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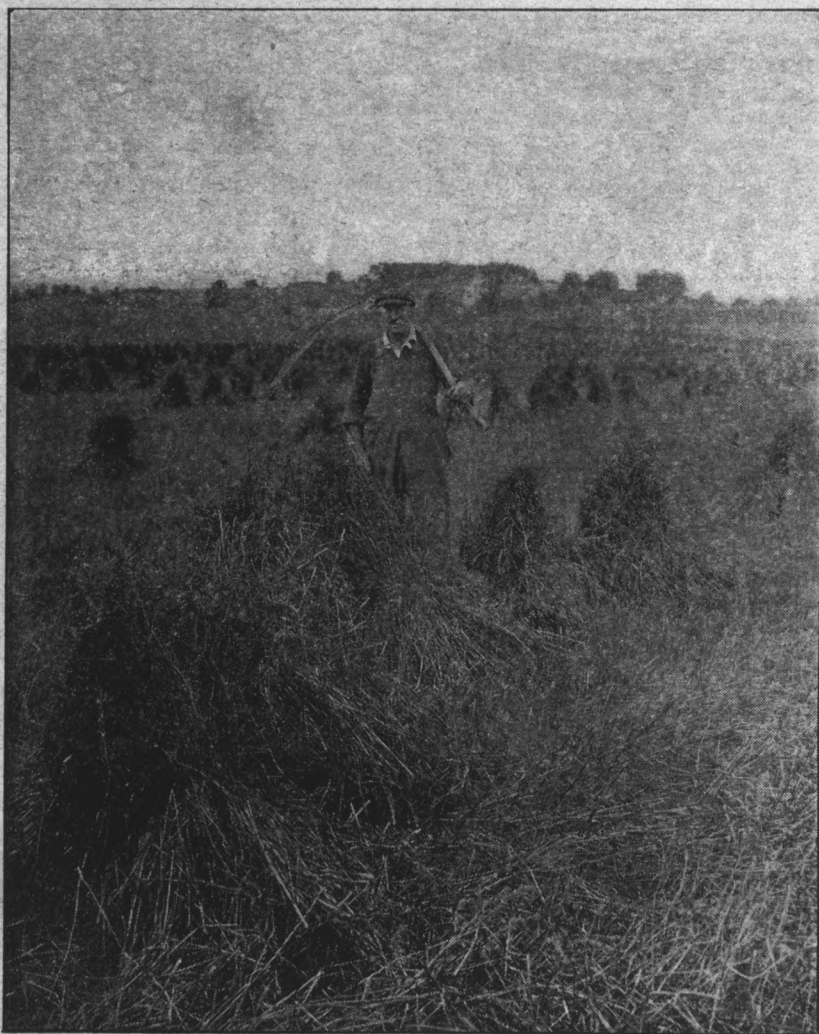
SIMPLIFIED FARMING

WHAT I want is some clean cut, young fellow who knows enough about farming to raise large crops of corn, small grains, clover and grass and to feed them to stock on my farm so that the business will be somewhere near self-supporting. If you can put me in touch with a capable man who will cut out new-fangled frills and fads and organize the affairs of the farm so that things will be in proportion I will give him the chance of a life-time. I believe that it is time we devoted more study to developing a system of plain simplified farming adapted to present conditions and tendencies."

This business man, who owns one of the most valuable farms in Michigan, sounded the keynote of the whole problem when he made the above statement. There seems to be a tendency among farm experts to complicate a simple problem and lead farm owners to believe that there is some mysterious, hocus-pocus force that must be encompassed before they can derive any profit from their farming. In nearly every locality farmers are finding that greater profits follow a safe and sane system of crop growing and live stock feeding than can possibly result from a complicated system of farming where the overhead charges eat up the profits.

How to organize a farm for profit and keep in smooth operation the various branches of a diversified agriculture, using labor, soil and power to the best advantage and steadily increasing the value and fertility of the premises is a problem as intricate as it is immense. There must be organizing efficiency in order to accumulate a surplus of tangible assets through a term of years, and it is certainly true that the man who, by study and thought and business ability, has been able to develop and improve a large farm is better able to secure from the land the maximum yield than an untrained man of less actual experience. A man needs to have business ability

The Real Vital Factors in Farming are Apt to be Camouflaged by New-fangled Ideas.-L.J. Meredith



Buckwheat—the Crop of Last Resort—Generally Yields a Profit.

as well as college training to make a his own farm and, as he gradually discovered the magnitude of his job and the smallness of himself in relation to it, sold out rather than frankly admit that he could not make it pay. Business

ness ability is as much a part of the farmer's equipment as are the farm and the products that he produces. Unfortunately business ability is not always, perhaps not ordinarily, linked with distinguished ability as a farmer. Some of the greatest money-makers connected with agriculture have not gained distinction as farmers. Some of the best farmers in the country have never made a success in a financial way. Men are comparatively scarce who have achieved the difficult two-fold success as business farmers.

