

MICHIGAN FARMER

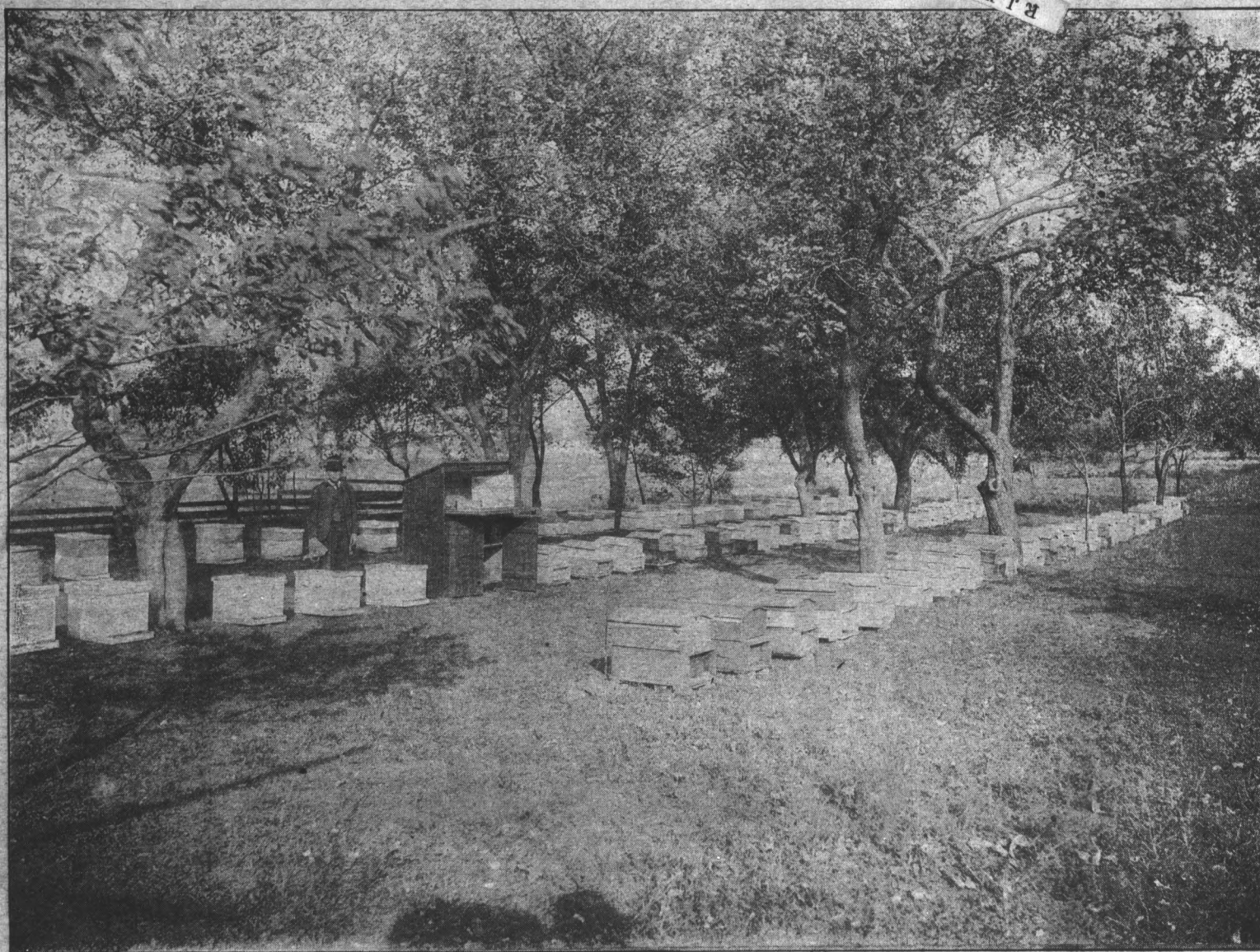
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THE FARM BEAUTIFUL

THE beauty of the farm in large part depends on what is in the heart of the man and woman who make it their home. Beauty of thought, beauty of planning and beauty of doing cannot but make the farm home beautiful. For beauty comes from the heart where the issues of life are born. The character of the occupants may be learned from the premises quite as accurately as from association or from the printed page, and if that life be charming or sturdy these qualities will be everywhere evident.

When the thinking is right, there will be well-kept buildings, not so much because of the money invested in them, as on account of the little touches here and there that keep things looking well. A fresh coat of paint, which the farmer can put on himself in these days when we can buy fine paints all ready to spread, a weekly trimming of the yard about the house, a min-

ute or two spent in training a few vines up the side of the porch, these are helps to the farm beautiful.

Then, too, the wife in the house may do many things that will tend in the same direction. The curtains and the shades at the windows tell their story of the thought back of them. A few pretty plants in the yard, with a flower or two in a jar on the porch; walks clean and neat, window glass free from dust, they all speak well for the beauty of heart of the one who is behind the pleasant service.

But, best of all, beauty of heart shines out and makes the home beautiful in the kindly living of those who love the farm best of all places in the world. Love counts for more than paint or any work of the hand; for love shows where the heart is, and love always makes the thing it touches radiant with beauty.

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DETROIT, JUNE 19, 1920

CURRENT COMMENT

The Weather Handicap

BY the very nature of his business, the farmer is subject to a handicap which is always a factor of uncertainty, always difficult to meet and sometimes impossible to overcome. Crop growth and crop yields are very largely dependent upon weather conditions. Fortunately for the consuming public these conditions generally average in a manner to permit near normal production in most seasons, but in the making of this average the less fortunate farmers who suffer from the effects of frost, flood or drought, as the case may be, find the weather handicap a more or less insurmountable obstacle to their seasonal prosperity.

Nothing is more discouraging to the man of average temperament than to see the possible results of his labor swept swiftly away, or more slowly, but not less surely, shrunk in volume. But every year the farmers of some sections of the country are subjected to such discouragements. It goes with the business, and so far as it is unavoidable must be endured.

But, except in extreme cases, it will be observed in any community that some farmers suffer less from unfavorable weather conditions than others. In a few cases this will be found to be due to more naturally favorable soil conditions, but in a majority of cases it is because they have complied more nearly with nature's requirements in their processes of production. If a wet spring is the handicap their land is generally better drained. If a summer drought is the obstacle they will have plowed early for spring crops and thus stored up a supply of moisture against the time of need which is later conserved by judicious cultivation. If both these handicaps are met in the same season, as has been the case in some sections of the country this year, the farmer's skill and resourcefulness is put to a still more severe test, especially in view of the shortage of farm labor with which to rush operations when conditions are favorable.

These facts are often an added cause of discouragement to many sufferers from the weather handicap. It is hard to rejoice with a more fortunate neighbor in the hour of discouragement, as it is often difficult to see how his example can be followed under our conditions when his formula is plain to us, due to other handicaps from which he may not suffer to a like degree. But careful study of the problem will not be less profitable on this account. Just now we are making rapid strides toward the more economic sale and distribution of our prod-

ucts. But we should not lose sight of the fact that economic production is certain to remain a great, if not the greatest, factor in our prosperity. And economic production means the least possible waste of labor. This in turn means every possible provision to reduce the weather handicap to its lowest minimum. While it will be impossible to eliminate this handicap, the failures of one season may be made to yield lessons which will reduce their likelihood the next. And in a general way the most successful farmers in any community are those who have studiously applied those lessons year in and year out, thereby increasing their crop yields in poor crop years, when better prices have in large measure made up for lessened production.

The Wool Market Situation

A STUDY of the wool market reveals a situation which is difficult of satisfactory analysis. While quotations have been marked down sharply on the more common grades, nominal quotations on the better fleece wools are fairly satisfactory. But these quotations mean little, as movements are exceedingly small. The trade is very evidently playing a waiting game.

Market comment is largely confined to the Texas situation. Texas wools are generally of low quality and are clipped early. They are said to be generally pledged for loans to their capacity as collateral, with the banks calling for the payment of the loans. In this regard the Texas growers are un-

tion of the supply to that demand. When they really need the wool the manufacturers will buy it where it is most readily available at a competitive price. Michigan wool growers will undoubtedly suffer less from market manipulation through the pooling of their wool than would be the case if it were sold on the speculative market as heretofore. They will not be easily "shaken down" as is apparently being attempted with Texas growers at the present time. The price which they will finally receive will depend upon merchandising conditions rather than speculative manipulation.

MICHIGAN CROP REPORT.

WHILE the condition of all of the small grains is from two to five per cent below normal for the United States, the lowest condition of any of them in Michigan is only one per cent below the ten-year average. This fact, together with the prospect for a good crop of fruit of all kinds, is the encouragement offered by the June crop report issued by the Michigan Cooperative Crop Reporting Service under the direction of Coleman C. Vaughan, Secretary of State, and Verne H. Church, Field Agent, United States Bureau of Crop Estimates. The acreages of all spring crops, upon which a report has been made to date, are below normal, due to the decreased rural population. The rainfall during May was very light, in consequence of which the ground is very dry and crops will suffer materially unless rain comes soon.

Winter Wheat.—Wheat varies in condition from very poor to very good, the state average being 77 per cent, as compared with 80 per cent last month, 97 per cent one year ago, and 77 per cent the ten-year average. The condition is lowest in the southwestern and

cold winter and spring. The condition has dropped from 89 to 86 per cent during the past month. Much of the straw will be short, thin stands are frequent, and occasional fields have been abandoned. The condition is now one point below the ten-year average and 11 points below that of one year ago. The indicated production at this date is 11,773,000 bushels.

Hay.—The condition of all hay is 82 per cent, four per cent below that of June 1 last year and of the ten-year average, and two per cent below that of last month. The backward season and lack of rain are responsible for the low condition. Many clover seedings failed because of the dry weather last summer, in various parts of the state, and many were ruined by grasshoppers in the northern counties of the lower peninsula. The condition of clover meadows is 84 per cent, or four per cent below the ten-year average. The acreage of alfalfa is two per cent larger than last year, and the condition is 94 per cent. This is the same as one year ago and four per cent better than the ten-year average.

Fruits.—The prospect for all of the fruits is very flattering at this date. A heavy bloom is reported from all sections, and fine weather has prevailed during the time so that a heavy setting should result. More spraying than usual is being done this year.

News of the Week

Tuesday, June 8.

THE interstate commerce commission makes immediately available \$125,000,000 to enable railroads to purchase new rolling stock.—Both the federal prohibition amendment and the enforcement act passed by congress are held to be constitutional by the United States Supreme Court.—One person is killed and nine injured when an interurban car leaves the track near Mt. Clemens.—Delegates from the various states open the republican national convention in Chicago.

Wednesday, June 9.

THE German government tenders its resignation to President Ebert. The German elections indicate that the present government is being supported, although the Reds are winning many seats in the new Reichstag.—Ontario has set Monday, October 25, as the date to vote on the question of preventing importation of liquors from other provinces and from the United States.—The republican convention at Chicago is busy preparing the various planks in its platform.—The price of silver falls to eighty-five cents an ounce, the lowest since 1917.

Thursday, June 10.

THE Italian cabinet resigns following announcement that bread restrictions would be annulled.—Fourteen persons are killed in a rear end collision on the New York Central near Schenectady.—The Canadian government still has under consideration the renewal of the powers of the Dominion wheat board.—Allied diplomats are now considering the advisability of calling off the proposed conference with the Germans at Spa.—Hiram Johnson's forces compromise with the other factions on the question of the League of Nations, thus avoiding the probability of a bolt among the delegates at the republican national convention.

Friday, June 11.

ARGENTINE imposes an embargo on the exportation of wheat and flour.—The interstate commerce commission places bituminous coal for lake ports under the permit system.—The National Industrial Traffic League urges higher freight rates to permit the reestablishment of railroad credit.—The establishment of a modified form of self-government in Jamaica will be asked from Great Britain.—Western sugar refinery announces a reduction of \$1.30 per hundred pounds in the wholesale price of sugar.—Four ballots are taken in the republican national convention, with no election.

Saturday, June 12.

THE reduction of the German army to 200,000 men has been accomplished. Considerable damage has been done by an earthquake shock in Tuscany, Italy.—On the tenth ballot at the republican convention at Chicago, Senator Harding, of Ohio, is chosen as the republican nominee for president, and Governor Coolidge, of Massachusetts, is later selected as nominee for vice-president.—British shippers will institute a rate war in the far east.—The provisional Mexican government issues a decree restoring all properties, mines and ranch lands confiscated by (Continued on page 946).

How to Kill Grasshoppers

REPORTS received from a few sections in northwestern Michigan, state that the grasshopper is doing damage in a half dozen or more counties where the pest has been working the past few years. Where farmers are organized, and particularly in counties employing agricultural agents, a strong fight will be made to save crops from this pest. Poison is being purchased in carload lots in which work the Michigan State Farm Bureau is assisting in securing the materials.

One method of preparing the poison is to mix by sifting, a pound of poison (either Paris green, white arsenic or crude arsenious oxide), into a bushel of screened sawdust. In a gallon of water dissolve three-fourths of a pound of salt and add one-half of a cup of molasses. Slowly pour this into the poisoned sawdust while the mixture is being stirred, after which add enough water to make a good stiff mash.

This poisoned bait can safely be taken into the hands and spread broadcast. It should not be left in piles around the field but should be well scattered to prevent trouble from its being eaten by live stock. A bushel of this poison ought to cover about three acres of ground. If one salts the cattle and other stock that may be running in the field, before the poison is applied, the stock will then be less attracted to the mixture.

favorable situation, as loanable capital is scarce and interest rates are high. Under these conditions there is every incentive for wool manufacturers and speculators to attempt to break the wool market before the season for the heavy movement of the better wools.

Under these conditions Michigan wool growers are fortunate in having an arrangement for the pooling of their clip through the medium of the State Farm Bureau, and borrowing money for current needs on their warehouse receipts if necessary. Without question this pooling of the clip in important fleece wool states, as Michigan and Ohio, will have a strengthening effect on the market for these grades. Dame rumor says that the manufacturers of woolen goods have agreed among themselves that they would buy the wool thus held—last. While it is possible that they might be able to carry out such an alleged agreement by offering a line of fabrics requiring but a minimum of this class of wool, yet in the end public demand must be satisfied, and the movement and price of fleece wools will depend upon the rela-

tion of the supply to that demand. south-central counties, where the Hessian fly has done much damage and where there was considerable winter-killing. Some fields were plowed up and given over to other crops, and others were harrowed and spring grains sown in with the wheat. The remaining fields are more or less spotted. In the central and east-central counties there are many excellent fields and these have made considerable improvement during May. The condition is good in the northern districts except the northeastern counties of the lower peninsula.

The estimated amount of wheat marketed at mills and elevators during May is 533,000 bushels, a total of 11,479,000 bushels since August 1, 1919. The estimated amount still remaining on farms is 2,012,000 bushels.

Oats.—Notwithstanding the backward season and the delays incident to wet weather and scarcity of farm labor, the acreage exceeds expectations. It is estimated at 98 per cent of that sown last year, or 1,446,000 acres. The stand is generally good and the crop has been in good condition, although now it is beginning to suffer from lack of moisture. The present condition of 87 per cent is one per cent better than one year ago and one per cent below the ten-year average. The crop indicated is 48,434,000 bushels.

Rye.—Rye suffered some from the

Systems of Farming Light Soils

*You Will be Interested in Knowing How These Successful Farmers
Handled Their Sandy Lands—By H. W. Ullsperger*

BOTH Wisconsin and Michigan have thousands of acres of sandy soils which are being farmed successfully, still it is claimed by men prejudiced against this kind of soil that it cannot be farmed profitably. Different systems of farming are being used by these progressive farmers. Some of these methods have proven to be profitable.

In Adams county, Wisconsin, (sometimes called the desert of Wisconsin), there are city-bred farmers who finally succeeded in saving a few hundred dollars to make the first payment on a tract of sandy land, moved from the city to the farm, and after ten to fifteen years own their farms, have good buildings, own live stock, and have made a good living. These men say they and their families are much better, healthier, and live better in the country than in the city. They have had to endure some hardships at the start, work somewhat longer hours, but the returns have been better than in the city.

Sandy or light soils because of their comparatively lower selling value, are within reach and are frequently purchased by the man of limited means. This man cannot improve his buildings or farm rapidly, which partly accounts for the poorer appearance of buildings on these light soils. However, I have been in numerous localities where first-class buildings are found on nearly every farm. These men say that they started with practically no money, many of them not acquainted with farming, and are today in good circumstances financially.

"How did they do it?" is a question frequently asked.

The Adams and Waupaca county farmer grew mostly rye, oats, buckwheat and potatoes as cash crops. These he sold and used the proceeds to buy live stock. Clover for hay grew well on these virgin soils and was grown extensively. As the live stock industry developed creameries and cheese factories were established in these light soil regions, which meant that farmers would feed their grain and hay and keep a larger proportion of the fertility on their farm. This gave them larger yields per acre and established a permanent system of farming. Recently, however, some of these farmers have failed in securing good crops of clover hay and substituted marsh hay in its place, which meant less milk and smaller returns. Some became discouraged and by this time had sufficient money to buy what they termed a better farm or heavier soils. The more progressive farmer learned about the use of limestone in growing clover; about soy beans as a high-grade substitute for marsh hay; and about commercial fertilizers for securing a larger corn crop, which was placed in two silos, one for summer and the other for winter feeding. In this way the supply of milk was maintained and a steady income was provided during the entire year.

Hog raising was also introduced by these farmers. Skim-milk, buttermilk and whey were utilized and the hogs raised largely on pasture where available clover was used for early spring pasture; in other places fall-sown rye proved to be the only pastur-

age available. To have a succession of pasture crops, a combination of soy beans and rape or peas and oats were planted as early as spring weather permitted, these crops to be used in mid-summer for pasture purposes. Finally the hogs were finished off and fattened for market on a combination of soy beans and corn, either pastured or cut and fed directly to the hogs. These combinations eliminate the purchase

he supplied nearly all the people of his adjoining town. Today, after ten years have passed, he is still on his farm. He has purebred Hampshire hogs, purebred Guernsey cattle, some valued as high as \$1,000 per head; has an up-to-date barn and has sent his children through high school and through the university. During 1919 on his supposedly wornout soil he got eighth place in the state two-acre corn con-

crops. They use a three-year rotation of grain (rye or oats) seeded to clover, clover during the following year, all of which is plowed under to furnish humus for the succeeding potato crop. A 2-8-4 or a 3-8-6 fertilizer is applied, varying in amount from five-hundred to one thousand pounds per acre on the potato crop. This rotation supplies the necessary humus and plant food and has proven profitable. A few of these farmers are changing to a four-year rotation by introducing soy beans for seed as the fourth crop, thereby having three cash crops during four years: two of the crops grown being legumes which add nitrogen to the soil. This four-year rotation also more effectively prevents the development of potato diseases, such as scab and blight.

Another method followed by farmers who rely on potatoes for the main crop, but who do not care to milk cows, is to raise beef cattle to consume the roughage, such as corn, clover and soy beans. These men do not pasture their stock but have two silos and feed silage and some soiling crops during the entire year. They are following the same rotation, but plant corn in place of the usual large acreage of potatoes. The corn crop receives either a 2-12-2 or a 2-10-4 fertilizer and the manure is applied on the grain crop to aid in growing better grain and securing a good stand of clover. With the present scarcity of labor, a large number of live stock farmers have been forced to change from dairy farming to the production of beef cattle.

