

MICHIGAN FARMER

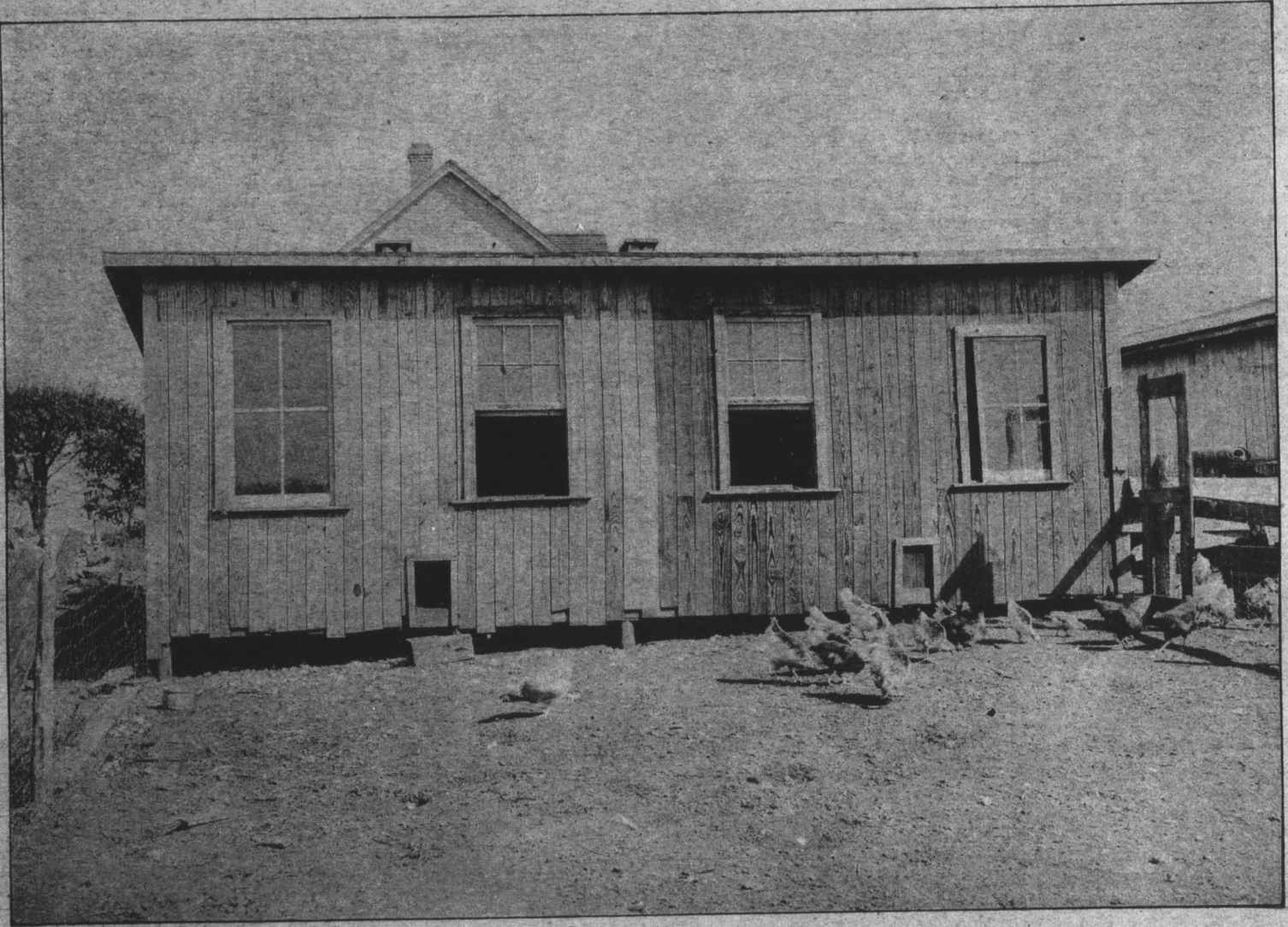
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New Ideas in Poultry Feeding

BOOKS on the feeding of poultry which were written only a few years ago are already out of date. The peculiar situation which arose as a result of the war served as a stimulus to investigators who have presented ideas of a very radical character. It is known now that many of the theories which were accepted as facts a few years ago had no proper basis. Rations wholly different in character from those once supposed indispensable are being used all over the country, and the output of eggs has not decreased as a result. Changes had to be made, not only because of the scarcity of certain grains but also because more economical reasons had to be devised in order to make the flocks even pay their way.

The most progressive and important ideas as to poultry feeding are those which have been presented as a result of the experiments of Dr. E. V. McCollum, at Johns Hopkins University. Dr. McCollum has been giving much attention to certain important factors in animal nutrition, and these factors seem to apply as closely to poultry as to cattle and hogs. The underlying theory of the methods that have resulted from the study of Dr. McCollum's findings has been the liberal use of feeds which have the qualities termed vitamins. Now just what these qualities actually are still remains somewhat of a mystery, but they seem necessary for proper growth and development of all living creatures. They are found (Continued on page 395).

The Michigan Farmer

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DETROIT, SEPTEMBER 27, 1919

CURRENT COMMENT

State Farm Bureau Plans

ON the center pages of this issue will be found the initial announcement of plans for a comprehensive membership in the Michigan State Farm Bureau. These plans, which are similar in detail to those so successfully employed by the Illinois Agricultural Association which is built along exactly similar lines, with the County Farm Bureau as the local unit, is worthy of the careful consideration of every farmer in the state. Perhaps the Illinois people were more fortunate in their choice of a name, since the Farm Bureau has been thought of as merely the agency through which the county agricultural agents are employed and work, and unless this plan is carefully studied by our readers they are likely to miss its full significance.

The plan upon which the State Farm Bureau is being built is exactly similar to the plan for a State and National Chamber of Agriculture, which has been repeatedly urged in these columns for the past two years. The Farm Bureau is used as the local unit simply because it is the one available nucleus of an organization without personal or political alliances, detrimental to the most effective type of farmers' organizations, and because it is in itself an organization which can be made of vastly more value to the farmers of this country than has been the case under the old plan of organization. The State Farm Bureau, so called, is planned to be a comprehensive farmers' organization which will work with rather than in opposition to existing farmers' organizations of all types, for the greatest good to the greatest number of farmers in our state along any and every line in which such a powerful organization can aid them.

Any reader who pauses to consider the possibilities for the good of such an organization will at once see that they are almost limitless, particularly when affiliated with similar organizations in other states in a great national farmers' organization which can adequately represent the interests of our great agricultural industry in any crisis which may arise. In addition the members of this organization will be in a position to direct the activities of the county farm bureaus along such lines as they may desire instead of having a program for them which may or may not serve their greatest needs.

Altogether this organization will fill a long felt want in the agricultural program of Michigan and the country,

and should receive the active support of every progressive farmer in the state. The plans for the initial membership campaign which will be started in Oakland county next month, have already been made and will be presented in detail in a future issue. In the meantime every Michigan Farmer reader should give this proposition careful consideration at an early date, for while the plan contemplates the organization of one county at a time, the work will be carried from county to county as rapidly as possible in the order in which the farmers of the several counties manifest an interest in it.

The Steel Workers' Strike

IN addition to its other reconstruction troubles, the country is now confronted with a strike of the workers in a basic industry. The organized steel workers went out last Monday, ostensibly because Judge Gary, president of the United States Steel Corporation, would not meet their committee in conference. The published declaration of the strike leaders is not specific as to the grievances regarding which the men desired to be heard through their union officials. Apparently the issue is the recognition of the union by the steel corporation—the old issue of the closed or the open shop.

A peculiar phase of the situation is that President Gompers of the American Federation of Labor has issued no public declaration regarding the trouble and is supposed to have striven for a postponement of action by the strikers until after the labor conference called by the President for October 4, while President Wilson is known to have urged the officials of the steel corporation to meet the union officials as a means of averting an immediate strike. But both sides have been obdurate in adherence to the principle for which they have contended and the strike is on.

What will be the effect on the country and its industries cannot, of course, be foretold. But it is certain that the general public will suffer along with the steel workers and the steel industry. Yet the general public knows practically nothing regarding the merits of the controversy or the causes which have contributed to its present issue.

It is greatly to be regretted that a labor truce could not have been effected until peace production was re-established and the solution of general reconstruction problems at least well started. The present untimely labor crisis will certainly tend to further aggravate the high cost of living if it falls short of bringing on a period of general industrial depression, since there is no surplus of manufactured products in any line and production will be greatly curtailed by a big industrial struggle such as now seems to be in prospect. This situation will in turn, add another element of uncertainty to the already serious situation confronting the farmers of the country, with the probable effect of still further shortening agricultural production at a time when industrial workers are demanding cheaper foodstuffs.

Obviously the public, which will be so seriously affected by this industrial struggle, are entitled to full information regarding the points at issue and the reasons for their culmination in a big strike at this time. Public opinion, based upon a full knowledge of the situation, may prove the saving factor in a serious situation. Both sides in this industrial controversy owe it to the public to make a plain public statement of their contention, and if the forthcoming industrial conference at Washington can add to the public knowledge of the situation it will render a worthy public service. Let the public have the facts, that an

intelligent public opinion may properly place the responsibility for the bringing on of an industrial crisis which will entail the idleness of thousands, and mayhap millions of men, at a time when the world needs the product of their industry as it has never needed it before.

Memory Day Observance

Farmers' Clubs by Mr. J. T. Daniells, of Clinton county, a pioneer Farmers' Club Worker, and an early president of the state organization. During those years Mr. Daniells has been indefatigable in his efforts to secure the general recognition of September 30 as "Memory Day," to be given over to the memory of departed friends, and to the decoration and care of their graves, as Memorial Day is devoted to the memory and honor of our soldier dead. Through his untiring efforts, the day has been officially recognized by legislative act, and public attention has been repeatedly directed to its observance by executive proclamation. As a result public as well as individual attention has been directed to the better care of our rural cemeteries, and in many communities the day has been fittingly observed by public exercises. As an aid to those who have interested themselves in the public observance of Memory Day, Mr. Daniells has, each year, procured and published a new poem, or song, giving fitting expression to Memory Day sentiment in appropriate form for use in public exercises in observance of the day. This year he has secured two beautiful poems, which will be found on pages 372 and 391 of this issue. They will be useful in the public observance of Memory Day on September 30. They will be a wholesome inspiration to individuals who will be the better for their perusal. Let us each turn our thoughts to the wholesome theme suggested by the day, and aid its worthy founder in promoting its general observance.

Bean Marketing Prospects

THE season for the early movement of the bean crop is close at hand. Bean growers must soon decide whether they will sell on the early market or hold their beans for future developments. This will in no small measure be determined in many cases by the grower's immediate need of the revenue which his bean crop will bring. Obviously, however, if selling in the early market is general, that market will be established at a comparatively low figure. Hence the desirability of marketing the crop gradually. Present conditions would appear to favor the holder since this year's crop promises to be of very good quality. In most sections the beans are clean, hard and well ripened. In a few districts there have been some infections, but generally speaking, the quality of the crop will be good, weather conditions having favored securing it without rain damage in most bean growing sections. A careful survey of the Michigan crop indicates that it will be considerably below normal in yield, and the best estimate on this year's acreage indicates that it is materially short of a normal acreage in the state. Reports from other bean growing sections do not promise any high yields. The yield of cereal grains is not generally as large as was anticipated, and the surplus of these foodstuffs will not be so great as was figured earlier in the season. Of course, the future market level for all foodstuffs depends very largely on the quantity taken for export, which is difficult to estimate at the present time

owing to the financial condition of foreign countries and the low state of foreign credit as indicated by foreign exchange rates. The industrial situation in this country is also likely to become a limiting factor in domestic consumption, since if a general condition of forced unemployment in industries depending upon steel as a raw material should result from the steel strike this cannot but have some effect upon the food-stuff market. This influence, however, is not as likely to affect staples, such as cereal grains and beans, which are the cheapest source of necessary foods, as they are to affect the value of other commodities usually counted as necessities but the immediate need for which is not so vital.

These conditions, however, are certain to be discounted in the price at which early beans will be purchased by bean dealers. Hence the holding of good beans for later marketing will not be a speculative enterprise from this cause. The present industrial situation, coupled with a nominal market for old beans, will undoubtedly influence bean dealers in making as low a price as possible for the new crop, which means the lowest price at which sufficient beans will move to fill their warehouses. For this reason the risk in holding good beans for a later market will be small and the conservative marketing of the crop during ensuing weeks or months will be a stabilizing factor which will operate wholly to the benefit of the bean growers as a class.

The market for old beans has been largely nominal due to the small export demand, but the crop is very well cleaned up and the situation would seem to warrant bean growers, who are in a position to hold their crop for later marketing, to stick for a price which will give them cost of production plus a reasonable profit.

News of the Week

Wednesday, September 17.

THE United States asks the Japanese government to fix a definite date for the return of Shan-tung to China.—The sanitary situation along the Texas coast following the tropical hurricane which swept over that district is already very acute.—President Wilson signs an act incorporating the American Legion, an organization of veterans of the world war.—The trial of the "big five" packers for alleged violation of anti-trust laws is announced for Monday.—Minnesota enacts a law providing a bonus of \$15 for each month of service for soldiers, sailors and marines, the minimum to be \$50.

Thursday, September 18.

THE siege of Fiume by Jugoslav forces cuts off food supplies from all directions except by sea.—France decides to send 10,000 soldiers to Armenia to aid in a campaign against the Turks.—Heavy rains add new hardships to refugees on the Texas coast.—Rumors are persistent that the president of Peru has been assassinated.—The Rumanian army has begun to withdraw its forces from Budapest, Hungary.—The steel workers definitely decide to quit work Monday morning.

Friday, September 19.

POLISH forces in Russia force back the Bolshevik line to the northern bank of the Dvina river.—The capture of Omsk by Russian reds is denied, it being learned that the latter have not been nearer than two hundred miles to the capital of the Kolchak government.—Two large British vessels carrying food supplies to Russia strike mines and are sunk.—The toll of the Texas storm is now placed at five hundred.—General Pershing is welcomed amid thunderous applause by congress in joint session.—The national committee of iron and steel workers vote down motion to rescind the call of the steel strike.

Saturday, September 20.

PRESIDENT WILSON speaks to an audience of more than 50,000 people at San Diego, California.—Chicago's building strike and lockout, which for the past two months has halted construction and made 100,000 idle workers, was announced as ended tonight, when the construction employ-

(Continued on page 398).

Right to Bargain Collectively on Trial

By Dr. W. O. Hedrick of the Economics Dept. of the M. A. C.

ON the fifteenth of September, in the criminal court of Chicago there was commenced the prosecution of members of the Chicago Milk Producers' Association, charged with combining to maintain a uniform price on milk. Success in keeping a regular price in this way is secured by collective bargaining and since prosecutions like that in Chicago are now also in progress in Cleveland, New York and Minneapolis, it may be well said that collective bargaining is on trial. The term collective bargaining grew into familiarity through its use by labor unions. For years these groups have intrusted the annual fixing of their wages with employers to a single representative or agent and the members of the unions have pledged themselves to accept the wages so fixed and to accept no other.

The practice of collective bargaining among farmers has had its chief use thus far among farmers engaged in milk production. These farmers are more unified in their interests than most other farmers since they produce for a single local market, are in part licensed to so produce by city boards of health and produce a product which is too perishable to enter into general trade. In short, the milk producers of any city have a practical monopoly of that city's milk trade, and on this account are able to bargain as a single man. They are helped in this by the fact that milk producers sell their product to a comparatively few buyers known as city milk distributors. Sometimes, as in Detroit, these distributors are organized and are represented by a single agent. When this is true col-

lective bargaining works perfectly. An association of producers and an association of middlemen or buyers acting as units in buying and selling milk makes collective bargaining in its most perfect form.

The benefits from collective bargaining are, first, that it stabilizes the business in which the farmer producer is engaged. The milk producer, for example, through his organization can see to it that not so much milk is produced as to glut the market, that there is no price cutting among his associates, thus starting ruinous competition and that through advertising his product may be properly set before the public. In this way the dairyman is assured a fair price for his milk, is warranted in enlarging his business in a normal way and in putting in an equipment which lowers the cost of production to a minimum. Second, the organization necessary for collective bargaining furnishes the farmer with the means of getting a just price for his products. Indeed, the buyer himself frequently finds these organizations of producers extremely helpful. In the case of the milk business just mentioned the buyers are able to deal at once and for all with the whole multitude of dairymen from whom they buy. They are able to get these dairymen to discipline themselves as to the quality of milk, times of delivery, etc., through their organization and this saves the buyer a vast amount of trouble over details.

On the other hand, the evils of collective bargaining seems to be that it savors of "price fixing," of "combination in restraint of trade," "monopoly

prices," etc. The law as well as public opinion always condemns these things and it is therefore not difficult to find grounds for prosecuting collective bargainners as is being done in the cases of the cities mentioned above. Labor unions were convicted several years ago of being combinations in restraint of trade in the case of the Danbury Hatters and were only relieved from further prosecution by the adoption of the Clayton Amendment to the Sherman Anti-Trust Law. The serious hindrance of illegality in the instance of farmers is being remedied in the states of Illinois and Minnesota recently through the passing of laws legalizing collective bargaining by farmers. In the federal congress furthermore, the so-called Copper-Herberman bill provides for collective bargaining among farmers. It seems therefore, that there is a widespread belief that collective bargaining has a much broader field of usefulness among the farmers than was formerly thought.

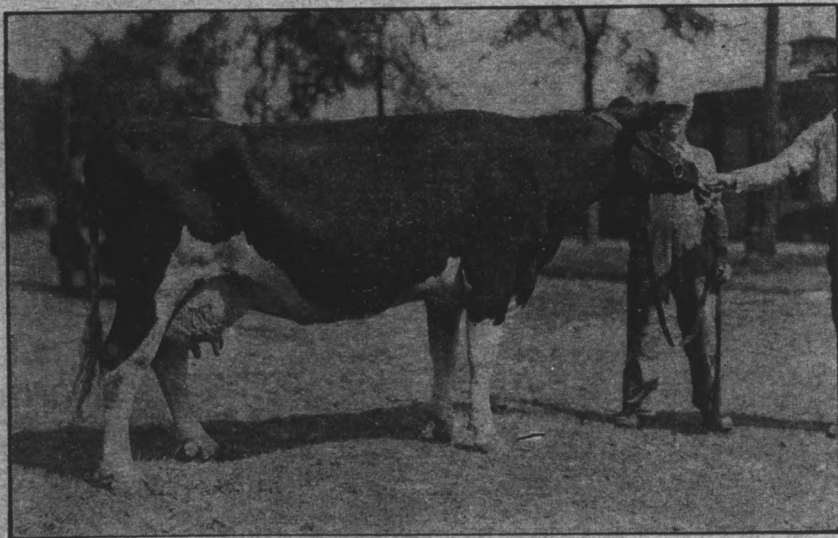
The question now arises as to how collective bargaining affects the ordinary farmers' cooperative associations. These associations have become very numerous in recent years, especially among fruit growers, creamery men and cattle shippers, and the doubt is sometimes expressed as to whether these can live if the right of collective bargaining is denied them.

It is plain on the other hand, that many of these associations have nothing to do with collective bargaining of any sort under their present methods of doing business. Take, for example, the Michigan Potato Growers' Association of Cadillac which is one of the

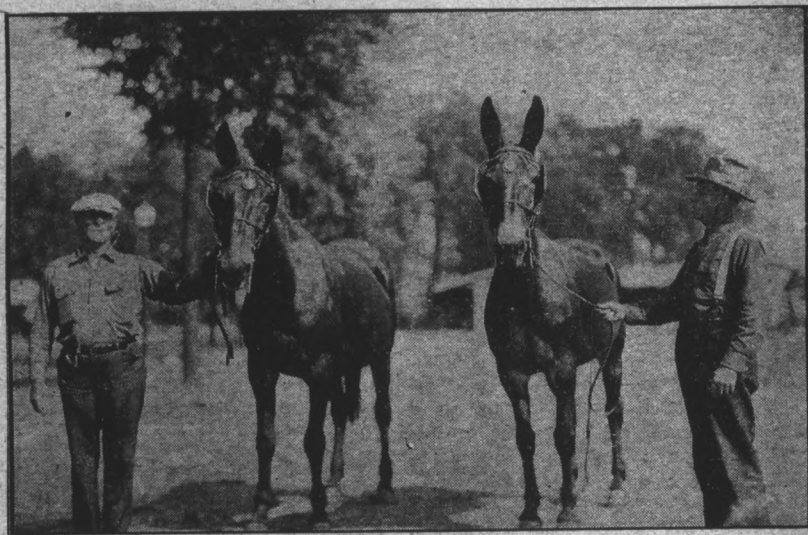
largest and most successful of the customary farmers' cooperative selling associations anywhere to be found. This association now has many thousands of members and last year sold more than two thousand carloads of potatoes for its patrons but made no use of collective bargaining. In fact it did no bargaining at all. It simply sold potatoes for its members from day to day at the best prices which prevailed upon the market, or in other words, the best price which the wholesalers would offer. The benefits from membership in this association arose from getting the benefits of wholesale shipments from the railroads and from keeping for the potato growers the profits which usually have gone to the local shipper. In short, the Potato Growers' Association, like the cattle shippers, the elevator companies, cooperative creameries and fruit associations sold upon the open market at a comparatively fixed price and were satisfied with the gains which came from better shipping opportunities and from getting rid of the local shipper.

How different from all this are the business plans of the Detroit branch of the Michigan Milk Producers' Association. This organization is formed under the same law as that of the Potato Growers' Association, has as many thousands of members and sells many millions of dollars worth of milk annually, but all through collective bargaining. The members of this association agree among themselves as to how much they want for their milk and speaking through a single agent known as the secretary of the association (Continued on following page).

Some Prize Winners at the State Fair



Grand Champion Holstein Cow is the Property of John A. Rinke.



A Pair of Prize Winners Owned by Hubbard & Son, of Clinton County.



Chas. A. Prescott & Son's Herd Bull Won First in Aged Bull Class.



The Grand Champion Steer also from the Prescott Farms, Sold at 43c per lb.

News of the Agricultural World

SCULLY REPORTS ON CONFERENCE AT WASHINGTON.

AT the Semi-annual conference of the National Board of Farm Organizations at Washington, D. C., September 16-17, a program of unusual interest to the farmers of America was carried out in detail. Representatives of some twenty or more different farm organizations from the eastern, western, southern and middle west states were present.

An address from Senator William S. Kenyon on "Tractor Legislation," was considered of great importance. Also a discussion on railroad legislation occupied an important portion of the time. Senator Albert Cummins, chairman of the Senate Committee on Interstate Commerce, addressed the conference on impending railroad legislation. Mr. Glenn E. Plum, general counsel for the railroad brotherhood, spoke on the Brotherhood Plan. Senator Irvine L. Lenroot, chairman of the Senate Committee on Railroads, spoke on the railroad question. Mr. George A. Post, chairman of the Railroad Committee, Chamber of Commerce, ably addressed the conference on the Chamber of Commerce Plan.

At the conclusion of these exhaustive and masterful addresses, a discussion followed by the members of the conference, in which it appeared that the agricultural representation preferred by far, Senator Lenroot's plan of control of the railroads after government ownership.

The all-important subject pertaining to the farmer's rights of collective bargaining was ably discussed by Senator Arthur Capper and Congressman Hugh S. Hersman. Both these gentlemen gave their ideas on required amendments to the Clayton Anti-trust Act (S. 845) (H. R. 7783). It appeared to be generally conceded by representatives of congress, that amendments to this act were necessary to fully protect the farmer's rights in collective bargaining. It was my personal privilege to confer with Senators Newberry and Townsend, and am pleased to report their assurance that they would support suitable amendments for the protection of the farmer's rights in the Clayton Anti-trust Act.

I also have the assurance of several of our members of the house of representatives that they likewise will become personally interested in the support of any measure protecting the farmer's rights in this particular question.

I might say the conference as a whole was of unusual interest, and a good attendance of representative farmers to the extent of about two hundred and fifty in number, from the most important agricultural sections of the country were present. State farm bureau organizations were well represented by delegates from several of our leading agricultural states.

In my judgment, this was a conference of pre-eminent importance to the agricultural people of our great commonwealth, and is significant of the fact that a most thorough organization is necessary among the farmers of Michigan, if we expect to hold our representation with the farm organizations of similar states.

CHAS. B. SCULLY,

Representing Michigan State Farm Bureau.

EIGHTY DOLLARS A TON FOR GRAPES.

AN American fruit buyer is in the district of St. Catharines, Ontario, offering \$80 a ton for grapes. It is interesting to compare this price with the price of grapes before the war, when they sold freely at from \$22 to

\$25 a ton. Labor, however, costs just a score more of local organizations double what it did in those days, and the price of baskets which used to run about \$30 a thousand, is now \$80.

CANADIAN DAIRYMEN FACE MILK PROBLEM.

AN order has been handed out by the fair-price committee of Toronto prohibiting an increase in the price of milk to consumers for forty days, and this order has been made effective throughout the province of Ontario.

A questionnaire, copies of which will be sent to producers and retailers asking for information on the milk question, was drawn up at a private meeting of the consumers' section of the Fair Price Committee, September 19, to consider what steps to take in dealing with the application of the producers for permission to make a substantial increase in the wholesale price of milk delivered in Toronto. The committee feels that the information requested is essential to enable them to arrive at a satisfactory decision in the matter.

Major J. Lewis Duncan, chairman of the Fair Price Committee, explained that the situation from the consumer's standpoint was discussed. The view taken, he said, was that "it is essential for the city of Toronto to have an ample milk supply at a price within the reach of all families, especially poor people. Milk is essential for the growth of a child, and if we do not want a stunted population, we must have plenty of milk."

CONTINUES TO GROW.

THE Michigan Potato Growers' Exchange continues to give evidence of splendid vitality and possibilities of becoming one of the really big cooperative enterprises of the country. Since the annual meeting in July over

the name of the packer, and the address. A bushel of pears, peaches or apples should be packed from the bottom of the bushel up, and filled so that when the cover is put on it will have to be pressed down tightly so that all the fruit in the baskets is firm in its place so that it will not "rattle" around in the basket.

VIOLATORS OF FRUIT LAWS ARE WARNED.

IN reply to your letter of recent date inquiring as to where the majority of the violators of the fruit-grading and packing laws of the state are failing to comply with these statutes, will say, that a large percentage of the fruit growers do not fill the packages properly; in other words, they skimp the measure and weight.

Many of them entirely ignore the marking of the variety, the grade, the minimum size of the apples, and fail to even put their name and address on their fruit and vegetable packages.

I have turned parties home this season with over ten thousand of the four-quart baskets of grapes, for being green, or not having the quantity they claimed in the baskets.

There is a difference between packing fruit and just throwing it into a container. We advise all growers and packers to fill their containers well; fill the packages as full as you would want if you were the buyer, mark the amount the package contains, and stamp or print your name and address plainly on the package.

If John Smith is shipping apples in bushels he should mark them as follows:

Mich. Std. Bu.

Baldwin's Grade B. Min. 2 1/4 in.

JOHN SMITH, Bangor, Mich.

If he ships in barrels each barrel should be marked thus:

Mich. Std. Barrel.

N. Spy. Grade A. Min. 2 1/2 in.

JOHN SMITH, Bangor, Mich.

The grade of pears and peaches should be marked on the package, also

Our intentions are to educate the grower on how to pack, grade and mark his fruit so he will not get into trouble, but if he will persist in violating the law we will have to enforce its provisions.

R. F. BROWN,
State Fruit Inspector.

FOOD PRICES LOWER ALL OVER COUNTRY.