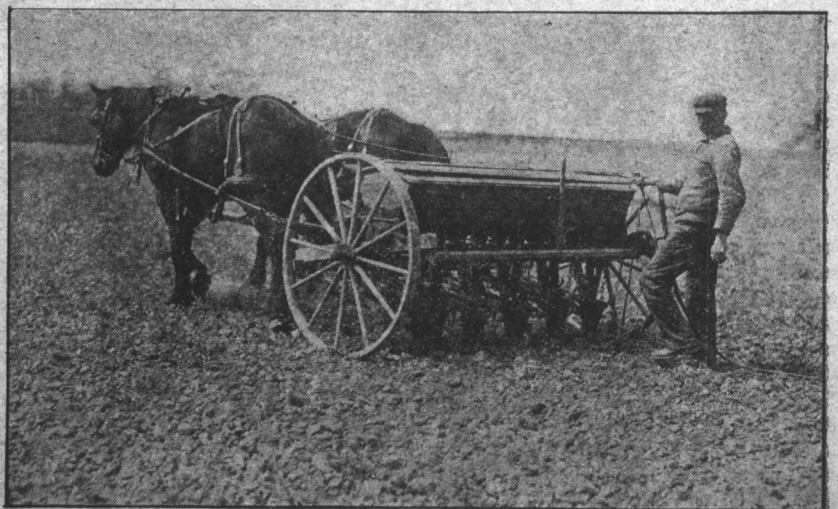
It is difficult to measure the profits in farming. There are so many factors, like the fertility of the soil and the value of the various improvements in stock and equipment that can not be appraised. Many a farm appears to be paying when, in reality, some one branch of its annual operation may be a source of expense that greatly reduces the profits. Some seasons a farm may pay good profits, while actually it fails to show a surplus through a series of years. The real test of wisdom of farm organization and its profits is found in the gain in value of the property at the end of a decade or more, when much of the income has been invested in the business.

The cost of keeping farm records is small in comparison with the book-keeping expense of the factory; however, it is profitable to keep a very accurate record of the cost of production. It is a vital thing for us to know how much of the products we are producing at a profit and which branches are paying the best returns. If there is any one question in all the realm of finance upon which a man may be, and is most likely to be honestly mistaken, it is that of profit on the farm. If we find that the cost of producing a product is nearly as great as the selling price, then we should determine wherein we, as individuals, can lower the cost of production by a more efficient organization of our business. If we

(Continued on page 424).



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DETROIT, NOVEMBER 2, 1918



CURRENT COMMENT

The War for a Just Peace

DURING the past week marked progress has been made toward the forcing of a just peace by the Allied armies on the western front. With the German armies being continually forced back in Belgium and northern France toward the German border with heavy losses in men and material, internal conditions in Germany are becoming more critical each day, if current news reports are to be credited with accuracy.

The German reply to President Wilson's last note, which plainly stated that the government of the United States could accept no terms from the autocratic government of Germany other than surrender, came as a surprise in most quarters, it having been deemed unlikely that Germany was yet in a condition to submit to the only terms on which they could expect peace negotiations to be continued on the basis of previous diplomatic exchanges. The German note contained no statement of importance other than that the German government was awaiting the terms upon which an armistice would be granted by the Allied military council.

Whatever terms for an armistice may be laid down by the military council now in session at Versailles, it is certain that they will provide for the virtual surrender of Germany. Short of a complete revolution in Germany, which would deprive the military autocrats of their power, there can be no other road to a just peace, than the final and crushing defeat of the German armies or the unconditional surrender of the military forces. This fact, which is so fully recognized by the people of America, will not be overlooked by the supreme war council of the Allies which is now formulating the terms on which an armistice will be offered. The outcome must depend wholly upon the attitude of Germany. Until she is ready finally and definitely to quit upon such terms as the Allies are prepared to offer, the war will progress relentlessly as heretofore. So

far as our participation in the world war is concerned, it has been and is a war conducted solely for the crushing of the German military menace and the establishment of a just and lasting peace. The tide of victory has been definitely and finally turned by the aid of our boys, supported as they have been by a united American people. The shortest and most direct road to the just and lasting peace for which we are fighting, lies in the continued victorious progress of the Allied armies toward and into Germany, either through the defeat or surrender of the German forces. In the meantime, Austria and Turkey are showing every evidence of desiring an early and separate peace on such terms as are offered them.

