesday, June 14.

### Wheat.

Detroit.—Cash No. 2 red \$1.53; July \$1.35; No. 2 white \$1.46; No. 2 mixed \$1.48; September \$1.20.  
Chicago.—No. 2 red \$1.46½; No. 1 hard \$1.51½@1.54¼.

### Corn

Detroit.—Cash No. 2 yellow 63c; No. 3 yellow 62c; No. 4 59c.  
Chicago.—No. 2 mixed 62¾c; No. 2 yellow 62½@63c.

### Oats.

Detroit.—Cash No. 2 white 41½c; No. 3 white 40c; No. 4 white 37c.  
Chicago.—No. 2 white at 37½@38c; No. 3 white 36½@37c.

### Beans.

Detroit.—Immediate and prompt are lower at \$3.65 per cwt.

Chicago.—Market is steady and demand good. Hand-picked Michigan beans choice to fancy at \$4.20@4.50; red kidney beans \$9@9.25.

New York.—The market is steady. Choice pea \$4.50@4.60; do medium at \$4.75; red kidney \$11.50.

### Rye.

Detroit.—Cash No. 2 rye is lower at \$1.40.

### Seeds.

Detroit.—Prime red clover \$13.50; October \$11; alsike \$14; timothy \$3.15. \$3.15.

### Hay.

No. 1 timothy \$19@20; standard and light mixed \$18@19; No. 2 timothy \$16@18; No. 1 clover mixed \$14@15; No. 1 clover \$13@14; rye straw \$14@14.50; wheat and oat straw at \$13@13.50 per ton in carlots at Detroit.

## WHEAT

Wheat prices have been fluctuating rapidly over a wide range during the last ten days. Exporters continue to buy the July delivery at Chicago against sales of new grain for deferred shipment to Europe while rains in the southwest have led to fear of a delayed harvest. Most of the new wheat marketed in July and August is expected to go to the gulf for export and the behavior of prices will be influenced largely by the size of this early movement. New export demand has been curtailed by a break of about 32c in sterling exchange from the high point attained in May. Clearances remain large while the visible supply is small and continues to shrink. Stocks in millers' hands and in country elevators also are unusually light while it is conservatively estimated that export sales for July shipment total at least 20,000,000 bushels. The wheat situation is more confused than usual at this season when the readjustment from the old to the new crop basis is about to begin. Foreign economic conditions are anything but satisfactory, the slump in foreign exchange is puzzling, industrial conditions in our own country are passing through another wave of pessimism and foreign countries are apparently trying to influence prices over here by propaganda to the effect that their wheat requirements for the coming year will be greatly reduced. Another factor of great importance in the equation will be the disposition of growers to sell immediately after harvest or to hold until later in the year. Reports generally indicate that they will do the former.

## CORN

Continued heavy receipts of corn eventually became more than the market could absorb, especially when the break in exchange reduced the export demand. Producers have ceased to sell freely and the movement will rapidly decline as soon as the country elevators have been emptied.

## OATS

The oats market has been depressed by the government's forecast on the new crop, combined with the large carryover. Domestic demand is not brisk and export business is still absent but both corn and oats are extremely cheap and the recent decline seems to have about run its course.

## BEANS

The Michigan bean market is higher and advancing, due primarily to light receipts rather than heavy demand. Remaining holdings are supposed to be light. Demand is slow as usual in hot weather. Prices to growers for beans in the dirt are about \$3.40.

## FEEDS

Wheat feeds declined sharply during the past week, especially at Minneapolis and Kansas City, but eastern markets are also lower than a week ago. Oil meal ranged higher with cottonseed meal showing little change.

## HAY

The government's estimate of the hay crop as of June 1 was 101,000,000 tons compared with an average of 104,000,000 during the last six years. This estimate caused moderate firmness in hay markets during the past week but prices were not changed materially. Values, especially upon alfalfa, timothy and clover hay, still seem likely to work lower. Prairie hay already is extremely cheap.