REPORTS to the Department of Justice from twelve states indicate there has been a decline of ten to fifteen per cent in food prices since the time the fair-price committee began their work. From four states have come reports on wholesale prices, indicating a decline of two to five per cent. Virtually no reductions in clothing prices have been noted.

The reports on retail food prices were said to have been from cities and counties well distributed throughout the country, and the information is believed by officials here to be a fair indication of what is going on everywhere. They think that results now becoming evident will be cumulative as the season advances, new declines in wholesale prices being reflected in retail prices and additional reductions coming from the campaign against hoarding and profiteering.

RIGHT TO BARGAIN COLLECTIVELY.

(Continued from page 371).

tion, they periodically bargain for prices with the agent of the milk middlemen of Detroit, who likewise have agreed among themselves as to the price they will pay.

This is collective bargaining in farm products and it is made possible because the milk distributors of Detroit have a monopoly of their business and the milk producers in the Detroit area have a monopoly of milk production for Detroit, and this makes collective bargaining possible. Bargaining between two collections of people neither of which could guarantee to the other the price agreed upon among its own members would not be collective bargaining. It would be rather, an idle waste of time and words deserving the name of chatter instead of bargaining. The Detroit milk distributors monopolize Detroit milk retailing very largely because of the high outlays which have to be made by a rival company in order to duplicate the present plants and routes. The Detroit milk producers monopolize their field because milk cannot, owing to its perishability and to board of health rules, be bought from any other sources than from these eight thousand producers. A price agreed upon therefore between these bodies will stick and may be properly fixed by collective bargaining.

Collective bargaining has many advantages, beyond doubt, for farmers. Whenever it can be practiced it will go far to stabilize his business and save his efforts and expenses. It should be remembered, however, that under our present marketing system only those farm products can be sold collectively, the entire supply of which are under the complete control of the farm organization which tries to bargain collectively. In other words, there should be a monopoly of the farm product before it can be bargained away collectively with any fair degree of success.

"Memory Day"

By Mrs. A. J. Foster

Summer's beautiful reign is over
Autumn days slipping fast away
Bring to us September thirtieth
Our own, our precious "Memory Day"
A day when we gather to beautify
The resting place where our dear ones lie

Here quietly rest the dear little ones
Whose arms our necks entwined
Soft, velvety cheek were prest against
ours

Warm, loving kisses exchanged for
mine
It was hard, so hard to let them go
Dear little ones, we loved them so.

Here the young, the fair, the beautiful
They filled our home with glee
The whistle, the song, the merry laugh
Were like sweetest music to me,
But the reaper came to our garden
When all was bright and glad
When he garnered our human flowers
Hearts and home grew strangely sad.

Here are others we watched from year
to year
With a parent's love and pride
We saw them enter the arena of life
With loved ones by their side.
Suddenly the world grew dark and drear
Quivering lips grew white as we left
them here.

Here, too, are the parents, tenderly
loved
Heaven's richest blessing to guide us
above
Gone from the earth home to dwell in
that other

But home is not home without father
or mother.
The Boatman may have come in the
silent night

No other may have heard his stroke
It needed no key to unlock the door
Ere they entered that phantom boat.

Here a marble slab tells the oft told
tale
Of a tangled wood or a blood-soaked
vale

Where a soldier brave, his life-blood
gave
That Freedom and Peace to the world
might be saved.

His grave over there may, nevertheless
be
But we will scatter sweet flowers in
his memory.

Dust to dust 'neath this sacred sod
But the Soul returns to its maker—
God.

And who, O! who can surely say
They have not been ministering spirits
today.

Then plant trees and shrubs that they
may wave
Like fond, weeping mourners, bending
over the graves

And gather the flowers, the beautiful
flowers
God's silent message from above
And strew them over the stranger's
grave

And over the mounds that we love.

Let love with nature ever vie
This "Garden of graves" to beautify
Autumn days will grow cold and chill
The songsters gone, all nature still.
The beautiful snow came swirling
down

Tucking a white blanket over each
lowly mound
And God's own hand place a crown on
each stone
That will glisten and shine in the rays
of the sun.

O! Memory Day! precious Memory
Day
We could almost ask that you might
stay

But, like others, you must pass away
Engraved, as with a diamond, on the
tablet of the heart

Memory Day, Sweet Memory Day, will
ever hold a part.



Farmers' Marketing Organizations in Action

R. E. Morrow, of the Antrim County Farm Bureau Gives a Close-Up View of Successful Cooperative Associations in His County -

WE believe that Antrim county is the most thoroughly organized county along marketing lines of any county in the state at the present time. We have eight towns in the county and have eight associations. We also have a great many of our men who live in the county as members in associations outside of our county, and many of them are officers in the outside associations.

When the first meeting of the various associations was called in Traverse City in August of last year there were just thirty-three representatives of associations from Antrim county and two were the presidents of the Rapid City and East Jordan Associations respectively. There were twelve counties represented at this meeting at which time the Michigan Potato Growers' Exchange was organized.

We are proud of the fact that we had so large a part in the organization of this, the most successful association in the United States for its age. The business done by this Central Exchange was larger the first year than any other association at three years of age in the United States.

The success is largely due to the wise selection of the board of directors which were chosen at this meeting. All of this board are farmers and it goes to show that farmers can run a large business if necessary. At the first annual meeting of the Central Exchange all of the old directors except one, who would not allow his name to run, were elected for the coming year by a unanimous vote of the delegates.

The Central Lake Market Association was the first association in northern Michigan to be organized under the standard plan, by which all of the locals belonging to the Michigan Potato Growers' Exchange, were organized. This is the plan recommended by the United States Bureau of Markets as the one which is least liable to fail. Of all the plans of organization this is found to be the best and safest, as there is no speculation in its operation.

The Bellaire Cooperative Marketing Association was the second one organized, the Elk Rapids was the first to ship a carload of potatoes through the Central Exchange at Cadillac and the association at Elmira shipped the largest number of cars per member of any in the federation. This local has seventy-three members and shipped seventy-six cars of potatoes during the season last year.

While these associations were a new venture for this part of the state, they were just what the farmers needed and had been looking for for years. Through the efforts of the County Farm Bureau, the United States Field Agent in Marketing, Hale Tennant, and County Agent W. C. Cribbs, we were able to put these associations on the map and get them to working in record time.

When the county agent arrived in this county, he was notified that if he could help the farmer market his produce, he would be doing a great thing for the farmers, and if he could not they had no use for him. They did

not wish to grow two blades of grass where one grew before unless they could market the one blade and receive something like a profit on their hard labor. They knew that if they could market their produce without giving the lion's share to the produce dealer, there would be no trouble in getting production.

Mr. Hale Tennant, of the United States Department of Markets, gave a great deal of his time to the organization of all of the associations in the northern part of the state. These associations are all federated now into the Michigan Potato Growers' Exchange. To Mr. Tennant we owe a great deal, as he was the power which made possible this federation which has done more for northern Michigan than all the rest of the development for many years. No land is a desirable place to live in, if the markets are in an unsatisfactory condition.

The eight associations in this county have all come through the year in very good shape and are going into the second year's business with increased force. They are planning to handle many more things than they did last season. All of them except two are receiving cream at their warehouses. This cream department is one of the most valuable, as the farmer can see his cream tested and knows that there is no incentive for the manager to under-test his cream. On account of this plan of handling cream the cream market is much higher where we have the associations than at points where there is no competition of this kind. The raise came at every point just as soon as the cream department was started.

When these associations were first started the members only pledged their crop of potatoes, but after running for one year they are nearly all pledging their entire output of farm crops.

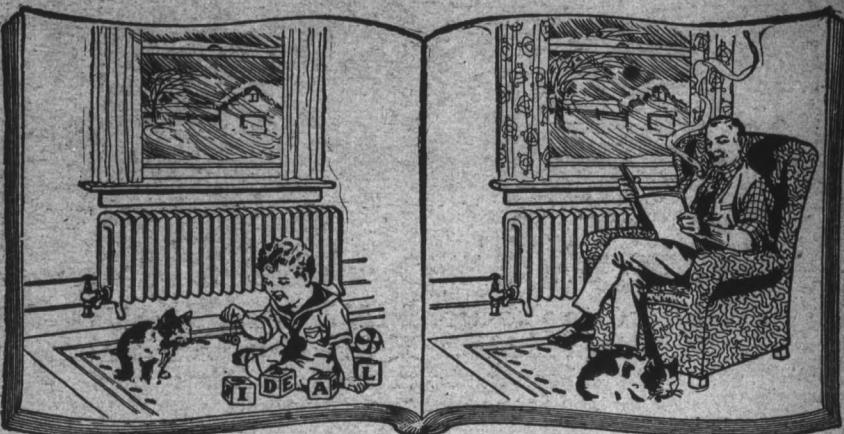
This pledging of crops to the association and the giving of the \$100 non-interest collateral note to guarantee that the member will sell through the association is the foundation of success for all cooperative associations. If a member sells outside of the association he has to pay the same commission on the crop as if the association did the selling, so the association is going to have the finances to run anyhow.

The members in pledging all of their produce are showing their satisfaction in the operation of the locals.

Last fall the association at Alden was able to get \$1.20 per bushel for apples when the unorganized territory not more than forty miles away were taking eighty cents per hundred for the same kinds and grade. Also at Alden last fall private buyers were paying \$1.00 per bushel for potatoes for several days which we are certain would not have been paid if no association had been there. Those same potatoes were loaded out after the first of June this year and the buyers were fortunate if they received fifty cents per hundred for them. These operations are the ones that put the money in the pockets of the farmers.

(Continued on page 394).

Cheapest Heat for a Lifetime of Comfort!



IDEAL Heating put in your farm house now —will give daily and yearly heating service
for the health and comfort of your children until they and you reach old age

First cost of IDEAL-AMERICAN heating is soon saved by the continuous economical service you'll get from it—never needs repair or overhauling. Always on the job to give the best heat there is at the smallest fuel cost. Burn the low-priced local fuels. Save yourself labor and avoid the constant fussing and attention that temporary out-of-date heating makeshifts always give.

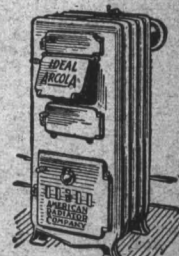
AMERICAN & IDEAL
RADIATORS & BOILERS

No other improvement will give as much happiness and health as IDEAL Heating



IDEAL Boilers will supply ample heat on *one charging of coal* for 8 to 24 hours, depending on severity of weather. Every ounce of fuel is made to yield utmost results.

**Sold by all dealers.
No exclusive
agents.**



IDEAL-Arcola Radiator-Boilers for small houses with out cellars. Hot-water heating as simple and easy as running a stove—one fire heats all rooms. Write for separate booklet "IDEAL-Arcola."

An IDEAL Boiler and AMERICAN Radiators can be easily and quickly installed in your farm house without disturbing your present heating arrangements. You will then have a heating outfit that will last longer than the house will stand and give daily, economical, and cleanly service.

Have hot water on tap for all uses

Our small IDEAL Hot Water Heating boilers for domestic supply are a source of greatest comfort and delight to the whole family. Gives the home every modern city comfort without dirt, labor, or fuss.

Free Heating Book!

Write today for copy of catalog "Ideal Heating" which is fully illustrated and gives complete information on this cheapest heat for a lifetime of comfort.

AMERICAN RADIATOR COMPANY

**Write to
Department F-3
Chicago**



WE USE THE
DE LAVAL
Cream Separator

**Over 2,500,000 farmers display
this sign of separator satisfaction**

The De Laval Separator Company

**165 Broadway
NEW YORK**

**29 East Madison Street
CHICAGO**

**61 Beale Street,
SAN FRANCISCO**



Was that spreader worth \$500? Yes, because just scattering manure on a field will not accomplish the same results. That field of 80-bushel corn was properly fertilized by a man who knows his business. He feeds his crops a balanced ration. This cannot be done without a good, wide-spreading manure spreader. It is being done by these spreaders:

It pays to study fertilizing, to know what to do and to practice what you know. See the local dealer or write us for a copy of "Feed Your Hungry Crops" and full information about our spreaders, or about any other machines in the list below.

Stalk Cutters
Cane Mills
Stone Burr Mills
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U S A

GLUTEN FEED

Write to H. CRYSTAL, Selling Representative, 909 Ford Building, Detroit,
for sample, feeding formulas, etc. Who is your dealer?

When writing to advertisers
please mention the Michigan
Farmer.

A horse with heaves can't do its full share of work. Cure the heaves and you have a horse worth its full value in work or in money. Send today for

FLEMING'S TONIC HEAVE POWDERS

\$1.04—(retail paid—per pkg.). Satisfaction or money ba
 Fleming's Vest-Pocket Veterinary Adviser.
 Helps you distinguish heaves from other ailments. Write
 for the Adviser. It is FREE.

FLEMING BROS., Chemists,
 1252 Union Stock Yards, Chicago, Ill.

Prof. E. O. Fippin, of Cornell, discussed "The Use of Lime and Commercial Fertilizers with Vegetable Growing," from the following angles: "It is my purpose to emphasize the fact that we must have a knowledge of the fundamental requirements as to soil, climate and other environments of the different crops, as well as their varietal differences. Vegetable growing is the most intense branch of agriculture, and the more intense any business becomes the more attention must be given to the small details of management. Vegetable crops are closely connected with the humus con-

(Continued on page 378).

**A Maxwell Truck you buy this
Month will make you a
present of its Total Cost in
One Year.**



*More miles per gallon
More miles on tires*

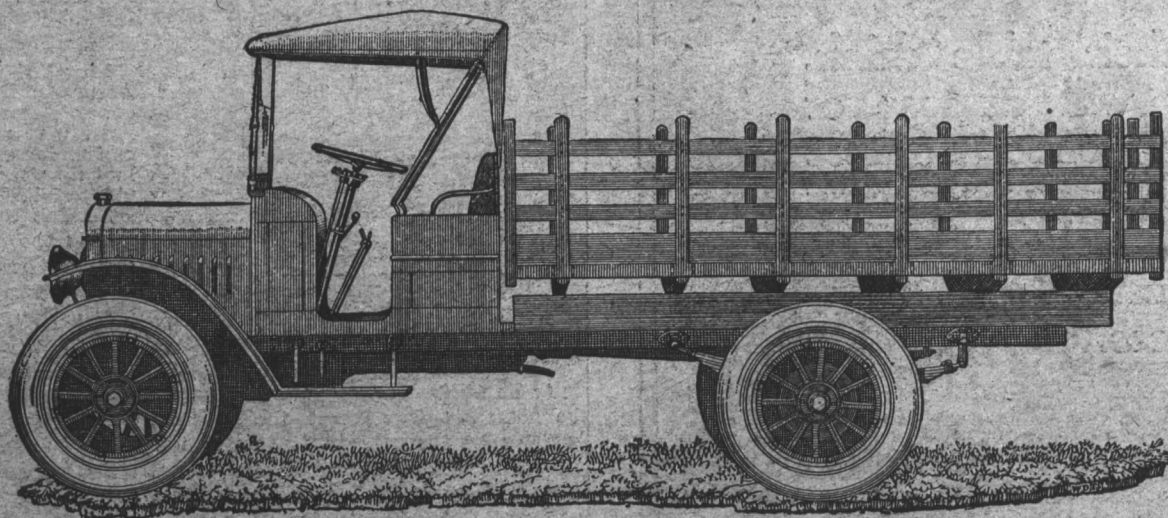
FIVE-thousand-dollar truck construction. Five-thousand-dollar truck guarantee. Worm Drive. 10-foot loading space. Electric lights and generator. 2400 pounds—we built it right to get it light—to save tires—to reduce gas consumption—to climb hills—to take bad roads—and *to keep repair bills down.*

For long hauls and short calls. Self-supporting. Amateur proof. Chassis \$1185 f. o. b. Detroit.

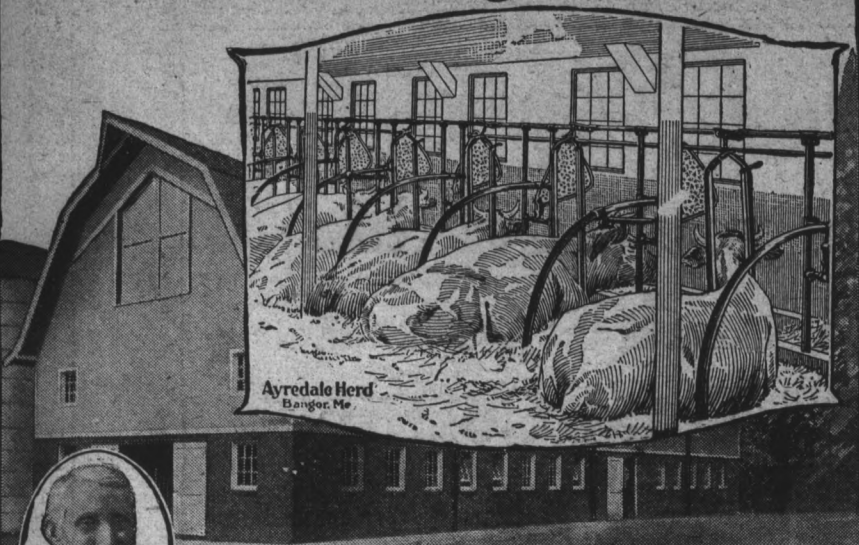
If you like, take your time with the payments and let the Maxwell buy itself on the run.

Pays its way from day to day.

MAXWELL MOTOR COMPANY, Inc.
DETROIT, MICHIGAN



The Comfort that Brings Up Milk Yield



WM. LOUDEN
Barn Specialist, Whose
Labor Saving Barn
Equipment Is Used In
Over a Million Barns.

LOUDEN

Labor Saving BARN EQUIPMENT

The difference between misery and comfort of cows show plainly in the quantity of milk they give. A 25% to 35% increase in milk yield has been a common experience where cows were transferred from an uncomfortable barn to Louden Sanitary Stalls and Stanchions. With Louden Equipment cows are as comfortable in the barn as in the pasture, because the Louden Swinging Stanchion gives them greater freedom when standing and greater ease and rest when lying down than any other type of stanchion ever designed.

Louden Equipment Begins Making Money the Day It Is Installed

It enables you to do the same chores for the same number of live stock with less than half the hired help, in less time and do them better. It is easily installed at moderate cost in any barn, old or new. The time and labor you save, the cleaner barn, satisfied help, healthier and more productive stock, pays for Louden Equipment in a surprisingly short time.

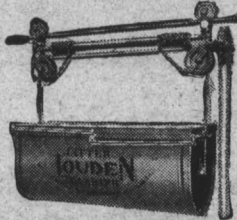
224-Page Illustrated Catalog Sent Postpaid—No Charge or Obligation

Write for this book. It shows the equipment which will meet your special needs and prove profitable to you—including Stalls, Stanchions, Feed and Litter Carriers, easily sterilized Water Bowls, Animal Pens of all kinds, Hay Unloading Tools, Power Hoists, Barn and Garage Door Hangers, Ventilators, Cupolas—Everything for the Barn.

If you are going to build or remodel we would be pleased also to send you "Louden Barn Plans," a 112-page book, not a catalog—devoted entirely to barn building. It will relieve you of worry and trouble and save you money. Our barn planning specialists are also at your service free of charge, for suggestions and preliminary blue prints, if you will write us what kind of barn you have in mind, number and kind of stock you wish to house.

The Louden Machinery Company

(Established 1867)
1914 Court St. Fairfield, Iowa
Branches: St. Paul, Minn., Albany, N. Y., Chicago, Ill.



Louden Litter Carrier

There is no piece of barn equipment which pays a bigger, surer, more constant profit than the Loudon Litter Carrier—not only in saving over half the barn labor but in saving the manure as well. It means cash in your pocket every single day in the year. Loudon Carriers have no dangerous cranks or hit or miss ratchets; no troublesome brakes. Stands safely at any elevation; moves easily on roller bearing trolleys—takes the place of a hired hand. You can install it yourself.

Our Service Department

DRAINING INTO HIGHWAY.

As we expect to make some open ditches on our farm we wish to know whether we can run these into the public road?

Calhoun Co.

N. H.

The owner of land has no right to increase the burden on his neighbor from surface water; and though the water would ultimately percolate onto the neighbor, one who collects water running over a wide surface and casts it on the neighbor is liable for damages, and the act may be enjoined. However, if a ditch has been established along the side of the road, the adjoining owner may ditch into it the surface water that would eventually get to it.

JOHN R. ROOD.

USING OLD WELL FOR SEPTIC TANK.

We have just completed a new well with windmill and are installing running water in kitchen. Our old well was about a rod from back door, curbed with large crock set in one another with cement. A little water comes in at the bottom, perhaps three or four feet deep most of the time. We could shut this off by pouring cement in the bottom if necessary. Would this serve the purpose of running the water from kitchen sink into it? And from this to tile ditch connecting with tile system from field? Perhaps sometime we will put in toilet room. Would this serve for that also? I understand any tank like this must be covered air tight. What kind of cover is best for these crocks? How should the pipes be placed to and from this tank so as not to disturb the scum or bacteria which, I understand, is necessary?

Midland Co.

Mrs. E. B.

Kitchen sink wastes do not as a rule, contain all the possibilities of danger from typhoid and other diseases germs which bathroom wastes are likely to contain. They do, however, contain grease and other matter which must be taken care of. If an old well

accumulate at the top. This accumulation should be removed at periods of from six months to one year.

There would be no objection to conducting the flow from this tank to the drain tile system on the farm. In case it were not convenient to dispose of the flow through the tile system, it could be arranged as it is with the septic tank by conducting the flow through fifty to one hundred feet of drain tile laid at a depth of twelve to eighteen inches below the surface of the ground. This latter plan would only be advisable where open, porous soil is found so that the liquid could quickly percolate. It would not be well to use this well as a septic tank for all of the waste from the house for the reason that it probably would not have sufficient capacity and would not have the intermittent discharge of the contents which is considered necessary to distribute the discharge from the septic tank properly through the tile distributing system.

There are no objections to placing the septic tank close to the house, providing all joints are sealed which are within one hundred and fifty to two hundred feet of the well.

H. H. MUSSELMAN.

PEDIGREE POULTRY.

I have some pure-bred White Wyandotte chickens and I would like to get a pedigree of them. How am I to do so?

Barry Co.

C. D.

The only way to get a pedigree for poultry is to carry on careful breeding operations and keep a record or buy the stock from a breeder who does pedigree work. Poultry have not been pedigreed the same as other kinds of pure-bred stock and the reasons are obvious. It means that the breeders and the chicks must be marked and the hens traped so that the producer of each egg will be known. Then the eggs must be hatched in pedigree sacks and a record kept of each chick and its parentage.

The only way to obtain a pedigree of your stock would be to write to the breeder from whom you obtained them and find if he has been doing pedigree work. It is our opinion that you undoubtedly have pure-bred stock but you may not be able to get a pedigree of them.

R. G. K.

REGISTERING SHORTHORN HEIFERS.

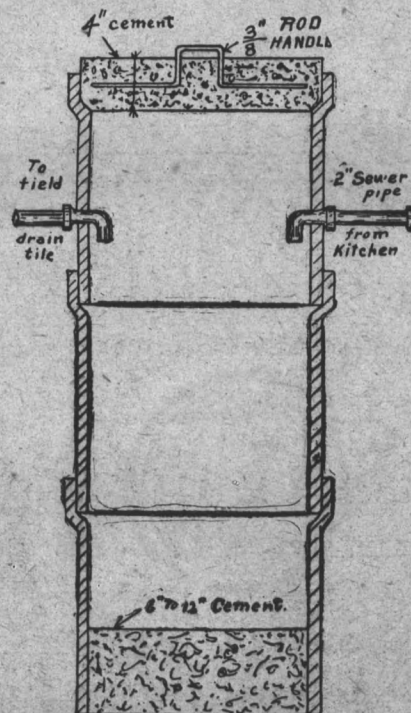
I applied to the Shorthorn Breeders' Association to have a heifer registered. They replied that it would cost me \$10 to record her. The fees for a calf under one year are but \$1.25. This looks to me like a graft. Will you please advise me how to proceed?

Sanilac Co.

L. J. R.

It is the common practice of breeders' registry associations to make a higher charge for registering animals that are more than one year old. The cost of reviewing old records is much greater than is the case when young animals are registered so that an additional fee is charged. We are sure that you are not being held up by any unreasonable charge. About the best solution of your problem would be to have some reliable Shorthorn breeder look after your registry papers. You must appreciate the fact that reliable record associations are not run for profit, but for the good of the breed, and they are under strict control of the breeders of the country who depend upon them for reliability and efficiency in keeping such matters grease will then, of course, rise and above reproach.

W. M. K.



is to be utilized as suggested, it would be advisable to cement the bottom, which would provide a tight chamber in which septic action could go on. This method would not be as complete as a well defined septic tank but would answer very well indeed for kitchen waste.

Owing to the accumulation of grease in a tank with a small top of this kind, it would be advisable to run sewer pipe elbows turned down so that the inlet and outlet would both be below the surface of the liquid. The

Give The Folks

The Original

POSTUM CEREAL

for their table drink.
That will dispose of
those coffee troubles
which frequently show
in headache, irritability,
indigestion and sleep-
lessness.

"There's a Reason"

At Grocers.

Two sizes, usually sold at 15c and 25c

MULE-HIDE

"Not a kick in a million feet"

"GET ME
FROM YOUR
LUMBER
DEALER"



Made also in Green and Red Slate Surface Finish, as well as Shingle Style

The extra strength and service you find in MULE-HIDE starts with the good rags (no paper or straw) put into the felt. This good felt, is then saturated with the right kind of asphalt. The asphalt is then worked into the felt by special machinery. Our slow process and honest materials, carefully handled, are the secret of MULE-HIDE strength and toughness. MULE-HIDE is stronger—that's why it wears longer and costs you less per year than other roofings. It is to your interest and profit to look for the Mule's Head on the yellow label—At your lumber dealers.

Trade Mark
Registered
U. S. and Canada



We also manufacture:
MULE-HIDE Asphalt Shingles
in red or grey-green;
MULE-HIDE Slate Surfaced Roll Roofing
in red or grey-green;
MULE-HIDE House Lining;
SEAL-SKIN and BLACK-BEAR Waterproof
Sheathing Papers;
Asphalt, Roof Paints, Cements, etc.

The Lehon Company

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Announcement

For many years Ford owners on the farm have wanted closed-car luxury without the large first cost that goes with it.

For the first time, there has been developed a practical, convenient method of assuring closed-car luxury with either a Ford Touring Car or Roadster.

It is called the USTUS Limousette

the standard body and top of your car without alterations.

It furnishes just the protection and comfort you want when going to town on cold rainy days or taking the children to school.

At a light touch a roller window, at each door, of sturdy and permanent construction, rolls out of sight. You have no curtains to fuss with.

It also keeps out the dust and rain and assures clear vision.

USTUS
Limousette
FOR FORDS.

and is tailored to fit the Ford Car perfectly. Due to its unique design it may be used in connection with

USTUS Protective Covers

The Dafeo-Eustice Company also makes the only standardized, guaranteed line of protective canvas covers for protecting Tractors, farm implements, haystacks, and hay cocks. See samples at the USTUS Dealer in your town or write to us for a catalog.