Rotation of Crops.

Every farmer located on light soils should plan and follow a definite rotation of crops. A good rotation of crops should maintain and to a certain extent increase the supply of nitrogen in the soil, prevent the development of insects and diseases, supply humus and increase the water-holding capacity of the soil. A two-year-rotation of rye and soy beans has been discussed. On some farms a two-year rotation of corn and soy beans has been used but has not proven very successful.

The rotation which has given the best returns in crop yields is a three-year rotation of grain seeded to clover, clover during the following year, then corn or potatoes during the third year. The data in the table on this page, showing the relative value of different rotations was secured on light sandy soil in Marinette county from 1909 to 1918.

The accompanying table clearly indicates that the three-year rotation has given the largest yields of corn and potatoes per acre. The five-year rotation with land three years in alfalfa is a close second. The growing of clover and timothy on light soils is a practice which is not conducive to the production of a good crop. Neither does the two-year rotation of an annual legume alternating with a cultivated crop produce the best yield of corn or potatoes. A two-year rotation of rye and soy beans yields better returns.

The more humus and nitrogen a rotation will add to the soil, and more, it will increase the water-holding capacity and in (Continued on page 947).



Legumes Are Important Crops in the Rotation for Light Soils.

of mill feeds and make hog raising test, with a yield of ninety-six bushels of shelled corn per acre; the man who

Mr. C. S. Ristow, Black River Falls, secured first produced one hundred "Wisconsin's Light Soils Farmers' Institute" lecturer, has done much toward proving the possibilities of these soils. When he purchased the farm on which he is now located, neighbors said: "Ristow will either starve to grow for seed, and still has the straw

Rotation.	Hay, Per Acre.	Corn, Per Acre.	Potatoes Per Acre.
Three Years:—Grain, clover, corn or potatoes	2,284 lbs	59 bu	178 bu
Four Years:—Grain, clover and timothy pasture, corn or potatoes	1,518 lbs	42 bu	132 bu
Five Years:—Grain, alfalfa, three years corn or potatoes	2,780 lbs	48 bu	153 bu
Two Years:—Soybeans, corn	5,980 lbs	44 bu
Two Years:—Cowpeas, corn	2,062 lbs	32 bu
Two Years:—Vetch, corn	3,220 lbs	38 bu

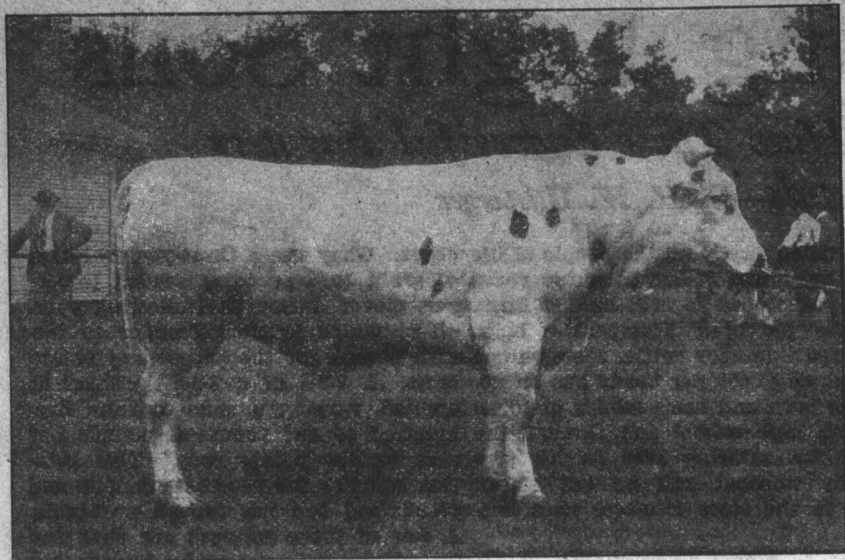
The above figures are average yields covering a nine-year period.

death or move away from that farm in for feeding purposes. What Mr. Ristow has done others can do, and his talks throughout the state are inspiring other light soil farmers in the production of better crops.

In Oneida county many light soil farmers are following a different system. These men do not want to follow low dairy farming but grow only cash



An Ample Supply of Vegetable Matter Must be Turned Down to Secure Maximum Results.



Champion Mobil Hengerveld, Owned by Fred Fisch and Tracy Grandall.

THE agricultural program of Livingston county is no recently designed affair; it has been worked out by evolution and the practical guidance of the county's best farmers. It is hard to analyze the farming situation without continually referring to the Holstein-Friesian cow, for no other one thing is so strongly identified with whatever progress the county has made.

Crop rotations are nothing new; the county has been farming by them for years. The prevailing rotation—corn, small grains, clovers and grasses—occasionally is stretched to a five or six-year program by prolonging the time of any of the factors involved.

When County Agent Fred S. Dunks started work he proceeded to be a Roman. After he got the feel of things he began to devise means to expand, improve and possibly take the lead among his fellow Romans. By the time the new Farm Bureau movement came along the farmers were willing to join hands with the work, for he had grown up with them, so to speak. He was one of them. That is a lesson every young county agent should learn.

Probably all young men just out of agricultural college do not understand these things, but in many years' traveling in old established farming sections the "Circuit Rider" has found the prevailing system of farming—the most successful system—is simply a natural outcome of local conditions. Years ago when the farming game was new, many Livingston county farmers raised a lot of corn and small grain and sold it. They don't practice that system much today. Why? Simply because the farms yield better returns when cattle and other kinds of stock are fed. These changes did not come in one year—or in five years. A process of slow evolution brought them about. The prevailing systems of farming in any of our old and thickly settled counties come pretty near being the most profitable to adopt. No matter what any over-enthusiastic readjuster may say to the contrary.

Now let me explain this point with a short account of what I ran up against in Livingston county three years ago. Along in the summer I spent a few weeks near Crooked Lake with Frank E. Meyer. Frank kept ten or twelve cows and sold milk. We happened to go over to East Lansing to a dairymen's meeting, and heard Clark Reed, John Ketcham and D. D. Aitken tell how every dairy cow in Michigan was losing from \$20 to \$60 a year for her owner. On the way home I said to Meyer: "Why don't you sell your cows and sell the feed you are wasting on them? Each cow is putting you in bad from \$20 to \$60 per year. That isn't good business."

He scratched his head and grinned. "Wish I had about ten or a dozen more of them cows," he said, "because,

the more cows I lose that much a year on the more income tax I'll have to pay next spring."

Now, Meyer was a pretty good farmer. Things were kept up in good shape and his home was tidy and snug. So I didn't argue with him. I began to go over Reed, Ketcham and Aitken's figures. By all the rules of mathematics they were right, but somehow or other they did not allow for the fact that the cows were cared for during a large part of the year on time that otherwise would have been wasted, and they didn't explain that the cows consumed a lot of cheap coarse feeds. The real story was not in the figures, but underneath Meyer's grin.

Perhaps I am going a little too far in this business of disputing figures, getting personal about it. But I merely want to show that the farmers of Livingston county have worked out a system of farming that is not so bad after all, and that their crop growing system is about the most profitable combination for that section of the county.

In the first place, Livingston county farms are pretty well balanced and contain sufficient acreage to follow general crop growing, dairying and sheep raising without searching about for more land. The farms in the county average well over one hundred acres in size and a comparatively small proportion of the are operated by tenants. The dairy cow and the silo are stimulating the growing of corn and legumes and gradually discouraging the sale of grain and hay. Livingston county can grow corn, alfalfa and clover to perfection when proper methods of soil preparation are practiced.

One serious obstacle militating against a more general use of alfalfa and clover has been the high cost of lime and the distance of some of the farms from suitable railroad points. This is one of the reasons why Mr. Dunks has been so active in locating marl deposits and devising means for getting the material out at a low cost. He has succeeded in locating many rich marl beds, but the scarcity of labor and the difficulty of handling the marl at a reasonably low cost has held up some of his most valuable projects.

Another of Mr. Dunk's pet hobbies is the growing of Grimm alfalfa, and a ride through the county with him is convincing evidence that no farmer can afford to grow common alfalfa when he can secure Grimm seed. Some of the fields where the Grimm and common alfalfa are growing side by side are striking examples of what

Our Farm Bureaus

Swinging through Livingston County Circuit Rider Saw Why the County

farmers are annually losing through experimenting with inferior alfalfa seed, or endeavoring to grow varieties that are not adapted to their soil and climatic conditions. And the same conditions obtain in other counties, although the results are not so convincing as in Livingston county and parts of other counties where similar types of soil predominate.

ANOTHER matter which has claimed considerable of Mr. Dunk's attention is the use of acid phosphate. In several field tests the use of two hundred pounds of acid phosphate per acre has increased the yield of wheat and rye from nine to twelve bushels per acre. Most of these tests have been made on dairy farms where the fertility is pretty well maintained by the use of farm manures. All of which goes to prove that thousands of farmers who depend upon farm manure and legume crops to maintain soil fertility could find handsome profits in balancing up their supply of plant food by the purchase and judicious use of acid phosphate.

In explaining his efforts along these lines Mr. Dunks said: "One of our greatest problems here in Livingston county is that of producing more and

along the prescribed lines. As the system becomes more thoroughly established more grain feeds can be grown on the farms, but for the first few years about all we can accomplish is to improve roughage feeds and get the land in shape to grow larger crops of corn, clover and alfalfa."

RIDING from Howell to Brighton, and back around the lakes; then over to Fowlerville and Pinckney and around by Oak Grove, Cohoctah and around to Fenton and back to Howell we counted dozens of new silos, from many barns we saw trolleys of feed and manure carriers. At more than a dozen farms we heard the popping of gas engines that were milking the cows. There are telephones everywhere and in many fields tractors were plowing and fitting the ground for corn and beans. These changes are coming so fast that they almost startle us. And then the way the farmers are organizing for business makes it hard for some of them, even as middle-aged men, to realize that they are not keeping up with the times.

A few years ago there was plenty of time to consider everything, but today things are moving so fast that the fellows who can't get in step with the spirit of the times are sure to be lost in the race. And some of these changes are changing the farmer's viewpoint of his fellow farmers. The independence of a few farmers in every community is going to separate them from other farmers as far as they are now separated from city people. These present differences are but ripples on the surface of a deep stream that is changing the whole channel of agricultural progress. Their selfish independence is going to separate them from other farmers as far as they are now separated from other classes. In the immortal words of the editor of the "Independent Rip-saw": "He that is not for us is against us."

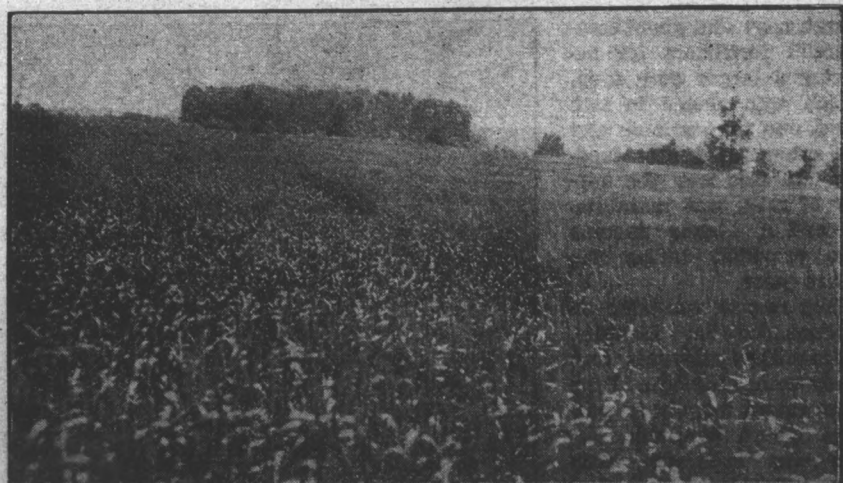
The membership drive of the County Farm Bureau brought more than fourteen hundred farmers into the fold. Since then Mr. Dunks has been busy perfecting his organization projects. The county is thoroughly organized for business, and every farm in the county is within easy distance of some cooperative association. And all of these cooperative projects are organized on the non-profit basis so that there will be no troubles to smooth out when they affiliate with their county and State Farm Bureaus. Livingston county is the first county to be organized along the non-profit lines.

At Howell is the Livingston Cooperative Association with three hundred members. The officers are: W. J.



Mr. Dunks and His Two Fine Boys.

better roughage feeds for our cattle. We are buying too much and growing too little, both of feeds and fertility. My idea is to get our land in shape to grow alfalfa and clover and feed more stock. I am sure that our farmers can turn the trick of producing more good feed for their cows and increasing the fertility of their farms under a simple system of crop rotation calling for clover or alfalfa every third year. The liberal use of lime and acid phosphate, and the careful handling of farm manures will work wonders with most of our soils. All of my demonstration plots indicate that we are on the right track, and more and more farmers are planning their rotation



Red Rock Wheat Yields Forty Bushels on Farm of C. P. Lyons.

and Their Work

*with Agricultural Agent Dunks, our
is Known from Coast to Coast.*

Witty, president; Ernest Lawson, manager; H. W. Norton, D. H. Hoover, J. G. Hayes, T. B. Gilkes, directors. It does a general stock shipping and farm supply business. It has recently taken over an elevator and general milling business and will handle all kinds of dairy feeds.

At Fowlerville the Farmers' Cooperative Association did a business of more than \$165,000 last year and on April 1 it acquired an elevator. The officers are: Clifford Copeland, president; Clarence Benjamin, manager; James Wilkinson, E. B. Milet, C. D. Parsons, Roy Brown, C. W. Gordon, directors. It is expected that this year's business will be nearly double that of 1919.

At Brighton the Producers' Association has purchased an elevator and conducts a general stock shipping and farm supply business. The officers are: Bert Appleton, president; Adam Weber, manager; Charles E. Herbst, Henry Conrad, Charles Newman, Frank Rickett, Conrad Weber, Henry Ross, directors.

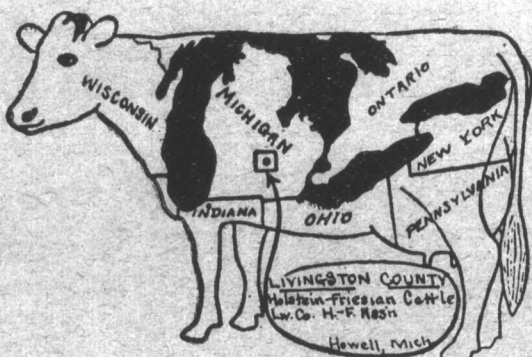
OTHER organizations that are doing business and that will soon be in line for business are the Gregory Agricultural Association, J. J. Donohue, president; E. H. Gallup, manager. Pinckney Producers' Association, Arthur Shehan, manager, Stephen Van Horn, president; Lyman Hendee, secretary. At Cohoctah the Agricultural Association, with George Killin, manager; Hamburg, the Producers' Association, with Henry Queal, manager, and Stockbridge, with Henry Sharp, manager. With these new organizations the county will be well organized for business, and every farmer will be able to get service at a convenient shipping point.

Livingston county made a wise selection of the members of the County Farm Bureau Executive Board. J. G. (Jimmy) Hayes, the president, is one of the live, progressive young men of the county. Always ready to join hands with his fellow farmers in any undertaking which will aid in bettering the conditions of his community, he has won a host of friends. For eight years he has been breeding Holstein cattle on his one hundred and twenty-acre farm east of Howell. For four years he has served as secretary of the Livingston County Holstein Association, and has been active in all matters that would promote the breed in his own and other communities. No man did more to get the first cooperative undertaking in the county under way than "Jimmy" Hayes, and he is still serving as its secretary.

Wesley J. Witty, vice-president, is

another popular leader in things that go to make his community a better place in which to live and conduct a farming business. On his one hundred and ninety-acre farm near Howell he has developed one of the best Holstein herds in the county and found time to aid his fellow farmers in their cooperative undertakings. At present he has about twenty well selected females in his herd, and for a sire is using Utility Hengerveld Segis Lad, a bull noted for his individuality and whose dam at three years of age made 30.28 pounds of butter in seven days. Mr. Witty is a man of sound judgment and he has the confidence of the farmers of his community.

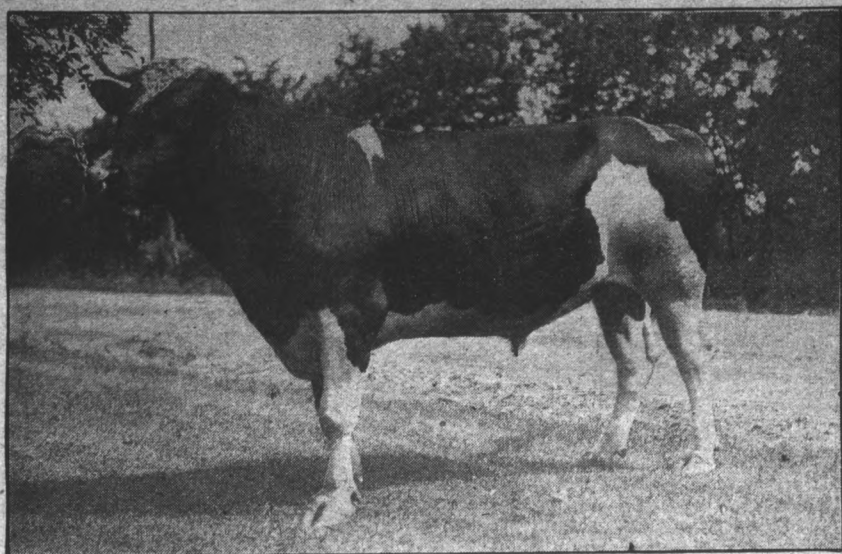
Then we come to H. W. Norton, secretary and treasurer, the noblest Roman of them all. Mr. Norton has five hundred acres of land and maintains a herd of about fifty Holstein cattle. Mr. Norton was born in Livingston county and has always taken an active interest in community problems. No man has done more to encourage better farming and the development of the County Farm Bureau than Horace Horton. H. W. Horton & Son have always aimed to produce healthy cattle of good type and production. Their herd is on the accredited list and the



Horace Norton's Idea of the Holstein Field.

cows and heifers are all backed by three or more generations of twenty to thirty-pound records. For more than twenty years he has been actively identified with the Holstein interests of the county, and in all of that time he has never allowed his breed enthusiasm to overshadow his interests in the welfare of the general farmer or the man who milked a few grade cows.

Silas Munsell, director, owns and operates a fine farm of one hundred and seventy acres five and a half miles from Howell. He has always been an active booster for everything of a cooperative nature, and a prominent figure at all Holstein meetings in the county and state. At present he has a herd of forty Holstein cattle, and his herd sire is College Butter Boy, a son



Son of Ragapple Korndyke 8th, Used by W. J. Witty and D. H. Hoover.

of Ypsiland Sir Korndyke De Kol, and from that good cow College Belle Butter Lass, who made eleven hundred pounds of butter from twenty-five thousand pounds of milk in one year. Mr. Munsell can be depended upon to support any movement calculated to build up his community and put farming on a better business basis. His experience as a breeder of cattle has convinced him that cooperation is the salvation of the farmer in these days when every other interest is organizing for business.