While the issue is no longer in doubt the present is no time for slackening of effort, either in material or moral support, but rather a time for redoubled effort to the end that the day of a just peace may be hastened by continued and increasingly decisive victory over the German armies and the so-called Kultur which they represent.

Interest in Cooperation

THE growth of interest among the farmers in cooperative enterprises is not only most gratifying but promises much for the future prosperity of Michigan agriculture. This interest finds expression wherever a few farmers are gathered, either for neighborhood discussion or for a general meeting.

Interest in cooperative undertakings was most conspicuous at the recent meeting of Michigan bean growers at Saginaw. The farmers who were members or patrons of a cooperative elevator company were unanimous in their expression of satisfaction, and were not worrying about the trade practices which added to the profits of the business, because they would ultimately share in those profits.

But undoubtedly the great example of interest in cooperative efforts in this state lies in the successful organization of the Michigan Potato Exchange, with its many local units and thousands of members who will market their potato crop through this medium. The success of this organization will undoubtedly pave the way for still larger undertakings of a similar character.

But it is not alone in the larger efforts along cooperative lines in which our farmers are expressing interest. Cooperative live stock shipping organizations are numerous and uniformly successful, and in many communities have formed the nucleus for cooperation along broader lines. Cooperative threshing is also becoming popular in many Michigan communities, and it would be a safe prophecy that the not distant future will see the successful operation of cooperative community power and transportation plants or units.

This trend of the times toward cooperative effort is significant of the future in more ways than one. Too long has the spirit of individuality been characteristic of farm folks. In unity lies strength, and unity in business aims will bring closer unity in ideals and a larger influence in the shaping of public policies. Let the good work go on.

County Agent Activities

IN many Michigan counties in which county agricultural bureaus have been organized and county agricultural agents employed, the beneficial results have been so marked that the perpetuity of the work is insured beyond any question of doubt. In some counties public sentiment is neutral on the proposition and in a few counties it is adverse to the continued employment of a county agent.

The reason for this situation is ob-

vious. It is a reflection of the character of the work accomplished by the county men in their several fields. In practically every case where the work has not measured up to the expectations of those who were instrumental in establishing it in any county, it is due to the inadaptability of the man employed, rather than to the lack of opportunity for effective work.

The remedy is equally obvious. A system which is so generally popular cannot be seriously at fault. But the job is a difficult one, in which experience is valuable. If the present incumbent is beginning to make a good showing on the job he will be more valuable next year and should be given another chance. If not, another man may be found who will measure up to the job.

Vote on the Proposed Amendments

AT the general election to be held on Tuesday, November 5, there will be submitted to the electors two proposed amendments to the constitution of the state. One of these is an important proposition which should not be overlooked by any voter. It provides that Section 1, of Article III of the constitution be amended to read as follows:

Section 1. In all elections every inhabitant of this state being a citizen of the United States; every inhabitant residing in this state on the twenty-fourth day of June, 1835; every inhabitant residing in this state on the first day of January, 1850; every male inhabitant of foreign birth who, having resided in the state two years and six months prior to the eighth day of November, 1894, and having declared his intention to become a citizen of the United States two years and six months prior to the eighth day of November, 1894, and having declared his intention to become a citizen of the United States two years and six months prior to said last named day; the wife of any inhabitant of foreign birth who, having resided in the state two years and six months prior to the eighth day of November 1894, and having declared his intention to become a citizen of the United States two years and six months prior to said last named day, and every civilized inhabitant of Indian descent, a native of the United States and not a member of any tribe, shall be an elector and entitled to vote; but no one shall be an elector and entitled to vote at any election, unless he (or she) shall be above the age of twenty-one years and has resided in this state six months, and in the township or ward in which he or she offers to vote twenty days next preceding such election: Provided, That no qualified elector in the actual military service of the United States or of this state or in the army or navy thereof, or any student while in attendance at any institution of learning, or any regularly enrolled member of any citizens' military or naval training camp, held under the authority of the government of the United States or of the State of Michigan, or any member of the legislature while in attendance at any session of the legislature, or commercial traveler, or any qualified elector employed upon or in the operation of railroad trains in this state or any sailor engaged and employed on the Great Lakes or in coast wise trade shall be deprived of a vote by reason of the absence from the township, ward or state in which elector resides, and the legislature shall provide by law the manner in which and the time and place at which such absent electors may vote and for the canvass and return of their votes: Provided, further, That the legislature shall have power to pass laws covering qualified electors who may be necessarily absent from other causes than above specified; and Provided further, That there shall be no denial of the elective franchise at any election on account of sex.