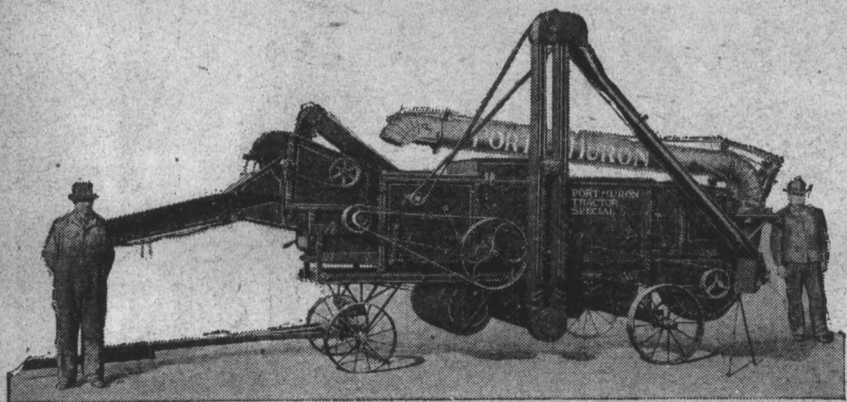
The USTUS Limousette weighs only 40 pounds and can be installed in an hour. The price is \$46.00 for touring car and \$30.00 for roadster f. o. b. Detroit.

Ask the USTUS Dealer in your town to demonstrate its advantages. If there is not a USTUS Dealer in your locality write to your USTUS Distributor.

DAFOE-EUSTICE CO., Manufacturers
1172 W. Jefferson Ave. Detroit, Mich.

Distributors

J. G. HAYS SALES CO.,
1162 Penobscot Bldg., Detroit, Mich.



IMPORTANT NOTICE

Thresh When You're Ready

RELIABLE information has reached us that many farmers this year are experiencing difficulty in getting their threshing done in time to save their crop.

Individual or Community Threshers

We have in stock, ready for immediate shipment, grain threshers of sizes that can be operated by small steam engines—or any size gas tractor.

Give us the size and kind of your power and let us quote you on a thresher suited to your needs and power.

Wire or Telephone Your Order at Our Expense

Remember we can ship machine same day order is received.

Port Huron Engine & Thresher Co.
Port Huron, Michigan

Vegetable Growers' Association

(Continued from page 374).

tent of the soil and the perfect functions of the soil depends upon heat, light, moisture, mineral foods, ventilation, texture and toxic conditions. The most outstanding features of soils suitable for vegetable growing are texture and tilth.

"Because a particular type of soil in New Jersey gives the best results for potatoes is no sign that such a type of soil will give the best results in a different locality, for climate is an influencing factor in determining the soil requirements of crops. In a northern climate the more sandy soils are best adapted for potatoes, while in a southern climate the heavier soils produce the largest crops.

"The importance of well-drained soils that have good water-holding capacity is not appreciated by the majority of vegetable growers. The humus problem is one of the most perplexing that confronts vegetable gardeners in proximity to large cities, for, with the passing of the horse and the coming of the automobile truck, the gardener is robbed of his usual supply of manure so that he must make plans to maintain an adequate supply of humus by growing green manure crops to plow under. Here, too, is connected the problem of growing such legume crops as beans, peas, as well as clover, vetch and other soil-improving crops. I know that I am not likely to receive a warm reception from vegetable gardeners when I advocate the growing of green manure crops, but I am sure that the time is close at hand when you will be compelled to adopt this method of maintaining an adequate supply of humus in your soils. As a rule, it will pay to fertilize the green manure crop rather than to allow it to shift for itself, for the one big object in growing green manure crops is to produce a maximum amount of humus and plant food.

"While bone meal is excellent for growing vegetable crops we must depend largely upon acid phosphate as a source of phosphorus. I feel sure that potash has a necessary function in growing vegetable crops. Of course, if you have an abundance of stable manure you will already have in your soil sufficient potash in a readily available form. Lime occupies a place in plant food economy equal with the actual plant food elements. The organic matter in the soil rests largely upon legumes, and the legumes rest to a certain extent upon lime. The tendency of soils is to swing toward a sour or acid condition so that the lime problem is to help the soil in the range of the requirements of the different crops. In no other type of farming does lime occupy a more important place in the economy of plant growing than in growing vegetable crops, which is one of the most intensive types of farming. Lime seems to accomplish some of the functions of potash. It also aids in helping out the phosphorus problem. It is very important if you are using any of the carbonate forms of lime to insist upon it being ground into fine particles, no larger than will pass readily through a fifty-mesh screen.

"Caustic lime has been reported to destroy humus, but, no matter how many times it may be reported, it is not so, for there is no possible destruction of organic matter by the use of caustic lime. On the practical side caustic lime is used by manufacturers of sugar, and for removing hair from leather, so that the question of deciding between caustic lime and carbonate of lime is purely a matter of cost and convenience. But caustic lime, when conditions are favorable, has greater possibilities for soil improvement than carbonate of lime. Small applications frequently are preferable to the use of larger amounts. Lime should be thoroughly mixed with the

soil so that applying it to the plowed ground and working it in is the most practical method of applying it. In no place has lime a more important function to perform in soil management than in vegetable growing. The use of lime must be regarded as a part of a scheme to develop a permanent system of maintaining soil fertility."

Promising New Crops for Muck Lands.

At the outset Mrs. Fred Osborn, of Ann Arbor, reminded her hearers that with approximately eight million acres of muck land in the state, the subject of new crops is an important one. "Success in the cultivation of muck land may be likened to the achievement of fame; some are born with it, some acquire it, while others have it thrust upon them. In the years I have lived on muck land, my problem has been to dominate it. In our university town I have had an opportunity to learn much from educated Chinese students, and through them also from returned missionaries have secured information on vegetables grown intensively on irrigated lands of the Orient. One difficulty an investigator will experience is that of ordering a catalogued variety of seed and to have the seedsman substitute another variety, which often leads to disappointment." Mrs. Osborn had an exhibit of the plants of varieties which she had produced on her own farm. There were three varieties of Chinese cabbage, the seed of which she secured from a man in San Francisco. An important matter to the grower of new varieties is a knowledge of the proper methods of preparing these new foods for the table. Other vegetables experimented with were White Vegetable, Chinese mustard, which is sweeter and less pungent than the plant we grow, Chinese watermelon, Chinese soup vegetable, Chinese squash, Japanese celery, a perennial, Mikado or Korean radish and Chinese radish, all of which produce a luxuriant leaf growth, and are adapted to muck soils.

Muck Land Problems.

"We know of many gardeners," said Ezra Levin, Michigan's muck crop expert, in his address on the above subject, "who have tried to farm muck land and have failed, while many have been successful on high lands. I know of a number of instances where men have made the mistake of believing that our muck lands in Michigan and in northern Indiana are similar to the black lands in other parts of the country, thinking they could use exactly the same principles in handling muck soils as with high land soils. The fundamental consideration in muck land as in agriculture in general is the consideration of climate and soil. Muck land is generally considered frosty land, which fact must never be lost sight of in selecting suitable crops. We do not tell our farmers to grow tomatoes on muck or take any chances with any but frost-proof vegetables, as cabbage, onions and celery.

"Our muck soils are entirely organic, that is they originally came from deposits of vegetable matter that had been covered by water year after year until we have a great big silo, as it were, of organic matter. They contain an abundance of nitrogen. Samples will run 1.5 per cent nitrogen. The problem is to so handle the land that the nitrogen will be released as needed. It is not necessary to plow down cover crops. It is found that muck soils under cultivation change in character in three years. The only distinction we make in our Michigan muck lands is the woody muck and the sedgy or mossy muck. We find that it takes longer to break up the woody muck than other muck. However, there are just as many different types of muck lands in the state as there are kinds of high lands.

(Continued next week).



THE EUROPEAN CORN-BORER.

ON August 28, 1919, there was convened a meeting at Albany, New York, of many of the State Commissioners of Agriculture from the middle and eastern states, together with the official entomologists from the same district and the chief of the United States Bureau of Entomology with several of his experts. Altogether, fifty-eight official representatives were present. The meeting adjourned about midnight and reconvened at Boston early the next day.

The object of all this get-together was to consider the recently imported European corn-borer which is now established in our country, and to get acquainted with it in the field.

Visits were made to Schenectady and the surrounding country and to the fields and field laboratories about Boston, in order that the specialists from other states might become acquainted with the appearance and work of the pest, that it may be recognized as soon as it appears in new localities.

It is the belief of the writer that this new pest from overseas is the most serious menace that has as yet threatened the agriculture of North America, and of course, if North America is invaded, South America can not hope to escape. The pest bores in corn, tunneling in the stalks and in the cobs, and is capable of being shipped in corn on the cob to new areas with the greatest of ease. Furthermore, it works almost equally well in a great variety of weeds and almost any plants having woody stems, like smartweed, dahlia, broom-corn, pigweed, ragweed, and all the rest of the common things found about edges of fields. The pest is already thoroughly established in over fourteen hundred square miles in eastern Massachusetts and has recently spread over into a little of New Hampshire. There are also eight hundred square miles in New York infested. The boring is done by a small naked caterpillar or "worm," which pupates in the stalk, and changes to a moth, capable of flying many miles. There are two generations each year and the female moth may live over a month, giving her time to make a long journey before death.

It would seem that the insect has obtained a good start already, but after all, two thousand square miles, or perhaps three thousand, is a small area when compared with the area of the United States, and when we think of the permanent injury which is sure to result when the pest gets into our real corn growing states it seems smaller still. There seems to be no remedy thus far short of burning the plants entire, stalks, stubble and all.

It is hoped that anyone finding suspected borers in corn will send in specimens to the entomologist at the experiment station, East Lansing, Michigan, and not only will he send them, but that he will pack them securely in a tight tin or wooden box. Send some of the stalk with the borers inside, packed so that they can not cut their way out. They can cut through paper and thin wood so use tin if possible. They spread very rapidly so do not delay more than long enough to make the sending safe.

Furthermore, the destruction of the pest in the states already invaded is a national affair, so it is well worth while for anyone interested in corn, beef, milk, hogs, leather or other products depending on this, our great American crop, to back up congress in making ample provision for the suppression of this really serious pest.

R. H. PETTIT,
Entomologist of Experiment Sta.

'I do my washing by headwork now'

"For all I need to do, after putting the clothes and water in the tub, is to press the pedal with my foot to start the engine, and the washing begins.

"When it is done, unlatching and lifting the lid stops the washer and starts the wringer, then I merely feed the clothes through and refill the tub.

"And while the second batch is washing, I can keep the wringer going too, and wring from rinse to blue and blue to basket.

"Just repeating that operation disposes of the biggest wash in an hour or less, with no real work, and three or four cents' expense for power.

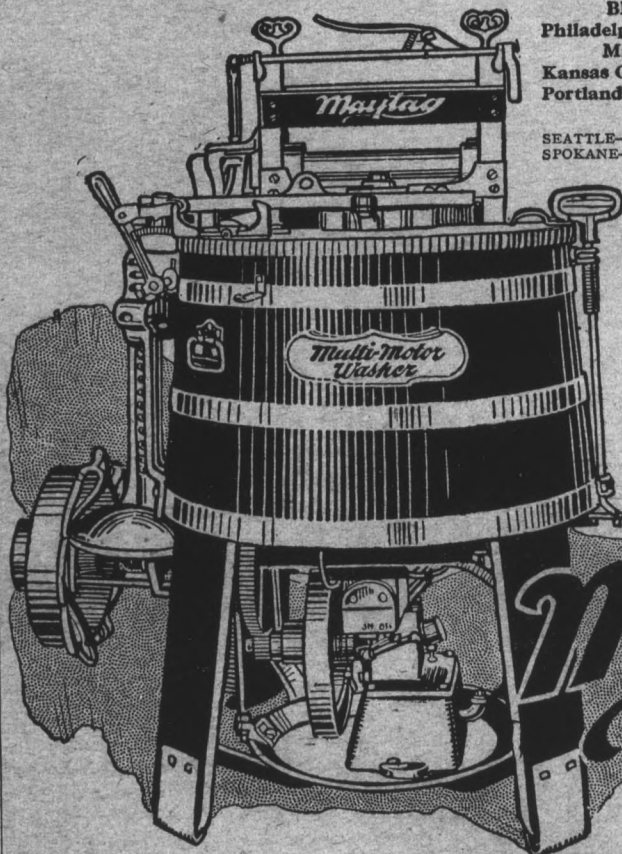
"And then it is all so interesting, and I feel so independent at being able to do it all myself."

The Multi-Motor washer is an exclusive Maytag production and is the only practical self-contained power washing machine operating independent of electric service. The power is generated by a small, highly-efficient gasoline engine built in under the tub and operating both washer and wringer.

In farm homes equipped with electric lighting plants the Maytag Electric is the favored washer, as it possesses all the refinements of construction and advanced features of efficiency common to every type of Maytag washing machine.

May we send you gratis the Maytag Household Manual, full of helpful household suggestions?

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Operates on wonderful leverage principle. One man alone handles and pulls. Just a few pounds on the handle means tons on the stump. When stump starts to move, it pulls itself out. Positively no other machine like it. Send for most valuable Stump Puller Book over published—pictures, prices, terms—and our Special Agent's Proposition—all FREE. Write today. One-man style or HORSE POWER, all sizes. 3-year guarantee with each machine. Shipment from nearest distributing point saves time and freight! Low prices now. Write for FREE BOOK, etc. TODAY!

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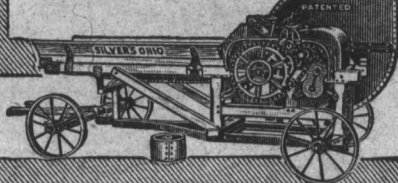
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A Godforsaken Hole

By Edgar White

I LIKE you, Mr. Masters, and I like the work. There's nothing wrong about the job. You have a good plant and the men are thoroughly congenial—never saw better fellows—but, you see, I was reared in the city."

The dark-eyed young foreman of the Hillcrest News hesitated, and a shadow crossed his clear-cut features. Then he went on almost defiantly:

"This is a small town. People turn in with the chickens and get up with the birds. There's nothing here for a man outside of his work. All the stores are closed up tight at six o'clock. And it seems like after supper everybody sits around till dark and then go to bed. There's no place to go—nothing to do. Of course, it's different with you people here—you're used to this awful quietude after nightfall because you are born and bred to it. I'm not. I like the rush and rattle of the big town. It's a part of men, and—and I'm going back."

The last was said with despairing earnestness.

Hardy Masters, owner of The News, listened quietly. He appreciated to the full the situation and feeling of his foreman, and knew it would be of no use to argue with him. During the war he had been driven to seek printers from the big city, and there had found Harlow, who was willing to take a try at life in the country. The salary was good, even for war times, and Harlow had saved money. But he had got terribly homesick to go back to the white lights.

"A man might stay here until he vegetated like one of these pumpkins or squashes they talk so much about here," Harlow wrote to a city friend. "They ring the curfew at nine o'clock and every respectable citizen is supposed to be in bed soon after. The only excitement during the six months I've been in this God-forsaken hole was a fire alarm. It raised a fine hullabaloo, but it was merely a darkey's woodshed. Wonder what they'd do if something really happened?"

In the morning Harlow was aroused about an hour earlier than usual. The landlady told him Mr. Masters wanted to see him. Thinking something had gone wrong at the office, the printer put on a few things and hurried out. The owner of The News, wearing a broad-brimmed straw hat, was in a buckboard in front of the door. Two long fishing poles extended behind.

"Put on your old clothes, Will," said Masters, "and then we'll drive down to the restaurant and get a bite before we start."

"But we got a lot of work in," remonstrated the foreman; "there's that catalog for the Bluebell Stock Farm, and—"

"I guess the boys will get along today," returned Masters pleasantly; "it won't bust things for us to drive out to Crevecoeur, I reckon."

Crevecoeur was a large natural lake some five miles out of town. It was a beautiful day. The roads were smooth and hard and Masters' mare trotted along with the buckboard as though she enjoyed it.

"Been promising Nance an outing for a long time," remarked Masters; "that's why I didn't fetch the old buzz wagon. We can go anywhere we want in this outfit, and the car would only be in the way."

The morning breeze rustled the trees slightly and sent across the road the fragrant incense of the woods. The pure air was like wine. As they proceeded toward the lake the country became more broken. The road curved around great bluffs picturesque with moss and fern. Squirrels scurried across the green carpet of the woodland and birds of gaudy plumage sang fearlessly from boughs overhanging the road.

Harlow had never been quite this far back in the country and to him it was like treading on virgin soil. At a sudden turn in the road he clutched at his companion's arm and pointing up a grassy slope, cried:

"Look at those two birds! They must have escaped from some zoo!" Masters smiled. The birds were a couple of peacocks with their gorgeous feathers outspread.

"Lots of 'em in these parts," he said, "nearly every farmer has some of them for ornamental purposes."

"Well, that beats me," said Harlow. "I've seen those birds out in the park in the city and I supposed they came from the tropics. And to think those beautiful birds can be reared right here in the country!" he added musingly.

They reached the lake and Masters, with the calm precision of an expert, began studying the ripples on the water, the shade and the direction of the wind. Then they baited their hooks and threw them in. Harlow started to load his pipe when his cork went under. He made a quick grab for the pole. A bright ripple of water showed the quarry making away with the hook. The young man, intensely excited, waded in the water a short distance. Masters looked at him covertly, but made no suggestions. He knew that the way to fish was to let each fellow manage his part of the game.

"There!" cried Harlow, "did you ever—"

But alas! Just before the line swung over to the shore the big bass slid off the hook and back into the water.

"Say! I'll get him yet!" and Harlow worked feverishly to rebait his hook. He threw off his coat, rolled up his sleeves and forgot all about the pipe he had intended to light.

Masters yanked out a small fish, held it up apologetically and threw it into the basket. Harlow, amazed at his companion's calmness, said:

"That was a fine fish you caught, nearly as big as mine."

"We'll put out the trout line pretty soon," remarked Masters; "then we'll catch some whales."

Harlow had caught half a dozen big bass when Masters reminded him that it was after one o'clock and that a bite of lunch wouldn't be bad.

After one! Harlow looked at his watch for confirmation. Never had time passed so swiftly.

Masters reached into the buckboard and pulled out a basket. In it were sandwiches made of country ham, a box of sardines, a small bottle of pickles, a loaf of home-made bread, a jar of preserves and a bottle of milk. Sim-

ple enough lunch, but Harlow never tasted anything quite so good, he

wagon. We can go anywhere we want

(Continued on page 386).



MAKING MICHIGAN SOILS GROW
THEIR OWN HUMUS.

BY J. W. HENCEROTH.

THE way to grow big crops, is to grow big crops," said a prominent agriculturist recently.

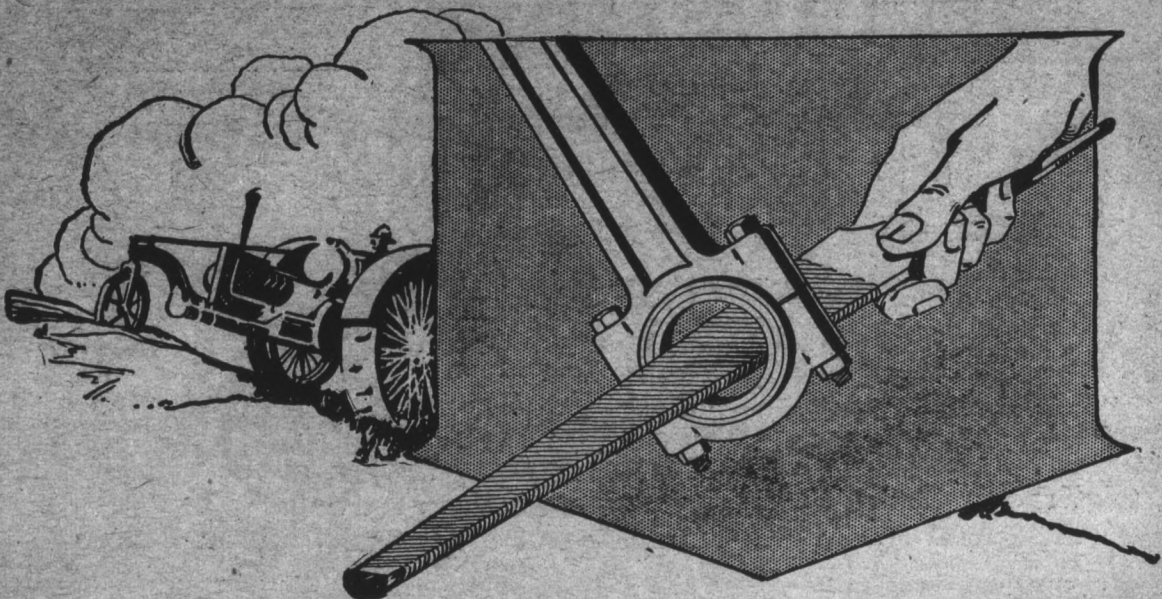
What did he mean? He was simply expressing in a rather unusual way, the well-known principle that a big crop leaves more humus—more plant residue—in the soil, than does a small crop, and therefore leaves the soil in better condition to produce the succeeding crop. This fact is particularly noticeable in the case of the grass crop. A small grass plant, of course, has small roots; but sometimes we do not realize that a bigger grass plant has bigger roots and therefore leaves a larger amount of humus-making material in the ground, when the sod is plowed under.

At the Cornell, New York, Experiment Station it was found that a heavy sod, produced by top-dressing with fertilizer, increased the regular organic matter of the soil as much as if seven tons of manure had been added.

The same effect is produced with corn, wheat, oats and the other staple farm crops. In fact, in many sections it has been found desirable to depend almost entirely upon plant residues to furnish the needed soil humus. Where manure supplies are insufficient—as is too often the case—humus can be maintained and even increased by the full utilization of crop residues, provided big crops are grown. Fertilizer and humus-producing crops make a combination which will produce big crops indefinitely. Probably this is the reason why, in other work at the New York Station, corn grown on a timothy sod which had been top-dressed the previous season gave a yield twenty-six bushels per acre larger than corn grown on the timothy sod which had received no top-dressing.

At Cornell Agricultural College in the timothy top-dressing experiments where 354 pounds of a complete fertilizer was used the humus was increased 9,940 pounds in twelve years or approximately twenty-nine pounds for every pound of fertilizer used. No manure or other outside sources of humus was applied. This increase came through the increased roots and stubbles produced by the fertilizer. In the same experiments 320 pounds of acid phosphate produced eleven pounds of humus for each pound applied. At the Ohio Experiment Station in the continuous corn, oats and wheat experiments each pound of complete fertilizer, over a twenty-year period, produced eighteen pounds of humus on one plot and thirty-one pounds on another. Other experiments at Ohio, Pennsylvania, West Virginia, Rothamsted and other stations substantiate these figures. In fact, they disprove the all too common expression that fertilizers destroy humus.

The truth of the matter is that fertilizers increase the humus of the soil, because they grow big crops above the ground which mean larger roots in the ground. Thousands of acres of Michigan land could be built up as far as humus is concerned if some fertilizer was used to fertilizer cover crops, such as rye, vetch and sweet clover. Then if the regular crops were properly and generously fed with a suitable fertilizer, substantial crops would be harvested while the land was being further enriched with humus.



TEXACO

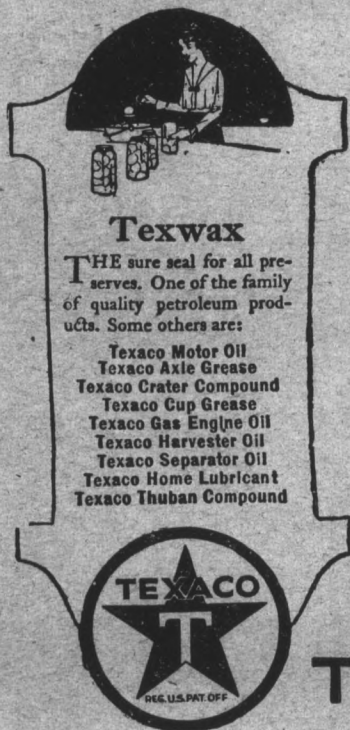
TRACTOR OIL

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Has the same effect on
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IN the rapid action of moving surfaces in the running tractor motor, wear and absolute destruction must be carefully guarded against. Metal must not touch metal, lest the microscopic "teeth" practically file away the bearing surfaces, producing over-heating, knocking, and other motor ills. It is this work of keeping the surfaces protected with a tough oil film that Texaco Tractor Oil does so well. With Texaco Tractor Oil, the bearings slide on a perfect Texaco oil film. It keeps the motor working. Lengthens the tractor's life.

Because of its good body and high lubricating quality, farmers find it pays in another way. It lubricates longer. Saves oil expense. Try Texaco Tractor Oil. Sold in wooden barrels and half barrels; 15, 33, and 55 gallon steel drums, and one and five gallon cans.



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THE sure seal for all preserves. One of the family of quality petroleum products. Some others are:

Texaco Motor Oil
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A dish you'll
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At breakfast or lunch
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Winter Vetch, Rye and Vetch, June and Mammoth Clover, Alfalfa, Sweet Clover, Alsike and Field Peas. Known varieties of Garden Peas, Beans and other Garden Seeds. If High Germination and 1919 crop.

Send samples for test.
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Grown from certified seed; absolutely pure and free from smut, no rye, no foul stuff. In 10 bu. lots, \$2.60, bags extra. Wesley Hill, R. D. 6, Ionia, Citizens phone, Saranac, Mich.

Seed Wheat No. 1 Red Champion. The Hardest, strongest, most productive variety, with the least foulness of any wheat on the market. For sale by W. J. Merriam, Almont, Mich.

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Car lots or less. Ask for prices.
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WE WANT VETCH. SEND US SAMPLES.
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BARN PAINT \$1 PER GALLON

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Please mention the Michigan Farmer
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TIMKEN TAPER TRIUMPHANT

Why did the Wallis Tractor Company put Timken Tapered Roller Bearings in rear wheels, at the differential and in the transmission of the "Wallis Cub, Jr."?

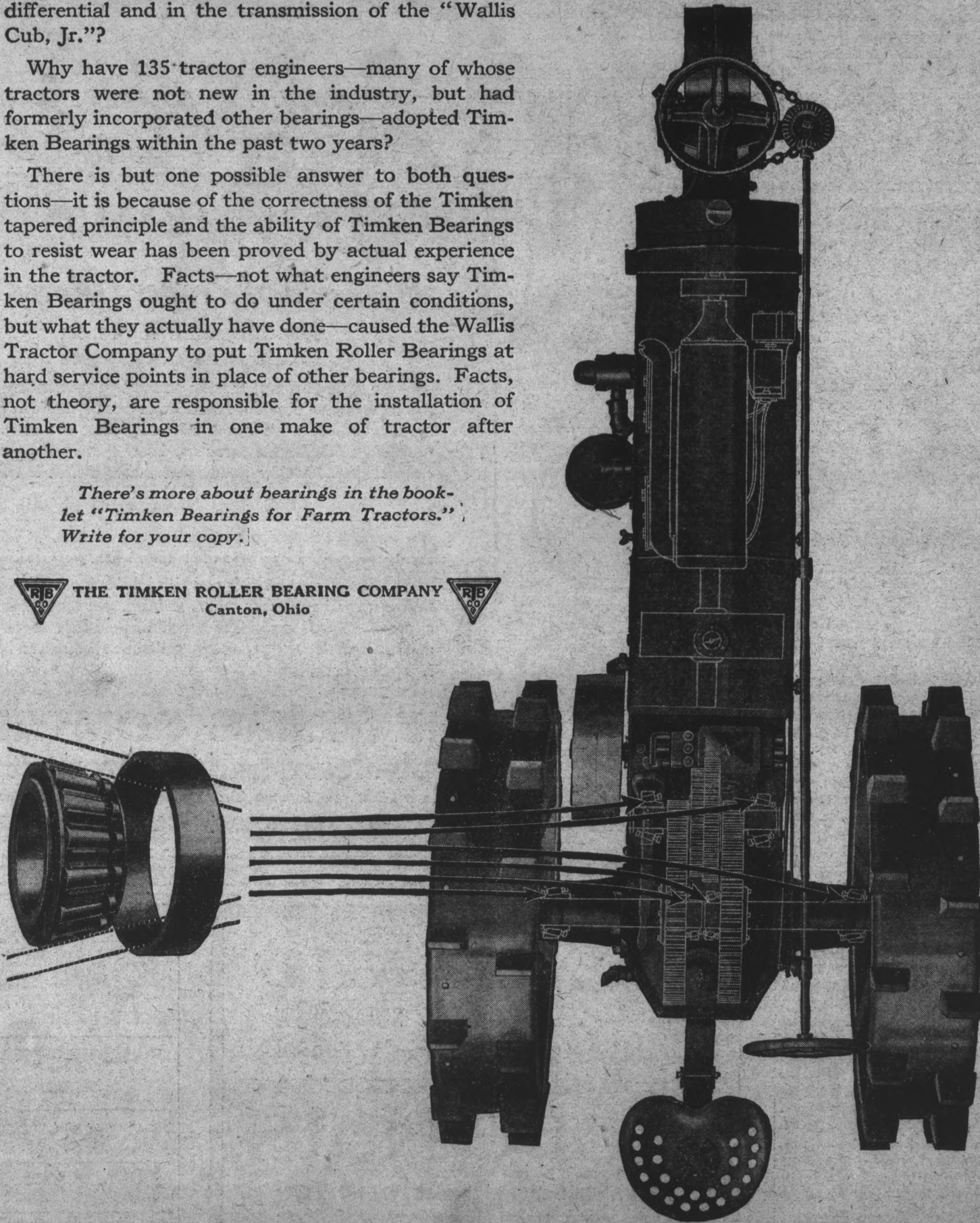
Why have 135 tractor engineers—many of whose tractors were not new in the industry, but had formerly incorporated other bearings—adopted Timken Bearings within the past two years?