M. J. Roche, director, breeds Holstein cattle of popular blood lines and operates his two hundred and forty-acre farm near Pinckney. His herd numbers about twenty head, and his present sire, King Mutual Burke, whose two nearest dams average over twenty-one thousand pounds of milk a year and one thousand one hundred and forty-three pounds of butter, is one of the real good bulls of the county. His sire's dam was a world record two-year-old, and his dam's mother was the world's record ten-year-old cow, and made forty-one pounds of butter in seven days. Mr. Roche has

been breeding Holstein cattle more than twelve years and has made records up to twenty-five thousand pounds of milk a year on his farm. Mr. Roche has always lived in Livingston county and his friends freely predict that he will make a twenty-five thousand pound a year record on the newly organized executive board. He is in fine condition for the official test.

C. P. Lyons, director, owns and operates a hundred and twelve-acre farm six miles from Fenton. Mr. Lyons has a herd of about thirty choice Holstein cattle and uses sires that average well above the thirty-pound standard. He is one of the best farmers in the county and has always been a booster for the Farm Bureau. Last year his Red Rock wheat averaged above forty bushels per acre. Always alive to his community's needs and willing to join hands with any effort to put farming on a business basis Mr. Lyons is sure to prove a strong man on the executive board.

Clifford Copeland, director, owns and operates a fine farm of one hundred and forty-three acres a few miles northeast of Fowlerville. He practices general farming and stock raising. Mr. Copeland is a native son and has always been interested in the welfare of his township and county. He is president of the Fowlerville Cooperative Association and a worker for the farmer's interests.

C. C. Olsen, director, is a young farmer with progressive ideas and is not afraid to stand up for the farmers of his community. He owns a dairy and

stock farm of one hundred and thirty-eight acres, where he practices general farming and milks a small dairy herd. Mr. Olsen's farm is seven and a half miles northeast of Fowlerville. He worked hard in organizing the Farm Bureau and will work harder to make it a success.

Asel Stowe, director, practices general farming and stock raising on his one hundred acre farm eight miles southwest of Fowlerville. He was formerly on the county board of supervisors and is thoroughly qualified to get up and fight for the farmer's interests. Mr. Stowe has been a booster for the Farm Bureau and can be depended upon to leave no stone unturned to make it of service to the farmers of his community, as well as Livingston county and the state of Michigan.

Fred S. Dunks, county agent, graduated from M. A. C. in 1905, practiced commercial chemistry for seven years, served as state seed inspector, operated his farm in Branch county and came to Livingston county two years ago last April. Dunks is thoroughly qualified for the work and is regarded as one of the leading soil experts of the state. His work along soil and crop improvement lines has been of great benefit to the farmers of Livingston county. No county in Michigan has more types of soil to deal with and Mr. Dunk's knowledge of soils makes him especially well qualified to serve the farmers of his county.

THE Holstein-Friesian cow has been a prominent factor in the farming interests of Livingston county. In the number of registered Holsteins the county ranks second in the United States. A few hours' ride will take you to more than fifty herds. It is obviously impossible to tell in detail all one sees in a day in Livingston county, when every stop furnishes material enough to merit a separate story. The best this narrator can do is to race sketchily along, trying to keep in sight of his quick-thinking and lively-moving mentors, whose natural habitat this Livingston county is, and whose eat, drink and merriment is modern-day Holstein-Friesian lore. Much could be said of the pioneer breeders of the county. But we must not take time to think of yesterday. There is too much to say of today, Holsteinically speaking.

Our first stop was with Frank E. Pless, and at once we were bang up against thirty-eight choice females, headed by the sire, King Pontiac Segis Jane, a son of King of the Pontiacs and from a 31.76-pound three-year-old, and the Junior herd sire, Grant Crown Pontiac Korndyke, is from Flossy Grant, a cow with a 32.95-pound seven-day record. All of this herd descended from a fourteen-year-old imported cow. Mr. Pless has never sold any of his best females and with these herd

(Continued on page 931).



Grimm Alfalfa Limed with Marl, on Mr. Bamber's Farm.

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Congress vs. the Farmer

Our Washington Correspondent gives a Resume of what Congress Did and Did Not Do this Last Session to Help the Farmer.

WHEN congress adjourned on June 5, it left behind in committee or on the calendar of the house or senate, several bills of considerable importance, at least from the farmer's standpoint. Among these measures that failed to pass were the Capper-Volstead bill legalizing farmers' cooperative marketing associations, the Kenyon-Anderson packer control bills, the cold storage bill, the Vestal basket standardization bill, the pure fabrics bills, and the Kahn-Wadsworth Muscle Shoals nitrate plant operation bill. But much progress has been made with all these bills, and they are in an advantageous position for early action in the next session.

Farmers are expressing much regret that these very important measures did not get through during the session just ended, especially the packer control and collective bargaining legislation. T. C. Atkeson and A. M. Loomis, of the National Grange, Gray Silver, of the American Federation of Farm Bureaus, Charles M. Lyman, of the National Board of Farm Organizations, R. F. Bower, of the National Farmers' Union, and other Washington representatives of farmer organizations have made an aggressive and far from fruitless fight for the success of these bills. They have faithfully and intelligently represented their organizations at the hearings and conferences with congressional committees, and it is evident that they have made a good impression upon congress, which will be a valuable aid in promoting farm legislation during the coming session.

IN reviewing the work of this congress, the Washington representatives of the National Grange say that "a comparison with the twenty-nine points in the National Grange legislative program, adopted at the 1919 annual session of the organization, discloses the fact that not in a single particular did congress enact a law, or approve a policy which is in opposition to or contrary to the spirit of any declaration of the National Grange. In four great constructive measures congress acted in accord with the Grange statement as to wise and expedient public policy. The first of these was the railroad legislation, returning the roads to private ownership and private operation under government control; the second was continued support of the Land Bank system in spite of the attacks on this system in the courts and before public opinion; the third was the enactment of a merchant marine law ending government ownership and operation of merchant ships, and the fourth the enactment of a national budget system. Other bills passed include the army reorganization bill with no compulsory military training, the public lands leasing bill, the Sterling anti-secession bill and Johnson bill for excluding and deporting undesirable aliens, the Edge foreign corporation financing bill, the Platt Federal Reserve Bank Act amendments, the civil service and fuller pension bills, and the postal wage increase bill."

IN an interview, Gray Silver, of the American Federation of Farm Bureaus, says: "I regret that congress adjourned without enacting much needed agricultural legislation. Living costs will mount higher and higher and unrest will become greater and greater until proper legislation gives the facilities for increasing production and providing a proper distribu-

tion of the same. Both can in a large measure, be accomplished when measures now pending are enacted, providing for farm credits and cooperative marketing, insuring a sufficient fertilizer supply, and keeping open the world markets by stabilizing international exchange."

The pure fabrics bill did not get out of committee, owing to a delay in printing a report of the hearings. Congressman Burton L. French, of Idaho, who introduced this bill, tells me that many representatives in congress are hearing from their constituents urging the enactment of the measure, and that if it could have been brought before the house for a vote the probabilities are that it would have passed. He is preparing to make a determined fight for his bill next fall, and is asking all who are interested in pure fabrics to write their representatives in congress, asking their support for the Truth-in-Fabrics bill when congress is again in session. After having made an exhaustive study of the various misbranding bills, Congressman French is convinced that both wool growers and consumers of woven fabrics should center their demands on the passage of his bill as the most practicable and effective measure.

THE Interstate Commerce Commission has made an appropriation of \$125,000,000 of government funds, immediately available, for the use of the railroads in the purchase of new rolling stock. The money will be advanced out of the \$300,000,000 revolving fund provided in the transportation act. Of this amount \$75,000,000 will be used toward the purchase of twenty thousand refrigerator cars for the movement of the fruit crops. When these have been provided, funds will be available for other freight cars. It is aimed to bring about an early movement in freight traffic conditions in time to facilitate the movement of farm crops and live stock.

A JOINT commission of the house and senate will make an investigation of the personal rural credits system of Europe during the summer. In discussing this matter, Representative Louis T. McFadden, chairman of the house committee on banking and currency, says: "The rural credit bill before the banking and currency committee provides for the establishment of a cooperative system of farm credits in this country, based on personal security. It provides for one central bank, forty-eight branches, one for each state, and innumerable local associations. The central bank will have a capital of \$25,000,000, with a sinking fund created to reimburse the government for the capital advanced. Each branch will have a capital of \$50,000.

The rural credit bill is said to include in its provisions the best features of the European system. It follows the French plan in limiting the activities of the proposed banks to the use of bills of exchange, or to banking with bills, as distinguished from the system of banking with deposits, thus enlarging the outlet for productive agricultural paper, and reducing the expenses of management of our entire banking on credit system.

A sub-committee of the house immigration committee has been appointed to go to the Pacific Coast this summer to investigate the Japanese immigration question.



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Our Farm Bureaus

(Continued from page 929). sires expects to develop some excellent cows.

In a short time we were at the farm of Fred Risch, who recently made a record of 31.33 pounds of butter in seven days with the first Holstein heifer dropped on his farm. He has two hundred and thirty-two acres and his herd averages about twenty head. His present herd sire, Champion Mobil Hengerveld, is a young bull of choice breeding and great individual merit, having won several first prizes in strong competition, his sire is by a son of the thirty-six-pound cow, AAggie Pauline Sarcastic, and out of the former world's record four-year-old cow, Mabel Segis Korndyke. His dam has made a good record every year since she first freshened; her seven-day record is 31.32 pounds of butter, 587.7 pounds of milk. Tracy Crandall, of Howell, owns a half interest in this sire.

Our next stops were at the farms of Tracy and Merle Crandall, sons of that veteran breeder, Frank Crandall, who has such a prominent part in the making of early Holstein history in Livingston county. While operating different farms and maintaining separate herds they are working as brothers should work in the business. Each maintains a herd of about twenty females and for sires they are using King Korndyke Kalmuck, a grandson of Rag Apple Korndyke 8th, and out of Niva Kalmuck, 45.18 pounds of butter in seven days. They have developed females with records of from sixteen to 32.32 pounds of butter in seven days.

Our next stop was at the farm of Charles Heeg & Son, four miles from Howell. They recently sold Rubertdale Flint Ferndale AAggie for \$3,000 at public sale. Their herd contains about twenty-five females and they are breeding a number of them to Glenn Alex King De Kol, a forty-three-pound bull.

OVER at Plainfield we visited Taft Van Scycle, who has a fine farm of two hundred and ten acres, and keeps

thirty-five Holsteins. Mr. Van Scycle has recently purchased a half interest in Mr. Roche's sire. Here we found seventeen heifers, all from credible semi-official record cows, that would grace any herd in the country. These heifers when mated with a sire of such wonderful breeding should produce a wonderful crop of calves.

Another breeder in that section is Lynn Hendee, who keeps twenty-two Holsteins and has for a sire Prince Posch Korndyke Wayne, a twenty-eight-pound bull. Mr. Hendee also has a flock of seventy registered Black Top Sheep, and a herd of excellent Duroc Jersey swine.

At Fowlerville we visited Robin Carr, who has a farm of one hundred and sixty acres and a herd of thirty Holsteins. Here we found type and quality standing out on every individual. Mr. Carr's present herd sire is Maple Plane Prince. Among his females are several young cows of his own breeding that have made records about twenty-five pounds of butter in seven days. Mr. Carr is a stickler for type and no sloping rumps are in evidence in his herd.

We next visited the Maple Lane Farm of Guy Wakefield, where some of the best records in Livingston county have been made. Over at the farm of Malachy Roche, two miles east of Fowlerville, records up to 30.06 pounds of butter have been made in seven days.

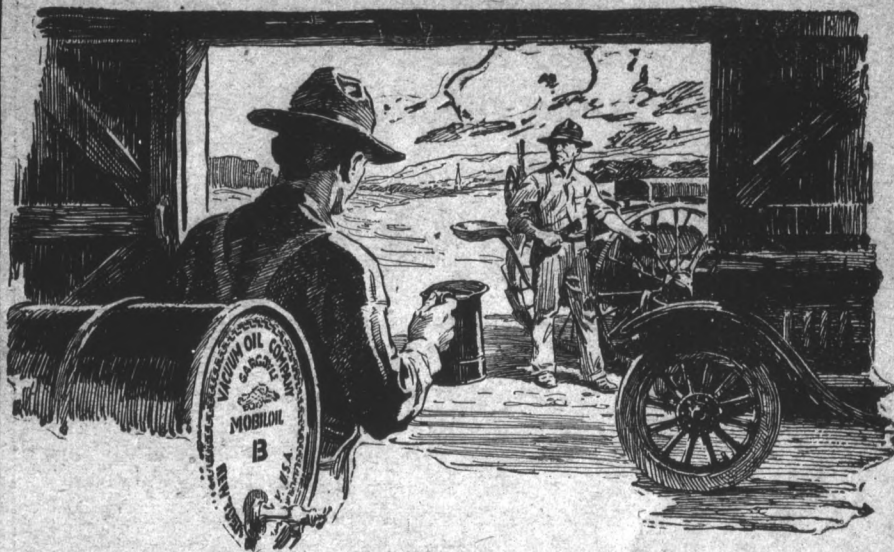
Six miles north of Fowlerville we visited the hundred and fifty-acre farm of Arwin Killinger, who has a herd representing four generations of Holstein breeding. He has about thirty head at present and his herd sire is Itsamere Jericho Shadeland. Sunny Plains Stock Farm has made several credible records and the young stuff coming on will be tested before being sold.

Charles and August Ruttman have one of the best farms and herds of high-class Holsteins in the county. They have made records up to thirty pounds in seven days. Their herd numbers about twenty-five head and

(Continued on page 945).



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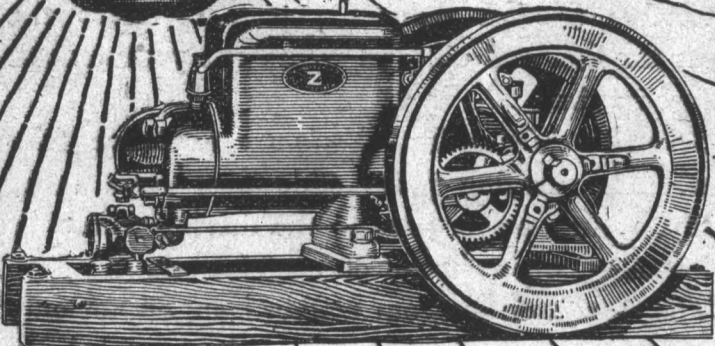
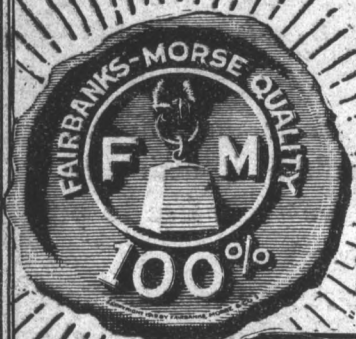
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Our Service Department

TAXING FOR ROAD CONSTRUCTION.

Will you please explain construction of roads under Covert Act? What taxes are levied on the farms fronting the road? Per cent and time? How far each side of road can taxes be levied, and per cent? Where a road is all in one county, can a tax be levied in adjoining county?

Eaton Co.

E. H.

The act referred to makes provision for the building of roads in practically the same manner as drains are constructed under the general drain law. If the road is situated entirely within one county, a petition signed by the owners of not less than sixty per cent of the lineal frontage on the road is presented to the board of county road commissioners. If the district particularly benefited by the improvement, or the road itself, lies in two or more counties, or the road to be improved is a part of the trunk line system, the petition is presented to the state highway commissioner. If such petition is found sufficient, an examination of the road is made and if it is determined that the improvement is necessary for the public interest a survey is made and specifications are prepared with estimates of the cost of the road. A hearing is had of all parties interested who are given an opportunity to present objections to the making of the improvement. If, after such hearing, the board of county road commissioners, or the state highway commissioner, are of the opinion that the improvement should be made, the final order of determination is made; and the cost of the improvement is assessed upon land particularly benefited and upon the townships and counties at large affected.

No assessment, may, however, be levied against the county at large unless the same is operating under the county road system. There is no set rule with reference to the assessments to be levied on property along the road. The theory of the law is that each parcel shall be assessed in the proportion that it is benefited by the improvement. Likewise, there is no specific limitation as to the distance from the road that property can be specifically taxed. If a road is entirely within one county, it is quite possible that land situated in an adjoining county may be specifically benefited and hence liable to a specific tax. In such a case the proceeding is conducted by the state highway commissioner rather than by the board of county road commissioners in the county where the road is.—L. W. CARR, Deputy State Highway Commissioner.

WEAK DUCKLINGS.

Will you please tell me what is the matter with my Pekin ducklings? They do fine until about a month old, then begin to lose appetite, droop, get weak in legs and die. I keep them in grassy pens until about three weeks old, then let them out. I feed equal parts bran, corn meal and middlings with a little yellow sand in a wet mash four times a day. They have a pile of gravel to pick at. They always have clean drinking water, but none to swim in. They were hatched under hens and hens care for them.

Wayne Co.

Mrs. G. J.

When ducklings are about a month old they have large appetites and on the range they may overeat. Then digestive troubles may result. At that age they are very sensitive to the hot sun and may be greatly weakened by exposure. A lack of vitality in the breeding stock might be the cause of

the ducklings losing their appetites and becoming droopy.

There is a disease of young ducks called infectious articular inflammation. It causes lameness, loss of appetite and diarrhea and the bird may die in three or four days. The only treatment recommended is to bathe the infected joints twice a day with hot water. But this takes a lot of time as thirty-minute treatments are recommended and this seriously cut the profits in the duck business.

Your feeding methods and range seem quite satisfactory for raising ducklings. You might cut down the corn meal to about fifteen per cent of the mash. Then mix in about ten per cent of beef scrap and some green food such as clover or green rye. Study the condition of the breeding stock and find if a lack of vitality in the ducklings may not be a cause of their weakness.

R. G. K.

TRESPASSES BY STOCK.

Will you please tell me what the state law is in regard to cattle running at large. I have asked my neighbors to keep their cattle out of my crop and one man told me to go ahead and shut them up but it would cost me more than I would get out of it. I haven't any fence. Do I have to fence to keep stock out of my crop? There isn't any fence joining me. If there is a law to make neighbors keep their cattle shut up, who is the local official to appeal to?—B. F. R.

The townships can vote as to the use of the streets and roads of the town by running cattle at large; but such vote does not excuse the owner from liability to anyone on whose land they trespass while so running at large and there is no duty to fence against them. The man onto whose land they stray may impound and have them advertised as strays, and require the owner to pay the damage to redeem them. If there is a town pound they should be taken to that pound. If not, the person finding them on his place may impound them there and advertise according to the statute.

J. R. R.

JOINT TENANTS.

Property is deeded over to mother and son, and after the names the words are added, "or to the survivor of them, as tenants by the entirety." The writer of the deed was requested to make the deed so that in case one party dies the survivor should take the whole property. Are the above used words right, or should a different phrase have been used?—A. M.

Manifestly, the person drawing the deed did not understand the law on the subject. Only husband and wife can be tenants by the entirety. Others can be joint tenants. Any two or more may be tenants in common. Presumably what the writer of the instrument intended was to create joint tenants, and very likely the court would say he had succeeded, because he specifies the distinctive quality of that tenancy—that the survivor shall take the whole estate. A better phrasing would have been: "To hold as joint tenants and not as tenants in common."

J. R. R.

"COOP" ELEVATORS ORGANIZE EXCHANGE.

When will the meeting of Michigan "Coop" elevators be held to perfect the organization of an exchange?

SUBSCRIBER.

This meeting will be held at the college, East Lansing, Michigan, June 29 and 30.