## WOOL

Lessened activity in eastern wool markets, increased buying of western wools, and broad demand at foreign auctions with Australian prices firm and London advancing ten per cent on Merinos over May levels, describes the wool situation. The foreign activity is especially encouraging as it indicates increased consumption by continental Europe which a recent analysis of the bureau of markets shows to be the factor most needed to restore the balance between world production and consumption of wool. The woolen goods trade in this country remains in an excellent state. Consumers still resist higher prices and, since the present rate of production is equal to or slightly greater than the rate of consumption, competition for business is expected to prevent much advance in prices, notwithstanding the emergency tariff on wool fabrics.

Stocks of wool in manufacturers' hands on March 31 as reported by the bureau of markets were 223,777,000 pounds, compared with 196,082,000 pounds on the same date in 1920. The dealers held 244,516,000 pounds, compared with 175,187,000 pounds a year ago. Imports during April totaled 65,336,247 pounds and consumption by

mills during the same month were 46,253,000 pounds which was an increase of 5,500,000 pounds over March and practically a pre-war average rate.

Boston quotations are as follows: Ohio and Pennsylvania fleeces, delaine unwashed 37@38c; fine unwashed 30@31c; half-blood combing 30@31c; three-eighth blood combing 27@28c. Michigan and New York fleeces, delaine unwashed 36@37c; fine unwashed 30@31c; half-blood unwashed 29@30c; three-eighth blood unwashed 27c; quarter-blood unwashed 26c.

## EGGS AND POULTRY

Receipts of eggs at the leading markets are running behind those of last year, indicating that heavy production during the late winter and early spring is being offset by decreased production now. Prices have become more firm with fears of a surplus of eggs dissipating. Preliminary figures on cold storage holdings on June 1 as reported by the bureau of markets are 6,850,000 cases compared with 5,143,000 cases a year ago and a five-year average of 5,251,000 cases. Poultry prices are gradually declining. Receipts of dressed poultry at the four leading cities last week were 75 per cent larger than in the corresponding week last year.

Latest quotations were as follows: Detroit.—Eggs fresh candled at 24@24½c. Live poultry, hens at 25@26c; roosters 14@16c; turkeys 30c; broilers 45@50c.

## BUTTER

Higher prices have been the rule on butter markets during the past week, although all of the advance was not retained when speculative and storage buying subsided. Receipts increased materially but most of the time demand outran the supply. The percentage of high-grade butter ran higher than usual. Preliminary reports upon the cold storage holdings for June 1 point to an increase of nearly 8,000,000 pounds over the same date last year. However, the season was late a year ago and holdings did not

accumulate rapidly during May so that the June 1 stocks at that time were lighter than the average. The totals are 21,500,000 pounds on June 1 this year, compared with 12,872,000 last year and 14,395,000 for the five-year average. Around thirty cents seems to be the fighting level for butter prices at Chicago as storage buyers are ready to take hold at that figure. Prices for 92-score fresh butter as quoted by the bureau of markets were: Chicago 31c; New York 31½c. At Detroit fresh creamery in tubs is quoted at 28@29c.

## BIG ADVANCE IN CATTLE UNLIKELY.

THE prompt increase in cattle receipts during the past week partly in response to moderately higher prices paid for the short run in the week preceding, indicates that the supply of dry-fed steers still to be marketed bears little resemblance to a shortage. Some sections have but few, but Nebraska and South Dakota are heavy contributors at present. A considerable number, especially of the heavy steers, have been held back on the cheap feed now available which will be marketed in the next four to six weeks in the hope that the market will repeat early summer history of the last two years when prices at this season advanced \$3@4 in almost as many weeks. There is little upon which to base such a belief and the moderate advance likely to be scored by heavy cattle is not likely to develop until more of these holdovers have been absorbed.

Grass cattle are becoming more numerous but buyers avoid them except at low prices as their carcasses are less desirable than those from grass cattle marketed later in the season. South Texas is sending its usual quota to southwestern markets as drought conditions have not affected that region. Range sections are still expected to ship out a little earlier than usual since good pastures have put on an early finish and stockmen need funds.

Dressed beef trade improved slightly in the past week partly as a result of a settlement of the clothing workers' strike in the east. Eastern shippers bought freely at Chicago and export buyers were active. The market declined early in the week, the heavy steers again dropping to practically the lowest point since 1912, but the loss was recovered later and steer values are practically unchanged. Cows and heifers are declining gradually as is usual at this season, although dry-fed stuff remains high compared with steers. Veals have followed a sharp advance in the eastern dressed veal market, making further recovery from the spring slump.