There is but one possible answer to both questions—it is because of the correctness of the Timken tapered principle and the ability of Timken Bearings to resist wear has been proved by actual experience in the tractor. Facts—not what engineers say Timken Bearings ought to do under certain conditions, but what they actually have done—caused the Wallis Tractor Company to put Timken Roller Bearings at hard service points in place of other bearings. Facts, not theory, are responsible for the installation of Timken Bearings in one make of tractor after another.

There's more about bearings in the booklet "Timken Bearings for Farm Tractors." Write for your copy.



THE TIMKEN ROLLER BEARING COMPANY
Canton, Ohio



WORLD EVENTS IN PICTURES



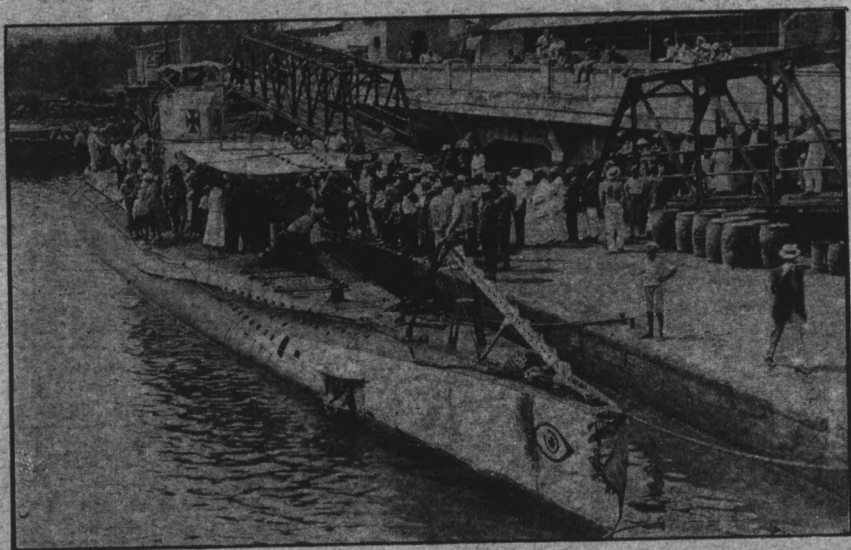
Wife of Secretary of Navy Daniels pressing electric button which opened water controls of the United States' Greatest Dry Dock.



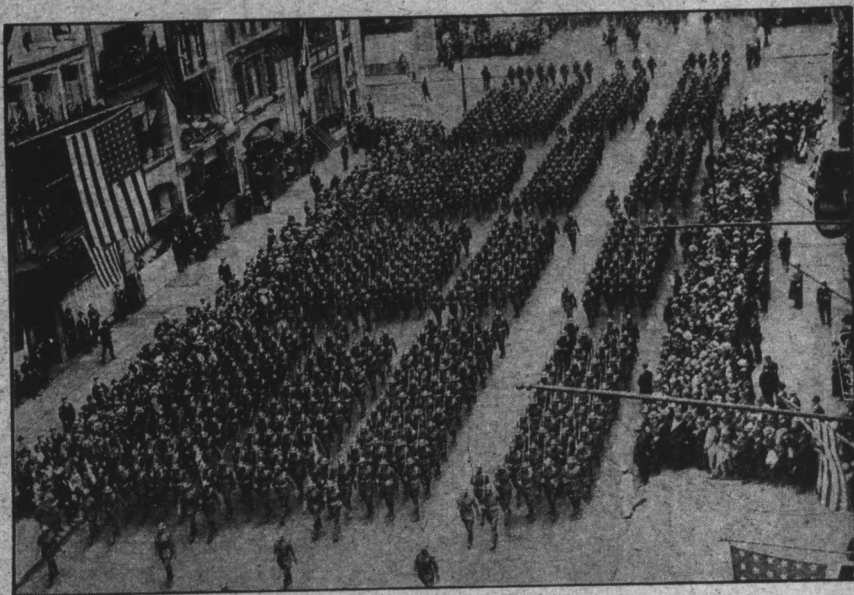
Cardinal Mercier, Belgium's Heroic Prelate, and Mayor Hylan on deck of the Northern Pacific.



President and Mrs Wilson in one of the cities where the President addressed great throngs on the merits of the treaty and the league.



Hun U-boat that sunk Sixteen Allied Ships is now on exhibition at Balboa Heights, Pacific entrance to Panama Canal.



General View of Historic First Division Parade on Fifth Avenue.



Miss Elena Calderon, daughter of Minister from Bolivia enjoyed her first trip in the air. She made her flight in Washington's most modern sight-seeing bus.



Loyal Policeman on guard at one of the many looted and wrecked stores in heart of business district of Boston during the policemen's strike.



Great Reception for Pershing at New York. Rodman Wanamaker, General John J. Pershing and Grover Whalen at the city hall, where the General was welcomed with an elaborate ceremony. A wonderful picture of Pershing's Smile.

A Critical Moment of N

We consider this the most important announcement ever made to Michigan farmers. It is the plain duty of every farmer in the State to read it carefully.

J. W. Walbridge
Business Manager, Michigan Farmer.

Frederick
Editor, Michigan Business Farming

A. Morrill
Helen and Peach King of Michigan

Calvin C. Allen
Needs no introduction to Michigan

Geo. M. Low
Secretary, Michigan State Horticultural Society

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Prominent Farmer in Macomb County

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Prominent Farmer in Shiawassee County

A. E. Illendin
Prominent Farmer in Lenawee County

Albie L. Watkins
Prominent Farmer in Manistee County

Harry Buell
President of the Michigan Potato Growers

Whitney Watkins
Member State Board of Agriculture

Chas. Bingham
Secretary, State Farm Bureau

B. A. Holden
Prominent Farmer in Oakland County

U. S. Ewing
Prominent Farmer in Marquette County

In years to come, 5 o'clock on Tuesday afternoon, August 6th, will be pointed to as the critical point in the history of Michigan Agriculture.

All day long the Executive Committee of the Michigan State Farm Bureau had been in session, considering the important question of putting the Michigan State Farm Bureau on the same strong, financial and organization basis which it occupies today in other states.

All day long the discussion had gone on. They had listened to a great address by Mr. Saylor, head of this organization work in Illinois.

They had heard him tell of the tremendous strides taken in Illinois during the past few months—How over 75% of all the farmers in the counties worked had joined the organization at minimum yearly dues of \$10 each—How the Legislative Committee at the last session secured the passage of every measure which they backed and the killing of every measure which they objected to—How the Marketing Committee has secured results never before approached. For example, getting 65c a pound for the average grade of Illinois wool as against 45c bid by brokers—How the Educational work throughout the state was progressing as it had never done before.

This was the question as it finally came up for decision:

Should the Michigan State Farm Bureau continue as it has in the past, without ample funds or membership, to accomplish the great work it is doing in other places or should Michigan get squarely in line and put over this organization in a big way by changing the yearly dues to a minimum of \$5. a year in the State Organization—recommending similar yearly dues to the County Organizations—and beginning an intensive state advertising and soliciting campaign to enroll in the organization every farmer in the state, if possible.

The question was put and carried without a dissenting vote.

The die was cast.

Michigan is now lined up squarely with this greatest movement in the history of agriculture.

JOIN THE MICHIGAN STATE FARM BUREAU

ment in the History Michigan Agriculture

Every practical Michigan farmer knows that today we are facing conditions which no farmer can meet successfully single-handed.

It is the day of organization.

Labor is organized. Manufacturers are organized in every line of business.

The farmer alone is still working single-handed.

But he will no longer be compelled to do this.

With the majority of Michigan farmers enrolled in this great organization, we will have the means of correcting every condition which now makes profitable farming so extremely difficult instead of being, as it should be, the most profitable and pleasant occupation in the world.

This is actually being done in Illinois and other states. It will be done in Michigan.

The work of the "greater" Michigan Farm Bureau will divide itself into three very definite classifications—educational, legislative and marketing.

This question may be asked—exactly what will be done along these lines?

A fairer question would be—"What can't be done when the farmers of Michigan are organized into one strong, compact working unit?"

We know of the great things which have been accomplished by Michigan organizations working along certain restricted lines.

Imagine the results that will come from all Michigan farmers working together. Imagine the force behind the voice of 200,000 Michigan farmers, speaking as a unit on matters of legislation. Imagine the power of this great body in changing marketing conditions so that every farmer makes a legitimate profit not only on his investment, but on every day's work.

Imagine the improvements and the educational work which can be done on crops and production.

The State Farm Bureau, however, has no intention of supplanting the work of any present organization. It will help all of them and make their work more effective. It will take up tasks that no one organization or one group has ever successfully accomplished. Its scope is not state-wide, but national.

These are not intangible things. They are definite returns and large returns, which every farmer will share in from his investment of a few dollars in the State Farm Bureau membership.

An efficient organization has been completed and the plan of publicity and soliciting laid out which will cover the entire state.

This is the first announcement of the series which will carry the message to every Michigan farmer.

The active campaign of solicitation will be carried on county by county, beginning with Oakland County on the morning of October 15th.

Other counties will follow rapidly, as fast as the organization can be expanded. Every farmer in Michigan will be called on and asked to join.

The Michigan organization will be but one unit of a great national organization composed of similar units, presenting a united front on all matters pertaining to the well being of the farmer.

We suggest that every progressive Michigan farmer begin immediately to discuss this among his friends. Arouse their enthusiasm over this great work. Get your county and township organizations completed well in advance of the work of the State solicitors. Communicate with the State Secretary, Mr. C. A. Bingham, Birmingham, Michigan. He will be glad to supply you with further details and plans for the work.

Michigan State Farm Bureau

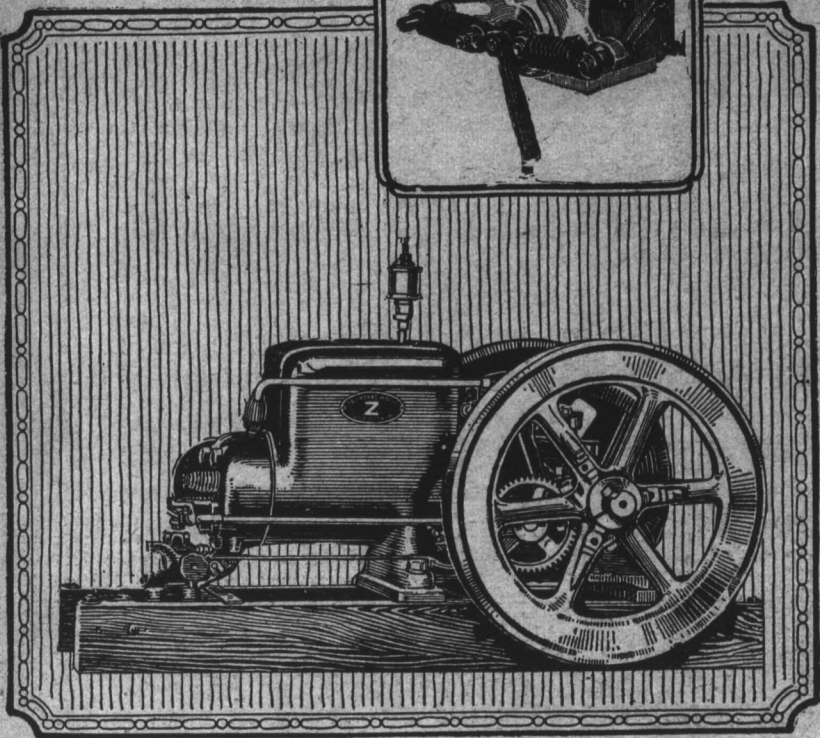
Executive Offices

Birmingham, Michigan

REAU—IT IS ORGANIZED FOR BUSINESS

The Greatest Combination

**Fairbanks-Morse
"Z" Engine with
Bosch Magneto**



WHEN the full meaning of this "Z" message is realized—mighty few farmers in America will fail to at once call on the nearest "Z" engine dealer. ¶ This example of master engine-building must be seen. ¶ Type and pictures can but suggest this value establishing achievement. ¶ By adding this one possible betterment—Bosch high tension, oscillating magneto—we complete a rare engine service, fully maintained by over 200 Bosch Service Stations in co-operation with every "Z" engine dealer—for all "Z" engine owners. ¶ Prices—1½ H. P. \$75.00—3 H. P. \$125.00—6 H. P. \$200.00—All F.O.B. Factory.

Fairbanks, Morse & Co.
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A Godforsaken Hole

(Continued from page 384).

thought. The keen air and the exciting sport had given him an amazing appetite. A small sack contained some corn for the mare, and she, too, seemed to have acquired a marvelous appetite. After lunch Masters, who seemed to have thought of everything, unrolled a couple of blankets and spread them under the trees. On these the men lay and smoked their pipes. Masters, who normally was a man of few words, became a bit loquacious and told stories of hunting and fishing, and of adventure in the northwest wilderness. In this Harlow learned a surprising thing—that a man might live all his years in a great city and yet be intensely provincial. His education had taught him that the great things of life were amid the roar of street traffic, in the shadow of sky-scraper buildings. That the fundamental forces which built the city came from the fields, the forests and the solitudes of nature had never occurred to him. It was the swift moving, pulsating city, he thought, that sent out the life-blood to the remote corners of earth and kept them alive.

Under the influence of Master's quiet talk he saw men of vision toiling in mine and mountain and plain, on the frontier outposts, for metal and wood and various products the city had to have in order to be a city. Coming closer to home, he learned how the plantation, the ranch, the stream and lake all gave of their store to the city, and how necessary it was for the city's life. The city was the dynamo; the farm the source of power.

Along in the middle of the afternoon Masters put the mare back in the shafts and they rode up the shores of the lake. Sometimes they would cut through a woody stretch and then would travel for a while in the open with the great body of water beside them. They encountered nobody, but after a time they stopped and Harlow saw on a hill sloping up from the water a white cottage, with vine entwined pillars in front.

"What a beautiful place for a home," he exclaimed with involuntary admiration.

"Man named Jones lives there," said Masters indifferently; "used to be good fishing place over on this point; suppose we try it there for a while. They ought to bite good by now—sun going down."

The sport was even better than in the forenoon. The fascination of fishing had taken hold of Harlow. He had never been on the lake where the royal members of the fish tribe habitated, and the day was all too short for the fun he was having. As the shadows lengthened across the waters a horn sounded musically in the distance.

"Let's go to supper," said Masters, drawing out his line.

"Supper?" cried Harlow. "Where?" Masters indicated the white cottage on the slope.

"I'm a nice looking guest to go into a stranger's house," said Harlow ruefully pointing to his mud splashed shoes and trousers.

"Plain country folks—the Joneses," returned Masters; "they won't look at your clothes. Come on."

They got into the buckboard and Masters drove up to the front of the cottage. Jones, a bronzed man with friendly eyes, came out.

"What luck?" he cried.

"Tolerable," replied Masters. "Harlow here did pretty well for a tender-

foot." Then he introduced his printer, and Mr. Jones led the way to the barn, where the mare was put up.

The white cottage was just as neat and attractive on the inside as it was outside. Mrs. Jones, a cheery-faced woman of possibly forty, met and shook hands with the visitors, and showed them to an upstairs room to wash up and get ready for supper. When they entered the dining-room they found on the table some fish they had caught.

"Wanted Harlow here to see the difference between eating fresh fish and the kind you get in the market," said Masters. "Isn't often a city man gets such a chance."

It was an humble home, but a real one. There was a vase of woodland fern and flowers on the table. To one side was the hearth with some spruce ready for lighting. The windows overlooked the lake.

At the table Harlow met Kathleen, the daughter, who extended a frank, sunbrowned hand to him. She was taller than her mother, and larger. The blue eyes rested on the young man with genuine pleasure. Her dress was simple, but becoming, and there were no ornaments about her save her bright hair, which had a dash of sunshine in it. Once when Mrs. Jones started to get something from the kitchen, Kathleen anticipated her, and placing a hand upon her shoulder forced her gently back into the chair, while she went for the article herself.

Beside the fish, there were feathery rolls, good country butter, Irish potatoes in cream, wild honey, preserves and delicious coffee.

Harlow thought of his widowed mother and his little sister back in the city and wondered what they would think of a meal like this.

Kathleen sat opposite Masters and Harlow and joined actively in the talk, which was about the lake, the woods, the animals that inhabited them, the riding of horses and the handling of canoes. She knew nothing of movies, of street cars, tall buildings, of the rush and roar of city life, and somehow Harlow didn't introduce such subjects because they seemed trivial in the light of the things that she knew. From the talk at the table he saw that she was experienced in the handling of hunting rifles, the placing of traps for small game and that she had traveled far in the mysteries of woodcraft. He had never run across a girl with that sort of knowledge, and it rather amazed him that she should know all those things and yet have every grace and refinement of the most cultured young woman he had ever seen.

Following the supper the men sat out on the veranda while Mrs. Jones and Kathleen put away the dishes.

The moon was just rising over the lake and the birds of the night were welcoming it with a woodland concert.

The place seemed like some fairyland, remote as the ocean's reach from heat and dust and the nervous struggle of man. For a long while they smoked in silence. Men don't talk much in the solemn majesty of nature's beauty. It was as if God were speaking to the souls of men, and they were listening intently to what he was saying.

Presently Mrs. Jones and Kathleen came out attired in their heavy cloaks. Under her arm the girl carried a guitar. The men laid aside their pipes and arose. Mr. Jones nodded and led the way to the landing place, where

(Continued on page 388).

MAKING COTTAGE CHEESE.

BY M. MEREDITH.

THE following is a single method of making a cottage cheese:

This cheese may be made from mixed night's and morning's milk. Cool the night's milk to seventy degrees F.; on the following morning stir in the cream that will have risen to the top, and add the morning's milk. Heat to seventy degrees F. and add a starter at the rate of one per cent; the best starter to use is soured skim or buttermilk of good flavor; leave the milk for forty minutes after adding starter and before renneting. Raise the temperature of the milk to eighty-four degrees F. by standing the bucket containing in a second bucket of water; add the rennet at the rate of one drachm to two and a half gallons of milk. Use concentrated rennet and dilute it with four times its bulk of cold water before adding to the milk; this is necessary to prevent uneven curdling. Stir to the bottom of the bucket for three minutes after adding the rennet, and then stir to the depth of two inches from the surface until the milk commences to coagulate. Cover the bucket with a clean cloth and leave until the curd is firm enough to cut, i. e., when on inserting a finger or the thermometer a clean fracture is made in the curd. The curd should take about forty minutes from the time of adding rennet until ready to cut.

To cut use a long-bladed knife (a carving knife is suitable), cut lengthwise and across the bucket, commencing at the center and leaving three-fourths of an inch between each cut; then cut each square diagonally and with a skinner of tin disc cut the curd downwards until all its cubes are of an even size. Stir the curd for ten minutes after cutting, then scald to sixty-nine degrees F. by putting warm water in the outside bucket; bring the temperature up to the scalding point gradually, not quicker than two degrees in five minutes, and stir all the time. Stir from ten to twenty minutes after scalding temperature has been reached or until the curd is fairly firm, then leave to stand for ten to twenty minutes.

To remove the whey, lift the curd bucket from the outer one and pour away the water. Put a canvas cloth over the empty bucket and with a clean cup ladle out the whey until level with the curd, then gently pour the curd into the cloth, stirring lightly with the fingers. Tie in a loose knot and put on a small rack or sieve over the bucket to drain. Cover over with a second cloth to keep warm and leave for ten minutes. Open out, cut the curd in two and pile one piece on top of the other, putting the top sides together. Cover and leave for ten minutes, when the pieces of curd should be reversed. Cover and leave for twenty minutes, when the curd should be dry enough to grind. Cut into small pieces about the size of an almond and salt at the rate of one ounce to two and a half or three pounds of curd; mix the salt in thoroughly.

Line in cheese moulds with muslin wrung out of the whey, six-inch cheese moulds are used for cottage cheese. Pile the curd into moulds, fold cloth over the top and put cheese to press immediately, seven pounds pressure for the first hour, then increased from fourteen to twenty-eight pounds later. The cheese is left in the press until the following morning, then should be taken to a room with a temperature of about fifty-eight degrees F. and kept there for three weeks, turning every day; at the end of this time the cheese is ready to use. The cheese can be pressed by putting a flat board on top of the mould and the weights on the top of this. One gallon of milk will produce one pound of cheese.

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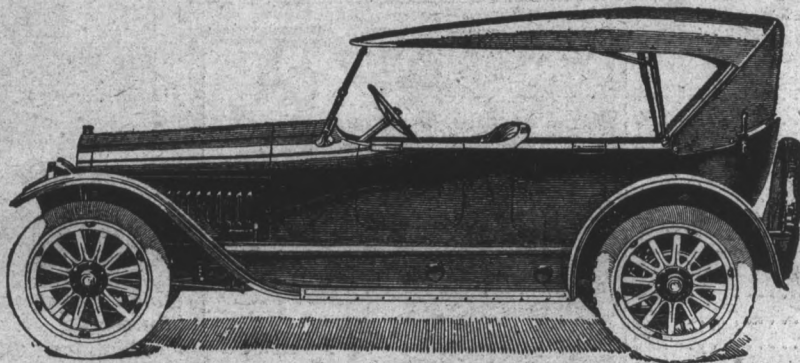
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"Mumblety-Peg"

By J. H. Brown

THE young folks manage to have more or less fun every day, even though it is mixed in with doing the chores, working in the garden, picking fruit and potato bugs.

Then there are occasional family reunions and picnics, and the almanac, or calendar in the dining-room or living-room, is marked up and referred to by mother and the children for days beforehand. When that particular day begins to dawn there is an unusual stir in and around the house and barn and the alarm clock routs up anyone who happens to feel too sleepy to care a whoop whether there is a picnic or not.

But it is the games that the boys and girls care the most for and they are delighted when father or grandfather show them something new.

We have been surprised to find so many children who did not know how to play "Mumblety-Peg." This is an old game and used to be called "Mumble-the-Peg" in some localities throughout the country. This no doubt came from the penalty exacted from the boy who was defeated. A small wooden peg was sharpened and driven into the ground so that the top was almost even with the surface. Then the victor had to mumble around in the grass

and dirt to get a firm hold of the peg with his teeth in order to pull it out.

In England long years ago the boys used to play a game called "Loggats" that was somewhat similar to our game of Mumblety-Peg, except that short pointed sticks were used instead of jack-knives or pen-knives.

In the first picture shown herewith granddaddy is explaining to the children all the details of the game. And some of the fathers and mothers are looking on with considerable interest. Grandfather Moore, at the right, is watching his adversary to see that he makes no mistake and hopes he will win out. He is, by the way, one of the prominent farmers and near-pioneers of Barry county, and for years has been taking subscriptions for the Michigan Farmer. Grandfather Markham knows all the fine points of the game and is holding the knife between his thumb and forefinger and steadying the handle against his chin just before he shoots.

And later on one little girl is found all by herself practicing up with a huge jack-knife she has borrowed from her big brother. It looks as though she had mastered two of the stunts in good shape.



A Godforsaken Hole

(Continued from page 386).

there was a large motor launch with a canopy in the center. The party got in, Kathleen taking a seat in the rear.

The engine was started up, and Mr. Jones guided the craft along the tree-bordered shores. When under way Kathleen took out her guitar and played, quaint airs of the countryside, they were, and some old-time pieces from the church books. These she sang, her mother joining in with her sweet alto. Harlow had heard those songs, years ago it seemed, but they came back to him that night, and as he involuntarily came in one some of the choruses Kathleen bowed and smiled encouragingly. It was a glorious night. Mystery and romance were written all along the dark forests, the towering bluffs and the jagged shores along which the surf gleamed like silver.

Mr. Jones guided the little boat along island reaches, through narrow channels overhung with the branches from aged forest trees until they were like tunnels; again they would voyage up tiny streams which after a while would open into a large body of water.

Harlow had read of such scenes but he had never thought to see them in his own land. He imagined to enjoy them he would have to travel to Europe, Scotland, Ireland and other places famed in song and story for beauty of lake and of mountain.

The cruise lasted until midnight, when Mr. Jones headed the little boat

to where a light twinkled in the distance—home.

That night Harlow slept in an upper room in a large four-posted bed, on a mattress that was thick and soft. About the room were vines and ferns and fragrant growths plucked from the recesses of the woods. The window looked out on the lake from which a soft breeze swept in and lulled him into such a sleep as he had never before known.

A large keen-eyed man sat at a flat-topped desk going through the morning's mail. From somewhere behind the office came the steady hum of hard-driven machinery, printing presses doing publicity work for a hundred concerns in a great city.

On opening one letter the gentleman at the desk frowned darkly. Then he arose and walked into the private office of his business associate, a gentleman whose hair was tinged with gray.

"Sexton," he said, "I thought you told me Will Harlow had written to get his position back; that he said he was tired of living in that 'Godforsaken' hole up in the country."

"He did that very thing," replied the elder partner in mild surprise. "I have his letter right here."

"Well," returned the other, "I have a letter here in which he says that he has made up his mind to stay where he is. Wonder what's happened to him?"

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Rosen Rye was selected and improved from an envelope of Russian Rye, furnished in 1909 by Mr. Rosen, a student from Russia, at the Michigan Agricultural College. The variety immediately began to show its outstanding superiority and soon proved its wonderful yielding ability. In 1912 a bushel of Rosen Rye was sent to Calhoun county, to Mr. Carlton Horton. This was sown on an acre and produced thirty-five bushels of rye of such quality that not only that crop but those of following years have been used entirely for seed.

Since everybody did not accept Rosen Rye at once and some people continued growing common rye, the grain which cross-fertilizes readily, became mixed. Today we find very large acreages of this rye which has practically reverted to the old type. It has lost its well filled heads and its wonderful stooling nature and its well filled berry and it has become scrub Rosen Rye.

Realizing the necessity of keeping Rosen Rye pure the Michigan Crop Improvement Association in 1912 adopted a series of rules by which every member of the association must abide in order to have his rye guaranteed pure by the association. The grain is inspected in the field and again after it is harvested, by a trained representative of the association. If it passes inspection it can be sold as Rosen Rye for a price above the market price for scrub rye. There is no question but that the men who grow pure Rosen Rye and have it inspected are entitled to the higher price for their grain. I cannot urge my people or the people in other counties or in other states too strongly to secure some of the pure-bred Rosen Rye for fall seed.