The effect of this proposed amendment is to grant to women the right to vote at any and all elections in this state. The issue of woman suffrage is not new to the people of Michigan. The principle has been repeatedly endorsed by the leading farmers' organizations of this state. It is a proposition upon which every voter in the state should have a definite opinion, which opinion should be recorded by a vote on this proposed amendment, to the end that the returns may accurately represent the will of the majority on this important question.

The other proposed amendment is of

minor importance in comparison, providing that all proposed amendments to the constitution submitted at any election shall be printed together on one ballot instead of on separate ballots as now required. But each and every proposed amendment to the fundamental law of the state is of sufficient importance to merit the careful attention of every voter on election day.

Fertilizers for Spring Use

ALARGE and increasing number of Michigan farmers have become satisfied, through past experience, that the intelligent use of chemical fertilizers is profitable to them. For the most part, these farmers have purchased these goods just as needed, because that has been a more convenient method than to anticipate their needs and get the fertilizer in earlier.

The dealers usually worked on the same plan, having the fertilizer shipped when as much as possible could be delivered from the car. Even the manufacturers counted on making their goods for the spring trade by rushing production for about three months before they would be needed for use.

But the war has changed this program as well as many others. Labor is becoming increasingly scarce and difficult to obtain, and the usual flush production will be impossible this winter. In order to get out the usual tonnage of fertilizers for spring use, factories will have to keep running from now on with a limited labor supply. Lack of storage facilities will make it necessary to ship the goods as they are made. Dealers are little better equipped for storage, and cannot carry sufficient goods for next spring's requirements.

Under these conditions the only way for the average farmer to be sure of his fertilizer for next spring's use is to order it now, take it when it comes and store it in his own barn until needed. The farmer who does not thus anticipate his needs is in grave danger of being disappointed next spring.

UNITED MARKETING IS PROVING PROFITABLE.

THE activities of the cooperative marketing associations and Michigan Potato Growers' Exchange are in full swing. The Exchange has sold well over a hundred carloads of potatoes to date at an average price of about \$1.70 per cwt. in bulk, at shipping points. Considerable produce besides potatoes has been sold through the Exchange and a large quantity of sacks have been bought at a very appreciable saving. The Exchange was selling at \$1.80 per cwt. in bulk on October 23. On the same day dealers in Cadillac were paying \$1.35 per cwt. The cost of handling will not run over twenty cents per cwt., showing a net saving to the growers of at least thirty cents per cwt.

I wish to take this opportunity to call attention to the benefits of the organization and urge farmers not already members to join and help their own pocket-books and at the same time help a good cause. The whole state is watching the outcome of this cooperative effort and numbers and a big volume of business will assure its continued success. If it is a good thing for your neighbor it is a good thing for you. A membership can be secured from any director or the local manager of any of the four associations in Wexford county. The membership in Wexford county at present is about four hundred, and the membership in northern Michigan is about five thousand, which means a business of at least four thousand carloads of potatoes alone. Sell your produce through an association and get a better price. In union there is strength.

CLARK D. MASON,
Wexford County Agr'l Agent.

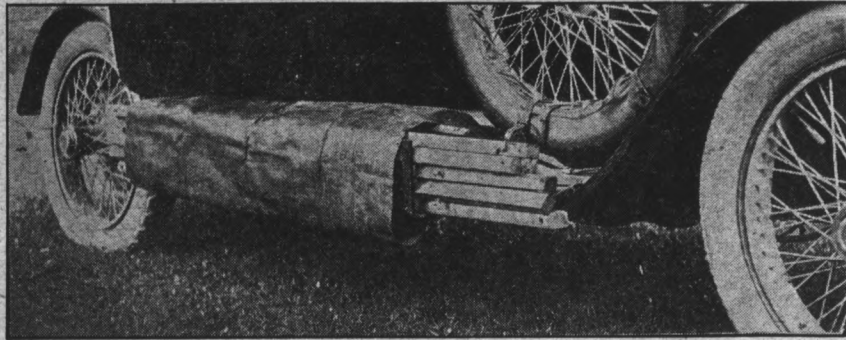
Auto Traveling Made Comfortable and Inexpensive-- By J. H. Brown