## NEWS OF THE WEEK.

(Continued from page 736).

ports to congress show large profits in the shoe industry.—Five thousand aliens are crowded on ships in New York harbor because they are in excess of the number allowed by immigration restriction bill.—The new bolshevik war song, "We Are Marching to Constantinople," indicates that they are planning to take that city.—The officers of Michigan cities meet at Kalamazoo to discuss problems of municipalities.—A New Jersey farmer who stored a hundred pounds of honey from his apiaries in his garret finds it missing. Investigations showed that the bees got in the garret and carried the honey back to the hives.

Monday, June 13.

PRESIDENT HARDING pleads for voluntary system of defence to supplement small standing army. He urges that a hundred thousand attend citizens' military training camps each year.—The Russian soviets deny that they have made treaty with "Republic of Ireland."—Judge Landis acts as arbitrator in Chicago building trades wage dispute which has tied up over thirty-five million dollars of construction work since May 1.—Great Britain honors United States rotarians. Professor Thomas Gunson, of the agricultural college, is one of them.—Peace between Roumania and Soviet Russia is assured, according to the Roumanian minister.—Ex-President Wilson tells delegation of Princeton students that he is watching politics.

## Live Stock Market Service

Wednesday, June 15.

### DETROIT

#### Cattle.

Dry-fed cattle are slow; grassers 50 @75c lower than Tuesday, or \$1@1.25 below last week's close. Lot of little light, common stuff here that no one wants. Better to keep back this stuff where possible.

Dry-fed:  
Best heavy steers.....\$ 7.75  
Best handy wt bu steers 7.50@ 8.00  
Grassers:  
Mixed st's and heifers 6.50@ 7.00  
Handy light butchers.. 5.50@ 6.50  
Light ..... 4.50@ 5.50  
Best cows ..... 5.00@ 5.50  
Common cows ..... 3.00@ 3.50  
Canners ..... 2.50@ 2.75  
Best light weight bulls 5.00  
Bologna bulls ..... 4.00@ 4.50  
Stock bulls ..... 4.00@ 4.50  
Feeders ..... 5.50@ 6.50  
Stockers ..... 4.50@ 5.50  
Milkers and springers..\$ 40@ 75

#### Veal Calves.

Market slow and 50c lower.  
Best .....\$ 10.50  
Others ..... 6.00@ 8.50

#### Hogs.

Market 15c higher.  
Mixed hogs .....\$ 8.15  
Pigs ..... 8.35  
Heavy ..... 7.75@ 7.85

#### Sheep and Lambs.

Market slow and quality very common.  
Best lambs .....\$10.50@11.50  
Fair lambs ..... 9.00@ 9.75  
Light to common ..... 5.00@ 7.75  
Yearlings ..... 5.00@ 9.00  
Culls and common ..... 1.50@ 2.25  
Fair to good sheep ..... 3.75@ 4.25

### CHICAGO

#### Hogs.

Estimated receipts today are 23,000; holdover 5,620. Market slow and 10@20c higher. Bulk of sales at \$8@8.20; tops \$8.30 for one load; heavy 250 lbs

up medium, good and choice \$7.95@8.50; medium 200 to 250 lbs medium, good and choice \$8.05@8.25; light 150 to 200 lbs common, medium, good and choice \$8.05@8.25; light lights 130 to 150 lbs common, medium, good and choice \$8@8.20; heavy packing sows 250 lbs up smooth \$7.50@7.90; packing sows 200 lbs up rough at \$7.25@7.50; pigs 130 lbs down medium, good and choice \$7.40@8.

#### Cattle.

Estimated receipts today are 11,000. Market is steady to 15c lower. Beef steers medium and heavy weight 1100 lbs up choice and prime \$8.50@9.15; dd medium and good \$7.60@8.50; do common \$6.75@7.60; light weight 1100 lbs down good and choice \$8.25@9.10; do common and medium \$6.50@8.25; butcher cattle heifers, common, medium, good and choice \$4.75@8.50; cows common, medium, good and choice at \$4@7; bulls bologna and beef \$4.25@6.50; canners and cutters cows and heifers \$2.25@4.25; do canner steers \$3@4.25; veal calves light and handy-weight medium, good and choice \$7.50@9.75; feeder steers common, medium, good and choice \$6.25@7.75; stocker steers common, medium, good and choice \$4.50@7.25; stocker cows and heifers common, medium, good and choice \$3.25@5.75.