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***"The use of a truck on Goodyear Cord Tires has revolutionized my farming methods. It picks up scattered crates of cabbage and lettuce very fast and hurries them over the fields to roads and over the roads to the railroad—the shortest route in the shortest time. Equals three teams with three drivers; improves and economizes."*—S. P. James, Truck Farmer, Bartow, Florida**

A REVIEW of much evidence, of the kind presented here, makes plain that Goodyear Cord Tires on trucks equip them to improve farming methods and reduce costs quite generally.

It makes clear that the change from slow hauling, either by teams or solid-tired trucks, goes even farther than such improvement and saving because the daily routine is made more agreeable.

Many farmers say that never again will they endure tedious driving and the failure to get home until after sundown; they now know the spryness, comfort and reliability of the sturdy cords.

In every part of the country today farmers' motorized work is humming faster, the crops

are moving more smoothly, the profits are growing fatter since every haul is quickened and cushioned by the big Goodyear Cord Tires.

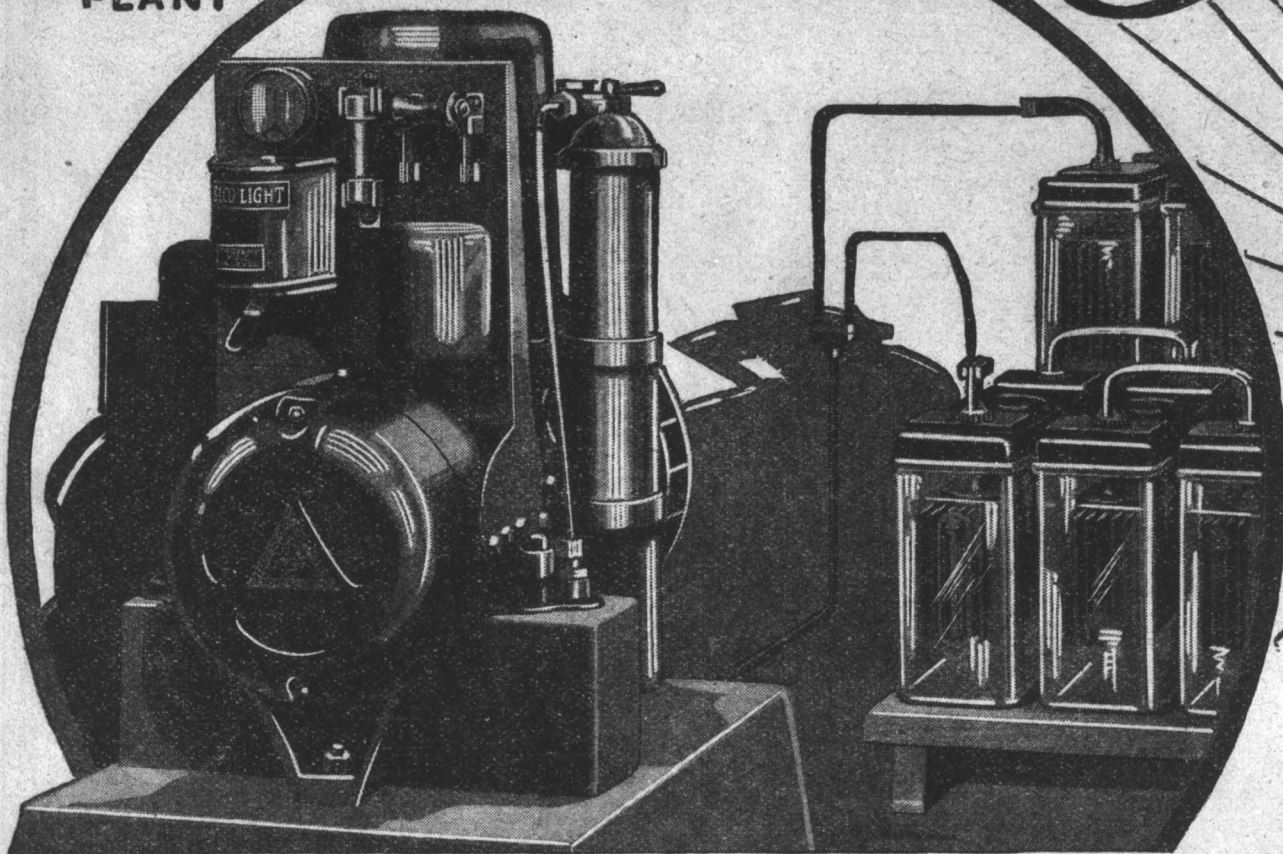
This has followed the development of Goodyear Cord construction out of that careful endeavor which protects our good name and which, in this case, provides the strength and suppleness leading to the success of pneumatic truck tires.

The merit of Goodyear Cord Tires for trucks, and the increased value of trucks released by them from solid tire handicaps, are described by rural users in reports furnished by mail from The Goodyear Tire & Rubber Company, Akron, Ohio.

GOODYEAR
CORD TIRES

**1/2 KILOWATT
DELCO-LIGHT
PLANT**

\$395



DELCO-LIGHT

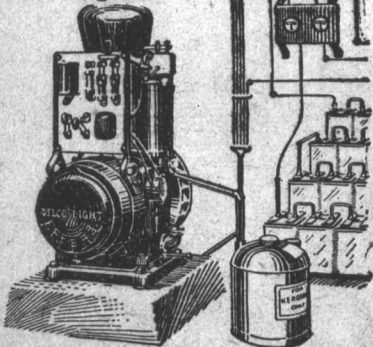
A new model—the 1/2 Kilowatt is now added to the family of Delco-Light products—making a line of farm light and power plants that meets varied needs, large or small.

And the price is \$395, f. o. b. Dayton, Ohio

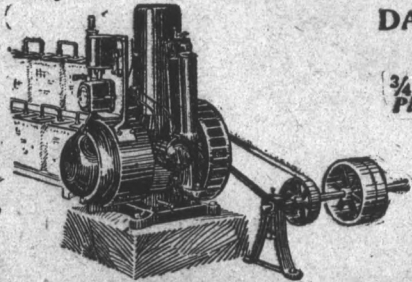
The 1/2 Kilowatt is a smaller size Delco-Light plant, designed for installation where the use of electric light and power is not too heavy, such as in farm homes, summer camps and motor boats. The 1/2 Kilowatt plant with a large battery can be used for pumping water, ironing clothes and operating

churns, separators and other power devices. Like the 3/4, 1 and 3 Kilowatt Delco Light plants—the 1/2 Kilowatt has the famous valve-in-the-head engine. It is air cooled, runs on kerosene, and is furnished with a thick plate long-lived Delco-Light battery.

Three Kilowatt Plant
For Small Towns
and Large Farms



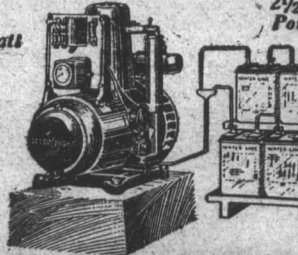
One Kilowatt
Pulley Plant



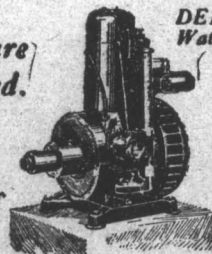
DELCO-LIGHT COMPANY

DAYTON, OHIO

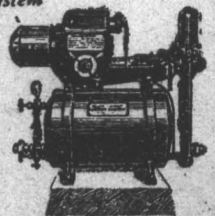
3/4 Kilowatt
Plant



DELCO-LIGHT
2 1/2 Horse
Power Engine



DELCO-LIGHT
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There is a trained Delco-Light man near you who can figure your requirements and advise you as to the size plant you need.

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Please send me your catalog and further details about Delco-Light for installation in

State whether for farm, camp or other property

Name _____

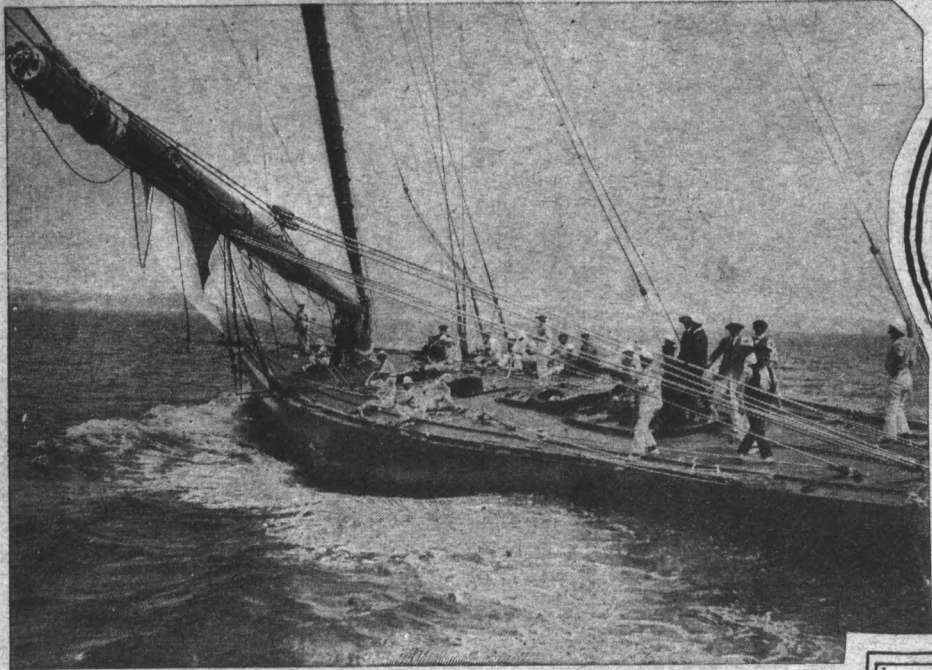
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Street Address _____

Over 100,000 Satisfied Users

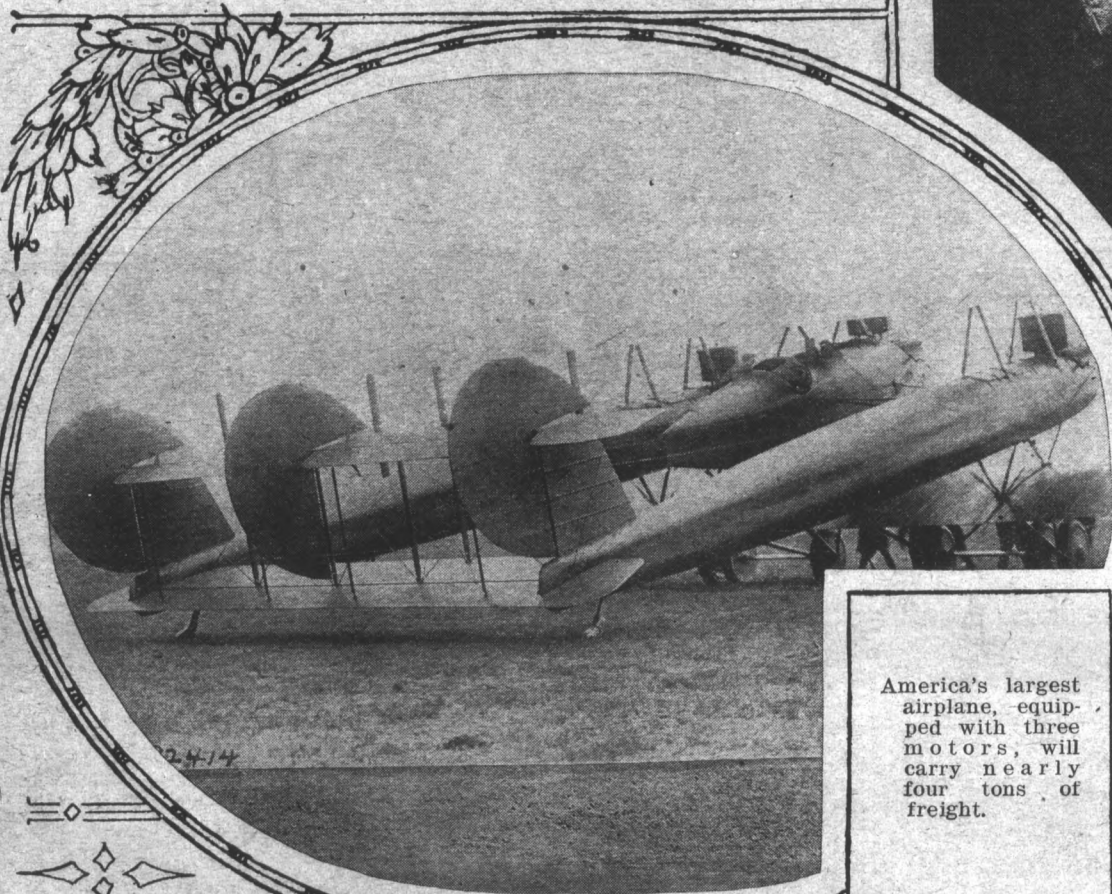
WORLD EVENTS IN PICTURES



Sir Thomas Lipton's cup challenger, "Shamrock IV," under sail for the first time in American waters, makes fine time.



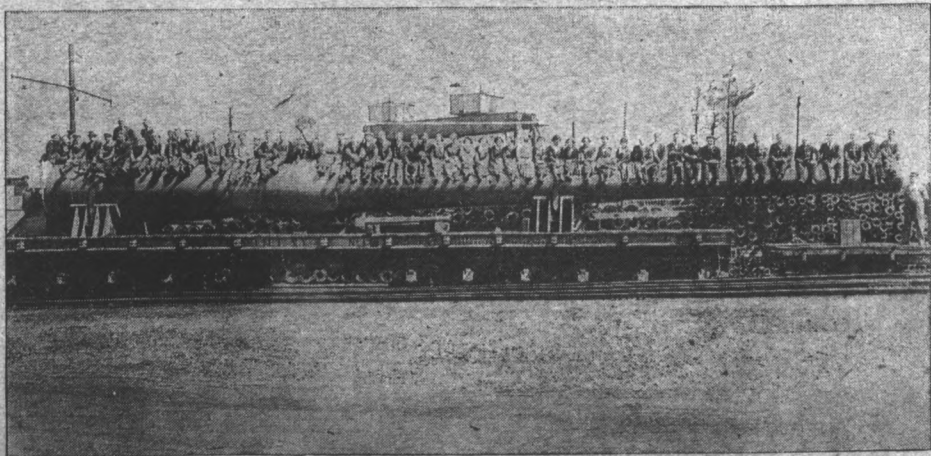
Samuel Gompers, American Federation of Labor and Governor Allen, of Kansas, who debated strike question in New York City.



America's largest airplane, equipped with three motors, will carry nearly four tons of freight.



Weird sculpture of Edgar Allen Poe, America's greatest poet, by Olaf Bjorkman, the well-known American-Scandinavian sculptor.

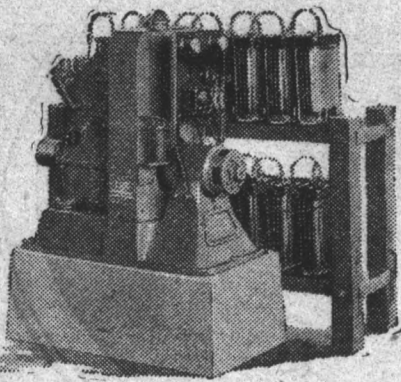


This gun is the heaviest in the world and is the first wire-wound sixteen-inch rifle ever made in the United States. It can hurl a 2,400-pound projectile thirty-one miles, weighs 170 tons, and is sixty-eight feet in length.



These two girls made a 1,500-mile overland trip from Jacksonville, Fla., to New York City, at a total expenditure of thirty-seven cents, and are now seeking positions on a farm.

Lighting the Farm — Lightening the Labor



**LITSCHER
LITE**

When darkness comes
there must be **LIGHT**;
when farm hands are
scarce; there must be
HELP—

These Two Things a Litscher Lite Plant Will Do For YOU

Now when farm labor is scarce, and the farmer and his wife are over-worked, every fair-minded man owes himself the modern conveniences a Litscher Lite plant will give him. The Litscher Lite plant is a compact lighting plant that will give you stationary engine power and **stores electric current at the same time**. It occupies a small amount of space, operates on the same amount of kerosene required to light the old-fashioned lamps, and calls for practically no attention. Belt power operates farm equipment such as milkers, cream separators, hair clippers, feed choppers, fanning machines, and pumps for modern bathrooms and drinking troughs. Electric current means incandescent lights, and modern electrical appliances—all the conveniences of the up-to-date city.

*Solve the help situation by buying a
machine that will do your work.
Remember, you get light plus power.*

C. J. LITSCHER ELECTRIC CO., Distributors
GRAND RAPIDS, MICHIGAN

THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne

The Colonel laughed with a fair imitation of sincerity and tolerant amusement. "My dear, that is no mystery to me. There are men who, finding it impossible or inadvisable to make a physical attack upon their enemy, find ample satisfaction in poisoning his favorite dog, burning his house, or beating up one of his faithful employees. Cardigan picked on Rondeau for the reason that a few days ago he tried to hire Rondeau away from me—offered him twenty-five dollars a month more than I was paying him. Of course, when Rondeau came to me with Cardigan's proposition, I promptly met Cardigan's bid and retained Rondeau; consequently Cardigan hates us both and took the earliest opportunity to vent his spite on us."

The Colonel sighed and brushed the dirt and leaves from his tweeds. "Thunder," he continued philosophically, "it's all in the game, so why worry over it? And why continue to discuss an unpleasant topic, my dear?"

A groan from the Black Minorca challenged her attention. "I think that man is badly hurt, Uncle," she suggested.

"Serves him right," he returned coldly. "He tackled that cyclone fully twenty feet in advance of the others; if they'd all closed in together, they would have pulled him down. I'll have that cholo and Rondeau sent down with the next trainload of logs to the company hospital. They're a poor lot and deserve manhandling."

They paused, facing toward the timber, from which came a voice, powerful, sweetly resonant, raised in song. Shirley knew that half-trained baritone, for she had heard it the night before when Bryce Cardigan, faking his own accompaniment at the piano, had sung for her a number of carefully expurgated lumberjack ballads, the lunatic humor of which had delighted her exceedingly. She marvelled now at his choice of minstrelsy, for the melody was hauntingly plaintive—the

words Eugene Field's poem of childhood, "Little Boy Blue."

"The little toy dog is covered with dust,

But sturdy and stanch he stands;
And the little toy soldier is red with rust,

And his musket molds in his hands.
Time was when the little toy dog was new,

And the soldier was passing fair;
And that was the time when our little boy blue,

Kissed them and put them there."

"Light-hearted devil, isn't he?" the Colonel commented approvingly. "And his voice isn't half bad. Just singing to be defiant, I suppose."

Shirley did not answer. But a few minutes previously she had seen the singer a raging fury, brandishing an axe and driving men before him. She could not understand. And presently the song grew faint among the timber and died away entirely.

Her uncle took her gently by the arm and steered her toward the caboose. "Well, what do you think of your company now?" he demanded gayly.