P. C. JAMIESON.

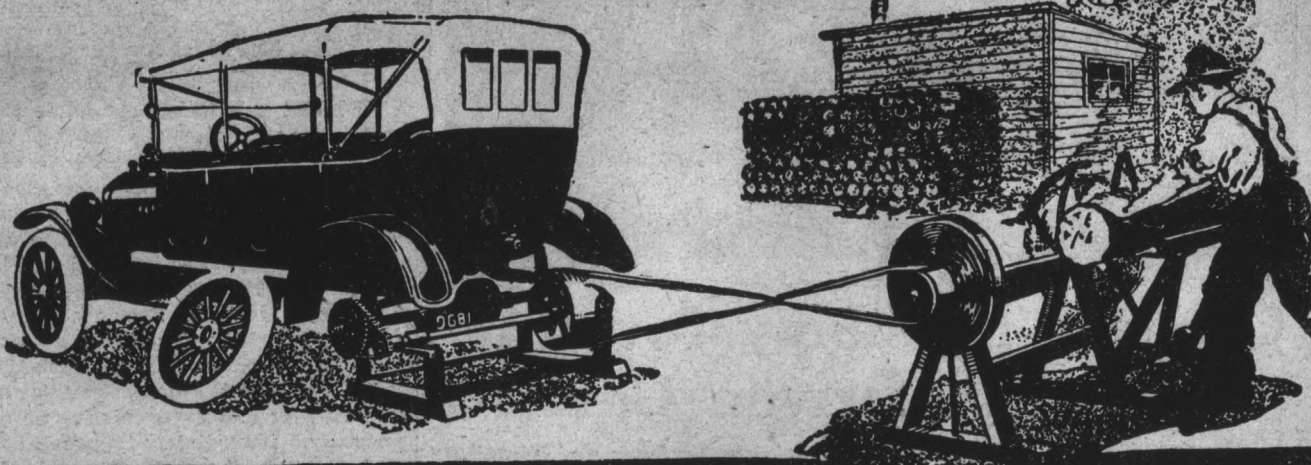
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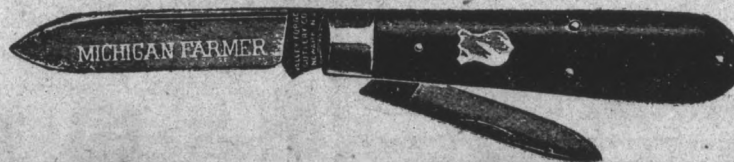
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For Sale by the MOHAWK RABBITRY & KENNELS, Indianapolis, Ind., high class rabbits of all breeds and ages; guinea pigs; ferrets; pigeons; hunting dogs; and blooded young hogs; raise stock for us—we furnish the breeding stock and buy back all you raise; send for prices and terms; stamp for circular.

Our Quality Knife



Made by the famous Valley Forge Cutlery Company. Two blades made of best razor steel. Ebony handle. Brass lined and well finished throughout. Guaranteed to give satisfaction. High-grade every way.

These knives were bought at a pre-war prices, otherwise we could not make the attractive offers below. They are extra good value.

Sent prepaid for two yearly subscriptions to the Michigan Farmer at \$1.00 each, or for one subscription and 50 cents additional.

Cash for Your Spare Time

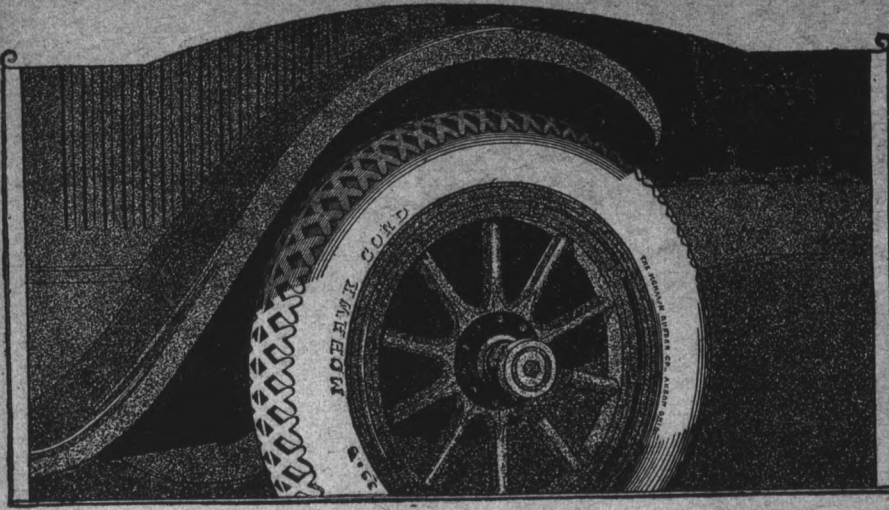
Put your spare time to pleasant and profitable use by cooperating with us in the securing of Michigan Farmer subscriptions.

A good way to get money for Thrift Stamps, Liberty Bonds, or to help in the high cost of living. From two to three dollars a week can be earned with little effort.

Details furnished upon request.

The Michigan Farmer,

Detroit, Mich.



Greater Economy for Any Country-Driven Car

Whether it's a suit of clothes, a pair of shoes, an automobile, a tractor, or a tire—quality is the thing that insures lastingly satisfactory service.

It is Mohawk quality that has made Mohawk Tires so popular among the farm communities.

In most sizes of Mohawk Tires, you will find an extra ply of fabric. That means longer wear.

In every Mohawk Tire you will find nothing but pure rubber and pure materials—no shoddy,

no reclaimed rubber, no "fillers". That means that you get more tire for your money when you buy a Mohawk—the Mohawk Cord, for example, weighs from eight to ten pounds more than any other Cord, size for size.

Add to these advantages a hand-made tire, produced by expert tire builders and you will understand why 85% of the motorists who buy their first Mohawk Tire continue to use Mohawks exclusively.

Cord or fabric, in ribbed and non-skid treads, and there's an extra ply, hand-made, Ford size Mohawk, too. Good dealers everywhere handle them

MOHAWK RUBBER COMPANY, AKRON, OHIO

Branch: 1507 S. Michigan Ave., Chicago

MOHAWK "Quality" TIRES

Good Clubbing Offer

No. 7.

Michigan Farmer, 1 yr., wk.\$1.00
Woman's World, mo.50
Boys' World or Girls' Comp., mo. .50

Regular price, one year.....\$2.00

OUR PRICE ONLY \$1.60

No. 8.

Michigan Farmer, 1 yr., wk.\$1.00
Breder's Gazette, wk. 1.50
Woman's World, mo.50
American Boy, mo. 2.00

Regular price\$5.00

OUR PRICE ONLY \$3.90

No. 9.

Michigan Farmer, 1 yr., wk.\$1.00
Green's Fruit Grower, mo.50
American Bee Journal, mo. 1.00

Regular price, one year.....\$2.50

OUR PRICE ONLY \$2.00

No. 10.

Michigan Farmer, 1 yr., wk.\$1.00
Youth's Companion, wk. 2.50
McCall's Magazine, mo. 1.00
Poultry Success, mo.50

Regular price, one year.....\$5.00

OUR PRICE ONLY \$3.90

PROFITABLE EMPLOYMENT

Put your spare time to pleasant and profitable use by cooperating with us in the securing of Michigan Farmer subscriptions.

THE MICHIGAN FARMER,
Circulation Dept. Detroit, Mich.

New Way to Bale Hay



Baled 43 TONS in 10 Hours!

We claim only 2 1/2 tons per hour with only 4 men—but one user baled 43 tons in 10 hours! And you need not choke it to get big capacity! Think of it! 2 men saved! No bale ties—just straight wire! No blocks! No one needed on feed table or for back wiring. That's what the Blockless Thresher Press means to you!

Save \$100 or More Now! Yes, sir! Save \$100 to \$200 or more quick on price. Get my startling offer. This is the year for hay and straw profits! Make big money baling your own and for your neighbors. Your Blockless Thresher Press will make as much money as acres of extra land!

BOOK FREE Get the Thresher Press book free by sending your name on a post card or in a letter now. Let me show you what others say. Let me quote our amazing, eye-opening prices to you on the style machine you want. Do not miss the facts and rock-bottom prices. Send your name now.

WILLIAM A. SEYMOUR, General Manager
Thresher Press and Manufacturing Company
1029 C Ottawa Street Leavenworth, Kansas

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SPRINGFIELD, OHIO
MANUFACTURERS

Quality Bale Ties

SINGLE LOOP CROSS HEAD

The Demand for Downey Ties is Heavy

Order your Bale Ties today. We guarantee immediate shipment. Prices right.

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To try in your home 30 days free no matter where you live. Show your friends, send it back at our expense if you do not want to keep it. Million members of families enjoying the comforts and pleasures of

"Hoosier" Stoves & Ranges, perfect bakers and heaters, beautifully finished, smooth latest design, guaranteed for years.

Write for our big free book showing photographs, describing large assortment of sizes and designs of Steel and Cast Ranges, Cooks, Soft and Hard Coal Heaters, to select from, explaining our free trial. Send postal today.

HOOSIER STOVE CO.
131 State St. Marion, Ind.

Our Boys' and Girls' Page

The Home Garden Scandal

By Mildred Koehler, Age 14

[This Story Was Awarded First Prize for Home Gardens at Syracuse State Fair, Over 8,000 Entries]

WHILE cultivating my home garden one morning during the month of July, was attracted by a vegetable argument and watching closer discovered that Mrs. Lima Bean had her arms around Mr. Cabbage who was about to get a swelled head, when Miss Farmerette released him of his pleasant agony. Mr. Lima Bean made quite a fuss although he was also in a pickle as he was discovered in the cucumber bed. Mr. Sweet Potato, having his eyes all over and never missing an opportunity, immediately suggested a trial, although the incident was better squashed.

All vegetables were assembled and Mr. Corn was selected Judge on account of his large ears. The desk used for the court was borrowed from Mr. Pumpkin. Mr. Pepper was selected as attorney for Mrs. Lima and Mr. Mustard was selected attorney for Mr. Lima.

Judge Corn called the court to order, by rapping his cob on the pumpkin and then the jury was selected as follows: Mr. Lettuce, Mr. Egg Plant, Mr. Parsnip, Mr. Tomato, Mr. Kohl Rabi, Mr. Okra, Mr. Raddish, Mr. String Bean, Mr. Onion (Mr. Chinese Cabbage was selected but as he was not a citizen and did not understand the English language, was excused).

Brussel Sprouts was called as the first witness. He told his story, which gave an impression that there was a leak, in the case. Mr. Cauliflower was the next witness; he stated that Mrs. Lima tried to beet the case. There was a commotion in the court room as Mr. Cauliflower, almost deathly white, continued his testimony, which affected juror, Mr. Onion, to such an extent that he continually cried. It also made such an impression on Mr. Tomato and Mr. Raddish that they turned scarlet red and blushed to their ears. The Court at this time declared a short recess, while Mr. Watermelon the Clerk, gave the Judge a drink.

Court began proceeding again, and all testimony being in Mr. Pepper began summing up to the jury, made some sharp, and fiery remarks. Mr. Mustard closed the case, and in his hot and burning speech, impressed the jury so that he nearly drew them out of their seats; causing Mr. Pea to become so excited that he burst his pod, Mr. Carrot to become yellow with rage at the valuable time of the court being wasted. Hereupon Mr. Lettuce fainted and began to wither.

The Judge hearing rumors of discontent among witnesses such as Aunts, Cutworms, Fleas, and Bugs, who had not an opportunity, gave damaging tes-

timony, and having also some information that Kale was being passed around, took advantage of Mr. Lettuce's condition and declared the case closed, court dismissed and suspended for the term.

Note.—Every boy and girl should have a "Home Garden" no matter how small, and you would be surprised to find how many pennies Mama would save, besides having all the vegetables fresh every day.

Any boy or girl who really takes an interest keeps a close watch of the result of their work among the different plants and not forgetting that they have feeling as well as habits. Also at times insist on having their own way; fairly telling you so. It is by being kind and gentle you can train them and bring them up to be a delight to the whole family.

Our Prize Contest

FIRST PRIZE.

The Best Day of Vacation.

THE day that I enjoyed the most was when our Sunday School went to Gull Lake for a picnic. I got up early in the morning and did all my chores. We drove to Martin and rode about twenty-five miles on the inter-urban.

The lake was beautiful, with the sun shining on the water making it gleam like jewels. It was surrounded by cottages and a few stores. There were five large motor boats. We rode on one to the picnic grounds.

After a while we went in bathing. The water was clean and shallow along the shore.

At twelve o'clock we had a delicious picnic dinner. It consisted of sandwiches, salads, jelly, baked beans, different kinds of meat, chicken, cookies, doughnuts, pies, cakes and watermelon.

After dinner we had games and contests. Then most of the picnic party went on a boat ride of about twenty-five miles. We also went in bathing again. We started home about five o'clock and got home about seven.

I was tired but happy, having spent a very pleasant day.—Allen Edwards, Plainwell, Mich. Age fourteen years.

HONORABLE MENTION.

The Best Day of Vacation.

THE best day of vacation was when I went to the river. My parents did not go so I went with some neighbors. We got there about eleven a. m. There were some other families there,



too. Then I played with the other children. We also were watching two expert divers, which was very interesting. The women spread some blankets on the ground, on top of which were spread some tablecloths. We had salmon and bologna sandwiches, baked beans, potato salad, pie and lemonade. After dinner we changed our clothes and went into the water.

We had a splendid time splashing about. One boy took his horse in and had her swim. Some that did not go in tried to take our picture, but I do not know whether they succeeded or not, for I left the water to change my clothes. The others soon came and changed their clothes.

Then we had some cake and ice cream, and soon left for home. I reached home about six o'clock. When I told my parents about it they agreed I had spent a very happy day.—Alta L. Downey, Owosso, Michigan. Age ten years..

HONORABLE MENTION.

The Best Day of Vacation.

I WILL tell about the best day of vacation, which I think is the Fourth of July.

It is a real exciting day, for everybody is bound to have a good time, grown folks as well as children.

One Fourth of July mother said to sister and I: "Well, girls, we will go to Benton Harbor to the 'House of David,' and spend the day, and in the evening see the fireworks. Of course, we girls were mighty glad that we were going out to spend the Fourth of July to the House of David.

Oh, we sure did have a dandy time there. But we only stayed there until noon, and then went to St. Joseph, down the beach until evening, and then we went back to the House of David to see the fireworks. And I believe I never before had that much fun on the Fourth of July as I did on that day.

We saw all kinds of fire crackers there, and sometimes we went too close to the fireworks and were in danger of getting burned.

It must have been about 9:30 as we left, though they were not all through with the fireworks. As we got home one of my girl friends was there, and we shot some firecrackers and went to bed, all tired out. It was sure a good Fourth of July for me, and the rest, too.—Edith M. Lutzus, Buchanan, Michigan. Age fourteen years.

Next week we will publish the winning letters entitled, "The First Day of School," and the following week, "My Best Kodak Picture." Send the letters in early and don't forget the kodak picture.

MEMORY DAY.

(September 30th).

Tho' passed away for many a year
Our loved ones are to memory dear
And so it is, on Memory Day,
Back to their graves we wend our way
And tenderly give loving care,
And place, once more, a tribute there.
O, Memory Day, Sweet Memory Day,
Long may thy spirit hold full sway,
Rich blessings e'er we bear away,
As we observe each Memory Day.

Blest was the mother and the wife,
Who led so true and helpful life,
That when her journey here was done
And she had joined her only son,
In praise, the husband sang his lay
And gave the world our Memory Day.
O' Memory Day, Sweet Memory Day,
Long may thy spirit hold full sway,
As we observe each Memory Day.

Our dear ones, from their Home above,
O, do they see these deeds of love,
If so, the joy that we impart
Is what rebounds within our hearts
As from their graves we turn away,
Made better by this Memory Day.
O, Memory Day, Sweet Memory Day,
Long may thy spirit hold full sway,
Rich blessings e'er we bear away,
As we observe each Memory Day.

—George Whitfield D'Vys.
Rowe, Massachusetts.

FIRESTONE has done the thing that must change tire buying habits more than any other move ever made in the tire business.

A standard brand 3½-inch tire at a low price;

A quality that beats any former tire of any brand;

A 6,000 mile basis from people who mean it;

A tire that goes on and on, without regard to its adjustment basis.

That's what Firestone now offers to that great majority of car owners who use 3½-inch tires.

Buying habits are sure to change. Who will now want to pay more? Who will want to accept less?

30x3½
\$18.00
Non-Skid
6000 miles

Firestone

A SPECIAL factory, special machinery, a special fabric mill, a special organization, a \$7,000,000 investment—that's the extent Firestone has gone to give you this tire.

Firestone Plant No. 2 is devoted exclusively to 3½-inch tires.

Its present capacity is 16,000 a day.

The extreme value in this special molded Firestone marks a turning point in the tire business.

Dealers know what it means. Ask your dealer.

Let him put this tire on every wheel and give you the benefit of—

Most Miles per Dollar

Farms and Farm Lands For Sale

151-Acre Michigan Farm, \$9500 with 8 Horses and

Several cows, all kinds farm machinery, crops, &c., near big town with all advantages. 111 acres fertile tillage, last year's hay crop 150 tons, 3 big cuttings alfalfa each year, river-watered 40-cow pasture, wire-fenced; wood timber, orchards. Farm income last year \$5270. 11-room house overlooking lake 80 rods away, large cow, horse and hay barns. Owner retiring, \$9500 gets all, only \$2500 down cash required. Details page 80 big 100-page Fall Catalog, just out, farm bargains Maine to Florida and west to Nebraska; copy free. STROUT FARM AGENCY, 814 BO Ford Bldg., Detroit.

We Have For Sale the following lands and stock: 1200 acres of fine improved lands, well located, easy terms. 150 acres situated 5 miles from Gladwin, on daily mail route, close to school, all fenced with woven wire, 20 acres under fine state of cultivation, 6 acres in fruit, 70 acres more of same tract brushed, logged and burned; sheep ranch of 310 acres, all fenced, living water, 70 acres of this ranch cleared, 30 acres of which is under fine state of cultivation with fruit orchard. House 25x28. Sheep sheds and barn 64x80. Tool house 16x32. 170 sheep, 110 this season's lambs. We have three fine Stock Ranches, well grassed, well fenced, living water. McClure Stevens Land Co., Gladwin, Michigan.

For Sale

Ideal Sheep Land in heart of lower Michigan. Clover Seed Belt, where settlers are paying for land with clover seed. Fertile soil that grows wheat, corn, oats, barley, peas, clover, alfalfa, vetch, fruits and vegetables. Ten to Fifteen Dollars an acre. One Dollar an acre down. Long time for balance at 6%.

John G. Krauth,

Millersburg, Presque Isle County, Michigan.

Just Think—180 acres, 18 cows, 1 bull, grade Holsteins, 5 horses, \$1000 worth of tools, \$250 worth of hogs, \$100 worth poultry, estimated 100 tons hay and \$1000 worth of lumber, all grain on farm. Good two-story house, practically new, two barns, one 100x30, one 30x40, good ones. Land lies good; 2 miles to R. R. station, 7 miles to City of Corning. Only \$9,000 for all—half cash. Personal property estimated worth \$5,000. Don't wait if you want this great bargain. HALL'S FARM AGENCY, 33 Market Street, CORNING, N. Y.

160 Acre Bargain. 100 acres under plow, balance wood and pasture land. Good buildings, close to school, churches, and stores, 12 head of cattle and all farm tools and crops. Price, \$7500.
40 acres, good buildings. Close to city, \$1300.
80 acres, stock, tools and crops, \$3250.
All on easy terms.
John Conant, Grand Haven, Mich.

160 ACRES, sell clay loam, slightly rolling, remainder good pasture, small stream thru pasture, ¼ mile to school, ½ mile to Marion, Oscoda County, on Ann Arbor railroad, good 30-ton silo, fair house and barn, good well, no exchange. Price \$4000.00, \$2000.00 down and any reasonable time on the remainder. Write W. F. Umphrey, Ewart, Mich.

GOOD OHIO FARMS: One of three hundred twenty-five acres that is a bargain. Two hundred acres bottom, well ditched. Ten-room house, six-room tenant house; one large cattle barn, horse barn, silo, corn crib, granary. Electric lights, hot and cold water, bath. Water and electric lights in barn. Close to school, church and market, on good road. A bargain at \$150.00 an acre. If you want Ohio farms, write me.
J. B. ESPY, Room 303 Arcade Bldg., Columbus, Ohio

Looking for a Farm? Don't fail to send for our list and prices.
T. S. AUBLE CO. WELLINGTON, OHIO.

New List Of Gladwin Co. Farms. There was never a better time to buy a farm than right now. Send for list U. G. Reynolds, Gladwin, Mich.

Rich Michigan Farms. Low prices. Easy terms. ERS, 15 Merrill Building, Saginaw, Michigan

Fruit and poultry farm for sale in Oakland county. 1200 young apple trees, 1000 Leghorn chicks. Write F. J. Barrett, Detroit, Mich.

SHEEP

HAMPSHIRE

One of the best bred flocks in America. Home of the International Champion ewe of 1918. Rams of all ages for sale. Write me your wants or come and see them. Harley R. Emmons, Elsie, Mich.

BUY A SHEEP

Wait a minute, buy Hampshires. The American Hampshire Sheep Association wants to send you a dandy little booklet with list of breeders. Some near you. Write COMFORT A. TYLER, Secretary, 22 Woodland Ave., Detroit, Mich.

300 Breeding Ewes

Choice Michigan Natives. Black faces and delaines 1 to 4 years old. Mostly 2 year olds in good condition in lots of 10 to a carload. Almond B. Chapman, South Rockwood, Mich. Telegraph Address Rockwood.

Mr. Shropshire Breeder. Do you need a real sire? I have a few rams that are in a class by themselves. Type quality, carcass and fleece. With Cooper and Buttar Breeding. No cold blooded stuff here. First ten \$100.00 to \$400.00. Balance including some cracking Hampshires \$50.00 up. No fairs this year but believe me we have the sheep. Good roads to the farms. Kope Kon, Coldwater, Mich., S. L. Wing, Prop.

Ingleside Farm Offers

80 recorded Shropshires—12 flock headers, 25 yearling rams for range or grade use, 43 ewes—mostly yearlings. Herbert E. Powell, Ionia, Mich.

Idle Wild Stock Farms Shropshire yearling rams from prize winning stock. Make your selection early. Cliff Middleton, proprietor, Clayton, Mich. R. 3.

Shropshires Am offering 16 yearling rams and 8 yearling ewes of Senator Bibby breeding. C. J. THOMPSON, Rockford, Mich.

Shropshires Rams Bred from McKerron's Holker 275(014259R)377379 English strain. Dan Booher, R. 4, Ewart, Mich.

For Shropshire Yearling Rams write or call on ARMSTRONG BROS., R. 3, Fowlerville, Mich.

80 Reg. Shropshire Ewes yearling and ram ready for service, priced to sell. Flock established 1890. Jno. Grieve, Fowlerville, Mich. R. F. D. No. 3.

Maple Lawn Farm Shropshires. Rams and ram lambs. High bred, well woolled and registered. A. E. Bacon & Son, R. 4, Sheridan, Mich.

40 Registered one and two year old Shropshire ewes mostly two's, also large, vigorous ram lambs ready for service, priced to sell. Flock established 1890. C. Lemen, Dexter, Mich.

Registered Shropshire sheep, 30 rams and 40 ewes. HARRY POTTER & SON, Davison, Mich.

Reg. Shropshire Ram Lambs with both size. O. K. Topf, Eaton Rapids, Mich.

Reg. Shropshires Yearling Rams and ram lambs. Special price on lots of two or more. B. D. KELLY & SON, Ypsilanti, Mich.

For Sale. Registered Oxford rams, 2 ram lambs 1, 2 and 3 years old, beauties. Geo. T. Abbott, Phone Deckerville, 79-3 R. 2, Falmes, Mich.

For Sale Registered Oxford Down yearling rams and lambs also a few choice ewes. D. P. Beasore, R. F. D. No. 1 Eaton Rapids, Mich.

Four Reg. Oxford Ram Lambs, extra choice Price \$35 and \$40 each. Reg. and Del. Sire an imp. Ram. J. Robert Hicks, St. Johns, Mich.

Oxford Yearling Rams For Sale

H. B. PETERS, Carland, Mich.

Lincolns Choice registered Sheep of both Sex from one to four years old. E. Knight Gagstown, Mich.

CHOICE delaine rams, also 2" B" type stock rams of high quality, large, oily fleeces, shearers, write. S. H. Sanders R. No. 2, Ashtabula, O.

For Sale Lincoln Rams 6 extra good and 1 two year old. R. J. Knight, Cass City, Mich.

A good way to get money for Thrift Stamps, Liberty Bonds, or to help in the high cost of living. From two to three dollars a week can be earned with little effort.

Details furnished upon request.
THE MICHIGAN FARMER.

NERO COFFEE



First thing
in the morning—

**DRINK
NERO**

It's an eye-opener—a healthful stimulant to brace you for a big day's work.



At noon—

**DRINK
NERO**

Farm work certainly takes the tuck out of a man—Coffee puts it back.



After a
hard day's work—

**DRINK
NERO**

The one drink that lightens fatigue without harmful results.



**THIS IS
THE
PACKAGE**

Nero Coffee is a food-drink with rousing effect. When a farmer has put in a busy day and is dog-tired, it's Nero Coffee that makes him cheerful and fit for the next day's jobs.

Your grocer has Nero Coffee, or can easily get it for you.

Royal Valley Coffee Co.
Detroit, Mich.

"To Love and to Labor is the Sum of Living"—Moore

WOMEN'S SECTION



How Much Does Mary Weigh?

THE observance of baby days in most villages, or perhaps the visit of the "Special" last spring has impressed most of us mothers with the importance of knowing baby's weight. We have learned that if baby stops growing for a few weeks, something is radically wrong and we must see the doctor at once, even though no other symptom has so far manifested itself. Some of us have scales and keep a record of baby's growth, registering her quarter pound, or half pound perhaps, with great pride.

But do we keep track of the older children? Do we realize that they should be steadily growing, too, in height and weight? And that if they stop increasing in weight it is just as bad as for baby? Most of us, I'm afraid, pay little attention to the children after they get safely through that "second summer." Which same summer, by-the-way, wouldn't be a bit worse than the first if we would use the same care in feeding.

Steady growth is the law for all young animals, and if we do our whole duty we will see to it that the children of all ages maintain their growth. We can't stop watching them with the second summer nor with the sixteenth. In fact, I wonder if we ever can conscientiously stop keeping an eye on them, even after they cast their first vote. So if Johnnie or Mary are to be kept up to the mark, we must weigh them every month or so, and measure them at least twice a year. Measuring everyone every birthday is not only an exciting event, it is instructive as well, as it gives us an idea as to which ones are keeping up.

Common sense and judgment must be used in making our deductions



The final triumph over Mr. Yard Stick. No wonder Betty stretches up on tip toes for "good measure."

from these weighing and measuring tests. We all know there are children who seem undersized, but are perfectly well, while often the large boy or girl who grows "by leaps and bounds" is really the one who needs medical attention. Too rapid growth is as

harmful as too slow. If the undersized child seems perfectly well, sleeps well, eats well, is not nervous or whining, is not troubled with adenoids or any of the other ailments which afflict so many children, there is no reason to be alarmed if he does remain undersized. But if he is fretful and cross, tires easily, sleeps badly, is capricious about his food and all out of sorts, consult a doctor.