#### Sheep and Lambs.

Estimated receipts today are 18,000. Market is uneven and sharply lower. Lambs 84 lbs down medium, good, choice and prime \$10@12; do culls and common \$5@8; spring lambs medium, good, choice and prime \$6.50@9.50; ewes medium, good and choice at \$2.75@4.25; ewes cull and common \$1@2.75; breeding ewes full mouths to yearlings \$2.50@5.50.

### BUFFALO

Heavy hogs sold here today at \$8.25 @8.50; other grades \$8.75; calves \$12; lambs \$12.50@12.75.



## Rye in Wheat is Costly

By A. L. Bibbins

Extension Specialist, M. A. C.

**R**YE in wheat is a robber and takes its toll from the farmer in that it decreases both the yield and quality of the wheat crop. At this time of the year rye in wheat is a weed taking sunlight, moisture, and plant food that rightly belongs to the growing wheat plants. In so doing the rye is each day robbing the wheat plants of the things essential to their growth with the result that it is reducing the productiveness of the wheat crop, which means a decreased yield at harvest time.

Unfortunately, we usually do not calculate the toll of the robber rye, in so far as it reduces the yield of the wheat, but in marketing the grain we may very readily compute the actual loss caused by the rye in reducing the quality of the wheat as it reaches the elevator, terminal, or seaboard market.

On July 15, 1918, the official grain standards of the United States for wheat became effective and are now applied to shipments which move in interstate commerce or are consigned for export trade. With the advent of the Michigan Elevator Exchange, a farm bureau organization, Michigan is now shipping carloads of wheat directly to the seaboard to be forwarded to European points. This grain is sub-

ject to the federal standards and Michigan farmers and dealers of wheat may suffer losses due to the presence of such material as rye in the wheat.

The main factors considered in grading wheat are weight, moisture, damaged kernels, foreign material other than dockage, and wheats of other classes. Dockage which is material readily separated by the use of the ordinary cleaning machinery, does not effect the numerical grade of wheat—but inseparable foreign material, i. e., foreign material other than dockage, plays an important roll in the grade assigned and subsequent price paid for our wheat.

Rye, cockel, chess, wild buckwheat, etc., are considered foreign material, and the federal standards are quite exacting concerning the limitations of them as will be seen in the following table where the percentages refer to foreign material other than dockage.

Grade.	Total Per Ct.	Other Than Cereals Per Ct.
1	1	0.5
2	2	1.0
3	3	2.0
4	5	3.0
5	7	5.0

This means that wheat to grade No. 1 must not have more than one per cent inseparable foreign material and of that one per cent only one-half may be material other than cereal grains, such as cockel, chess, etc.. A large percentage of Michigan wheat grades No. 2 because of the test weight being between fifty-eight and sixty pounds per bushel.

If the analysis of fifty-nine-pound wheat should show over two per cent foreign material other than dockage, then the wheat would grade No. 3 and sell at three to seven cents below the market, which in many cases is a needless loss to the farmer.

The writer has just completed a trip through some sixteen counties of lower and central Michigan and has been struck by the fact that there is in some localities an amazingly large percentage of rye in the wheat. If this be allowed to mature, it will lower the quality of wheat to such a point that the cost to the grower will amount to \$1.50 to \$2.00 an acre. Add to this figure the loss in yield, approximately a peck to the acre, caused by the rye, and it will be found that one may make a mighty good day's wages pulling rye out of wheat.

It will pay every wheat grower to go through the wheat and cut or pull the rye out. The quicker the better, for each day the rye plants are cutting down the yield of the wheat. This robber should be checked now, and the plant food given to the adjacent wheat plants. If this impurity be rogued out the wheat will go on the market safe from any cut in price due to the presence of inseparable foreign material, with the result that the grower receives the true value of his wheat and is not penalized because of the needless robber-rye.

### COMING LIVE STOCK SALES.

**Aberdeen-Angus.**—June 22, Ohio Aberdeen-Angus Breeders' Association Sale, Fair Grounds, Columbus, Ohio. C. D. Littleton, Kenton, Ohio, Secretary.