IF there is any one long harbored and hankering desire in the mind of the average farmer and his wife these days, it is to take an automobile trip to some distant place or through one or more states. The objective point may be to visit some relatives or friends, or to look after some business matters. And, instead of traveling on the railroad, the farmer who owns an automobile wishes to drive his car through and possibly camp out along the way. Hundreds of farmers and their wives have tried this kind of a stunt and hundreds of thousands more will do it in the next few years to come.

The writer and his wife have driven many thousands of miles through many of the eastern and southern states and Canada and over one thousand one hundred miles through the Alleghany, Catskill, Berkshires, Adirondack and Green mountains, and cooked, ate and slept in and around the car nearly every day and night for two months at a time. During the past summer we have enjoyed such trips and camping out and never thought of stopping at a city hotel for lodging or buying a meal at a restaurant.

Our board per week, per person, for the last three seasons, has been a little less than four dollars. We know because we have kept a memorandum book and entered the date, place of purchase and cost of meat, vegetables, bread, butter, fruit, matches, gasoline, oil, ice, etc. Our lodging has not cost us anything

Mr. Brown's Home-made Outfit is Complete; it can be Used with the Smallest Car. Read About it Here



The Tent, Poles, Beds and Accessories Are Here Shown on the Right Running-board.



Here is the Author's Outfit Housing a Distinguished Party on the new "Monolithic" Brick Road Between Marshall and Albion.

except when we were in the mountains or occasionally failed to find a good place around some farmer's home. Even our laundry work was done by one or more of the women in our party, and there was plenty of it. Sheets, pillow slips, underwear, handkerchiefs, towels, etc., were kept immaculately clean, and not a cent was paid out for washing and ironing during one long overland trip of nearly three thousand miles.

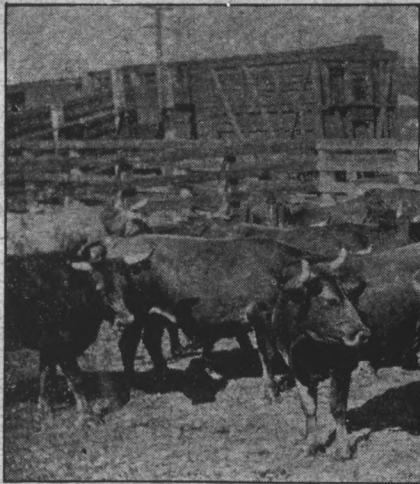
These trips were a combination of business and pleasure two years ago; the same last year, and mostly business this season. While doing this work we took our family along and all had an enjoyable time of it and saved expense as well. We made it a rule not to travel Sundays on these trips. Late each afternoon we would

look out for a good place to stop over night on some farmer's lawn, and we generally had fine locations, even in the mountains. We never have, so far, camped out on the highway. There is more protection, convenience, and better environments around the farmer's home than on a public road.

The editors of the Michigan Farmer have asked us to write a story about how we take such trips, and to advise others who are contemplating them. Many farmers are even now planning on taking these trips this fall during the Indian summer weather.

Any farmer and his boys who have a small or medium sized touring car, and are fairly good mechanics, can fix up an (Continued on p. 414).

Does Your Dairy Pay a Profit?



Uncle Sam's Expert Tells Dairy-men to Sell, Not their Herds, But Non-productive Cows---E. W. Gage



THE profitable dairy cow helps to feed our armed forces and will help us win the war, but the low-producing, unprofitable scrub is little better than a "slacker," declares J. C. McDowell. "The unprofitable cow may enjoy perfect health and have a large appetite; she may belong to one of the best cow families; if she is not an economical producer she should be converted into meat. But this is not the time to dispose of herds; rather it is the time to enlarge and improve them. The city, the country, and the army need more dairy products; the dairy cow also assists greatly in maintaining permanent soil fertility; and the carefully selected, well-bred, well

fed dairy cow may still be kept at a profit. Let our slogan, therefore, be: 'Careful selection, intelligent breeding, and skillful feeding.'