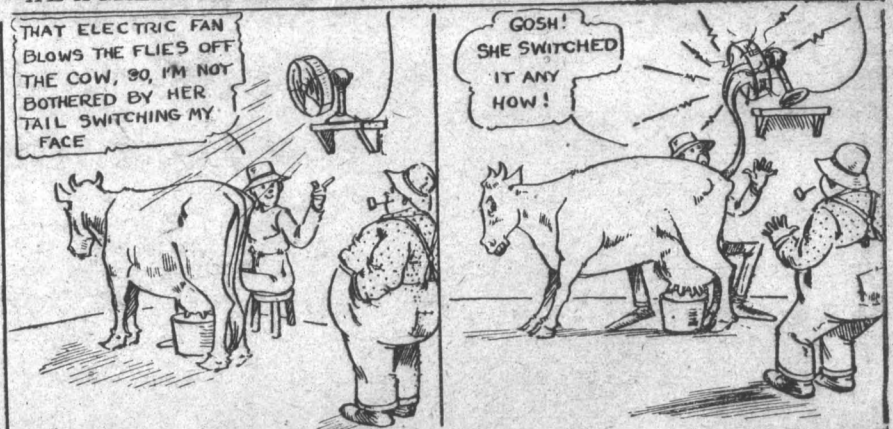
"I think," she answered soberly, "that you have gained an enemy worth while and that it behooves you not to underestimate him."

CHAPTER XVII

THROUGH the green timber Bryce Cardigan strode, and there was a lilt in his heart now. Already he had forgotten the desperate situation from which he had just escaped; he thought only of Shirley Sumner's face, tear-stained with terror; and because he knew that at least some of those tears had been inspired by the gravest apprehensions as to his physical well-being, because in his ears there still resounded her frantic warning, he realized that however stern her decree of banishment had been, she was nevertheless not indifferent to him. And it was this knowledge that had thrilled him into song and which when his song was

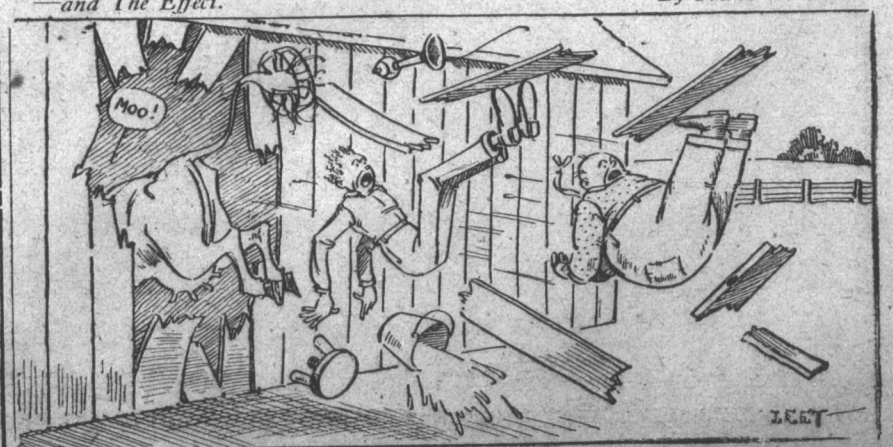
(Continued on page 938).

AL ACRES—The Cause



—and The Effect.

By Frank R. Leet



ROSS Ensilage-Cutters

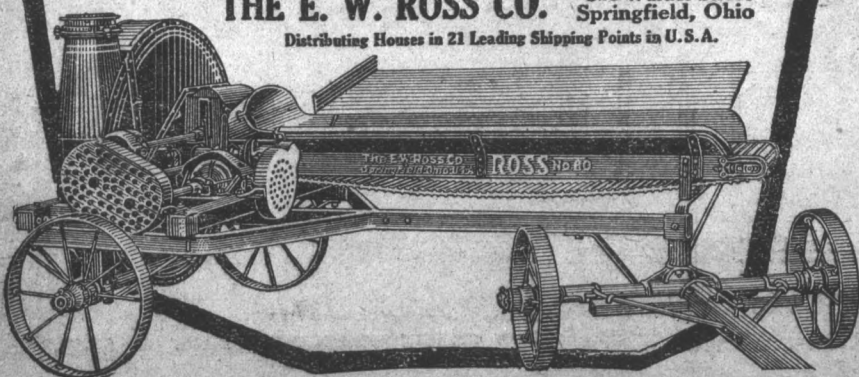
For **BETTER** Silage--at **LOWER** Cost.
Flywheel and Cylinder Types--and sizes
to match your present power--Kerosene,
Gasoline or Steam--from four H. P. up.

HERE'S a suggestion that will mean money in your pocket if you follow it out. Just write, asking "Who sells Ross Cutters in my locality?"

We will send you **facts that will open your eyes** on this silo-filling proposition. We will prove to you that the Ross will not only **save** you money, time and trouble, every fall, but will **earn** you bigger profits every winter by furnishing more succulent, more palatable and more nutritious silage for your stock. We will explain why **the Ross cuts clean always**--keeping the natural juices in every slice of silage.

A one-cent stamp is all it costs to get the facts before you. Your name on a postcard will bring you the story of the simple, powerful, smooth-running and clean-cutting Ross. Write today. No obligation. We'll send Catalog and the name of nearest dealer.

THE E. W. ROSS CO. 520 Warder Street
Springfield, Ohio
Distributing Houses in 21 Leading Shipping Points in U.S.A.



*America's First
Cord Tire*



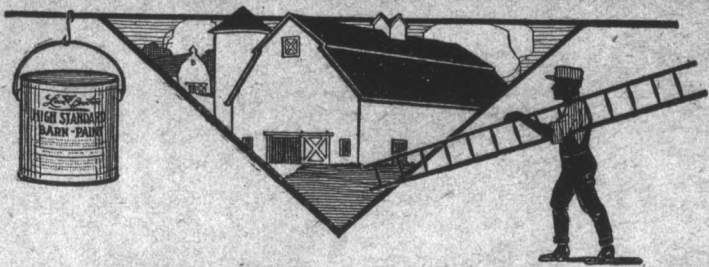
THE FIRST cord tire
made in America was
a Goodrich.

Goodrich still makes the
first cord tire in America—
The Silvertown Cord

Goodrich Tires

Best in the Long Run

Lowe's



Those barns of yours
This time paint them
with a barn paint
that's made to paint barns

You'll agree that a thing that's made for a particular thing, ought to be a particularly good thing. As long as there are Barn Paints made for barns, why not paint your barns with them? Furthermore, as long as there are some barn paints better than others, why not find out what they are?

And still furthermore, as long as with paint, as with everything else, there is al-

ways some one paint that is better than all others, why not have that one?

Why not have it, especially if the makers can prove to you that it actually costs less per job, even if it should happen to cost more per gallon?

Give us a chance to prove that our paint is the barn paint to buy. Send direct to us for the facts and figures.

Remember that Lowe Brothers' Paint is sold by the one best dealer in each town.

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Boston New York Jersey City Chicago Atlanta Kansas City Minneapolis Toronto

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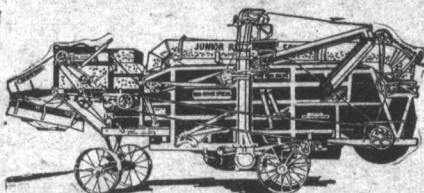


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—FOR—

Separating
Vetch
from
Wheat
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Your crop is waiting. The weather is good. The market is high. You have the time. You can do all your own threshing with your own help with the

Junior Red River Special

This is a small machine and it is a real grain saver. Built like the famous Red River Special—the machine that “saves the farmer's thresh bill.” Has the “Man Behind the Gun,” the beating shakers and a perfect cleaning mill. Beats out the grain where other threshers wait for it to drop out.

VICTOR RECORD of Beltrami, Minn., says: “I bought a Junior Red River Special and would not be without it for twice what it cost me.”

Two sizes—22x36 and 28x40. Sold fully equipped with Self Feeder and Wind Stacker or Hand Feed Parts and Common Stacker as desired.

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Battle Creek

Michigan

Mention The Michigan Farmer When Writing Advertisers

The Missionary Farmer

Our Weekly Sermon—By N. A. McCune

NO, I know that some folk do not believe in missionaries, but I do, and that's why I want to tell about one or two today. Some folk may not believe that three times three is nine, but that doesn't bother the multiplication table a particle, and three times three goes merrily on, making nine all the time. And the missionaries go steadily on, the pathfinders of civilization, whether certain individuals believe in them or not. The fact is, that missions constitute the greatest romances of modern times.

There is no story greater than that of Paton among the cannibals of the New Hebrides, or Mackay, the civil engineer who went as missionary to Uganda, or Gilmour, who went alone to work among the Mongols, of the founders of Robert College in the heart of Turkey, or of Mary Slessor, the little Scotch woman who ruled whole tribes of savages in Africa for many years. I believe in missions because the founder of Christianity believed in them, and second, because of what missions have actually done. Some people still believe that the missionary is a long-haired person with heavenly views of life, who goes to Africa and teaches the natives how to repeat the twenty-third psalm. And of course, the missionary does teach the natives how to repeat the twenty-third psalm and a great deal besides, of a purely religious nature. But he also shows the native that religion has to do with all life and that the first thing he must do now, is to learn how to live a righteous and a useful life.

A FEW years ago, there went to China an Irishman with red hair. That is, he was Irish by descent, but American by nationality and a missionary by choice. He had not been in China long before he found himself face to face with famine, and after famine, the plague. People were dying by thousands. If he went along the street and lifted up a mat, under the mat was sure to be a dying man. The people were dying, for the floods had destroyed the crops, and their weakened condition made them a ready prey of disease. We must teach them how to grow better crops, thought our missionary. But, alas! the soil was incapable of yielding crops. The trees had been cut centuries before, and the fertility of the soil had been washed into the lakes and rivers. Moreover, there were the graveyards. Superstition does not permit the Chinese to move the dead, lest something dreadful should happen. The best sites for

tree planting were occupied by cemeteries. But this Irish-American missionary would not give up. He said living people were of no more consequence than dead people, and he actually got permission to move some of these graveyards. They soon found that frequently a grave had no occupant, for the dead had been buried so long ago that no trace of the body remained. But the soil would not produce. It was hopelessly washed. Then the missionary brought forth his pet scheme. He engaged dozens of coolies to dig the muck from the shores and the bottom of a nearby lake, and scatter it on the barren hillsides. That took time and it was mighty hard work. But at last it was done, whereupon tree planting began. Thousands and thousands of vigorous young trees were planted; fruit trees of all sorts, black walnut, black locust, yellow pine, white pine, maple and others. Things were going well, and the missionary was happy. At least those particular hillsides would be washed by the winter rains no more.

THEN something happened. An old woman was burning paper at the grave of one of her ancestors, and accidentally started a fire that spread over nearly all the territory that had been planted to trees. But the missionary did not resign and return to America. No, he said he had made a mistake in planting, and now he would plant right. There should be a fire-break every little way, so that if a fire started again, it would not jump over this fire-break. And once more, as if by magic, the trees were planted, and once more the mountain side was green. And every few rods there is now a forest keeper living, with his family, who raises crops in the open stretches and keeps jealous guard over the young trees. But the story does not end here. For the government had been watching this missionary, and one day His Excellency Chaig Chien, the Minister of Agriculture and Commerce, came and planted a tree on the missionary's grounds, and thus established a national Arbor Day for all China. What this will mean to China only those who have been there can estimate. It will mean that barren hillsides will be planted to trees, and that land that has been idle for centuries, will begin to bear. It will mean, too, that more and more floods will be controlled, for the winter rains will sink into the soil, and not rush down the hillsides into the rivers, to carry death and destruction into tens of thousands of people. What do you think of a missionary like this?

The Valley of the Giants

(Continued from page 936).

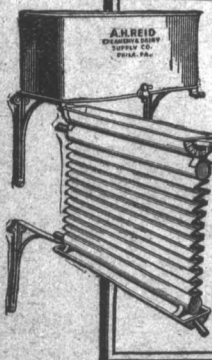
done had brought to his firm mouth a not see the sun; yet with the instinct nobility that presaged his old whim of the woodsman, an instinct as infallible as that of a homing pigeon, he was not puzzled as to direction. With-

The climax had been reached—and in two hours his long, tireless stride passed; and the result had been far brought him out into a clearing in from the disaster he had painted in his the valley where his own logging-mind's eye ever since the knowledge camp stood. He went directly to the had come to him that he was doomed log-landing, where in a listless and to battle to a knockout with Colonel half-hearted manner the loading crew Pennington, and that one of the ear- were piling logs on Pennington's log-liest fruits of hostilities would doubt- ging-trucks.

less be the loss of Shirley Sumner's Bryce looked at his watch. It was prized friendship. Well, he had lost two o'clock; at two-fifteen Pennington's locomotive would appear, to back her friendship, but a still small voice whispered to him that the loss was not in and couple to the long line of irreparable—whereat he swung his axe trucks. And the train was only half as a bandmaster swings his baton; he loaded.

was glad that he had started the war “Where's McTavish?” Bryce demanded and was now free to fight it out un- ed of the donkey-driver.

hampered. The man mouthed his quid, spat copiously, wiped his mouth with the Up hill and down dale he went. Be- cause of the tremendous trees he could back of his hand, and pointed. “Up



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Get one now. Save the usual sour milk losses. Drives out animal odors and grassy flavor. By far the most efficient and easily cleaned cooler made. Reasonably prompt shipment of orders.

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at his shanty," he made answer, and grinned at Bryce knowingly.

Up through the camp's single short street, flanked on each side with the woodsmen's shanties, Bryce went. Dogs barked at him, for he was a stranger in his own camp; children, playing in the dust, gazed upon him owlshly. At the most pretentious shanty on the street Bryce turned in. He had never seen it before, but he knew it to be the woods-boss's home, for unlike its neighbors the house was painted with the coarse red paint that is used on box-cars, while a fence, made of fancy pointed pickets painted white, inclosed a tiny garden in front of the house. As Bryce came through the gate, a young girl rose from where she knelt in a bed of freshly transplanted pansies.

Bryce lifted his hat. "Is Mr. McTavish at home?" he asked.

She nodded. "He cannot see anybody," she hastened to add. "He's sick."

"I think he'll see me. And I wonder if you're Moira McTavish."

"Yes, I'm Moira."

"I'm Bryce Cardigan."

A look of fright crept into the girl's eyes. "Are you—Bryce Cardigan?" she faltered, and looked at him more closely. "Yes, you're Bryce. You've changed—but then it's been six years since we saw you last, Mr. Bryce."

He came toward her with outstretched hand. "And you were a little girl when I saw you last. Now—you're a woman." She grasped his hand with the frank heartiness of a man. "I'm mighty glad to meet you again, Moira. I just guessed who you were, for of course I should never have recognized you. When I saw you last, you wore your hair in a braid down your back."

"I'm twenty years old," she informed him.

"Stand right where you are until I have looked at you," he commanded, and backed off a few feet, the better to contemplate her.

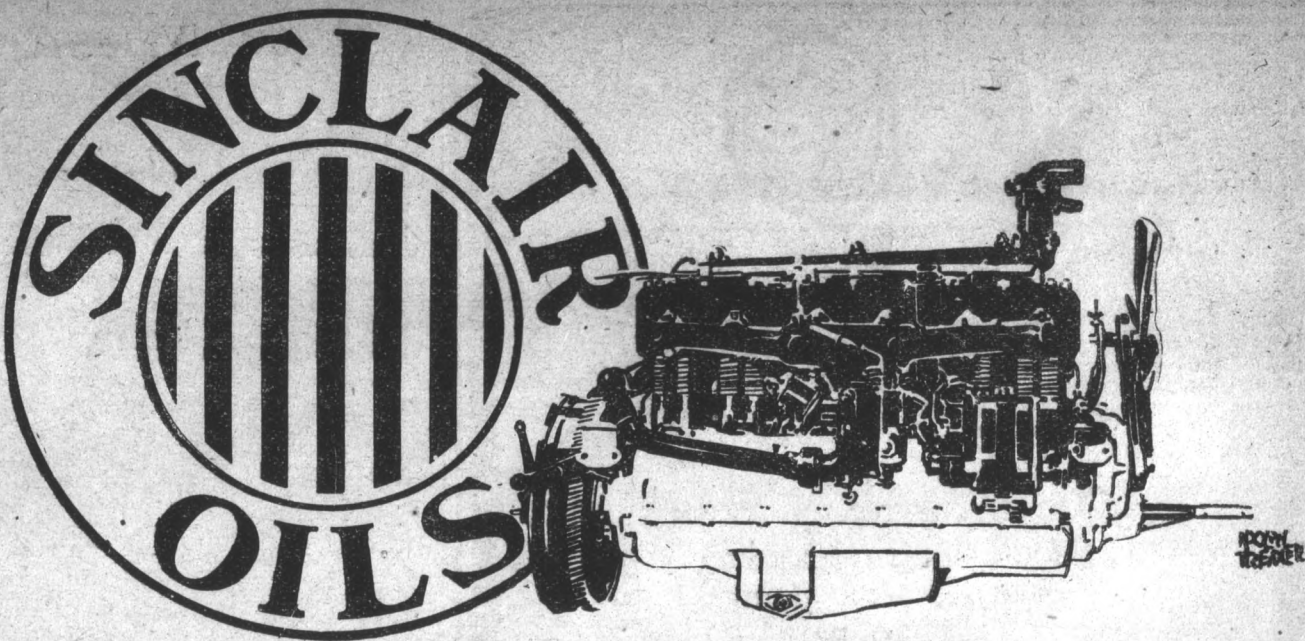
He saw a girl slightly above medium height, tanned, robust, simply gowned in a gingham dress. Her hands were soiled from her recent labors in the pansy-bed, and her shoes were heavy and coarse; yet neither hands nor feet were large or ungraceful. Her head was well formed; her hair, jet black and of unusual lustre and abundance, was parted in the middle and held in an old-fashioned coil at the nape of a neck the beauty of which was revealed by the low cut of her simple frock. Moira was a decided brunette, with that wonderful quality of skin to be seen only among brunettes who have roses in their cheeks; her brow was broad and spiritual; in her eyes, large, black, and lustrous, there was a brooding tenderness not untouched with sorrow—some such expression, indeed, as da Vinci put in the eyes of his Mona Lisa. Her nose was patrician, her face oval; her lips, full and red, were slightly parted in the adorable Cupid's bow which is the inevitable heritage of a short upper lip; her teeth were white as Parian marble; and her full breast was rising and falling swiftly, as if she labored under suppressed excitement.

So delightful a picture did Moira McTavish make that Bryce forgot all his troubles in her sweet presence. "By the Gods, Moira," he declared earnestly, "you're a peach! When I saw you last, you were awkward and leggy, like a colt. I'm sure you weren't a bit good-looking. And now you're the most ravishing young lady in seventeen counties. By jingo, Moira, you're a stunner and no mistake. Are you married?"

She shook her head, blushing pleasantly at his unpolished but sincere compliments.

"What? Not married. Why, what the deuce can be the matter with the eligible young fellows hereabouts?"

(Continued next week.)



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OIL to SUIT its SPEED AND
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Wanted to Buy an 80 acre farm within radius of 35 miles from Detroit. Must be on lake or have water running through. Must be on or near car line. Will pay cash if price is right. Write full description, location, price, etc. to JOHN W. CHANDLER, 887 Marlborough Ave., Detroit, Michigan.

For Sale. Excellent location for a sheep or cattle ranch. Out over land. Good pasture, well watered. No swamp. Alfalfa, sweet clover and alsike grow readily. Large deposit of marl, showing 96% calcium carbonate, on the land. Any acreage desired can be secured. Two miles from R.R. Two miles from Ludington, Saginaw Pike. G.O. Switzer, Ludington, Mich.