**Guernseys.**—October 19, Michigan State Sale, Lansing, Mich. F. E. Fox, Waukesha, Wis., Sales Manager.

**Aberdeen-Angus.**—September 23, Eastern Aberdeen-Angus Breeders' Association Sale, Eastern States Exposition, Springfield, Mass. F. W. Burnham, Greenfield, Mass., Secretary.

**Aberdeen-Angus.**—October 12, Indiana Aberdeen-Angus Breeders' Association Sale, Indianapolis, Ind. Prof. C. F. Gobble, Lafayette, Indiana, Secretary.



GRAND RAPIDS, MICHIGAN

This Trademark is Your Protection

## Are You Safe?

Due to inadequate fire protection, many an unprepared farmer pays the price of procrastination. Either through carelessness or indifference, he simply fails to heed the urgent need of a FIRE PROTECTION, based on the present-day inventory values of his house, house-hold goods, barns and other buildings.

### You Are Safe

when Peninsular Positive Protection stands between you and any such fire hazard with its resulting remorse. And, Peninsular Policies are rated on a city property basis, with buildings appraised according to location, condition and protective improvement.

You are, perhaps, carrying SOME fire insurance, but are you FULLY protected? Would a fire today spell disaster for you? Are you just toying with fate?

Irrespective of the policy you now carry, added Peninsular Protection not only displays sound business judgment but, in case of fire, will prove "your blessing in disguise."

Without obligating yourself, drop our Farm Department a Postal today. Expert CROP PROTECTION advice will also be included in our answer.

# PENINSULAR

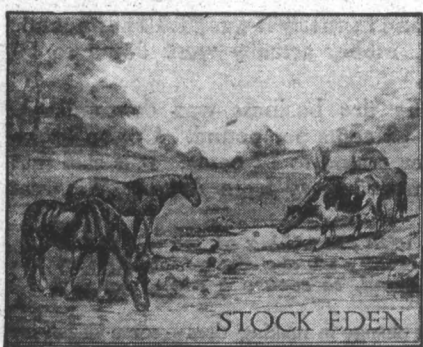
Fire Insurance Company  
of America

Capital \$1,000,000.00

GRAND RAPIDS, MICHIGAN

COLON C. LILLIE,  
President.

J. FLOYD IRISH,  
Sec'y and Managing Underwriter



## STOCK EDEN

A pleasant smelling, non-poisonous, non-irritating  
**SURE EXPELLER**  
FOR FLIES, LICE, MITES, ETC.,

Applied with a spray. It is very lasting in effect, overcoming the necessity of constant spraying. Contains the best antiseptic known. It is agreeable to the stock and they enjoy its application.

"Stock Eden" makes it possible for your cattle to eat and digest their food properly and in comfort, thereby allowing them to produce their maximum. Think what it means to you to have contented cattle both in pasture and barn.

Send \$1.50 for a gallon and prove what we claim. Try it once and you will never be without.

Attractive proposition open to dealers.

THE RICHARDSON SPECIALTIES CO.  
Detroit, 644 Catherine St., Michigan



McCaffrey's Hay Manager  
Now With

**Geo. E. Rogers & Co.**

We solicit your consignments. Liberal advances on all shipments.  
Geo. E. Rogers & Co., 601 Wabash Bldg., Pittsburgh, Pa.

## Eggs

Our trade on fancy poultry farm eggs is increasing daily. Therefore we are in a position to pay liberal premiums above the Chicago market for fine new laid stock.

Special premium for whites. We solicit your shipments. Ship via Express.  
AMERICAN BUTTER & CHEESE COMPANY,  
2034 Howard St., Detroit, Mich.

**HAY** Ship E. L. RICHMOND CO., Detroit.  
ESTABLISHED 1893  
Highest Prices—Prompt Returns

**Saw Mill Machinery** Portable Mills for Farm lumber. Send for new Catalog. HILL-CURTIS CO., 506 No. Pitcher St., Kalamazoo, Mich.

**Kentucky Tobacco** 3 years, old, aged in bulk, the best and cheapest smoke on earth. 5 lbs. \$1.00 postpaid. Freight and express shipments, 50 lbs. \$6.00; 100 lbs. \$10.00.  
B. ROSENBLATT, Hawesville, Ky.