Mr. McDowell has recently completed a survey of the dairy situation of the United States, and being one of Uncle Sam's dairy experts, what he has to say should be of great interest to dairy farmers everywhere. He advises that, to be profitable, dairy cows must be comparatively large producers, though he has discovered that few people realize the remarkable rate at which income advances as production increases. He has made tabulations of 5,587 cow-testing association records from various parts of the country, cov-

ering a period of four years, which show that as the average butter-fat production increased from one hundred and fifty to two hundred pounds, the income over cost of feed advanced from \$21 to \$34; that is, a gain of fifty pounds, or thirty-three and one-third per cent, in production gave an increased income of sixty-two per cent over feed cost. The next gain of fifty pounds raised the income over cost of feed to \$50, the next to \$63, the next to \$74, the next to \$87, the next to \$100, and the last to \$118.

This is graphically illustrated in the following table, as found in the average results from the 5,587 yearly records of forty cow-testing associations:

100 pounds per year.....	\$ 5.00
150 pounds per year.....	21.00
200 pounds per year.....	34.00
250 pounds per year.....	50.00
300 pounds per year.....	63.00
350 pounds per year.....	74.00
400 pounds per year.....	87.00
450 pounds per year.....	100.00
500 pounds per year.....	118.00

Therefore, as the butter-fat production increased from 150 to 300 pounds, the income over cost of feed advanced from \$21 to \$63; in other words, as production doubled, income over cost of feed advanced three times. When the butter-fat production increased from 150 to 450 pounds—that is, trebled—the income over cost of feed advanced from \$21 to \$100, or almost five (Continued on page 422).



THE most convenient and dependable iron to iron with is a self-heated Carbide gas iron. The farmer's wife who lights her house and does her cooking with Carbide gas can do the family ironing with the same gas burned inside the iron.

The farmer was the first to profit by the discovery that by putting a little Union Carbide (like crushed lime) into a generator about once a month with some plain water, he could have all the home-made gas he could use for lighting, cooking, and ironing.

Of course he found out that Carbide gas was far superior to city gas—more powerful light—richer, whiter, softer—and he told his neighbors.

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Some of his neighbors were miners. A miner's Carbide lamp was invented to meet their demands. Today, Union Carbide supplies the light in over 700,000 of these miners' lamps.

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Getting Skids Under Potato Marketing Problems

ONE of the big problems confronting the growers and shippers of Michigan potatoes is that of securing freight cars at the right time and providing storage facilities. Mr. C. E. Pierce, of the United States Railroad Administration, who recently made a trip through the leading potato-growing sections of the state, has delegated Mr. Dorr D. Buell, president of the Michigan Potato Growers' Exchange at Cadillac, to make a complete survey of the Michigan potato crop to ascertain the approximate number of cars that will be shipped out of each station, and about what time they will be ready to move. When this survey is completed the information will be used as a basis for furnishing a sufficient number of cars at the proper time to move the crop to market without delay and loss.

War-time conditions are making it imperative that all shippers of Michigan potatoes cooperate to avoid any waste of transportation. Mr. Pierce has promised that the administration will furnish a sufficient number of cars at the right time to meet every requirement of the shippers if they will plan their business so that the cars may be loaded promptly to maximum capacity and all worthless specimens kept at home.

Better methods of selling are also necessary in order that the tubers may be sold at the shipping point, thus doing away with waste of transportation in hauling tramp cars. Many shippers of Michigan potatoes have been loading cars too lightly for one thing, and also shipping to market inferior stock that should, under better methods of grading, have been kept on the farm or made into by-products.

To secure the best possible transportation and market service and to cooperate with the United States Railroad Administration in moving the Michigan potato crop, as well as to meet the scarcity of experienced sales managers in handling the crop, the Michigan Potato Growers' Exchange has taken advantage of the ingenious plan of Mr. Arthur N. Rule, general manager of the North American Fruit Exchange. This exchange is a trade organization that makes a specialty of marketing perishable crops all through the year, taking fruit and crops from every growing section in the season and distributing them in all consuming centers. It is especially well known for its educational work and its close relationship with many of the big, successful cooperative farmers' and shippers organizations throughout the country.

Mr. Rule has in his employ a "flying squadron" of experienced market men. All over the country, among the growers' marketing organizations with which the exchange does business, it furnishes experienced sales managers and salesmen whose seasons are brief, but active. These men pack, ship and sell the berry, tomato, cabbage, grape, peach, apple or potato crop of the section in which they are working perhaps but a few weeks during harvest. By keeping these men moving from one fruit or truck-growing section to another their trade knowledge is turned to advantage to themselves and the public. These market and transportation experts have probably done more constructive work to overcome the perplexities caused by war-time market conditions than any other one agency in the country, and at the same time they have saved growers and shippers of perishable products millions of dollars through the more efficient grading and selling of their crops.