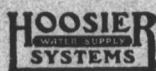
The following table of weights and measures will give the relative size for both boys and girls from two years old to fourteen:

Age. Years.	Boys.	
	Height. Inches.	Weight Lbs.
2	33.8	30.3
3	37	35
4	39.3	38
5	41.6	44
6	43.75	45.1
7	45.75	49
8	47.75	53.8
9	49.7	59
10	51.7	65.2
11	53.3	70
12	55.1	76.75
13	57.2	84.8
14	59.9	94.5
	Girls.	
	Height. Inches.	Weight Lbs.
2	32.9	29.3
3	36.3	33
4	38.8	36.4
5	41.3	39.6
6	43.3	43.2
7	45.5	47.3
8	47.6	51.6
9	49.4	57
10	51.4	62.2
11	53.4	68.7
12	55.9	78.2
13	58.2	88.5
14	59.9	98.2

Modernize Your Home

Running Water Under Pressure Will Do It

The fact that you do not have access to city water mains need not prevent your enjoyment of this modern convenience.



will care for the water problem on your farm. Hoosier Systems are easily installed, will operate from any kind of power,—windmill, gasoline engine, or electric motor, and pump from deep or shallow wells.

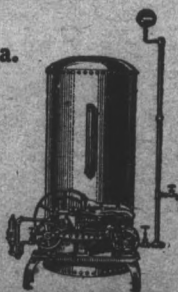
Write for Bulletin F describing complete line of Hoosier Systems.

FLINT & WALLING MFG. CO.

Dept. C
Kendallville, Indiana.

STAR
WINDMILLS

HOOSIER
PUMPS



Emergency Measures---First Aid

Slight Cuts and Scratches.

S LIGHT cuts and wounds may be washed with peroxide or a carbolic solution. Never use court plaster. It is not clean itself and it seals in whatever germs are in the wound. A narrow strip of adhesive plaster may be used across a cut, holding the sides of it together, but must not cover the whole cut. Collodion may be used on shallow, trivial cuts and scratches, but if the flesh gets red and inflamed around it, take the collodion off, because the inflammation proves that pus germs are sealed up inside.

Splinters.

Splinters should be drawn out by using pincers or the tip of a knife blade put under the end of the splinter, holding the splinter against the knife blade with the thumb nail. If the splinter is entirely under the nail, scrape the nail thin over the end of the splinter, then cut out a tiny piece and draw the splinter. Don't use collodion over such a wound; cover it with surgically clean gauze.

Eye Wounds.

In an actual injury to the eye, a doctor should always give all treatment. All you can do is to cover the eye with soft cloths, soaked in cold water and bandaged on, but not too tightly. Keep the bandages wet all the time till the doctor comes. When a cinder, dust or sand, get in the eye, don't rub the eye. Make the tears come by closing the eye and pull the upper lid over the lower several times, then close the

nostril on the opposite side and blow the nose hard.

If lime gets in the eye, bathe it with a solution of vinegar, a teaspoonful to a cup of water. This acid counteracts the alkali of the lime.

Needles.

Needles that have gotten into the flesh should always be examined carefully to see if any part has broken off and remains inside. In such a case, keep the person still so that the piece will not work around, and send for a doctor. Keep the piece of the needle so as to let the doctor know what size piece is missing.

Animal Bites.

Cat, dog and horse bites are apt to be rather mean, torn and bruised wounds. Usually they need the same treatment as any other wound. The animals are seldom rabid or mad, but if there is any question about this get a doctor immediately. There is a peculiar fact to be noticed with reference to dog bites. By far the largest proportion of them are received by boys under fifteen, fewer by girls, and again much fewer by adults. The explanation in most cases is that the boys tease the dog, who naturally objects, and he can show his objection only by biting. There would be fewer scared parents as the result of dog bites if small boys were brought up with the idea of always making friends with animals and protecting them instead of plaguing them. Strange dogs should be let alone.

Horse bites are rare but may cause

serious blood-poisoning if the wound is not properly taken care of. Treat as any other wound.

For insect bites apply ammonia to the bite, then cold wet dressings—wet salt or mud are both soothing.

Lockjaw.

Where dirt has been ground into a ragged and torn wound or a rusty nail has made a wound, take particular care to give it the best wound treatment, and always have a doctor see it as soon as possible. Lockjaw can be prevented but is almost never cured, and the lockjaw or tetanus germ is most apt to exist in such wounds as are ragged and full of dirt.

Abdominal Wounds.

These are very serious, and one danger is the drying of the parts exposed to the air when the wound has laid open any of the abdominal organs. Send for a doctor immediately and treat for shock. Cover the entire wound with a clean cloth kept wet with a weak solution of salt and water. Use boiled water and sanitary compress if possible, but such a wound must be kept covered if the contents of the abdomen are exposed, as the drying probably will be fatal.

To Avoid Odors of Cooking Vegetables.—When cooking cabbage, onions or cauliflower, to prevent the odor from permeating the house, place a good-sized piece of bread in the bottom of the kettle in which the vegetable is cooking.—M. A. P.

HOW TO WASH GINGHAMS.

BY JULIA R. DAVIS.

GINGHAM is such a popular fabric now that it is well to know the best method of washing it so it will retain its beauty of color all during its days of usefulness.

When washing gingham, as well as other colored fabrics, it is just as well to take for granted that it is apt to fade. To forestall this the colors may be set by first rinsing the garments in a pail of cold water in which salt has been dissolved—one tablespoonful of salt to a gallon of water. After wringing out in the salt water, put the articles into a tub of clear, warm water to which a little soapsuds has been added. Wash rapidly so that the dye in the material will not have a chance to be affected by the alkali in the soapsuds. Be sure that the water is not too hot, for that will dull the colors considerably. Rinse twice in clear water to which more salt has been added, and then starch wrong side out in the usual way unless the material is particularly dark.

Hang in the shade to dry, and when taking down from the line do not dampen along with the other clothes, as colored fabrics should not lie damp more than two hours before they are ironed. When ironing, guard against an overheated iron, just as against the hot water, and whenever there are several thicknesses of material, as in belts, put cheesecloth between the iron and gingham to prevent that shiny look that is often the result of careless ironing.

BABY'S PLAY BOX.

BY MRS. L. M. THORNTON.

I HAVE never had as much real good from any other article in my home as from the plain grocery box forty inches long by twenty-five wide, and eighteen inches or a little more in height, that was converted into a play box for Baby. A soft pad was made just large enough to fit the bottom in order that it could be taken out and cleaned easily. Pieces of an old quilt were tacked over the upper edges, making them soft, and the inside was carefully lined with an old flannel blanket, the edges being brought down to cover the padding at the top. This did away with danger from slivers and there were no tacks at the top to scratch a little hand or chin.

When baby was old enough to creep I could go down cellar or upstairs without fear of his attempting to follow me, for I dropped him in the play box for safe keeping. With baby in his box I could go to the chicken coop or garden without worrying lest he climb and fall, or burn himself on the stove. He never pulled off a tablecloth or tipped over a pail of boiling water; he never pulled the cat's tail in my absence and found how sharp are her claws, and when company came I could drop him in his play box and sit down to visit for a few minutes without constant anxiety.

The only objection to the play box is that some mothers make it a place of punishment. "Now don't touch that or I'll put you in your box," should never be the maternal attitude. Have some new toy, if possible. If not, loan baby the coveted egg-beater, a set of little cake tins, or a ball of yarn when he is put in the box and he will soon come to recognize it as a real pleasure-palace and never as a prison.

There are different ways of removing scorch. One is to make a paste of cornstarch and water; hang near the fire after applying the paste to the scorched part. Some people are successful in removing scorch stain, if they dip the place in cold water immediately, and lay it out of doors on the clean grass to bleach. If the scorch is deep, use Javelle water as a bleach.—Z. I. D.

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WEATHERWAX
Liquid Wax Paint
Patented

A FIVE GALLON CAN of Weatherwax was more than enough to give this big barn a good solid coating. YOU can paint a barn like this for \$8.25 if you do the painting yourself.

Don't paint your farm buildings this year until you find out why Weatherwax covers three times as much surface, lasts longer and sells for less.

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Because it has—

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7. No springs on oven door; it is supported with strong, durable sliding rack, and holds any weight placed on it.
8. Unbreakable malleable iron; permits rivet tight joints; saves fuel and repair expense.
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10. Open end ash pan; like shovel, removes ashes easily, and cleanly. Ash cup catches ashes that otherwise fall on floor.
11. Cooking top burnished dark blue, requires no polish.
12. Heavy nickel trimmings; smooth as glass; stay bright, easy to keep clean.

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It is made in many styles and sizes, at prices the same everywhere, freight considered. There is a Majestic dealer in nearly every county in 42 states.

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The Range with a Reputation

MICHIGAN FARMER PATTERNS.

um 36-38; large 40-42; extra large 44-46 inches, bust measure. Size medium requires 3 1/4 yards of 36-inch material. Price 10c.



No. 2944—Girls' Suit. Cut in three sizes, 12, 14 and 16 years. Size 14 requires 6 1/2 yards of 27-inch material. Price 10c.

No. 2936—Girls' Dress. Cut in three sizes, 12, 14 and 16 years. Size 14 requires 4 1/2 yards of 27-inch material. Price 10c.

No. 2940—Girls' Dress. Cut in four sizes, 8, 10, 12 and 14 years. Size 10 will require 4 1/4 yards of 30-inch material. Price 10c.

No. 2951—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. Size eight requires 3 1/4 yards of 36-inch material. Price 10c.



No. 2720—Ladies' House Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches, bust measure. Size 38 requires 6 1/4 yards of 36-inch material. Width at lower edge is 2 1/4 yards. Price 10c.

No. 2785—An "Easy-to-Make" Apron. Cut in four sizes: Small 32-34; medi-

No. 2819—Child's Dress. Cut in three sizes, 2, 4 and six years. Size four requires 2 3/4 yards of 36-inch material. Price 10c.

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—assured **NOW**

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SOLVAY'S Three Essential Plant Foods

Ring Necked Pheasants

We can now make shipments of our birds. They will lay next spring—are easy to raise and do not eat one-half as much as chickens. These birds are not subject to disease—are hardy and unrelated. You can sell their young and eggs at good prices—they are much more profitable than chickens.

Single Pheasants \$ 6.00 Each
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Genuine Wild Mallard Ducks

Guaranteed to be from nothing but genuine Wild Trapped stock—not the coarse semi-wild strain. Will lay next spring. Fine eating—good decoys—and money makers.

Single Ducks or Drakes \$ 5.00 Each
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Bloomfield Giant Bronze Turkeys

We have some of the young for sale, from our wonderful 55 pound tom "BLOOMFIELD KING." Why not buy one of our fine extra toms and improve your flock?

Pullets . . . \$ 15.00 Each
Cockerels . . . 20.00 to 35.00 Each
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Toms . . . 35.00 to 50.00 Each

We are accepting orders now for eggs from our Pheasants, Wild Mallard Ducks, Turkeys and Single Comb Rhode Island Red chickens for spring delivery. Orders will be filled in the rotation that they are received.

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Get your order in early and send check with it. Send for free descriptive booklet of instructions

POULTRY

Buff Leghorns, and White Leghorns, 100 early hatched Cockerels from great laying strains \$1.50 to \$3.00.
Dr. WILLIAM SMITH, Petersburg, Mich.

Fowler's Buff Rocks Cockerels \$1 up. Utility eggs for hatching \$2.00 for 15.
R. B. FOWLER, Hartford, Mich.

For sale "Buy the Best" eggs for hatching from 200 Egg strain Barred Plymouth Rock. \$2.00 per 15. \$5.00 for 45 eggs. H. B. PROCTOR, Grand Haven, Mich.

March Hatched R. I. Red Cockerels
Both Combs. Write for prices and order early.
Interlakes Farm, Box 59, Lawrence, Michigan.

DR. HESS
Instant Louse Killer
— Kills Lice

For Use
On Your Poultry

Seize the hen and dust Instant Louse Killer into the feathers. The handy sifting top can make it convenient to use. Sprinkle it in the nests, on the roosts and floors. Put Instant Louse Killer in the dust bath occasionally—your hens will do the rest. This means louse prevention.

FOR STOCK

With one hand stroke the hair the wrong way, with the other sift in the Louse Killer. Especially good for lousy colts.

GUARANTEED. The dealer will refund your money if it does not do as claimed.

1 lb. 30c, 2 1/2 lbs. 60c (except in Canada)

Dr. HESS & CLARK
Ashland Ohio

R.C. Brown LEGHORNS, M. Pekin Ducks, W. Chinese Geese. Place orders early for young stock. Mrs. Claudia Betts, Hillsdale, Mich.

LOOK BABY CHICKS \$13 A 100 UP

By Special Delivery Parcel Post, postage paid 20 different thoroughbred breeds. Utility & Exhibition grades. Live delivery guaranteed. Capacity 100,000 weekly. Catalog free. Nabob Hatcheries, Gambier, Ohio.

Barred Rock egg contest winners, eggs from strain \$ with records to 290 a year. \$2.00 per setting prepaid by P. P. Circular free. FRED ASTLING, Constantine, Mich.

Barred Rock's Exclusively. Baby chicks all sold. Thanks to all our customers. Order early for next season. H. H. Pierce, Jerome, Mich.

Farmers' Marketing Organizations

(Continued from page 373).

While the Elk Rapids Association only handled potatoes last year, they have now purchased a cement block building sixty by two hundred feet and are fitting it up for the handling of everything the farmer raises. This association will also purchase all supplies which their members need.

They have purchased \$1,700 worth of power graders and conveyors. After the potatoes are run over the grader they are elevated onto a conveyor which runs the length of the warehouse and the potatoes are dropped through canvas shoots in the bin. Where they load a car with potatoes they have conveyors which will load bulk potatoes, and another which will load the sacks directly into the car. One hundred feet of this warehouse will be used for potatoes and the rest for the handling of cream, beans, etc.

The members of this association have loaned the money to the association to buy and equip this warehouse. These members have taken the association's note for the amount loaned at seven per cent interest and which will be paid by the association to the members on or before 1925. The members also donated about \$1,400 worth of work in filling three feet of sand in this warehouse to bring the floor to a grade for the sidetrack. One day there were ninety-three men and twenty-seven teams working there to complete this part of the grade.

The Banks Township Association, located in the town of Ellsworth, is just completing the finest warehouse in the state. The building is 45x130 feet. The first floor is split stone ten feet high and the second is vitrified tile with pressed brick corners. The roof projects over the sides to protect men when they are unloading during bad weather. The floors are of concrete. An office which will seat one hundred and fifty men is provided. A part of the third story is a bean-picking room with fifteen bean pickers in it. The equipment also includes a power elevator for feed and freight, a bean-cleaning machine which is worth \$600, plenty of floor scales, trucks, etc. The basement floor will be on a level with a car floor when the car is setting on the sidetrack, which makes loading very handy.

The association at Central Lake was very successful and the buyers who were competing with the association paid as high as one dollar per bushel for potatoes last fall, which put many hundreds of dollars in the pockets of the farmers of that community. This association came through the year in fine shape, with a balance in the treasury of \$2,500 which they used to buy another warehouse from one of their competitors, so this association is operating two warehouses instead of one as last year. They handled everything the farmer produced and needed. On one car of flour they were able to sell it to their members cheaper than any of the grocery stores could buy it at wholesale.

They voted to double the price of their membership and make it \$20 after the first of October. Many new members are joining. They did a business of over \$75,000 in less than nine months and brought much business into the town.

The Bellaire Association built a new warehouse last fall 40x100 feet, made of double cement blocks, which cost them \$6,000. They also did a business of over \$75,000 and are taking in new members daily. This warehouse is the busiest place in town and is doing all the business for the farmers.

Mancelona Association purchased a warehouse last fall which is 40x220 feet and all on a sidetrack with two other buildings, one 30x80 and the other 40x60 feet, so they have plenty of room to do all kinds of business and

have been handling everything for the past year. Their business was well over the \$70,000 mark and with a nice balance on the right side of the book. This association is also handling coal and has storage for unlimited quantities of baled hay.

Alba Association built a warehouse last fall which will store 40,000 bushels of potatoes and is 40x100 feet. They are doing all kinds of business for the farmers and have been exceptionally successful in handling live stock, veal and cream. They came through the first year with a balance of \$1,900 in the till and are making rapid gains in membership.

The success of these associations is due in a large measure to the plan of organization and the well-founded federation which they are in. All of the members of any local are also members of the Michigan Potato Growers' Exchange and this Exchange, acting as the selling agents and purchasing agents for the locals is one of the strong features of the whole organization. This exchange has a purchasing power that is not equaled in the state by any concern and they are able to save any member or local a large per cent on all purchases as well as to get more for the things he has to sell. This exchange in the past two weeks has purchased more than \$25,000 worth of supplies for the locals and are increasing the amount of purchases week by week.

In the selling of other crops besides potatoes the exchange has a volume of business that enables them to sell to the last man or to the exporter, where they get for the farmer member the same price which the largest dealer in the United States could get after the product had passed through several hands. So you can see the advantage which any member of the association has over a non-member.

The farmers of Antrim county appreciate this movement and the steps which they have taken for the advancement of their conditions in markets will never be regretted.

They have the faith and confidence in their ability to do their own business and they are alive to the improvement of the quality of the product which they are raising and putting on the market. They have standardized their potatoes and are all raising the Petoskey Golden Russett. The quality of all of the produce which they are putting on the market through the Michigan Potato Growers' Exchange is a credit to the exchange and to themselves. The reputation of the products marketed by the exchange will be worth millions to the farmers of Michigan in the next few years. The farmer after doing his own business soon realizes the benefits of quality production and a reputation which is a great asset.

While the market season of 1919 and 1920 is just beginning we have instances which prove that the Michigan Potato Growers' Exchange is more efficient than it was last year. They have been able so far to return to its members seventy-five cents per bushel for apples more than the farmer was getting who sold to the common buyers. Potatoes were sold by the exchange and netted the farmer sixty-five cents per hundred more than the farmers who were not members received on the same day in the same town.

Of all the work which the Farm Bureau has done in this county, we feel that the organization of marketing associations has been the greatest.

At the tenth annual show of the National Fruit Growers' and Shippers' Association, held in Milwaukee, the apples of J. C. Fraleigh, of Kent county, Michigan, were awarded the highest honors. He received four first and three second prizes.

NEW IDEAS IN POULTRY FEEDING.

(Continued from first page).

largely in milk, eggs and the green leafy parts of plants. Now milk and green foods are readily obtainable in many places for the use of poultry. To some extent eggs may be used, too, especially those which have been tested out of incubators in the spring as infertile. As a matter of fact, though, eggs do not seem at all necessary where milk may be obtained. The three feeds mentioned, however, are sometimes described as protective feeds because they make up to a large extent whatever deficiency may exist in rations composed of seeds, root crops and beef scraps, which are the rations most commonly depended upon by the poultry keeper.

In order to test out the theory with a suitable check, Professor Harry R. Lewis, of the New Jersey Agricultural College, adopted the new plan for feeding to pullets raised at Vineland, New Jersey, where a notable egg laying and breeding contest has been carried on. At the same time he followed conventional methods at the Experiment Station of the State College at New Brunswick. Now some difficulties were encountered at the Vineland Station because it is not an easy matter to grow green food in the sandy soil of southern New Jersey. Fortunately it became possible to utilize a field of luxuriant alfalfa seven acres in extent. This field was simply used as a growing range, the chicks wandering over it and harvesting their own green crop. The number of chickens was not large enough to kill out the alfalfa, which continued to grow and furnish an abundance of fresh, tender leaves all season. Thus the first of the three ingredients advocated by Dr. McCollum for the proper nutrition of young animals was found. It happens, however, that the southern part of New Jersey boasts but few cows, with no dairies from which anything like an adequate milk supply might be secured. There remained, however, the possibility of substituting some form of condensed milk, and Professor Lewis chose a semi-solid buttermilk, which is now on the market and being distributed in barrels from several different centers.

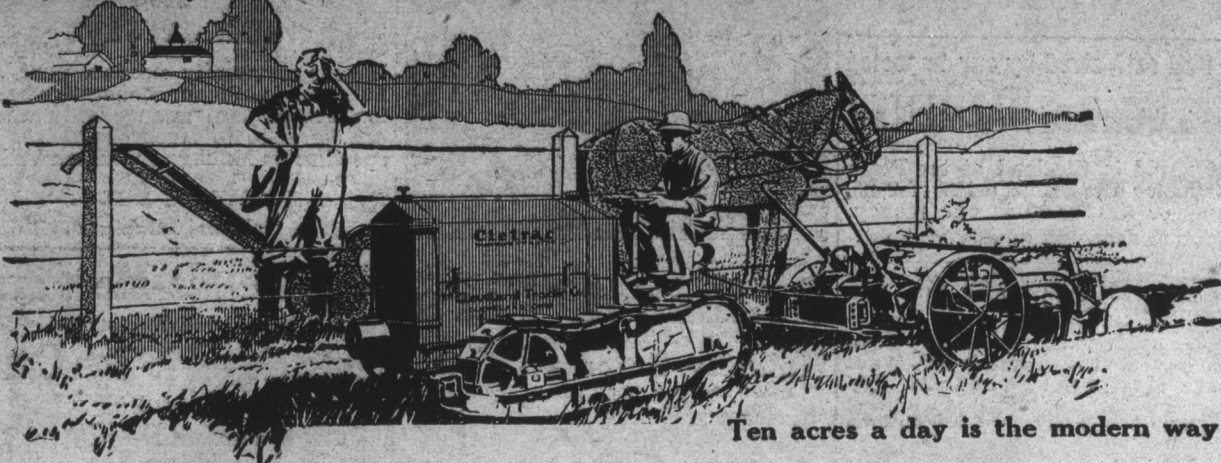
Infertile eggs were used to the extent to which they could be obtained, but Professor Lewis seems to think that they can readily be dispensed with when milk is available.

Now for the comparisons. Chickens at Vineland fed by the new method made a much more rapid gain in weight than those at the other stations and reached maturity two or three weeks earlier. This means that they matured considerably earlier than chickens the country over, even on the most up-to-date plants. The mortality was very low. The chicks were raised in coal burning brooder stoves in 10x12 colony houses, three hundred chicks to a house. Over seventy-eight per cent of all the chicks placed under the brooders came through safely. From the time they went into their brooding quarters until they were three months old, they had an abundance of milk every day, prepared by dissolving one part of the semi-solid buttermilk in seven parts of water. The increase in weight and rapidity of growth was maintained throughout the growing period. When the chicks were twelve weeks old, the sexes were separated and then the increase in weight of the pullets was even more noticeable.

In summing up his conclusions at a recent convention, Professor Lewis said: "There are very definite lessons which we can draw from these modern discoveries in their application to poultry raising, the effect of which has been carefully checked up in the rearing work at Vineland and

(Continued on page 397).

Only an acre a day



Ten acres a day is the modern way

Which side of the fence are you on?

Are you a one acre laborer—or a ten acre farmer?

Do you cling to old, slow, out-of-date animal labor—or are you farming the modern way with the Cletrac?

The Cletrac Tank-Type Tractor enables you to do more work and better work more days in the year—with fewer men, shorter hours and less expense.

It produces larger and better crops at a lower cost thus materially increasing your profits.

It plows, harrows, plants, reaps, binds, threshes, cultivates, hauls, saws—does practically all the things that your horses, mules and stationary engine used to do—and does them better, cheaper and faster—requiring considerable less man labor to accom-

plish the same amount of work. You—or your wife—or your boy, can operate the Cletrac and do as much work with it as was formerly done by three men and three teams.

The Cletrac runs on metal tracks like a locomotive. It goes over the top of the ground,—doesn't sink in, doesn't pack down the earth even when it is freshly plowed. No power is wasted in moving the machine itself through the soil.

The Cletrac is the answer to the acute farm labor question. Call on the nearest Cletrac dealer and look it over carefully.

Send for our booklet "Selecting Your Tractor." It is full of good, sound, practical information that every farmer should have.

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Largest producers of tank-type tractors in the world

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TANK-TYPE TRACTOR

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Rush Molting Hens Back to Work



THIS year of all years—with egg prices going the highest ever—get a big fall and winter egg yield. Get your hens through molting—when they're all expense and no income—as fast as you can. Get your pullets to laying early and regularly. Yes, get all the profit you can from the high egg prices. Give all your poultry

Pratt's Poultry Regulator

AMERICA'S original poultry tonic and conditioner, the standard for nearly fifty years. It builds health and strength naturally. It stops losses from the strain of molting. It puts and keeps hens in the condition where a good ration is all they need to lay the biggest lot of eggs you ever got. See if it doesn't. At our risk—

"Your Money Back if YOU Are Not Satisfied"

P-1

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EGG-O-LATUM KEEPS EGGS ONE YEAR

It costs only one cent per dozen eggs to use Egg-o-latium. There is no other expense. Eggs are kept in carton or box in cellar. Eggs may be boiled, poached or used in any other way, just like fresh eggs. Simply rubbed on the eggs—a dozen per minute. A 50c jar is sufficient for 50 dozen eggs. At Drug, Seed and Poultry Supply Stores or postpaid.

GEO. H. LEE CO., Dept. 265 OMAHA, NEB.

POULTRY

S. C. B. Minorcas. Eggs from pen 1, \$3.00 per 15, from pen 2, \$2.00 per 15. Incubator eggs \$7.00 per hundred. B. W. MILLS, Saline, Mich.

Silver Golden and White Wyandottes young breeding stock after Oct. 1st. Choice cockerels \$5 to \$15. Write your wants now. O. W. Browning, R2 Portland, Mich.

Single Comb White Leghorn Cockerels, Ferris 230, 264 egg strain April and May hatch. Alvah Stegenga, Portland, Mich.

HOMESTEAD FARMS

This work is organized and incorporated and headquarters have been moved to Kalamazoo.

We invite the interest and the cooperation of the farmer people of Michigan.

All our stock is guaranteed; any bird not satisfactory may be returned.

Spring Pullets—About 100 each of Barred Rocks, S. O. Black Minorcas, S. S. White and S. C. Brown Leghorns.

Yearling Pullets—200 S. O. White Leghorns; a limited number of our other breeds as given in our Fall Poultry circular.

Cockerels—Barred Rocks, White Rocks, Buff Rocks, Rhode Island Reds, White Wyandottes, White Orpingtons, B. O. Black Minorcas, S. O. and R. C. White and Brown Leghorns, Anconas.

Guineas, Ducks, Geese—White Pekin, Gray Toulouse.

Turkeys—Bronze, White Holland, Bourbon Reds.

Rabbits—Belgians, New Zealand, Rufus Reds, Giants.

Please send for circular on Fall Sale of Poultry with price list.

STATE FARMS ASSOCIATION,
Kalamazoo, Michigan

A Premo Jr. Camera

The Premo Jr. Model B is a well-made, substantial, reliable camera in every respect. This camera has to stand the usual rigid tests which are applied to all cameras made by The Eastman Kodak Company. It loads and unloads in daylight with the Premo Film Pack of twelve exposures. It makes pictures 2 1/4 x 3 1/4 inches in size and the negatives are of such quality that excellent enlargements can be made from them.



The instrument is fitted with an automatic shutter, which works for both time and "snap shot" exposures, and the best grade of single achromatic lens that can be obtained. It has two finders, one for vertical, the other for horizontal pictures—in fact, it is as well equipped a camera as could be wished for in the box type. It will produce first-class results in all ordinary amateur photographic work, such as snapshots in good light, time exposures, home portraits, landscape and street photography, and the like. This camera is unusually simple to load and operate. A complete book of instructions is included with each one, and even a schoolboy who never had a camera in his hands before, can make good pictures with the Model B Premo Jr. within half an hour after getting it. Sent charges prepaid for three subscriptions, or for one subscription and \$1.25 additional.