**WANTED**—Learn how anyone can own a high grade tractor on the "Easy Payment Plan". Address P. O. Box 1130, Indianapolis, Indiana.

## WESTERN CANADA

### Land of Prosperity



offers to home seekers opportunities that cannot be secured elsewhere. The thousands of farmers from the United States who have accepted Canada's generous offer to settle on FREE homesteads or buy farm land in her provinces have been well repaid by bountiful crops. There is still available on easy terms

### Fertile Land at \$15 to \$30 an Acre

—land similar to that which through many years has yielded from 20 to 45 bushels of wheat to the acre—oats, barley and flax also in great abundance, while raising horses, cattle, sheep and hogs is equally profitable. Hundreds of farmers in western Canada have raised crops in a single season worth more than the whole cost of their land. With such success comes prosperity, independence, good homes and all the comforts and conveniences which make life worth living.

### Farm Gardens, Poultry, Dairying

are sources of income second only to grain growing and stock raising. Attractive climate, good neighbors, churches, schools, good markets, railroad facilities, rural telephone, etc.

For illustrated literature, maps, description of farm opportunities in Manitoba, Saskatchewan, Alberta and British Columbia, reduced railway rates, etc., write

**J. M. MacLachlan,**  
10 Jefferson Ave., East, Detroit, Mich.

Authorized Agent, Dept. of Immigration and Colonization, Dominion of Canada

160 ACRE  
FARMS IN  
WESTERN  
CANADA  
FREE

### POULTRY

## Special Sale on Pullets

We will have a special sale on our Bred-to-lay April hatched Single Comb White Leghorn pullets at 75 cts. each. Sale starts now and ends July 4th.

This stock is No. one quality produced on our own farm, from high quality stock and is fully guaranteed. Take advantage of this opportunity to secure good stock at a reasonable price. This offer will not be repeated this season as we are selling our own stock only. Order direct from this ad. and save time.

**Macatawa White Leghorn Co.**  
R. 1, Holland, Mich.

## June Chicks Buy 'em Home

Hatches each Monday and Tuesday, Brown and White Leghorns, \$12.00 per hundred. Barred Rocks \$13 per 100. Reds, \$13.00 per 100. Add 50c for half and quarter hundreds. Please name second choice. Prepaid and guaranteed live delivery.

**Washenaw Hatchery,** Ann Arbor, Mich.  
We Close July 1.

## CHICKS AT REDUCED PRICES

after June 15th and during July S. C. W. Leghorns \$10.00 per 100; Barred Rocks \$12.00 per 100. Parcels Post paid 100% safe arrival. Circular.

**Sunnybrook Poultry Farm,** Hillsdale, Mich.

**PULLETS** Selected W. LEGHORN, ANCONAS, HIGHEST LAYING Strains. 8 wk., 85c; 10 wk \$1.05; 3 mo., \$1.25; laying hens, \$1.50. Zealand Pullet Farms, Zealand, Mich.

**85c** Mammoth Bronze Turkeys, pullets 7 lbs. \$4.50; toms 9 lbs. \$3.50 express paid this month, eggs \$4.00 per 10. Ralph Wise Nurseries, Box 151, Plainwell, Mich.



# Montgomery Ward & Co.

## RIVERSIDE TIRES

Special Sale Price

**\$9.95**  
30 x 3 1/2

This price good only until July 31st

Guaranteed **6,000 Miles**

Shipping Weight, 13 Pounds

Sent by parcel post within 150 miles of any of our five houses for 17c postage; within 300 miles for 30c postage; within 600 miles for 55c postage.

Riverside Cords

**\$17.25**  
30 x 3 1/2

This price good only until July 31st

Guaranteed **10,000 Miles**

Shipping Weight, 17 Pounds

Sent by parcel post within 150 miles of any of our five houses for 21c postage; within 300 miles for 38c postage; within 600 miles for 71c postage.

**RIVERSIDE TIRES** are NOT Seconds. They are clean, factory firsts of the highest quality—guaranteed by us to be made as good as tires can be made.

Each tire has our trade-marked name—"Riverside." And the name "Riverside" stamped on a tire is as good as the name "Montgomery Ward & Co." written on a check.