In the grape-growing section of southern Michigan Mr. Rule had one of his flying aces who disposed of the grape crop for a growers' organization. This man has had a long experience and to sell grapes he must keep in close touch with the best produce houses all over the country. These trade connections are used hardly two months in the year, and the salary the growers could pay, though sufficient for a livelihood in a small town, and even large when one considers the short period in which he is actually selling the crop, is small compared with what his knowledge would be worth if it could be applied to selling the year round.

This sales manager, Mr. G. E. Prater, Jr., one of Mr. Rule's flying aces, is handling the sales department of the Michigan Potato Growers' Exchange at Cadillac. Mr. Prater began the present year in Mississippi handling cabbage, onions, tomatoes and potatoes; from there he went to Texas during the onion and spinach season; to Tennessee to handle the strawberry shipments; to the eastern shore of Virginia to handle early potatoes; to southern Michigan to handle grape, peach and pear shipments. The second week in October he arrived in Cadillac to handle the sales department of the Potato Exchange.

One of the biggest advantages in selling produce is to be able to deal with the same set of brokers. For the broker who buys from a sales manager like Mr. Prater soon learns to accept his statements about standard packing, and will order carload lots f. o. b. purchase by wire, when the statement of an unknown sales manager would be subject to doubt, and perhaps accepted only on consignment.

A man with Mr. Prater's experience knows his business and when he came to Cadillac to take charge of his new work he applied his ability to securing a high grade of potatoes, and he can therefore sell stuff on the f. o. b. basis to the brokers with whom he has been doing business elsewhere. In this way he can double his salary and also his experience, while increasing his usefulness to the growers, trade and public at least three times, and probably four or five. For instead of selling the potatoes or products from a single district each year, during the season of several weeks, he can sell for three to five districts.

There is a certain magic about a freight car in the minds of many growers and shippers. They seem to think that anything once loaded in it and set rolling has attained a market standing. On this account thousands of cars of Michigan potatoes have been sent traveling round, hunting buyers, and rolling stock has been tied up. By employing a sales manager of Mr. Prater's caliber to take charge of the selling end of its business the Michigan Potato Growers' Exchange is making every effort possible to put the selling end of the Michigan potato industry on a f. o. b. basis and stop the blind waste of potatoes, freight cars and rolling stock.

Under this plan of Mr. Rule's, good sales managers are furnished to various farmers' associations where the volume of business would hardly warrant the hiring of equally competent men throughout the year. By becoming affiliated with the North American Fruit Exchange an expert is sent into the district where the local exchange or farmers' association is operating, to help handle the crop in the best manner possible. He not only acts as sales manager, but trains the local helpers, acts as the growers' representative, and is paid either a straight salary or a lump sum for handling the entire crop. Under this sort of arrangement there is a prospect that all war-time problems will be met and that decided economies in marketing Michigan's potato crop will be effected to last far beyond the war crisis.—W. M. K.

The Best Servant We Ever Had—By Mrs. F. C. Small

WE have been living on the farm house but the barns as well. In addition, we have a little one-sixth horsepower motor on a stand that can be moved around any place on the farm and attached to all kinds of appliances. I run the washing-machine with it and my husband runs the grindstone, the fanning-mill and some more of his farm machinery.

The other illustration here shows this little motor in the milk house where it runs the cream separator and the churn. It certainly is a great help in this way, particularly in running the churn. Of course, with the cream sep-