The Michigan Farmer, Detroit

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Ten Days before date of publication

A bull calf, sired by our imported "EDGAR of DALMENY"

recently sold in Scotland at the Perth
Bull Sale for the record price of 2,100
guineas, or \$10,584.00 in our money.
This goes to show the quality of the

ABERDEEN ANGUS

that Mr. Scripps is breeding. He enjoys see-
ing good stock on "Wildwood" and believes that
THE BEST IS NONE TOO GOOD.

"Edgar of Dalmeny" won the Michigan Grand
Championship last September at the Michigan
State Fair and was a winner in his class at the
Chicago International last December.

We have a few females with calves at foot and
re-bred to "Edgar of Dalmeny" that Mr. Scripps
has consented to sell to reduce the fast grow-
ing herd. Write To

WILDWOOD FARMS

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W. E. SCRIPPS, Prop., Sidney Smith, Supt.

WOODCOTE ANGUS

Established in 1900.

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The herd (tested annually) is absolutely
free from tuberculosis.

A few bulls (no females) for sale

WOODCOTE STOCK FARM, Ionia, Mich.

Cloverly Angus, 5 cows with calves, rebred; 2 bred cows;
1 two year old, 2 yearling heifers. Price \$2800. 6 year-
ling bulls, \$225 each. Geo. Hathaway & Son, Ovid, Mich.

GUERNSEYS



196-368 These figures
represent the
average butter fat produc-
tion of a grade herd in Min-
nesota before and after the
use of a pure bred Guern-
sey bull. The improved
herd brought the owner
prosperity—the original,
only drudgery. Write to
breeders for descriptions
and prices and send for
our free booklet, "The
Grade Guernsey".
The American Guernsey
Cattle Club, Box 1-35
Peterboro, N. H.



REGISTERED GUERNSEYS

Young bulls of quality for sale,
backed by generations of large produc-
ers. All tuberculin tested. Come and
look them over.

AVONDALE STOCK FARM,
WAYNE, MICH.

GUERNSEY FOR SALE

Our A. R. May Rose Herd Sire Carries 25% same blood
as Florham Leader that sold for \$25000. One six
months old bull calf. Herd Federal T. B. tested.
Gilmore Brothers, Camden, Mich.

Registered Guernseys

Two choice two year old Guernseys bred—\$500.
J. M. WILLIAMS, North Adams, Mich.

Guernsey Bull Burly of Strawberry Hill No.
52151 born April 24th 1917. Price
\$300.00. Sire King Bell of Briarbank No. 28808; Dam
Daisy Deep Dale No. 56429. Walter Phipps Farm,
60 Alfred St., Detroit.

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

GUERNSEYS must reduce herd, so offer
a few choice females of
Glenwood breeding also bulls, all stock of A. R. breed-
ing, herd tuberculin tested.
T. V. HICKS, Battle Creek, Mich.

For Sale: Guernsey bull calf fawn and white, 10
months old, a beauty, Nancy's Sequel 56736; Sire,
Haleyon Sequel 22326; Dam, Nancy's Nancy 64002.
Dr. W. R. Baker, 1360 West Fort St. Detroit, Mich

Guernsey Bulls For Sale—St. Austell Dal-
ton, 43028; born December,
1915. Sired by Don Diavolo of Linda Vista; Dam Lang-
water Suffragette, A. R. 2346 Class A 585.68 butterfat.
Also Niagara 2nds Duke, 50564; born December, 1917.
F. E. Robson, Room 307 M. O. R. R. Depot Bldg. Detroit.

Pure bred registered Guernsey cattle for sale at rea-
sonable prices. Would be glad to have you
state your requirements.
CHETWOOD FARM, Northville, Michigan

\$350 Takes Registered Guernsey cow three years
old, fresh, and heifer eighteen months old,
G. W. Hawley, R. 3, Ludington, Mich.

FOR SALE Ten grade Guernsey cows all to fresh-
en soon. Purebred Guernsey bull calf
6 mos. old. Thos. B. Woodman, Paw Paw, Mich.

To avoid inbreeding will sell Blainie of
the Ridge No. 41637 three
years old. Dan Trixey of the Ridge B. F. 537.38 class
E. Granddam Abbie of Riverside B. F. 516.12
Champion Guernsey cow of Mich. want to sell into a
registered herd where A. R. testing will be done.
E. J. Smallidge, Eau Claire, Mich.

\$75 gets 1 1/2 mo. old grandson Maplecrest Korn. Heng. and
7 1/2 lb. daughter of Johan Heng. and 38.46 lb.
daughter of Cal. Jane Paul A. Dam is my best milk-
er. Terms: M. L. McLAULIN, Redford, Michigan.



Denbrook Farm

Holstein-Friesian Cattle

Short of room. Must sell a few
extra choice bull and heifer calves,
3 to 6 mos. old, from a 30 lb. grand-
son of King Segis Pontiac Alcartra
from dams with good A. R. O.
records.

Nothing under \$100. Write for
pedigrees and prices.

Mrs. Garvin Denby

Farmington, Mich.



Lower Per Cent
of Butterfat

Dairymen Handling Holsteins do not hesi-
tate to admit that the milk of this breed
contains a lower percentage of fat, but in view
of their enormous yield of milk they aver-
age more butter per cow and they produce
a larger margin of profit.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much
valuable information.

THE HOLSTEIN FRIESIAN ASSOCIATION
OF AMERICA Box 164, Brattleboro, Vt.

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.

NO more bull calves to offer until next fall. Place
your order for one from the fall's crop. My herd
is on the state and federal accredited herd list.
A. F. LOOMIS, Owosso, 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.

"Top-Notch" HOLSTEINS

The young bulls we have for sale are
backed up by many generations of
large producers. Buy one of these
bulls, and give your herd a "push".
Full descriptions, prices, etc. on request.
McPherson Farms Co., Howell, Mich.

FOR SALE

A Splendid Herd of Cattle, of
HOLSTEIN-FRIESIAN CATTLE

8 Cows 4 to 10 year old all bred. 10 Heifers 6
months to 2 years old some bred. 1 Bull 5 years
old. 1 bull 2 year old.

LOUIS NELLER, Lansing, Mich.
Lansing State Savings Bank Building.

"Winwood Herd"

REGISTERED
Holstein-Friesian Cattle

Sire in Service
FLINT MAPLECREST BOY

His sire is Maplecrest Korndyke Hengerveld. His
three nearest dams each over 30 lbs. of butter in 7
days. His dam and granddam both made over 1232 lbs.
of butter in one year. It is the yearly cow we are
looking for to deliver the goods. Flint Maplecrest
Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter
in 7 days and 121 lbs. in 30 days. Her butter fat test
is 5.27. We have a few choice bull calves about ready
for service and one or two ready. Remember we are
breeders and not dealers in cattle. Our price is right,
breeding considered. Write us your wants, or come
and look this herd over before you buy, and see for
yourself. You will be glad you came. Herd tuberculin
tested.

JOHN H. WINN, Inc.

Lock Box 249, Roscommon, Mich.
Reference Roscommon State Bank.

Shorthorns—Holsteins and Jerseys

If your community needs a pure-bred
bull, write us for our cooperative breed-
ing service plan, and we will see what
can be done to place one there. We
specialize on Milking Shorthorn bulls.

Palmer Bros.

Orleans, Michigan.

Wah-Be-Me-Me Farms

Pure Bred Registered

Holstein-Friesian Cattle

Herd Headed by

Segis Pontiac De Nijlander

A 32 lb. grandson of Michigan's great 35 lb. champion
cow, Pontiac De Nijlander. His dam, Oak Valley
Korndyke Beets Segis Fan, 32.05, also a Michigan
prize winner last year and a prize winner in the Na-
tional Ass'n. all classes, as a 4 year old last year. Her
dam is a granddaughter of King Segis and as a 5 yr. old
has 731.5 lbs. milk, 29.47 lbs. butter in 7 days and 2948.4
lbs. milk, 116.9 lbs. butter in 30 days. Segis Pontiac De
Nijlander's dam as a four year old (she is 5 yrs. now)
made 1221 lbs. butter and 2721 lbs. milk in 30 days.
Write for list of bull calves from 15 lb. 2 year olds to
over 30 lb. dams. Have a five year old son of Rag Apple
Korndyke 8th, a half brother to the \$125,000 bull for
sale. Also Big Type Poland China hogs sired by a litter
mate to the Illinois Grand Champion. Albert G. Wade,
Prop. White Pigeon, Michigan.

THE HOLSTEINS

At Maple Avenue Stock Farm are under Government
supervision. The entire herd have just been tuberculin
tested and not one reactor. A good place to buy that
bull you are looking for, and I have two very fine,
richly bred, and splendid individuals ready for any
amount of service. I want to answer any question
you may ask about them.

L. E. CONNELL, Fayette, Ohio

CLUNY STOCK FARM

100--REGISTERED HOLSTEINS--100
When you need a herd sire remember that we
have one of the best herds in Michigan, kept un-
der strict sanitary conditions. Every individual
over 6 mos. old regularly tuberculin tested. We
have size, quality, and production records back-
ed by the best strains of breeding.

Write us your wants,

R. BRUCE McPHERSON, Howell, Mich.

30 Purebred Holstein Females 30
7 months to 8 years of age. Several have good A. R. O.
and local cow testing association records. Bred to
good bulls. Start freshening in Oct. 1 Bull ready for
service, dam A. R. O. 26.46 lbs. at 4 years 2 days. J. L.
Roche and Son, Pickney, Livingston County, Mich.

Hatch Herd Ypsilanti, Michigan. (State and
Federal Tested). Offers King
Lunde Pontiac Korndyke 15th No. 142487 out of a choice
daughter of Pontiac Korndyke and a 30 pound son of
King of the Pontiacs and Lunde Korndyke; over
1000 pounds of butter and 26,000 pounds of milk in year

Registered Holstein heifers bred to a double grand
son of the great May Echo Sylvia 41 lbs. butter and
1006 lbs. milk in 7 days. C. H. Giddings, Gobleville, Mich.

LILLIE Farmstead Jerseys. A few heifers bred to
L freshen this fall, also yearling heifers; and two or
three B. of M. cows. Colon O. Lillie, Coopersville, Mich.

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

Maple Lane R. of M. Jersey herd. Bull and heifer
calves sired by a nephew the new World's
Champion, Sophie's Agnes. Also R. O. Red eggs and
chick. IRVIN FOX, Allegan, Mich.

For Sale Registered Jersey bulls ready
for service and bull calves.
SMITH & PARKER, R. 4, Howell, Mich.

The Wildwood Jersey Farm
Bulls for sale by Majesty's Oxford Fox 134214 and Em-
ment Lady Majest 150334, and out of R. of M. Ma-
jesty dams. ALVIN BALDEN, Capac, Mich.

JERSEYS FOR SALE

Two young cows due to freshen in Oct., one bred heif-
er due to freshen in Dec., two heifer calves dropped
last Dec. All are recorded or eligible. No bulls or bull
calves at present. Will ship C. O. D. Newman's Stock
Farm, Marlette, Mich. R. No. 1.

Herefords

20 cows and heifers for sale.

ALLEN BROS., Paw Paw, Mich.

Herefords Polled and Horned blood lines
embrace Fairfax. Polled Per-
fection and Prime Lad 8th breeding. Prices reasonable.
COLE & GARDNER, Hudson, Mich.

Herefords Bob Fairfax 494027 at head of herd.
Stock for sale, either sex, polled or
horned, any age. Priced right. EARL O. McCARTY,
Sec'y, H. B. Ass'n. Bad Axe, Mich.

Harwood's White Faces

Owing to labor shortage will sell one
half my herd, consisting of 120 head of
Reg. Herefords, yearling and two year
old heifers, cows with calf at side, re-
bred to ton bull. Ten short yearling
bulls. Priced right for quick sale.

JAY HARWOOD, Ionia, Mich.

BIDWELL SHORTHORNS

For Beef and Milk

Registered bulls, cows and heifers. Good Scotch and
Scotch-Topped for sale. In prime condition. Modern
sanitary equipment. Herd under state and federal
supervision. Farm 10 minutes from N. Y. C. depot.
1 hour from Toledo, Ohio. Automobile meets all
trains. Write

BIDWELL STOCK FARM
Box B, Tecumseh, Mich.

Richland Stock Farm

SHORTHORNS

HOME OF THE MICH. CHAMPIONS
We offer for sale a few good dual pur-
pose cows with calves at foot. Also
two three year old bulls suitable for
range purposes. We invite inspection.

C. H. PRESCOTT & SONS,

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

Shorthorn Cattle of both Sex for Sale
W. W. KNAPP, Howell, Michigan.

Shorthorns Scotch and Scotch Topped cows and heif-
ers, priced right. Come and see them or
write W. B. McQUILLAN, R. 7, Howell, Mich.

For Sale Shorthorns of Quality Scotch and
Scotch Topped descendants of Archers
Hope, Avondale, Maxwellton Sulton and White Hall
Bulton. Model Type, by the Oscola Co. Shorthorn
Breeder's Ass. John Schmidt, Sec. Reed City, Mich.

Scotch Topped Cows For Sale. Bred by the Mich.
Agrl. College.
M. V. Butler, Williamston, Mich.

Shorthorns New list, 27 bulls; 28 females. Feb. list
all sold. Central Mich. Shorthorn
Breeder's Ass'n., Oscar Skinner, Sec'y., Gowen, Mich.

The Kent Co. Shorthorn Breeders have both males
and females for sale. Ask about them.
L. E. LEONARD Sec., Caledonia, Mich.

SHORTHORNS A young Mary cow and
calf also a young bull for
sale. Louis Bubbitt, Williamston, Mich.

Meadow Hills Shorthorns—For sale females
including one aged cow at bargain; also one roan bull
ready for service. Geo. D. Foster, Dexter, Mich.

MILKING SHORTHORNS. Clay
bull calves. Davidson and Hall, Tecumseh, Mich.

Special Offer Shorthorns—Cows \$250 to \$300.
Bulls \$200 to \$250.
Wm. J. Bell, Rose City, Mich.

SHORTHORN BULL CALVES
FOR SALE. Chas. Metzger & Sons, Ithaca, Mich.

Milking Shorthorns of best Bates breeding 2
bulls 7 mo. old and 2 heifers
3 and 7 months old for sale. E. H. Kurtz Mason, Mich.

Red Polled Bulls For Sale
also cows and heifers. G. A. Calhoun, Bronson, Mich.

Red Polled Cattle, Oxford and Tunis
Yorkshire Swine. E. S. CARR, Homer, Mich.

Reg. Red Polled Bulls for sale write for prices
and description to John W.
Fish, Pickford, Mich.

HOGS

Registered Berkshire Boars; ready for service. A few
gilts and sows bred for May and June farrow. Also
spring pigs. CHASE STOCK FARM, Marlette, Mich.

REG. Berkshire boar past 1 yr. old for \$75.00. Late
spring pigs at \$40 each. No sows for sale.
B. B. REAVEY, Akron, Mich.

Berkshire Hogs. I have some three months old pure
bred Berkshire boars for sale at \$30 each.
CHETWOOD FARM, Northville, Mich.

Duroc Opportunity

What would the earning capacity of a Brook-
water Boar be in your herd? A mid-west breeder
states that the Brookwater boar he used added
from \$75 to \$100 to every gilt bred to him.
It paid this man to use one of our boars it will
pay you.

We have several that we are offering at prices which
appeal to the small breeder who must of necessity
be a conservative buyer. We have a few that are
good enough to be used in high class herds at
prices in keeping with their individuality and
breeding. Money invested in a good herd boar
very speedily increases the value not only of
what you sell but what you keep. Send for price
list or better, visit the farm.

BROOKWATER FARM, Ann Arbor, Mich.
HERBERT W. MUMFORD, owner,
J. BRUCE HENDERSON, Manager.

DUROC-JERSEYS

E. D. HEYDENBERG, Wayland, Mich.

Attention Breeders and Farmers Now is the
time to buy that Duroc Boar for fall service. We have some
Oorkers. March pigs will weigh 100 lbs. July 1st.
Inspection Solicited. Prices very reasonable.
RUSH BROS., Oakwood Farm, Romeo, Michigan.

For the Boys and Girls. \$12.00 for a Duroc Jersey
pig, six weeks old, either
sex, M. A. O. and Brookwater breeding. Registration
papers free. D. W. Sutherland, Gd. Lodge, Mich.

DUROC SOWS

sired by Walt's King 92949, the sire of 1st. prize win-
ners last year, and bred to Orion's Fancy King the
real big type Duroc. NEWTON BARNHART, St.
Johns, Mich.

DUROC JERSEYS

CAREY U. EDMUNDS, Hastings, Mich.

DUROC Jersey spring boars sired by Orion Cherry
King Col. 2nd. with size and feeding qualities.
W. C. Taylor, Milan, Michigan.

Registered Duroc Boars

We have a choice lot of spring boars, sired by Michigan
Cherry Col. No. 89479. Ira Jackson selected this boar to
head our herd. Our prices are within every farmers
reach. The Jennings Farms, Bailey, Mich., R. F. D. No. 1

Duroc Jerseys Two good yearling boars that are good enough to head the
best herds in Michigan, also spring boars large enough
for service. Sired by the Grand and Junior Champion
boars. F. J. DRODT, R. 1, Monroe, Mich.

8734 Hampshires recorded from Jan. 1 to Apr. 1, '19.
Did you get one? Boar pigs only for sale now.
JOHN W. SNYDER, R. 4, St. Johns, Mich.

THE WORLD'S CHAMPION
big type O.I.C.S. Stock of all ages for sale. Herd
headed by Calloway Edd, the World's Champion O. I.
C. boar assisted by C. O. Schoolmaster, Grand Cham-
pion boar of Michigan, New York and Tennessee state
fairs. Also, C. O. Giant Buster, undefeated Senior
boar pig wherever shown and Grand Champion of Ok-
lahoma state fair. Get our catalogue of Grandell's
prize hogs, Cass City, Michigan.

NEW IDEAS IN POULTRY FEEDING.

(Continued from page 395).

New Brunswick.

"First. Give the growing chicks an abundance of green rations, preferably alfalfa and clover.

"Second. Feed milk liberally as a beverage early in the growing period.

"Third. Never let the infertile eggs from the incubator go to waste—boil them and feed to the chicks during the brooding period."

Poultry keepers have long recognized the value of green food both for laying hens and for growing chickens, but have never understood the reason, or been as conscientious in providing green stuff as they would have been had they been familiar with Dr. McCollum's findings. Very often root crops are considered a substitute for green foods, but apparently they do not contain the same materials as tender young leaves and are very much less desirable except as they provide minerals and bulk. There are few poultry keepers who cannot give their growing chickens an abundance of leafy growth and it is the young stock which needs it most. It takes only a small amount of ground to grow a bountiful crop of rape. Swiss chard, too, and New Zealand spinach can be produced even in a very small garden, as the plants renew themselves when the leaves are removed. Then in the fall rye can often be sown in the garden and the maturing pullets allowed to feed upon it. Of course if a field of clover or alfalfa is available for the young stock to run in, an ideal condition is found.

The question of milk is not so easily solved. Yet there are hundreds of farms where there is a surplus of milk at just the time when the growing chickens need it most. Perhaps in many instances it would pay to turn this surplus into chicken flesh, or to make butter and feed the buttermilk to the young stock. For the poultryman who has no cows to fall back upon the commercial milk product such as is being put out in a solid or semi-solid form offers a practical substitute.

At the present time the poultry world is in a stage of evolution. New ideas are coming to the front rapidly, perhaps because the stress of circumstances is serving as a spur to invention or ingenuity. Until very recently the idea of using electric lights in the poultry house to increase egg production in winter was laughed at, but now the plan is being adopted widely, and the results justify the moderate expense required to equip a poultry house with electric lights or with large kerosene lanterns of the modern type when electricity is not available.

Massachusetts. E. I. FARRINGTON.

FEW FINISHED STEERS OFFERED.

CATTLE marketings are running to rather plain grades. The supplies are carrying a lot of medium quality short-fed offerings and very few finished lots. The lack of quality in the arrivals has caused a wider price range to be put in force with the prime yearling classes on the top. Weight has been discriminated against. It was for this reason that many feeders decided to get away from the heavy grades because they found that the cost of production was too high to take a chance on the unsettled markets. With the native offerings running to such poor quality and the western range stock being marketed freely, the plainer grades have been relatively weak sellers. W. W. F.

Many preventive measures of controlling soil washing, such as crop rotation, deep plowing, maintaining organic matter in the soils, etc., have been advocated, but there is nothing that equals terracing or "contour farming," as it is sometimes called.

Why do the Cows Come Home?



They Know What's Coming

That's why they wait so impatiently for the gate to be opened. They all like

STEVENS "44" DAIRY RATION

It is an old and tried feed made "by dairymen for dairymen." It keeps the herd in good health and insures a maximum milk flow.

Their udders are full and they are uncomfortable with milk.

Your cows will be waiting for feeding and milking time if they're getting Stevens' "44".



Park & Pollard Co., of Illinois
Webster Bldg. Chicago

OCTOBER 23, 1919

Howell Sales Co. of Livingston Co.

SIXTH ANNUAL SALE

At Howell, Mich.

80 HEAD OF REG. HOLSTEINS

The consignments to this sale are about 90% fresh cows or cows soon to freshen and a few good bulls. Watch for ad. later. Catalog ready Oct. 10.

JAY B. TOOLEY, Sec'y., Howell, Mich.

MICHIGAN LIVE STOCK INSURANCE COMPANY

INDEMNIFIES Owners of Live Stock — Horses, Cattle, Sheep and Hogs

Against Death by Accident or Disease

SAGINAW

GRAND RAPIDS

O. I. C. BOARS FOR SALE

One of the Best Herds in Michigan

Big type, growthy boars of all ages. I ship C. O. D., pay express and register in buyer's name. If you want a real choice boar, guaranteed right in every way, write me.

J. CARL JEWETT,

R. 5, Mason, Michigan.

CATTLE

Reg. Cattle and Sheep at Auction

On the John T. Rich Farm, Elba, Mich.
Tuesday, September 30, at 1 P. M.

One registered Bull, "Pioneer Lad," 3 yrs. old from the herd of Waterman and Waterman, Ann Arbor, whose dam is a R. O. M. cow with a 70-lb. butter record.

One 6-yr.-old cow, calf at side; three 5-yr.-old cows, due soon; one 4-yr.-old cow due Oct. 7; three 3-yr.-old cows, one fresh; eight 2-yr.-old heifers, all with calf; fine yearling heifers.

Also one imp. ram, 4 yrs. old; one American stock ram 3 yrs. old; eleven yearling rams; 16 ewes, 1 yr. and over, and 25 March and April lambs.

C. S. COX

G. E. SELBY

Twenty Head of Registered Holsteins

At Auction

At My Farm West of Lapeer, Mich.
Wednesday, Oct. 8th at 1 P. M.

Cows, Heifers and Bulls, closely related to John Haugerveld Lad, 45104. Also some good grade cows, hogs, chickens and implements.

Carlos Bullock, R. 2, Lapeer, Mich.

HOGS.

Sale of Big Type Poland Chinas Nov. 5th

Choice offerings of individuals sired by Mammoth Ben, Gerstale Jones, The Olansman, Gerstale King and from dams carrying blood of Big Bob, Giant Ben, King of Wonders, etc. Wesley Hill, R. 6, Ionia, Mich.

LATEST MARKET REPORTS

FIRST EDITION.

The markets in this edition were revised and corrected on Tuesday afternoon, September 23.

WHEAT.

Unfavorable weather for marketing has aided the bulls and helped to keep prices firm. Wheat is moving freely except where a scarcity of cars is holding up shipments. The steel strike has had no visible effect upon this market thus far. The visible supply shows an increase for the past week of 7,863,000 bushels. One year ago wheat sold on the local market at \$2.21 for No. 2 red. Present Detroit prices are:

No. 1 red	\$2.25
No. 1 mixed	2.23
No. 1 white	2.23
No. 2 red	2.22
No. 3 red	2.18

CORN.

The bearish effect of the steel strike on the corn trade had been discounted beforehand. The movement of the grain from farms is very small since producers are too busy gathering their crops to market unperishable products. Receipts have been small, and the visible supply shows an increase of only 390,000 bushels. At Chicago the quotations are higher, with No. 2 mixed corn at \$1.47@1.49; No. 2 yellow at \$1.49@1.50; December \$1.35%; May \$1.23%. A year ago No. 3 corn sold on the local market at \$1.50 per bushel. Present Detroit prices are:

No. 3 corn	\$1.51
No. 3 yellow	1.53
No. 4 yellow	1.51
No. 5 yellow	1.50

OATS.

Higher quotations prevail in this market with cash dealers displaying considerable eagerness for supplies. Receipts are small. The visible supply decreased 88,000 bushels during the week. One year ago standard oats were quoted at 75¢ on the local market. Present prices here are:

No. 2 white72
No. 3 white71
No. 4 white70

RYE.

This grain enjoys a firmer market with the price advanced over last week's quotations. At Detroit cash No. 2 is now quoted at \$1.41 a bushel.

BARLEY.

Following last week's heavy decrease in the visible supply of this grain, another decline of 230,000 bushels is noted. The local price, however, remains unchanged, with cash No. 3 held at \$2.40@2.50 per cwt.

BEANS.

Trade in beans has ruled very dull throughout the week, with the general situation little changed from a week ago. There is continued absence of any export demand, and no speculative activity. Michigan choice pea beans are quoted in New York at \$8.25@8.50 per cwt., and do common to fair \$7@8. At Detroit the recent dullness continues, with the reported quotation for immediate and prompt shipment at \$7.50 per cwt, or ten cents below last week's price.

FEEDS.

Middlings are higher, with the other grades steady as compared with last week. Bran \$44; standard middlings \$56@57; fine middlings \$64; coarse corn meal \$64; cracked corn \$65; corn and oat chop \$55 per ton in 100-pound sacks.

SEEDS

There is a good demand for seeds, and the market holds steady with the volume of business increasing. Quotations are: Prime red clover \$29.25; October \$29.35; alsike \$24.75; timothy \$5.50.

HAY.

Hay is steady with fair receipts and a good demand at the following quotations: No. 1 timothy \$29.50@30; standard and light mixed \$28.50@29; No. 2 timothy \$27.50@28; No. 1 clover at \$24@25.

Pittsburgh.—Values here have declined during the week, notwithstanding small receipts and a fair demand.

No. 1 timothy is now quoted at \$31@31.50; No. 1 light mixed \$29.50@30; No. 1 clover mixed \$31.50@32; No. 1 clover \$31.50@32.

POTATOES.

In every state, except Pennsylvania, the crop of late potatoes falls below the yield of 1918 according to the estimates of the federal crop reporters. The total estimates for 1919 is 123,518 carloads as compared with 146,048 for 1918. The Detroit market is weak, with Michigan stock in 150-lb. sacks selling at \$4.50. A slightly weaker market with lower prices, a moderate demand and fair movement prevails in Chicago where round white bulk are selling at \$2.45@2.55 per cwt. In Pittsburgh the trade is firm and movement moderate. Round whites sell there at \$3.10 per cwt. in bulk. The Philadelphia market is firm while trading in New York is easier and prices slightly lower.

CHEESE.

The general market is somewhat uncertain, due to declines in prices at producing points. Increased storage holdings in our largest markets have also created an easier feeling. At Detroit, however, prices remain unchanged, with Michigan flats of June make at 33c; daisies 30c; bricks 34½c. In Philadelphia a steady market prevails at 30@32c per pound.

BUTTER.