### An Absolute Guarantee By Montgomery Ward & Co.

We do not believe there is any firm from whom you buy tires that has an equally old, time-tried Guarantee of "Satisfaction or Your Money Back."

For over forty-nine years, Ward's has sold everything on a Guarantee basis. Millions of customers in that forty-nine years have bought hundreds of millions of dollars' worth of merchandise under that Guarantee.

So, no thinking person can have any doubt, any hesitancy ordering a Ward's Riverside Tire—with the full knowledge that our forty-nine-year-old reputation will be lived up to absolutely.

*We guarantee Ward's Riverside Fabric Tires for 6,000 miles. We mean exactly that.*

*We guarantee Ward's Riverside Cord Tires for 10,000 miles. We mean exactly that.*

There can be no risk whatsoever in your ordering a tire from Montgomery Ward & Co. We know that the prices we quote are very low. But the saving we offer is a real saving on the finest grade of clean factory firsts.

### Save One-Third on YOUR Tires, TOO!

Read what we say here about prices: "The Plain Truth about these Low Prices"—and then send your order now.

With an absolute guarantee, backed by a house of unquestioned reliability—Why not at least try Ward's Riverside Tires? Why not save one-third on YOUR tires, too!

### The Plain Truth about these Low Prices

First let us say that we believe you will *never again buy tires at such low prices*—unless there is some great discovery of a new way of making tires.

Just consider that before the war, rubber was 60 cents per pound and formerly it was \$1.10 per pound. During the war, rubber actually went down to 50 cents per pound.

Last spring the tire business was demoralized. Rubber went to 18 cents per pound. Cotton broke from 40 cents per pound to 12 cents. It is said that 40,000 people moved away from Akron—the great tire making city.

*And there, with everything at the low mark, was the opportunity we are always looking for, with cash in hand, to secure a saving for our customers.*

With some great change in making tires—some discovery—you may some time in the years to come buy tires cheaper. But otherwise, Ward's prices in this Summer Sale will be the lowest prices at which you ever bought standard, high grade, guaranteed factory firsts.

### Do You Own a Buick, Packard, Cadillac, or Hudson?

We quote here our great Mid-Summer Sale Price on a 30 x 3 1/2 tire for Overlands, Fords, Maxwells, Dorts, Chevrolets, etc.

But you who own Buicks, Packards and other cars, write for the book below, our July-August Sale Book. It offers you a saving of one-third on all sizes of Fabric Tires—and on Ward's Riverside Cord Tires—guaranteed for 10,000 Miles.

## MONTGOMERY WARD & CO.

Chicago Fort Worth Kansas City St. Paul Portland, Ore.



### This Great Sale Book is YOURS—FREE!

Ward's Great July-August Sale Book is ready. It quotes Ward's low prices on all sizes of tires—offering a saving of one-third. On tubes and many other automobile needs the saving is very large. But there are all kinds of merchandise in this great reduced price sale. Wearing apparel for women, men and children; woollens and silks and cotton goods at startling prices. Everything for the home, for the farm.

We have tried to make this book a complete offering of your Mid-Summer needs—at wonderfully low prices.

One book is Yours—FREE! Fill out now, this coupon, and send it to the one of our five houses that is nearest you.

MONTGOMERY WARD & CO. G37  
Chicago, Fort Worth, Kansas City, St. Paul, Portland, Ore.

I enclose ☐ check ☐ money order for \$..... Please send me

NUMBER OF TIRES	SIZE	Riverside Fabric Tires	PRICE	POSTAGE	TOTAL
	30 x 3 1/2		\$9.95		
NUMBER OF TIRES	SIZE	Riverside Cord Tires	PRICE	POSTAGE	TOTAL
	30 x 3 1/2		\$17.25		

Name.....

Address.....

IMPORTANT:—If you order from Portland, Ore., add 50c to cover the extra freight cost to us of shipping tires by the carload to Portland, Ore.

MONTGOMERY WARD & CO.  
Chicago, Fort Worth, Kansas City, St. Paul, Portland, Ore.

Please send me free my copy of Ward's Great Mid-Summer Sale Booklet G37

Name.....

Address.....

IMPORTANT: Send this coupon to nearest one of our five houses given above