For Sale 80 acres strictly high grade soil. Fine buildings. 17 head of Holstein Cattle, team of horses, hogs, chickens and all necessary tools and equipment. Will sell at a sacrifice owing to the owners poor health. Write JOHN CONANT, Grand Haven, Mich.

For Sale: 1020 acres in one piece (or will divide) All in one county, Michigan. Clay loam, lays high, good water, cut over hardwood and pine. Excellent stock country. Postoffice two miles. To close an estate will sell for price put on it by assessor for taxes \$8 acre. Emil Schmied, 30 No. La. Salle St., Chicago.

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Your choice of 44 styles, colors and sizes in the famous line of "RANGER" bicycles. We pay the freight from Chicago to your town. **30 Days Free Trial** on the bicycle you select, actual riding test. **EASY PAYMENTS** if desired, at a small advance over our Special Factory-to-Rider cash prices. Do not buy until you get our great new trial offer and low prices and terms.

TIRES LAMPS, HORNS, pedals, single wheels and repair parts for all makes of bicycles at half usual prices. **SEND NO MONEY** but write today for the big new Catalog. **MEAD CYCLE COMPANY** Dept. B-77 Chicago

Rider Agents Wanted Boys make big money

Please mention the Michigan Farmer when writing to advertisers.

found in the cheap story papers? And are your boys reading cheap detective stories and impossible adventures? We say "cheap" stories, but though they are cheap in money they are expensive in the damage they do. There are good love stories. And there are most interesting detective stories and stories of adventure and fiction that are founded on facts and instill only the highest sentiment in the minds of those who read them.

There are several ways in which high-class reading may be supplied. Perhaps someone says, "How can we tell what is good reading for our children or ourselves?" Here is a test, apply it to every periodical and book that comes into your home and weed out everything that does not come up to its standard. If any reading matter develops higher ideals, a clearer vision of life; if it stimulates your ambition to succeed, develops a keener appreciation of the joy of living, or a clean, healthy sense of humor, it is fit reading for any person of any age, provided it is suited to their understanding.

Some people say they cannot afford several dollars a year just for papers for children. If it is helping to educate them and give them high ideals in life, most people can afford much more than that. However, for those who really cannot afford to invest extra money in books or magazines there are other ways. In nearly all states every school district is entitled to a good library and all books must be chosen from a list sent out by the state superintendent. Books have been seen in some school libraries that might much better have been in the stove. The state traveling libraries give free access to hundreds of volumes of the best fiction, science, history, adventure, etc., that is published.

In a district where many of the parents were foreign speaking people the teacher brought several copies of some of the best magazines to school and interested her pupils in them. Then she asked her pupils to each bring what they could to help subscribe for some of them. They secured enough to pay for three of the best periodicals. The pupils read them as regularly as they came and the articles and news events were used in the various classes. The primary grades cut out pictures and pasted them in a number of scrap books illustrating the seasons, occupations of the world, countries, etc. The big plain letters on the covers and advertising pages were cut out in squares and used by the little tots in making words and in learning colors.

However, that is almost another subject. These are some of the things that can be done to supply reading for young people. Among the foreign speaking people the taste for good reading must be acquired from the reading put before them at school. If a boy or girl does not care to read at all it is either because he has not been properly taught to read printed words or has never had any interesting matter put before him to read. In a case like this if he is receiving no incentive at school the parents should try to obtain reading that will be interesting and suited to the child's age.

Above all, boys and girls should be taught to enjoy poetry. Let them read it aloud frequently and learn to express the meaning, not merely "sing song" the words, and it is surprising how soon they will begin to really read poetry. If every person could be impressed with the fact that through reading, almost more than any other source, we receive our outlook upon the world, how much more we would read of what is really worth while.

LENNA LEA.

Put an asbestos mat under the pan when cooking oatmeal or anything of that sort, as it may then be cooked much longer without burning.—Mrs. A. F.

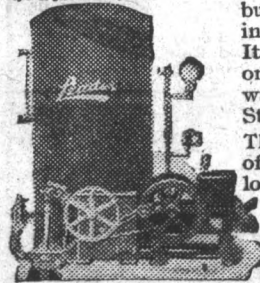


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WE are offering several hundred of the best farms in Ohio at prices that are low in comparison to the value of the property and the income assured purchasers.

These farms are a part of the Miami Conservancy District, which is a political subdivision of the State of Ohio, and represent a surplus acreage that we own in the Miami Valley.

Rich silt loam top-soil deposits make this land very productive—practically inexhaustible.

It is our earnest desire to bring more good farmers to this community, which lies within a thirty mile radius of Dayton. Quick markets are available by rail, interurban and highway.

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Ask your grocer for
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DAY OLD CHICKS

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A cooperative work in Pure Breed Practical Poultry. Chicks and eggs delivered at your door prepaid.

Standard Heavy and Laying Breeds.

You will be interested in the Extra Quality White Leghorns inspected and certified as Heavy Producers by the Poultry Extension Specialist of the Agriculture College.

Live and healthy chicks and satisfactory hatch from eggs guaranteed.

S. C. Reds. One pen only Cockerel and five Pullets; large egg conformation. Send for new Catalog with illustrations; it will help you raise your Chicks. Also it explains the Homestead Farms plan of cooperation.

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Desk 1.

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Direct from the World's Largest Incubator THREE MILLION FOR 1920.

We have chicks hatching every day in the week and every hour in the day. Immediate delivery on the following breeds:

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Write today for catalog, free.

Mail your order now for prompt delivery.

THE SMITH STANDARD COMPANY, 1969 W. 74th St., Cleveland, Ohio.

Barred Rock Baby Chicks. Order your terms. H. H. PIERCE, Jerome, Mich.

CHICKS AND EGGS

Rose and Single Comb R. I. Reds. Barred Plymouth Rocks. Superior Color. Prolific Layers. Prepaid by parcel post and safe delivery guaranteed. Illustrated catalog free.

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Baby Chicks. Eleven leading varieties, bred from show-stock, to produce eggs, at utility prices. Send for illustrated catalog and price list. Ohio Poultry Yard and Hatcheries, Dept. B, Marion, O.

Barred Rocks. Eggs from vigorous early maturing stock from heavy laying strain. \$2 per 15, \$5 per 45. Prepaid by parcel post. R. G. Kirby, Route 1, East Lansing, Mich.

Big Sturdy Baby Chicks and eggs for hatching. White D. Leghorns, Barred Rocks, R. I. Reds. Breeder and importer of Barron Strain White Leghorns the best layers obtainable. Safe delivery guaranteed. Catalogue free. Brummers Poultry Farm, Holland, Mich.

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The secret is in the shape of the blades. Of aeroplane type they pull more air through the radiator and drive it back over all the surfaces of all the cylinders. Fewer parts. Uses less power. Makes it easy to get at timer. Solves Ford owners' most annoying problem. Keeps motor cool and working smoothly under all road, load and weather conditions. Exact replacement for regular Ford Fan. Installs easily. Saves time, trouble and money for you. Equip your Ford car or truck with a Juelsion now. Ask your dealer. If he hasn't yet received his supply, write us.

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EGGS from trapnested S. O. White Leghorns, Barron strain, also White Wyandottes that lay, at \$10.00 per hundred or \$2.50 per setting of 15 eggs. MACALWHITE POULTRY YARDS, Caro, Michigan

Our Boys' and Girls' Page

Watch for the Dog Man!

By J. H. Brown

OF course, there are both good and bad dogs in Michigan, in the ordinary acceptance of the term, and the new dog law will ultimately get some of both kinds, if their owners don't watch out. The thing to do is to obey the law and get rid of the bad dogs anyway. All good dogs should be licensed and looked after, just as the law requires.

Here is a case of two good dogs in one family. And the Michigan Farmer boys and girls will be interested in the picture. It is taken from life.

Pauline has heard her folks talking about how all dogs were to be arrested unless they had collars and license tags. Her dog Trixy has a nice collar, but needs a new license tag in order to be in style and safety for the coming season. She has vowed that no dog-catcher can get Trixy because she has delegated herself as guardian. And you can easily see, from the look out of her eyes and the grim determi-

some time later he found both dogs in this family were registered and licensed and wore collars like nice little doggies. And the dog man patted both children on their backs and complimented the whole bunch on their good looks and actions.

And you can be sure that Pauline and Tom saw to it every night before sundown that their doggies were tied or confined so they could not wander away from the premises during the night. And that is just what every dog owner should do under the new law.

This law was passed so that farmers could keep sheep and not be in constant danger of having them killed or mangled by mean dogs that had not been brought up right. And it is a good law, though there are many doggies, and even big dogs, that would never think of being so mean as to injure a sheep or little lamb.

We are very sorry to end this story



Pauline and Tom Waiting for the Dog Catcher.

nation shown in her folded arms, sitting on a box with her back to the fence, that she will fight until the last dog-catcher expires before any mere minion of the law can get her doggie.

And her little chum feels just the same way about it. Pauline has explained the situation and the legal aspect of the case to him in words and gestures that he readily understood. He immediately took a quick hitch in his lower garment and grabbed his recently hatched puppy with a clutch that boded ill to any enemy of his. With his few teeth set together and lips pinched closer than a brother, he has lined up beside Pauline, and the puppy feels that he is in no danger of leaving right away.

Says little Tom: "Nay, nay, Pauline; no bad man gets our doggies, you bet. We'll scare 'em away. We'll look 'em right in the eye just like this. That's the way mamma does when some folks come to the door; and then they turn around and walk off. I'll take care of you and Trixy. See?" But when the dog man came around

Boy and Girl Helpers

[By Uncle Ed.]

BE good boys and girls, now, while I am gone." It was the usual parting injunction, and it brought the same old response we know so well.

"Yes, Father. We will." But that farmer man was not prepared for the surprises that awaited him upon his return after an absence of several days. Of course, many things about the farm had to be put off while Father was making his trip. Nobody can take the place of Father, anyway. But most of the crops, the

big things of the farm, had been kept up so they were in good condition.

Dick was the first to surprise his father. Haying was close at hand. When the mower had been put away, the pitman was broken. Father knew it, and he intended to get around to fix it; but other things crowded it out of his mind. But here it was, when he was ready to hitch on to it, all mended up as good as new. Dick did some sweating over that job, for it was his first venture in that direction, but the grateful words he got from father far more than repaid him for all that. How it does lighten up a boy's steps to know father thinks he has done well!

And then, there were the section bars. Some of the knives were worn down to a point and would not do good work. Father had bought a new box, and Dick knocked every one of those peaked, worthless sections out and riveted in brand new ones. That was surprise number two for father, and by this time he was beginning to wonder what would be the next thing his boy had fixed up while he was away.

Dick had not done all the repair work, however, as father soon learned. Mary and Jess had had their thinking caps on, too. In fact, father was no more than out of sight when the boys and girls held a council of war all by themselves.

"What do you say, girls, to our doing some things father never would expect us to do while he is gone? I know we can learn how to use some of the tools, so that we can do good work with them. I'll take the carpenter tools and you the soldering kit and things like that. It will be a little harder for you than it will for me, because I have tinkered with saws and such things, but I don't believe you ever looked at the mending kit. I'll stick round, though, and help you out when you get ready."

It did not take the girls long to get ready after that. Before night they had the soldering iron out and mended some bad places in milk pails and cans. Dick caught them right at it, for they did not wait for him to "stick round." "We'll show Dick we don't need any of his help!" declared Jess bravely. But they sweat over those milk cans a lot more than Dick did while putting in the new pitman. The big drops just trickled down their faces. It was hot in the kitchen and somehow they were bungling things to handle. But they did not show the white feather, and Dick smiled when they set the cans and pails back on the milk platform.

"We'll be fair about it, Dick. Mother helped us some."

"It is their job, though," Mother insisted, "and don't you think they did a good piece of work, Dick?"

"Should say they did. They'll be hanging out a shingle pretty soon."

"Alongside of yours' Dick?"

And they had their laugh over it, and the smiles and the kind words they got from father were worth all the sweating and the burnt fingers. Nor were the cans and the pails the only things the girls mended. They had to borrow some of Dick's carpenter tools, and at first he was a bit afraid to let them have them.

"You'll have to be awfully careful of them, girls," he cautioned. "It's such an easy thing to get saws on nails and to dull the other things." But he need not have been so particular about his warnings, as he soon learned. Jess and Mary must have had something of the carpenter's knack about them, for the way they handled those tools was a caution. That was not the last of it, either. In the days which came after that whenever anything got broken, father knew just where to go to get it mended. And the work was done upon honor, always.

Corn Harvesting Certainty



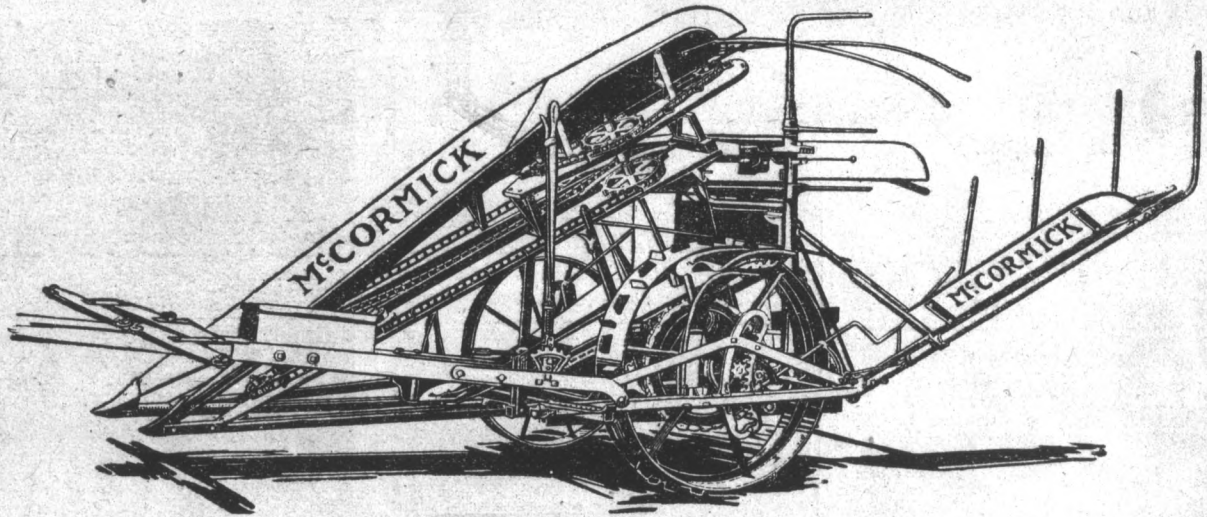
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No matter whether the corn stands tall and straight, short and crooked or down and tangled, these binders *gather all of it* and tie the stalks into snug, firm bundles with even butts. Bundles are deposited on the ground without breaking ears from stalks—a detail of smooth, certain operation.

In down and tangled corn the wide gathering points, which have a range of 2 feet, slip gently under the corn and with the aid of special down-corn elevating chains straighten it before it is cut.

The knotters are the same as those used on McCormick and Deering improved grain binders. They tie with absolute certainty.

There are many corn harvesting certainty features on McCormick and Deering Corn Binders that will recommend these machines to you. See them at the implement store of your nearby International full-line dealer.



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Special Prices on Chicks

From June 15th on
20,000 chicks per week.

200,000 strong, sturdy chicks for May and June. Delivered safely at your door by parcel post. From selected bred to lay strains.



Highest quality.

By parcel post prepaid

W. Leg. \$13 per 100

Br. Leg. \$14 " "

Eng. Leg. \$14 " "

Anconas \$15 " "



By parcel post prepaid. Delivered to you. Guarantee Live delivery. Our chicks are hatched from pure bred farm range stock. Stock of good quality. Bred for heavy egg production. We have fully and Exhibition Quality. Don't fail to take advantage of the prices below for these chicks will be money makers, for eggs and poultry are going to be higher again. Now understand that these prices will include our number one grade of chicks.

Will ship any number from 25 on up. S. C. White and Brown Leghorns at 13 cts. R. O. and S. C. Reds and Barred Rocks at 16 cts. S. C. Anconas at 15 cts. S. C. Black Minorcas at 18 cts. S. C. Buff Orpingtons at 20 cts. Odds and Ends at 12 cts. Send in your order direct from this ad. Or send for our free circular.

Hubers Reliable Hatchery,
East High St., Fostoria, Ohio.

BABY CHICKS of superior quality, from record laying purebred stock. White Leghorns, Brown Leghorns, \$18 per 100; Anconas, \$20. Postpaid. Live arrival guaranteed. Why buy cheap stock when you get quality at low prices? Catalog free. **SUPERIOR QUALITY HATCHERY,** Clinton, Mo.

Attention! Send for my special price on S. C. W. Leghorn June chicks. Safe arrival guaranteed. Postpaid. **H. W. TIMMER, R. 5, Holland, Mich.**

Chicks, Leghorns, Minorcas, Spanish, Houdans, Cam-pines, Reds, Rocks, Orpingtons, Brahmas, Wyandottes. **Tyrone Poultry Farm, Fenton, Mich.**

B-A-B-Y C-H-I-C-K-S
Incubator will run until Aug. 15th. If you are in want of White Leghorns, Barred Rocks or Brown Leghorns at \$20 per 100. Place your order now. **FENTON CHICKEN HATCHERY, Box 244, Fenton, Mich.**

Additional Poultry Ads on Page 947



Hillpot Chicks Low June Prices

Order now—June chicks run higher percentage pul-lots. Hillpot Quality Chicks are purebred, farm-range—from record layers. Per 100 50 25
White or Black Leghorns \$15.00 \$7.50 \$4.00
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Prompt deliveries. Terms cash with order. Can not send O. O. D. Safe delivery guaranteed. Postpaid to your door.
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Crescent White Leghorns; also Anconas, Brown and Buff Leghorns, Black Minorcas, Reds, Rocks (Barred and White), and Wyandottes (Silver-laced and White). **WE HATCH** the eggs of Hoganized flocks on range on separate farms. Crescent Egg Company, Allegan, Mich.

Buy Your June Chicks near home White Leghorns \$17.00 per 100; 50, \$9.00; 25, \$4.50. Delivered parcels post paid. Send for price list of other varieties. **Washtenaw Hatchery, Ann Arbor, Mich.**

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12,000 chicks a week after Mar. 20. Grand laying strains utility S. C. White Leghorns and Mottled Anconas. Strong, sturdy chicks shipped everywhere parcel post guaranteed safe arrival in lots 25; 50; 100 or more. 12th season, order now. Fine free catalogue.
W. VAN APPELDORN, R. 7, Holland, Mich.

Chicks Reduced Prices Bred-to-lay and exhibition S. C. W. Leghorns, stock that produced the winners in the state demonstration farm work. Winners at Detroit, Toledo and Oil City, Pa. shows. After June 15th \$16.00 per 100. Postage paid. **SUNNYBROOK POULTRY FARM, Hillsdale, Mich.**



BREEDERS' DIRECTORY

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

Wildwood Farms Angus

Effies Lass 238203 sold on May 6th for \$7100. She was sired by Black Monarch 3rd. We are offering for sale Editor of Wildwood 295059 a full brother in blood lines to Effies Lass also four more choice bulls which are old enough for service and sired also by the champion show and breeding bull Black Monarch 3rd.

Our herd is under State and Federal Supervision.

WILDWOOD FARMS

ORION, MICHIGAN

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WOODCOTE ANGUS

Established in 1900

Trojan-Ericas and Blackbirds.

Write for 1920 Bull sale list.