A good deal of butter has been moving the past week and the output appears to be holding up remarkably

well. At Detroit the market is about steady with fresh creamery wholesaling at 53½c and the same grade in one-pound bricks at 55@56c. Trading in Chicago is on a higher basis with creamery stock ranging from 47@57c. In New York a firm trade is reported and creamery prices are from 52@60c per pound. In Philadelphia western creamery extra is quoted at 61½c on a higher and firmer market.

EGGS.

The changes in the egg markets have been only moderate. Some decrease in receipts is noted, while offerings appear to have a larger percentage of defects due to warm weather and holding. The use of storage eggs has increased the past week. At Detroit fresh eggs are selling at 47@49c, according to quality. In Chicago firsts bring 46@47c; ordinary firsts 39@41½c; storage packed firsts 47@48c. The New York market is firm, while trading in Philadelphia is strong with western extra firsts jobbing there at \$16.20, and do firsts at \$15@15.60.

WOOL.

British spinners are not accepting orders until there is better prospect for coal to supply the mills. As a result, the wool trade is easier at Bradford. The London auctions closed last Friday, however, with prices for the best merinos and cross-breeds on the high basis reached during the early period of the sales. At Boston domestic medium wools have been selling below their real value as to their usefulness, while finer grades are above

their usual parity, in the minds of many dealers. According to Premier Watson of Australia, there is no possibility that the Australian wool clip will be under imperial control after June 30, 1920. Receipts of domestic wool at Boston last week were practically the same as for a year ago.

DETROIT CITY MARKET

The tomato market is rapidly coming to a close with the best stock at \$1.25 and canning grades at 75c per bushel. Cauliflower is selling at \$3@3.50; peaches \$4@4.50; cabbage at \$1; cantaloupes \$2@2.75; grapes \$1.75@3; onions \$2.25@2.50; potatoes \$2.25@2.40 for No. 1; No. 2 at \$1.50; pears \$2.50@4.50; live hens 32c a pound; springers 26@30c; fresh eggs 54@55c for graded and 51@52c for mixed.

GRAND RAPIDS

The onion crop in western Michigan is the poorest in several seasons, being small in size and light per acreage yield. So uneven is the vegetable, buyers have not fixed any price to growers. The late apple crop is light in some sections and in others a good yield will be harvested. The early crop has been larger than first estimates. Potatoes sold in the city market at \$1.50 per bushel. The price still being higher than at outside points, long hauls of 40 to 60 miles were made to this market. From Montcalm county alone 100 truckloads daily have been drawn to Grand Rapids the past week. Officials of the Michigan Potato Growers' Association have made a survey of the big market centers for Michigan tubers and as a result has decided to market a special trade marked 100-pound sack of Michigan potatoes this year in addition to the regular output of 150-lb. sacks. The select sack will be sewed with a red string to protect the Michigan brand. Green and cured hides which dropped 20c per pound a few weeks ago have advanced 15c. Pumpkin crop is the lightest in many years. More hogs will be marketed in western Michigan this fall than ever before. Price to growers is 25@26c per pound dressed.

NEWS OF THE WEEK.

(Continued from page 370).
ers yielded to the demands of the union carpenters for \$1 an hour. bring about another war.

Sunday, September 21.

REPORTS through Sweden assert that the daily toll of deaths in Petrograd from cholera is 200 to 300. —Attorney-General Palmer pleads for an absolute industrial armistice for six months.—Great crowds greet President Wilson upon his arrival in Los Angeles.—The Florida straits are being combed in a search for a trace of the 450 passengers of the steamer Valbanera, supposed to have been lost off the Florida coast.—Cablegrams from Omsk say Admiral Kolchak's offensive against the Bolshevik forces in western Siberia was developing successfully.

Monday, September 22.

THE Dutch minister in Paris says that within two weeks Holland will receive a demand for the extradition of former Emperor William, on behalf of the Allies.—Theodore P. Shonts, railroad builder and owner, and chairman of the commission which had in charge the building of the Panama Canal, dies at his home in New York.—Around 50,000 steel workers at the various plants of the country walk out on strike. No violence is reported.—American marines land at Buccari, five miles east of Fiume.

Tuesday, September 23.

CLASHES between state troops and strikers follow rioting in the Pittsburgh zone.—The United Mine Workers of America reject the movement to go out on a sympathetic strike with the seal workers.—The Italian government appeals to the allied powers to drive D'Annunzio out of Fiume.—The Canadian and United States governments are soon to consider improving navigation on the St. Lawrence river.

The Eaton County Farm Bureau will hold a tractor demonstration on the farm of Bertrand Youngs, two and a half miles west of Charlotte on Friday, October 3. The dozen tractors entered will demonstrate on twenty-five acres of sod land.

Live Stock Market Service

Reports for Tuesday, September 23rd

BUFFALO.

This market sold pigs at from 25@50c below yesterday's trading, and other grades from steady to 10c higher. Lambs were 50c lower while calves went at \$22.

DETROIT

Cattle.

Market steady at last week's close.
Best heavy steers \$12.00@13.00
Best handy wt bu steers... 9.50@11.00
Mixed steers and heifers 8.50@ 9.00
Handy light butchers 7.50@ 8.00
Light butchers 6.00@ 7.25
Best cows 8.25@ 9.00
Butcher cows 6.75@ 7.50
Cutters 6.00@ 6.25
Canners 5.00@ 5.75
Best heavy bulls 8.00@ 8.50
Bologna bulls 7.00@ 7.50
Stock bulls 5.50@ 6.50
Feeders 8.50@ 9.50
Stockers 7.00@ 8.50
Milkers and springers...\$ 60@ 125

Veal Calves.

Market 50c lower.
Best \$22.50@23.50
Others 9.00@20.00

Sheep and Lambs.

Market steady to 25c higher.
Best lambs \$14.00@14.25
Fair lambs 11.50@12.00
Light to common 9.00@10.50
Fair to good sheep 6.50@ 7.00
Culls 4.00@ 6.00

Hogs.

Market steady.
Pigs \$ 16.50
Mixed hogs 17.50@17.75

CHICAGO.

Hogs.

Estimated receipts today are 23,000; holdover 3,243. Market steady to 25c lower. Tops \$18.25; heavy 250 lbs up, medium, good and choice \$16.50@18; medium 200 to 250 lbs, medium, good and choice \$16.75@18.15; light 150 to 200 lbs, common, medium, good and choice \$16.25@17; light lights 130 to 150 lbs, common, medium, good and choice \$16@17.50; heavy packing sows 250 lbs up, smooth \$16@16.50; packing sows 200 lbs up, rough \$15.25@15.75; pigs 130 lbs down, medium, good and choice \$15@16.25.

Cattle.

Estimated receipts today are 12,000. Market fairly active and firm on all kinds. Beef steers, medium and heavy weight 1100 lbs up, choice and prime

\$15.25@17.65; do medium and good \$10.75@15.25; do common at \$8.25@10.75; light weight 1100 lbs down, good and choice \$14@17.65; do common and medium \$8@13.75; butcher cattle, heifers, common, medium, good and choice \$6.50@14.75; cows, common, medium good and choice at \$6.25@13.35; bulls, bologna and beef \$6.50@11.50; canners and cutters, cows and heifers \$5.35@6.25; do canner steers \$5.75@8.25; veal calves, light and handyweight, medium, good and choice \$20.25@21.50; feeder steers, common, medium, good and choice \$7@12.25; stocker steers, common, medium, good and choice \$6.25@10; stocker cows and heifers, common, medium, good and choice \$6@8; stocker calves, common, medium, good and choice \$8@10; western range cattle, beef steers, medium, good and choice \$10.75@15; do cows and heifers, medium, good and choice \$7.50@13.

Sheep and Lambs.

Estimated receipts today are 35,000. Market strong to 25c higher. Lambs 84 lbs down, medium, good, choice and prime \$12.25@15.25; do culls and common \$7.50@12; spring lambs, medium, good, choice and prime \$8.75@10.50; ewes, medium, good and choice \$6@7.25; ewes, cull and common \$2@5.75; breeding ewes, full mouths to yearlings \$6.75@12.50; yearling wethers, medium, good and choice at \$9.75@12.25.

BUFFALO.

September 22, 1919.

Cattle.

Receipts 200 cars; heavy grades 50c @ \$1 lower; butchers and cow stuff 25c lower; prime heavy steers \$14@15; shipping steers \$12@13; butchers \$10@12; fat cows \$7.50@10.50; heifers \$8@12; yearlings \$12@15; cutters \$6@6.50; canners \$4.50@5; best feeding steers \$9@10; medium feeders \$8@8.50; best stockers \$7.50@8.50; light common \$6.50@7; milkers and springers \$7.50@15.

Hogs.

Receipts 600 cars; lower, heavy at \$17.25@17.50; yorkers and pigs \$18.

Sheep and Lambs.

Receipts 40 cars; strong; top lambs \$16; yearlings \$9@10; wethers \$8@8.50; ewes \$7@7.50.

Calves.

Receipts 1,200; \$1 lower; tops at \$22.50; fair to good \$18@21; grassers \$7@9.



The Secret of Heating the entire house thru ONE register

WARM air rises—cold air descends. In the Estate Heating System the warm air rises through one register and cooled air descends through separate intake pipes.

In this respect the Estate Single Register Heating System differs radically from the ordinary "pipeless" furnace. There is no conflict between the warm air going up and the cooled air coming down.

Estate SINGLE REGISTER WARM AIR HEATING SYSTEM

—the Furnace that Breathes

The register face is divided into three sections. The center section is for warm air coming up from the furnace—the two outer sections are connected with intake pipes which carry cooled air back to the furnace, to be reheated, moistened, and sent up through the warm air register. This system insures constant and thorough circulation of warm air which heats the entire house—upstairs and down.



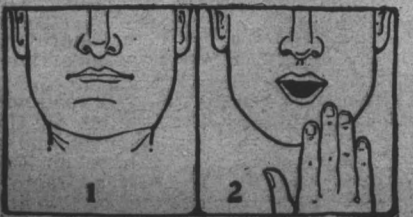
Compare this with your own breathing

- (1) Take a deep breath of cold air through your nose, the mouth being closed. Hold it.
- (2) Open your mouth, hold your hand in front of it, and exhale. Note the warmth of the air you exhale.

The warm air register is the mouth, the two intake registers the nostrils of the Estate Single Register Heating System. The principle is exactly the same as in Nature's own circulation system.

Four successful seasons and thousands of delighted users prove the dependability of this heating system. Send postal for booklet and full information.

THE ESTATE STOVE CO.
640 South Ave., HAMILTON, O.



PACKERS URGE CONGRESS TO PROBE MEAT INDUSTRY.

CONDITIONS of the food markets of the world indicate to the institute of American meat packers, in session recently at Atlantic City, that the demand for beef from America for meeting the shortage in Europe has about ceased and that the demand for pork is slackening, while in the United States the agitation against the packers has caused a slump in the consumption.

The effect has been to break the price of cattle and the reduction in the prices of cattle to the farmers, while increased production is demanded in order to bring the scale of prices to a lower level. This is the problem which is puzzling the packers, they assert, and how to stimulate production and cut prices at the same time is beyond them.

Resolutions were adopted against the proposed license of packers under two bills pending in congress. The institute, in its resolutions, invited the fullest investigation and offered to cooperate in every way in the investigation now being made in Chicago by the federal department of justice through the federal grand jury.

FRUIT MEN OPPOSE RAISE IN REFRIGERATOR CAR RATES.

THE fight which the New York state fruit and vegetable growers are waging against the contemplated raise in tariffs for the use of refrigerator cars, is one in which growers of perishable products in Michigan and other states are deeply interested.

If the government succeeds in making effective this advance in rates, it will cause an increase of upwards of \$2,500,000 in the annual cost of handling the state's fruit crop, and a proportionately large increase in transportation of fruits and vegetables from the farm of other states to the city markets.

At the recent hearing of the Interstate Commerce Commission held recently in New York City, the fruit interests introduced such conclusive evidence against the increase, that the hearing was adjourned for the securing of further information in regard to the matter.

It is claimed that the government not only wishes to increase its rate of charge for the use of refrigerator cars but also would make additional charges for every incidental movement of the car and for its icing. Under the government's proposed arrangement the shipper would not be allowed to look after the icing of the car himself.

The fruit men consider such an increase in rates an imposition upon the consuming public who would be the real bearers of the added burden. The federated agricultural and shippers' associations are raising funds to continue a vigorous campaign in opposition to the proposed refrigerator car rate increase.

E. E. R.

NEW YORK PRODUCE MARKET.

Butter.—Receipts of butter have continued high during the week but they have included a great quantity of butter that was purchased by exporters in the central west and which has been shipped to this port to be stored in local refrigerators until shipping space becomes available on ocean-going vessels. The production of small creameries continues to shrink and it is fully expected that it will continue to do so for some time to come. The market has been active throughout the week, but only on high quality butter. There is no demand for inferior grades of butter and they are continuing to accumulate to an alarming degree. There are many cars of 88-89 score butter, principally centralized, in various warehouses which cannot be moved at prices at all satisfactory to receivers. There is practically no new export demand although occasionally there is an inquiry. It is intimated that we may expect a renewal of export trade in the very near fu-

ture. The demand for high quality butter has advanced one cent since last Saturday. However, there has been a decline of one cent in the price of undergrades at the same time. Established quotations at the close on Friday were: Extras 58@58½c; higher scoring than extras 59@59½c; firsts 51½@57½c; seconds 49@51c.

Cheese.—Condition of the cheese market can not be said to be satisfactory. The most noticeable feature is the abundance of stock that is stored in public warehouses in Chicago, Boston, New York and Philadelphia as compared to that stored at this season last year. Bureau of Market figures show that there are approximately ten millions of pounds more of cheese stored now than one year ago.

Eggs.—Receipts of eggs have continued about as for last week. The quality of the eggs being received, on the whole, continues to be very poor. Demand is good but it is only for eggs of the very best quality. Many dealers have started to use their storage supplies in order to get enough high quality eggs for their trade. There has been only a slight change in quotations during the week although the price tendency has been upward. Quotations are as follows: Firsts 48@52c; extra firsts 53@55c; extras 56@58c.

Poultry.—Receipts of live poultry have continued about normal. Trading has been active throughout the week and the price tendency has been upward, especially for spring chickens and fowls. Quotations are as follows: Spring chickens 31@33c; fowls 32@36c; old roosters 19c; ducks 28@30c; geese 20@22c.

Mr. POULTRY FARMER:

We make a specialty of White Henery Eggs and have created a profitable market for your eggs the year around. We pay the highest premium for your Henery Whites—We remit same day shipment arrives. Ship Often—Ship by Express

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment.

EGGS

We will pay 56c per dozen delivered here for strictly fancy new laid eggs, cases included. Shipments via express direct from farmers. This price good until

October 4th. Watch our price each week. American Butter & Cheese Company, Detroit, Mich.

HAY

Ship To The Old Reliable House Daniel McCaffrey's Sons, 623-625 Wabash Bldg., Pittsburgh Pa.

SEED PEAS BEANS

Send us samples of your clover seed, peas and beans of all kinds and state your price cleaned or uncleaned. **W. L. IRELAND & CO.,** Grand Ledge, Michigan

FOR SALE: A few cars alfalfa hay. Choice of first and second cuttings. Write or call W. N. Lister, Ypsilanti, Mich.

Wanted girl for general housework. Small home, three in family. Must do washing. Mrs. M. P. Fisher, 619 Continental Ave., Detroit

HOGS.

O. I. C. One very choice 9 months old boar and 1 spring pig sired by Prandell's Big Bone, (689-8). Glenwood Stock Farm, Zeeland, Mich.

O. I. C. and Chester White Swine

Strictly Big Type with quality. Spring pigs of March and April farrow. A choice lot of boars. Will only spare a few more gilts at present. Will ship C. O. D. and record them free. Newman's Stock Farm, Marlette, Mich. R. No. 1.

O. I. C's. Bred gilts all sold. Plenty of spring pigs good enough to ship C. O. D. F. C. BURGESS, R. 2, Mason, Mich.

O. I. C's One very good yearling boar, and three spring pigs to offer, registered free. ¼ mile west of Depot, Citizens Phone 124. OTTO B. SCHULZE, Nashville, Mich.

O. I. C. 20 Choice Young Boars and a few fine gilts. Clover Leaf Stock Farm, R. 1, Monroe, Mich.

O. I. C's. 6 fine spring boars, 4 gilts and two sows. Orders booked for fall pigs. John C. Wilk, R. 2 Alma, Mich.

One choice reg. O. I. C. Boar 17 months old, Wt. about 450 lbs. For more particulars write Bert Gilbert Livering, Mich. R. 2

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 six months old. Write for my plan—More Money from Hogs. **G. B. BENJAMIN, R. F. D. 10, Portland, Michigan**

Big Type Poland Chinas

Sired by Smooth Mastodon a son of A's Mastodon and litter mate to the Illinois Grand Champion. Boar pigs and gilts. Bred sows from above sire and Big Bob dams, the big boned, deep, long bodied kind at farmer's prices.

Wah-be-me-me Farms
White Pigeon, Michigan.

AUCTION!

F. J. Boyle, Harry Robinson, Geo. Rattenbury, Auctioneers.

Pedigree Reader, F. J. Fishbeck of Howell

Having decided to dispose of our Entire Herd, we will sell at Public Auction, on the Premises, (known as the George B. Yerkes Farm) 2 miles north and 1¼ miles east of Northville; 3½ miles west and ½ mile south of Farmington, on—

Wednesday, October 1st, '19

Commencing at 12:30 Sharp, Rain or Shine

OUR ENTIRE HERD, Registered and High Grade

51 HOLSTEIN 51
Dairy Cattle

Consisting of

21 Registered Holsteins, Cows and Heifers and 30 High Grade Cows.

The cows are practically all in full milk or near springers. Part of the heifers are bred to freshen this fall.

These Cattle are all in Good Physical Condition and Free from Abortion. This is an exceptionally fine herd, being one of the Largest Milk-Producing Herds in Oakland County. The Registered Cattle will all be Tubercular Tested.

Address Sam. Pickard, Farmington, Mich., R. F. D. 3, Box 88, for Catalog.

TERMS—Six Months' Time on Approved Notes, Bearing Six Per Cent Interest. Liberty Bonds Accepted.

Geo. B. Yerkes and Sam Pickard, Owners
C. A. Sessions, Clerk. L. A. Babbitt, Note Clerk

HOGS

For 25 Years We have been breeding Big Type Poland China hogs of the most approved blood lines. Our new herd boar "Michigan Buster" is a mighty good son of the great "Giant Buster" dam "Mou's Miss Queen 2." Some breeding! Litter of 14. We are offering some sows bred for fall farrow. **J. C. BUTLER, Portland, Mich.**

LARGE Type P. C. the largest in Mich. Spring boars now ready to ship. Boars for the breeders and boars for the farmers. Come and see the real large type with quality. Free livery from Parma furnished visitors. Look up my exhibit at the Great Jackson Co. Fair, Sept. 8th, to 12th, expenses paid if not as advertised. **W. E. Livingston, Parma, Mich.**

Big Type Poland Chinas with quality. Pigs for sale by Robert R334705, out of Upsome Matron 240346, and by Upsome Lad 90555, out of Eureka Giantess 24026. New herd header B's Bonanza Joe 100892, by Bower's Mammoth Joe 77441. **G. A. BAUMGARDNER, R. 2, Middleville, Mich.**

L. S. P. C. A few good gilts left for September and October farrow. **H. O. SWARTZ, Schoolcraft, Michigan**

MICH. Champion herd of Big Type P. C. Nothing for sale but fall pigs; orders booked for spring pigs. **E. R. LEONARD, St. Louis, Mich**

Big Bob Mastodon sire is Caldwell Big Bob Champion of the world, his dam's sire was the Grand Champion at Iowa State Fair, Boars' ready to ship. **C. E. Garnant, Eaton Rapids, Mich.**

L. S. P. C. Ten husky spring boars. Well bred and well fed ready to ship. **F. T. Hart, St. Louis, Mich.**

For Sale Medium T. P. C. Hogs

All sizes. **J. E. Mygrants, St. Johns, Mich.**

SALE—72 MEDIUM P. C.

All ages. Nov. 12, 1919. **Tony B. Fox, Pewamo, Mich**

Big Type P. C. Choice bred sows from Iowas greatest herds, the big bone prolific kind with size and quality. **E. J. MATHEWSON, Burr Oak, Mich.**

Big Type P. C. Spring Pigs

Either sex. **A. A. WOOD & SON, Saline, Mich.**

B. T. P. C. Some of the best males I ever raised. Two B. October Boars extra good. April pigs weight 100 lbs. Price reasonable. **JOHN D. WILKY, Schoolcraft, Mich.**

LARGE Type P. C. Nothing for sale now. Will be in market with better than ever this fall. If herd stuff counts. **W. J. HAGELSHAW, Augusta, Mich.**

Miller Meadows, L. T. P. C. Ready to ship immune. None better in Mich. Write or come and see. 2¼ miles west of Marshall. **Clyde Weaver, Ceresco, Mich.**

Two gilts for sale, sired by C. A. King Joe. Dam is sired by Great Big Half Ton, by Big Half Ton and out of a Dishier's Giant Sow. (Breeding.) Bred to Monster Big Bob by Luken's Big Bob (same breeding as the Grand Champion of the World, Caldwell's Big Bob). A very valuable litter to possess. Fall pigs farrowing now. Book orders early. **C. A. Boone, Blanchard, Mich.**

Big type Poland China boars for sale. Sired by Big Giant No. 267567 O's Orange No. 330123 and Reish's Col. Jack No. 322507. **L. L. Chamberlain, Marcellus, Mich**

YORKSHIRES F. R. SALE

Gilts bred for October farrowing. **WATERMAN & WATERMAN, Meadowland Farm, Ann Arbor, Mich.**

HORSES

Percherons, Holsteins, Angus, Shropshires, Durocs **DORR D. BUELL, Elmira, Michigan.**

Percheron Stallions and mares at reasonable prices; inspection invited. **F. L. KING & SON, Charlotte, Mich.**

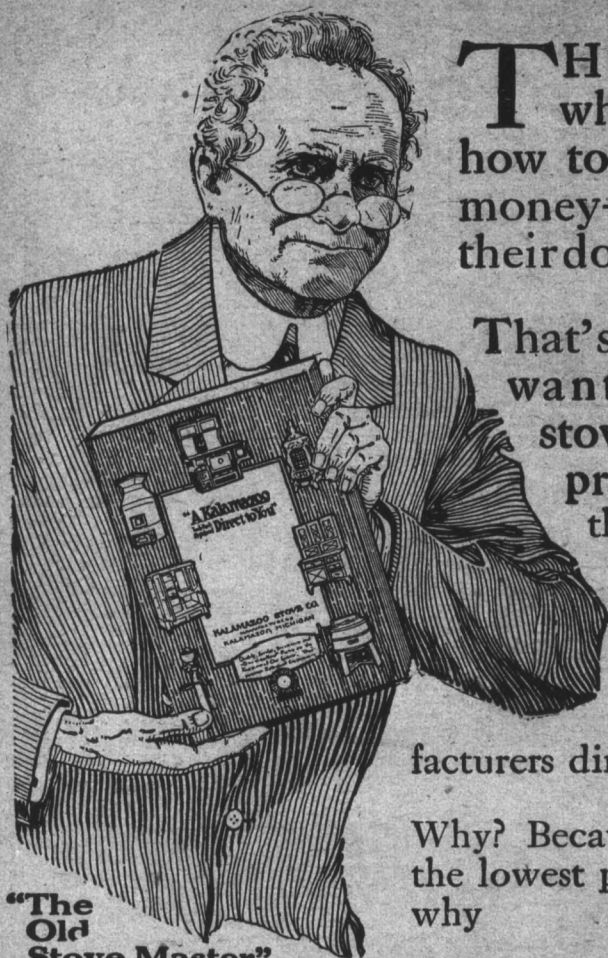
For Sale—A Car Of Grade Draft Colts

Chas. Bray, Okemos Ingham Co. Mich.

For Sale Sound reg. Percheron fillies and mares, might exchange for cattle, cheap for cash. **H. C. WHITNEY, Eckford, Mich.**

Sheep ads will be found on Page 391

Reader, I'm Looking For "Close Buyers"



"The Old Stove Master"

THRIFTY folks—the kind who know good goods and how to buy them for the least money—close buyers who make their dollars stretch to the utmost.

That's the kind of folks who want Kalamazoos—good stoves and furnaces at lowest prices and that quickly save their cost in saving high priced fuel. These are the buyers who made "A Kalamazoo Direct to You" a household saying from coast to coast. They know that dealing with the manufacturers direct is truest economy.

Why? Because the manufacturer's price is the lowest price. That's the story. That's why

I'm Saving Stove and Furnace Buyers \$250,000 This Year With My Direct-to-You Prices

This is my year to make a dent in the high cost of living. I'm after the price-booster's scalp. The war is over. That flimsy excuse, "price gone up on account of the war," no longer holds good. My prices are on a peace basis. My drive for economy is on. I'm going to save you a wad of money if I have my way about it. And I can do it, too.

Get My Offer on

Stoves and Ranges
Gas and Oil Stoves
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and Tables
Refrigerators
Phonographs
Cream Separators
Fireless Cookers
Washing Machines
Sewing Machines
Paint and Roofing
Indoor Closets

I have my own factories. My workers are loyal. We are all producers—all interested in making the best stoves and furnaces in the world and selling them direct to users for the least money. If mine was just an ordinary factory with the ordinary output I couldn't save you so much money. But our stove and furnace factories are the largest in the world dealing direct with the user. We have satisfied customers in practically every county in the United States.

We are not a baby concern. Our quick shipping service covers the country and we are growing bigger and bigger every day. That's why no one else can beat our prices. Big volume means big saving on each article. You get the benefit, besides the saving through direct dealing.

Write Today—Get My Book

It's only a question of how soon you and I can get together. This book is my only salesman. You'll have to send for it yourself. No one is going to call and make you do it. I have no bands playing and parades marching to show you the army of buyers coming to us through the mails every morning. Only a postage stamp stands between you and me. And our service means quick shipment to your nearest railroad station. I'll quote cash or easy payments, give you an unconditional guarantee and pay the freight.

"The Old Stove Master"

Kalamazoo Stove Co.

Kalamazoo, Mich.

Please send me your Catalog No. 113.

Name.....

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Ask for Catalog No. 113

"The Old Stove Master"

Kalamazoo Stove Co., Mfrs.

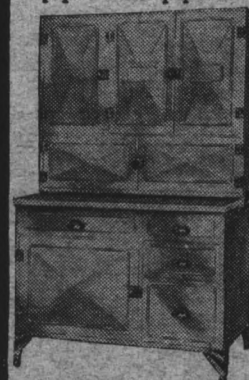
Kalamazoo, Mich.

"A Kalamazoo Direct to You"
Trade Mark Registered



Get My Price on a Pipeless Furnace

Heats the entire house through one register. Easy to install. One big warm-air register, and separate flues for returning cold air to the furnace from distant parts of the house. The money-saving, practical heating plant for thousands of homes. Easily saves you \$25 to \$85 in installation and much more in fuel bills. Burns any kind of fuel. We have two styles of furnaces—pipe and pipeless. Our catalog tells all about them. Send for a copy.



Kalamazoo Kitchen Cabinet

All metal. White enameled. A wonder of a kitchen cabinet—a real beauty in design, construction and finish; built for lifetime service.

Kalamazoo Crown Heater

Many more styles like it in our catalog. All quoted at wholesale factory prices. You save 25% to 40%. Send for our catalog and see them.



Kalamazoo Emperor Range

One of the new mission styles. Isn't it a beauty? You'll say so when you see it in your kitchen. And you'll be surprised at how good a baker it is, too. Send and get my home trial offer.