WOODCOTE STOCK FARM,
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For Sale At reasonable prices. Registered Aberdeen-Angus bulls from ten to twenty-two months of age. LANG BROS., Davison, Mich.

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One bull service age. 17 months old bull calf. Farmer prices. Send for picture and pedigree. Herds on Federal Accredited List. GILMORE BROTHERS, CAMDEN, MICH.

GUERNSEY BULL CALVES whose dams are 20 months, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat.
T. V. HICKS, Battle Creek, Mich.

FOR SALE Three Aberdeen-Angus bulls, age 20 months, nine months and seven months. Bred from the best stock in America. Also 320 acres land in Isabella County.
BRINTON F. HALL, Belding, Michigan

Registered Guernseys

A fine 2 year old bull right in every way. \$150.00 buys him. J. M. WILLIAMS, No. Adams, Mich.

Guernsey Bull Calf. Lined of Walter Phipps Farm. Born May 2-1919. \$100.00 f.o.b. Novi or Birmingham. Walter Phipps Farm, 80 Alfred St. Detroit, Mich.

For Sale Registered Guernsey bulls. May Rose breeding cheap if taken soon. Come or write. John Ebels R. 2 Holland, Michigan.

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

Herd Federal inspected. Bull calf Guernseys, 7 mos. old, sired by a son of Imp. Spotwoods Sequel. Dam, a high class cow of A. R. breeding. \$150 takes him. 5 others 3 to 6 mos. old, priced right. Satisfaction guaranteed. G. W. & H. G. Ray, Albion, Mich.



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Here is just one instance of the results obtained by the Iowa Agricultural Experiment Station in tests covering ten years. A scrub cow had a record of 4,588.4 lbs. milk and 201.67 lbs. fat at 6 years of age. Her daughter by a purebred Holstein bull produced as a 4-year-old, 6,822.8 lbs. of milk and 283.75 lbs. of fat, an increase of 49 per cent in milk and 41 per cent in fat over the dam's best record.

That evidence, easily verified, should be pondered over well by farmers and dairymen who are desirous of more profit per cow, but who are putting off buying a Purebred Holstein Sire. Send for our extremely interesting book-lets today. It means money to you.

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E. L. SPRUNGER & SON, Proprietors.

62-Reg. Holsteins-62

First Macomb County Consignment Sale

June 30th, 1920

Sale at 1 P. M.

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(25 Miles from Detroit, on Gratiot Ave.)

11:16 A. M. Limited from Port Huron and 12:10 P. M. Limited from Detroit will Stop at the Door.
Also Hourly Local Service Both Ways.

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Flint Maplecrest Boy no. 166974
Has Made Good

one of his SONS will raise your herd to a higher standard and better production we have them for sale at moderate prices.

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—OUR JUNIOR HERD SIRE—

Sir Ormsby Skylark Burke No. 264966

A brother to the world champion cow over all breeds.

DUCHES SKYLARK ORMSBY
Michigan's best bred Ormsby bull.
Better get on the list for one of his sons out of a daughter of Flint Maplecrest Boy.

JOHN H. WINN, (Inc.)
Roscommon, Michigan

REGISTERED Holstein bulls sired by King Zerna Alcartra Pontiac, son of the \$50,000 bull; some from good A. R. O. cows. C. H. Giddings, Gobleville, Mich

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

Holsteins of Quality

Fifteen High Grade Holstein Cows For Sale
E. A. HARDY, Rochester, Mich.

OUR HERD SIRE Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fenelle 32.37 lbs. Her dam Glista Ernestine 35.96 lbs. His three nearest dams average over 33 lbs. and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

Grand River Stock Farms
C. G. Twiss, Mgr. Eaton Rapids, Mich.

A BULLY GOOD BULL CALF.

Born July 1919. His six nearest dams have good yearly records. Amongst them are three world's records Good individual, nicely marked, and worth in any good herd all he will cost. You can't pay too much for this kind. I have a fine four months bull, not quite so well bred but a nice one.
L. E. CONNELL, Fayette, Ohio

REG. Holstein Bull has been my Senior Herd sire. 20 dams average 31 lbs. must sell to avoid inbreeding as I have 15 daughters of his. J. R. Hicks, St. Johns, Mich.

Hatch Herd

(State and Federal Tested)

Ypsilanti, Michigan

Offers young sires, yearlings and younger, out of choice advanced registry dams and King Korndyke Artis Vale: Own dam 34.16 lbs. butter in 7 days; average 2 nearest dams 37.61, 6 nearest 33.93, 20 nearest 27.83

LONG DISTANCE

close up dams average above 1200 lbs. butter and 24,000 lbs. milk in 1 yr. His dam untested \$100. A Fleming, Lake, Mich.

"TOP NOTCH"

HOLSTEINS

McPHERSON FARMS COMPANY
has raised many great milk cows:

1 Officially Produced	842 lbs. milk in 7 days
"	3394 lbs. milk in 30 days
"	120 lbs. milk in 1 day
"	811 lbs. milk in 7 days
"	over 10000 lbs. milk in 100 days
"	105 lbs. milk in 1 day
"	695 lbs. milk in 7 days
"	2669 lbs. milk in 30 days
"	100 lbs. milk in 1 day
"	20854 lbs. milk in 1 year
"	100 lbs. milk in 1 day
"	659 lbs. milk in 7 days
"	18675 lbs. milk in 1 year

Others under test are making large milk records. A fine lot of young bulls from 3 months to 2 years old for sale. Get a "milk" bull, and increase milk production in your herd.
Our herds are under U. S. supervision.
McPHERSON FARMS CO., Howell, Mich.

HOLSTEIN

BULL CALVES FOR SALE

From dams with good records.
BULL CALVES Sired by 45 lb. BULL.
BULL CALVES Sired by 34 lb. BULL.
BULL CALVES Sired by 33 lb. BULL.
PRICES VERY REASONABLE.

Privelege of return if not satisfied.

A. W. COPLAND,

Birmingham, Michigan.

Herd under State and Federal Supervision.

CLUNY STOCK FARM

A Semi-Official Bred Bull to Head

Your Herd

Maplecrest Application Pontiac No. 132652, heads

Our Herd

His dam's record is 1344.3 lbs. butter 23,421.2

lbs. milk in 365 days, and 35,103 lbs. butter and

515'6 lbs. milk in 7 days.

One of his sons from our good record dams will

carry these great blood lines into Your Herd.

For Pedigrees and Prices write to

R. Bruce McPherson, Howell, Mich.

Reg. Holstein Heifers. Will offer some choice ones

at calf club sale here June 25 1920. Write for

catalog. B. B. REAVEY, Akron, 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.

42.5 lbs. butter 715 lbs. milk in 7 days Idleage

Pontiac Lass you can have her gdson for

\$150 terms. His dam is daughter of Maplecrest Korn.

Heng. M. L. McLAULIN, Redford, Mich.

HEREFORDS

20 Cows and Heifers of popular breeding

for sale also bulls not related.

ALLEN BROS.

PAW PAW, MICHIGAN

Herefords. 150 head; we offer you anything desired either sex, horned or polled, any age. Priced reasonable. THE MCCARTYS, Bad Axe, Mich.

The Wildwood Farm

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

BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM,
Silver Creek, Allegan County, Michigan.

FOR SALE

Jersey Bulls ready for service R. of M. ancestors. Raleigh-St. Lambert breeding. Jerseys stand for economy. Waterman & Waterman, Packard Rd. Ann Arbor, Mich.

For Sale Jersey bull calves of Majesty breeding from

"Accredited List." Write for price and pedigree to

C. A. TAGGETT, R. 2, Fairgrove, Mich.

LILLIE Farmstead Jerseys—A few heifers bred to

freshen soon. heifers bred to freshen next fall, 3

cows, R. of M. bull calves. C. C. Lillie, Coopersville, Mich

Bulls ready for service from our herd bull Marguerite

B. Premier, gdson, of Pogue 99th of Hood Farm, and cows

now on test for R. of M. Smith & Parker, Howell, Mich.

For Sale. Jersey bull ready for service sired by Fly-

ing Foxe's Gay Lad. Dam record 472.5 lbs. butter

8875 lbs. milk. Notten Farm, Grass Lake, Mich.

BIDWELL SHORTHORNS

You Can Buy

a bull that will put weights on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. A roan, senior yearling, a Missie of Villager breeding, a herd bull prospect, Federal Test.

BIDWELL STOCK FARM,

Box D, Tecumseh, Michigan

Royal Bruce 795521 heads our herd. Three

half brothers sold for \$55,000.00

one Cluny Proud Augusta going to head Wm.

Duthies of collyne's herd at \$21,000.00. One bull and a

number of females for sale.

CARR BROS. & CO. Bad Axe, Mich.
Norman Carr, Secretary.

Richland Stock Farms

Home of the Michigan Champions.

Shorthorn Sires in Service:

IMP. Lorne, IMP. Newton Champion, Sterling Supreme. Why not buy a young bull to head your herd that carries the blood that is making Shorthorn History. Only a few real headers left. Write your wants.

C. H. PRESCOTT & SONS, Tawas City, Mich.

For Sale

Shorthorns of Quality Scotch and Scotch Topped descendants of Archers Hope, Avondae, Max Walton Sulton and White Hall Sulton. Model Type, by the Oscola Co. Shorthorn Breeders Ass. John Schmidt, Sec. Reed City, Mich.

Central Mich. Shorthorn Breeders Ass. offer

40 bulls, 38 females, write for new list.

OSCAR SKINNER, Sec. Gowen, Mich.

Shorthorns

Scotch and Scotch Topped bulls and heifers priced right. Sultan Champion heads herd, one scotch two yr. old herd bull by Red Cumberland priced right.

H. J. FLOWER & SON, Milo, Mich.

The Kent Co. Shorthorn Assn. have males and

for sale. A. E. RAAB, Sec., Caledonia, Mich.

Milking SHORTHORNS

Clay bred bull calves

Herds under Federal Supervision.

Davidson & Hall, Beaud & Beland, Tecumseh, Mich.

Shorthorns

Good Scotch bred bulls, cows and

heifers, priced right.

W. B. McQUILLAN, R. 7, Howell, Mich.

Shorthorns

Scotch and Scotch Topped, only

a few left at old prices.

W. J. BELL, Rose City, Mich.

MEADOW Hills Shorthorns

Herd headed by Sil- ver King, full brother of Lavender Sultan Pur- due University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

St. Joseph Valley

Shorthorn Ass'n has

for sale males and fe- males of all ages and best breeding.

AARON HAGENBUCH, Sec-treas. Three Rivers, Mich

For Sale

Milking Shorthorn Bulls from two to 16 mo. old. Dams giving over 40 and 50 lbs. per day. Yearly records kept. Herd tuberculosis tested.

JAS. H. EWER, R. 10, Battle Creek, Mich.

Reg. Red Polled

cattle choice young bulls from 6 to 18 mo. old for sale.

FRANK KEBLER, R. 1, Grand Ledge, Mich.

For Sale

One Thoroughbred Brown Swiss

Bull. Nine months old.

E. H. EISELE, Manchester, Mich.

HOGS

Berkshires size with quality is our special- ty. Write your wants to

M. G. MOSHER & SONS, Osseo, Mich.

Registered Berkshires, Gilts, and Sows bred for April

R. May and June farrow. A yearling Boar and a few

younger Spring pigs. Chase Stock Farm, Marlette, Mich.

Large

Berkshires, Herd boars, bred gilts, spring

pigs. Satisfaction guaranteed.

W. H. EVERY, Manchester, Mich.

DUROCS WITH QUALITY

Spring pigs by Walt's

Orion, First Sr. Yearling

Detroit, Jackson, Gd. Rapids and Saginaw 1919

Phillips Bros, Riga, Mich.

Duroc

sows and gilts bred to Walts King 29499, who has sired more 1st and 2nd prize pigs at the State Fair in last 2 years than any other Duroc boar. Everyone will be a money maker for the buyer. Cat. and price list.

NEWTON BARNHART, St. Johns, Mich.

Michigana Farm Durocs

We breed and sell good hogs.

O. F. FOSTER, Mgr. Pavilion, Michigan

ROYAL BRED DUROC GILTS

Dams sired by Michigan Cherry Col. Bred to Jacks Cherry Orion King, No. 169259. Son of the \$10,000 champion, Jacks Orion King 2nd, all high class stock, write for prices. The Jennings Farms, R. 1, Bailey, Mich.

DUROC JERSEYS

Two sows of great breeding and choice individuals

weighing about 300 lbs. each due to farrow in June

price \$85 each, first checks get them. **RUSH BROS., OAKWOOD FARM, Romeo, Mich.**

DUROC JERSEYS

Bred gilts all sold. Get in your orders early for

March and April pigs. Either sex or pairs not akin.

F. J. DRODT, Monroe, Mich. R. 1.

DUROC JERSEYS

OUR FARM BUREAUS.

(Continued from page 931).

their barn and equipment is equal to any in the county.

Armstrong Brothers, on their ninety-seven-acre farm five miles from Fowlerville, have a few Holstein cattle, but their specialties are Poland China hogs and Shropshire sheep.

On the return trip to Howell we visited the farm of Jay B. Tooley, who has developed several cows with records of from twenty to twenty-seven pounds of butter in seven days. Mr. Tooley is using for a sire King Korn-dyke Kalmuck, a son of the forty-five pound cow, Niva Kalmuck. He is president of the Livingston County Holstein Association and a live wire in the Holstein game.

LEAVING the Holstein trail we drove over to Smith and Parkers, four miles north of Howell, where we found an excellent herd of about fifty Jerseys. The senior herd sire is a grandson of that famous sire, Jacobia Irene, and the junior sire is from the Tormentor and Pogis line of breeding. They have been breeding Jerseys for more than eight years and have a herd of large, vigorous individuals. Their farm consists of two hundred and seventy acres and is equipped for handling the herd to good advantage.

Over near Crooked Lake, six miles from Howell, on the road to Brighton, we found Wallie Knapp rattling around like a pea in a dishpan, on his two hundred and sixty-five-acre farm. W. W. is pretty busy these days with his farm and Shorthorn cattle, but he found time to describe the breeding of his Imported Scotch bull, Dainty Prince. At present he has about thirty head of Scotch Shorthorns and a flock of twenty-five Oxford sheep. Always an active worker in the interests of the Shorthorn breed, W. W. is getting together a bunch of good cattle and getting his farm in shape to enlarge his business.

Further along the road we visited W. B. McQuillan & Sons, who have an excellent farm of two hundred and thirty acres devoted to general farming and the breeding of Shorthorn cattle and Shropshire sheep. At the head of the herd is Butterfly Sultan, a Scotch bred bull of exceptional merit. Their junior sire is Cloverleaf Augusta, half-brother to the young bull that sold recently at Rosenberger & Sons' sale in Ohio for \$5,100. At present they have about forty-three head of Shorthorns on their farm.

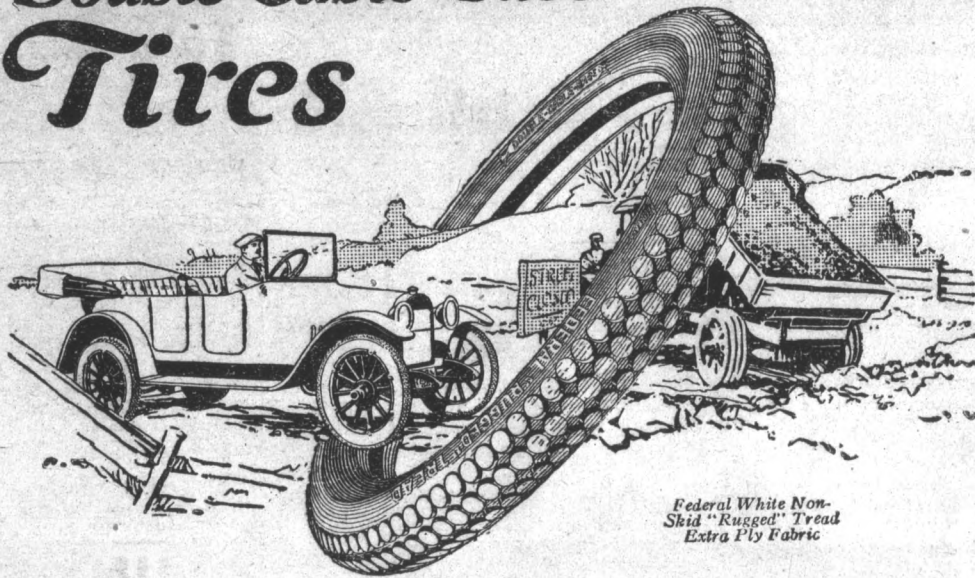
Over the other side of Howell we found William Hosley working his three hundred and thirty-acre farm alone. Mr. Hosley is breeding Shorthorn cattle and conducting a general crop-growing business. At the head of his herd is a son of W. B. McQuillan's Butterfly Sultan. Mr. Hosley has some excellent animals and will enlarge his herd as soon as his sons return from college and schools.

Over near Fenton, Skidmore Brothers have a fine farm of two hundred and forty acres, where they are breeding Guernsey cattle of the most popular lines of breeding. At present they have about thirty head of females in their herd.

Thomas Lamoreaux, of Oak Grove, and Fred Teeple, of Pinckney, are breeders of Black Top sheep and both have excellent flocks. For the past few years this breed of sheep has been gradually coming to the front in Livingston county. In the sections where the Holstein industry has not gained a strong foothold many flocks of excellent sheep may be found. Fine wools predominate in these sections, and Black Tops seem to meet the demands of the sheep growers better than most of the other breeds.

FEDERAL

Double Cable Base Tires



Federal White Non-Skid "Rugged" Tread Extra Ply Fabric

The Strength of The Federal Union

Federal Tires are *united* with their wheels. Four enduring cables of stranded steel—the Federal Double-Cable-Base—grapple them to their rims inseparably.

This banishes the chief enemy of tires—rim wear.

Wheels cannot slip and grind within Federal Tires.

Thousands of Federal users are free from—tube-pinching; chafing and breaking of the fabric; rim-cuts and blow-outs just above the rim.

There is only one way to get this extra mileage—equip with Federals.

THE FEDERAL RUBBER COMPANY, of Illinois, Factories, Cudahy, Wis.
Manufacturers of Federal Automobile Tires, Tubes and Sundries, Motorcycle, Bicycle and Carriage Tires, Rubber Heels, Horse Shoe Pads, Rubber Matting and Mechanical Rubber Goods

O. I. C. SOWS FOR SALE

One of the Best Herds in Michigan

Spring gilts and fall yearlings bred for March, April and May litters. I ship C. O. D., pay express and register in buyer's name. If you want a BIG TYPE sow, guaranteed right in every way, write me.

J. CARL JEWETT,

R. 5, Mason, Michigan.

Duroc bred sows and gilts sired by Orion Cherry King Col. 2nd., bred to All Col. of Sangamo 2nd. First class lot, reasonable. W. O. Taylor, Milan, Mich.

Duroc Jersey fall and spring pigs for sale. We sell you only the best, ship C. O. D. subject to your approval. Register in buyers name and guarantee satisfaction. W. E. BARTLEY, Alma, Michigan

CHESTERS two good fall gilts bred to a boar of Wildwood Prince Jr. breeding for Sept. farrow, spring pigs. F. W. ALEXANDER, Vassar, Mich.

Raise Chester Whites

Like This
the original big producers

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

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. C. Schoolmaster. Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Crandell's prize hogs, Cass City, Mich.

O. I. C. & Chester White Swine Strictly big type with QUALITY. Spring pigs own ready to ship. Never had better ones. Remember I was breeding Big Type 20 years ago. They have a right to be big. Write us for prices. NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

O. I. C.'s. One Sept. boar. March farrow. safe with pigs. Ed pigs of either sex. C. J. THOMPSON, Rockford, Mich.

O. I. C.'s A few choice late fall and winter boars, also a fine two year old boar. WEBER BROS., R. No. 2, Royal Oak, Mich.

O. I. C.'s. Big type serviceable boars. Gilts bred for May and June farrow. G. P. ANDREWS, DANVILLE, MICHIGAN

O. I. C. Gilts bred for March and April farrow, guaranteed safe with pigs. Fall pigs and a few service boars. Herd improved by D. T. F. C. Burgess, R. 3, Mason, Mich.

O. I. C.'s Eight young boars and spring pigs for June shipment. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C.'s Booking orders for spring pigs, we register free and ship C. O. D. A. J. BARKER & SON, Belmont, Mich.

O. I. C.'s 5 last fall boars and 15 last fall gilts bred for fall farrow. Weight 230 to 325 lbs. extra good stock. Also this spring pigs not akin. 1/4 mile west of depot. Citizens phone 124. Otto B. Schulze, Nashville, Mich.

MILLER Meadow's L. T. P. C. boars all sold. Gilts sired by General Jones and bred to our young boar Alaska, address CLYDE WEAVER, Ceresco, Mich.

L. S. P. C.

One 400 lb. sow and 7 pigs by side, price \$100.00. One 275 lb. gilt and 6 pigs by side, price \$85.00. Two choice boars. H. O. SWARTZ, Schoolcraft, Mich.

Big Type Poland Chinas

Our herd is representative of the best in Big Type. The \$40,000.00 "The Yankee", the \$30,000.00 "The Clansman" and the priceless "Giant Buster" are all represented. We aim to keep up-to-date blood lines and only quality stuff. Come over and see us. PUBLIC SALE OCT. 26th. WESLEY HILL, R. 6, Ionia, Mich.

Bred Sow Sale at Fairgrounds August 15th. Carey U. Edmonds, Hastings, Mich.

B. T. P. C.

All sold out except some Fall Gilts. Thanking my customers. JOHN D. WILEY, Schoolcraft, Mich.

Big Type P. C. Bred gilts, Fall yearlings, prize winners, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

BOARS! Oh Boys!

Sons and grandsons of the Mighty Giant Buster. The big boned useful kind. Priced for a quick sale. JNO. C. BUTLER, Bell Phone, Portland, Mich.

Big Bob Mastodon pigs takes the cake, book your order now. Fall boars and gilts sired by a grandson of Disher Giant, open or bred to Big Bob for Sept. 23 yearling sons. C. E. GARNANT, Eaton Rapids, Mich.

Big Type Poland Chinas with quality, at reasonable prices. Pigs of both sex, and bred sows and gilts. G. A. BAUMGARDNER, R. 2, Middleville, Mich.

Big Type Polands all sold out. Watch this ad for further announcements. Breeding stock for sale in season. L. L. CHAMBERLAIN, Marcellus, Mich.

LEONARD'S B. T. P. C. bred sows all sold. Order booked for boar pigs at weaning time from Mich. Champion Herd. E. R. Leonard, R. 3, St. Louis, Mich.

I am offering Large Type Poland China Sows, bred to F's Orange, at reasonable prices; also fall pigs. Write or call Clyde Fisher, St. Louis, Mich. R. R. 3.

"Lindhurst" Poland Chinas

Mammoth Ben's Chief No. 32167 heads our herd. Sows by Mammoth Ben, Upsome Lad, Joe Mastodon, Gerisale Jones, and Capt. Price. Pigs by Mammoth Ben's Chief, Mountain Jack, and Orange Model. For sale fall boars and gilts sired by a son of Bower's Mammoth Joe. A few herd sows priced to sell. Get in line for spring boars. WM. H. LIND, Citz. Phone, Alto, Mich.

6th ANNUAL P. C. Bred Sow Sale March 13, 1920. For particulars write W. J. HAGELSHAW, Augusta, Mich.

LARGE TYPE P. C. SWINE. One yearling boar, one fall yearling boar, fall pigs, a few more bred sows. R. W. MILLS, Saline, Mich.

Poland China Brood Sows Bred for May and June farrow, \$50.00. Maplewood Stock Farm, Allegan, Mich.

FOR SALE A few L. T. P. C. gilts being bred for August and September farrow. A. A. Feldkamp, Manchester, Mich., R. F. D. 2

FOR SALE Registered Big type Poland China gilts bred for Sept. farrow, weighing 225 lbs. for \$80, spring pigs all sold, guarantee satisfaction. DORUS HOVER, Akron, Mich.

Edgewood Hampshires

All bred gilts sold. Now booking orders for gilts bred for fall farrow, and pigs for pig club work only. Depew Head, Edgewood Farm, Marion, Ohio.

Additional Stock Ads on Page 947

LATEST MARKET REPORTS

FIRST EDITION.

The market reports in this edition were revised and corrected on Tuesday afternoon, June 15.

WHEAT

The general outlook for the new crop is favorable over the greater part of the producing states. The market for flour is easy but feeds hold steady to firm. Detroit quotations are as follows:

No. 1 red	\$3.00
No. 1 mixed	2.98
No. 1 white	2.98
No. 2 red	2.97
No. 3 red	2.94

CORN

Persistent buying of this grain gave prices a swing upward at the opening this week. Receipts have failed to increase as much as had been expected. Shippers are buying and the grain in sight shows a generous shrinkage. A little more rain is needed in the heavy producing states. Local prices are:

Cash No. 3	\$2.00
No. 3 yellow	2.05
No. 4 yellow	2.00
No. 5 yellow	1.96
No. 6 yellow	1.93

OATS

Oats are in good demand, supplies are short and more or less crop damage has been reported from Illinois, Iowa and Indiana. Local values are as follows:

Cash No. 2 white	\$1.30
No. 3 white	1.29
No. 4 white	1.28

RYE

The receipts of rye are meagre and the market inactive at \$2.20 per bushel on the local market.

BEANS

The bean situation in Michigan is more promising for the season, due to the heavy reduction in the acreage planted in other bean-producing states and serious damage by rains to, and the greatly reduced acreage in the Oriental crop. The world's visible supply is lower than it has been for years. At Detroit cash beans are quoted at \$7.65 per cwt. Chicago's market is unchanged with choice hand-picked pea beans at \$8@8.50, and red kidneys at \$14@15.

SEEDS

Market is easy and inactive with prime red clover quoted here at \$25.50 per bushel; October \$24; alsike \$25.50 and timothy \$5.60.

FEEDS

Trade is steady to firm, being supported by a good demand. Quotations are: Bran \$58@59; standard middlings \$59@60; fine middlings \$60@62; coarse corn meal \$75@77; cracked corn \$85@86; chopped feed \$76@77 per ton in 100-pound sacks.

HAY

The supply of hay is decreasing and the market is firm with local prices as follows: No. 1 timothy \$37.50@38; standard and light mixed \$36.50@37; No. 2 timothy \$35.50@36; No. 1 mixed and No. 1 clover \$35.50@36; straw at \$12.50@13 per ton in carlots. Pittsburgh.—Receipts of hay are altogether inadequate to supply the demand. No. 1 timothy \$45@46; standard \$44@45; No. 2, \$43@44 per ton.

POTATOES

Marketing of old potatoes is done and the trade is now dependent upon shipments from the south. South Carolina's in stave barrels are bringing mostly \$15 for No. 1 and \$13 for No. 2 per barrel.

BUTTER

There is a good broad trade in butter and prices have fluctuated. In Chicago extra creameries are bringing 53½@54c and firsts 48@53c. Detroit's market is firm and active with extra creamery at 52@53½c and prints at 52½@54c. The Philadelphia market is a little lower, with western creamery extra at 57c.

EGGS

Markets are generally firm to higher. Local trading is on the same basis as last week, with No. 1 fresh quoted at 41c and storage packed extra at 42@42½c. At Chicago the market is

higher, with firsts at 38@39½c and the same grade brings 42@44c in Philadelphia.

WOOL

There seems to be a rather widespread belief among informed agricultural leaders that the trade is placing undue emphasis upon the bearish features of the present situation, hoping thereby to secure their wool supplies at a price which will enable them to realize good profits. Dealers' predictions of prices of manufactured goods do not support these bearish contentions. The following quotations are given out by Boston dealers: Ohio wool 75c for fine unwashed delaine; 70c for half-blood combing; 60c for three-eighths-blood combing; 58@55c for quarter-blood combing, and 64@65c for fine unwashed clothing.

GRAND RAPIDS

There is a decline in the bean market this week, jobbers quoting white at \$6.50 per cwt and red kidney at \$12. They are of the opinion the bean acreage will be 75 per cent of that of last year in Michigan. Milling companies cut the paying price of wheat 10 cents per bushel this week. No. 1 red is now \$2.80 and No. 1 white \$2.78. The winter wheat crop is making good progress, heading well. Only a few localities report the crop somewhat thin. There is a further decline in the hide market and dealers state it is very weak, with indications of further drop in prices. Present prices are: Cattle No. 1 green 12c; No. 2, 11c; No. 1 calf culls and common \$4@6; yearling wethers and somewhat scarce. Farmers sold on the city market this week for \$5.25 per bushel, field run. Farmers are marketing hay freely this week and the price has dropped to \$28 per ton for loose timothy. The strawberry crop is coming into market and first picking of Michigan berries sold for \$6.50 per 16-quart case. Egg market is steady at 32c bid, and one dealer shipped three cars this week. Reports from the forthcoming onion crop are that the acreage in western Michigan is equal to that of last year. At present the fields show excellent germination.

NEW YORK PRODUCE MARKET.

Butter.—The butter market has witnessed considerable activity during the week. As the season for grass production has been greatly delayed, speculators began to fear that the storage season will be short and consequently were free purchasers the first three days of the week. Conservative reports show that there is a storage shortage as compared to last year's figures of about seven and a half million pounds. Considerable butter is arriving from Denmark but the quantity is insufficient as yet to cause any material effect on the market. Established quotations are: Extras 56½c per pound; higher scoring than extras 57@57½c; firsts 52@56c; seconds at 49@51c.

Eggs.—Egg receipts are about normal for the season. The market has been irregular in tone. Quality is variable. Firsts 42@44c; extra firsts 45@47c; extras 48½@49c.

DRAINAGE DEMONSTRATION TOUR.

Farmers, rural leaders, and scientific and agricultural experts from various sections of Michigan will on Friday, June 25, unite in a demonstration tour of the drainage systems installed a year ago at various points in St. Clair county under the supervision of the Michigan Agricultural College. The results of the work done are now apparent and with the actual farm conditions before them the most impressive lessons in the method of constructing the right kind of drains and in the value to be derived from such drains, can be taught. County Agent Brady will be in charge.

NEWS OF THE WEEK.

the several governments of Mexico since 1910.—The Austrian cabinet resigns.

Sunday, June 13.

THE Moscow bolshevik government is said to have been overthrown and that Leon Trotsky has been killed. Persistent reports have been cur-

rent of a counter-revolution.—The Japanese cabinet approves the old alliance with Great Britain.—One hundred and ninety-three miners are believed to have been killed by the explosion of a dynamite depot at Anina, the great Hungarian coal and iron mining center.

Monday, June 14.

BOLSHEVIST forces are badly defeated by the Poles when the former attempt to cross the Dnieper river.—The sixty-sixth congress appropriated approximately five billion dollars in the session ending June 5.

COMING LIVE STOCK SALES.

Holstein—June 30, Chesterfield, Mich., Macomb County Consignment Sale.

Does Ten Men's Work

One Man Saws 25 Cords a Day

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Live Stock Market Service

BUFFALO

Hog prices are 25@75c higher than last week, heavy hogs going at \$15.50@16, and yorkers at \$16.25@16.40. Calves are steady at \$17, and the best lambs bring \$16@18.50. The cattle market is strong

DETROIT

Cattle.

Receipts 1,204. Dry-fed are steady; grassers 50c@1 lower. Best heavy steers \$13.00@13.75 Best handy wt bu steers 14.00@14.50 Mixed steers and heifers 11.00@12.00 Handy light butchers 10.00@10.75 Light butchers 9.00@9.50 Best cows 9.50@10.00 Butcher cows 8.00@8.25 Cutters 6.00 Cannors 5.00@5.75 Best heavy bulls 9.50@9.75 Bologna bulls 8.50@8.75 Stock bulls 8.00@8.25 Feeders 10.00@10.75 Stockers 8.00@9.00 Milkers and springers.....\$ 85@ 115

Veal Calves.

Receipts 743. Market dull. Best \$15.00@16.00 Others 9.00@13.50

Sheep and Lambs.

Receipts 120. Market steady. Best lambs \$ 17.00 Fair lambs 14.00@16.00 Light to common 10.00@12.00 Yearlings 13.00@14.00 Fair to good sheep 4.00@ 6.00 Culls unsalable.

Hogs.

Receipts 1,921. Market strong. Pigs \$13.50 Mixed hogs 15.35

CHICAGO.

Hogs.

Estimated receipts today are 37,000; holdover 6,605. Market 25c higher. Bulk of sales \$14.35@15.40; tops at \$15.55; heavy 250 lbs up, medium, good and choice \$14.50@15.35; medium 200

to 250 lbs medium, good and choice at \$15.10@15.55; light 150 to 200 lbs, common, medium, good and choice at \$15@15.55; light lights 130 to 150 lbs common, medium, good and choice at \$13.50@15.40; heavy packing sows 250 lbs up, smooth \$13.25@14.25; packing sows 200 lbs up rough \$12.65@13.25; pigs 130 lbs down, medium, good and choice \$11.75@14.25.

Cattle.

Estimated receipts today are 15,000. Market slow, steady to lower; calves steady. Beef steers, medium and heavy weight 1100 lbs up, choice and prime \$16.25@17; do medium and good \$13.75@16.25; do common at \$11.60@13.75; light weight 1100 lbs down, good and choice \$15.25@16.60; do common and medium \$11.25@15.25; butcher cattle, heifers, common, medium, good and choice \$8@14.50; cows, common, medium, good and choice \$9@12.50; bulls, bologna and beef \$7.50@12.25; cannors and cutters, cows and heifers \$5.25@8; do canner steers at \$6.75@8.75; veal calves, light and handyweight, medium, good and choice \$13.50@14.25; feeder steers, common, medium, good and choice \$10@12.75; stocker steers, common, medium, good and choice \$7.75@11.85; stocker cows and heifers, common, medium, good and choice \$7.25@9.75; stocker calves common, medium, good and choice at \$7.50@10.75.

Sheep and Lambs

Estimated receipts today are 12,000. Spring lambs strong to higher; other grades steady. Lambs 84 lbs down, medium, good, choice and prime at \$14.75@17.25; do 85 lbs up medium, good, choice and prime \$14@17; do culls and common \$9.50@14; feeder lambs, medium, good and choice \$14.70@18.50; spring lambs, medium, good, choice and prime \$9.75@14; ewes, medium, good and choice \$6@8.60; ewes cull and common \$4@6; yearling fethers, medium, good and choice at \$9.50@13.50.

SYSTEM OF FARMING LIGHT SOILS.

(Continued from page 927).

turn the yields per acre will be larger. Follow a good rotation. Do not rotate corn, grain and potatoes. Use a legume crop frequently. Legumes will grow successfully on light soils so why not use them? As suggested, apply available manure on the legume crop and use commercial fertilizers on the corn, potato or other cash crop.

That sandy soils can be farmed successfully is an assured fact fully demonstrated by successful farmers everywhere in the light soils regions. The suggestions in the management of light soils given in this and previous articles in the Michigan Farmer are a result of a close and constant study of the subject during the last ten years. Much of the data has been secured from experimental work on three different light soil state experimental farms. Other material has been secured from actual farmers located on these soils. The writer is firmly convinced that if handled properly, that is, limed when sour or acid, legumes grown extensively and properly fertilized, that sandy soils can be farmed as profitably as heavier types of soil. Remember that these soils respond quickly to good treatment. The slogan, "Feed the Crop and it Will Feed You," applies to all soils, so do not become discouraged if you have to add fertility to light soils.

VETERINARY.

Chronic Lameness.—A neighbor of ours has a fine four-year-old mare that is very lame. She first showed lameness last fall and whatever it is the whole trouble is in fetlock joint. A hard bunch is causing the lameness. Our local Vet. has never met with a similar case. H. S. S., Berrien Springs, Mich.—If the bunch cannot be removed with the knife, apply tincture of iodine once or twice daily.

Worms—Itchy Skin.—I wish you would tell me of a simple remedy that will destroy worms in horses; they rub their tails and manes. M. B., Birch Island, Wis.—Give a teaspoonful of dried powdered sulphate of iron and a half ounce of gentian at a dose in soft feed twice a day. Wash itchy parts with soap and water once, then wet with one part bichloride of mercury and one thousand parts water once or twice a day.

Strong Pork.—At what age does the flesh of boar taste strong? M. E., Dublin, Mich.—After about four or five months, growing more so with age.

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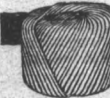
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POULTRY

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

CHICKS We have shipped thousands each season since 1904. Are booking orders now for Spring delivery, booklet and testimonials. FREEPORT HATCHERY, Box 12, Freeport, Mich.

Chicks English strain White Leg. Bred-to-lay Brown Leg. and Shepards strain Anconas for June and July delivery. Bargain Prices. Order now. L. E. BRINK, R. 1, Holland, Mich.

DANGER If chick and eggs are not shipped right. 100,000 Chix this season. Best Blooded stock ever produced at low prices quoted. Selected Utility, Exhibition trapped stock. 16 varieties. 2,000 fifteen day old chicks. White and Brown Leghorns, Anconas on hand. Stamps appreciated. BECKMAN HATCHERY, 25 E. Lyon St., Grand Rapids, Mich.

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CHICKS: \$13.00 per 100 Standard Bred White and C. Brown Leghorns. Bred to lay, large white eggs. Parcel post will bring them up to your door. Safe arrival guaranteed. Write for catalogue or order direct. Wolverine Hatchery, R. 2, Zeeland, Mich.

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

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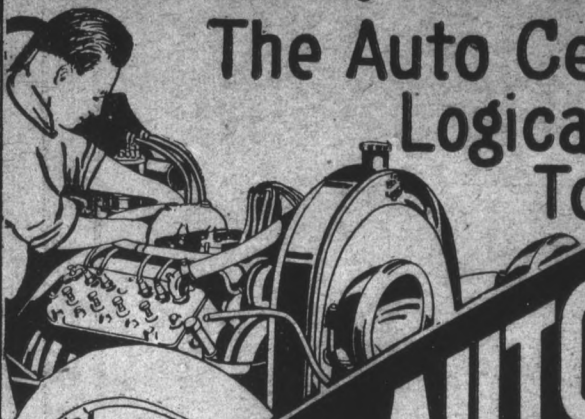
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PAIGE DETROIT MOTOR CAR CO.
W. A. Wheeler, Factory Manager

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DETROIT, MICHIGAN

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BUICK MOTOR COMPANY
(Detroit Branch)

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Hupp Motor Car Corporation
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MAXWELL MOTOR CO., INC.
A. B. Richmond, Supt. of Service.

PACKARD
MOTOR CAR COMPANY
DETROIT, MICH., U.S.A.

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