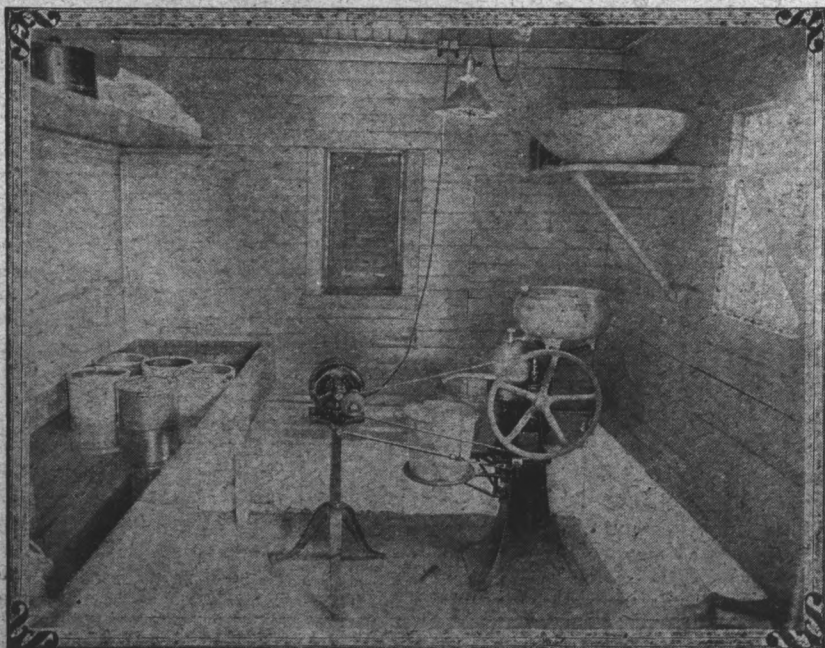
Ours was the Ordinarily Well-cared-for Farm.

begin with, we installed lights all over the place; nineteen in the house, five in the automobile shed, six in the barn, two in the milk house and one in the corn crib. There is certainly no comparison between electric lighting and the old-fashioned kind.

Of course, we are very glad to have electric light and we are reminded every day what a great convenience it is, but I sometimes think that there is another side to the question of having one of these little electric plants that is even more important than that of light. It is a fact that one of these plants will furnish plenty of current for running little electric motors. In fact, they will even run motors as high as one-half horsepower. This means that one hundred and one little things on the farm that used to take a lot of hand-work can now be done by means of electricity and it is even possible to run some of the farm machinery with it. We used to pump from a deep well pump by means of a wind-mill but we now have a one-half horsepower motor that keeps a large tank full and supplies not only the whole

arator it saves a little work, though I stay right there all the time the separator is running but with the churn all you have to do is connect the motor up to the churn and turn it on; you can then go on with your other work without worrying as to whether it is going to take half an hour or two hours to do the churning. This little motor attaches to any lamp socket so that during this cold weather I have been bringing the churn into the kitchen and running it there instead of out in the milk house.

I have seen electric lights in the city and during the last year we have had experience with it in our own home in the country and I believe electricity can be of much better service to the farmer and his family than it can to city people. To them it is merely the best form of light and a good convenience, but to those who live in the country a good light is a more important thing than it is in the city, and in addition there are all the power uses I have spoken of and many others which, of course, don't mean anything to city people.



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But keep on planning your new home. Remember the war has only delayed your building.

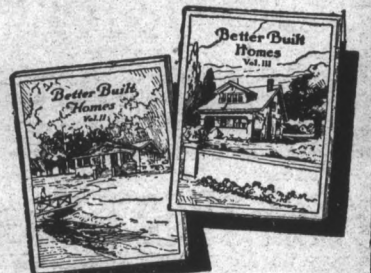
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One Farmer's Ideas on Price Fixing

THERE are those who believe that it will be impossible for the proposed Chamber of Agriculture to determine a just and accurate cost price. They cite the fact that in some localities the land is naturally more fertile and would produce crops at a lower price than in other sections, consequently it will be impossible to fix an equitable price.

In one way this is true, and yet the same fact holds in determining the price for all salable products. It is true in determining the price of human labor which is based on the demand or the necessity for food and for other products. Organized labor demands that he who can produce only a minimum shall receive a sufficient compensation to live. Every employer of labor thinks that he pays some men more than they are worth, compared with others, but he does it because he needs the labor of this minimum worker.

A few years ago, while on a trip in the Upper Peninsula, I was told that there were iron mines that were not being operated because the iron was of such low grade that at the price of iron ore at that time these mines could not be profitably worked. These mines are in operation today because the price is sufficiently high to give a profit over operating costs; however, the profit is not nearly as great as it is in operating mines of higher grade ore, yet the world needs the iron and is willing to pay a price sufficient to allow a profit to be made from mining the low-grade ore.

The same principle must determine agricultural prices. At the present time if we only farmed the more fertile land there wouldn't be anywhere near sufficient food to meet the demand, hence we must have prices high enough so that practically all available agricultural land can be tilled. No one will argue that you ought to make as large a profit as the man who is more fortunately located on more productive land. This is a thing that is beyond human ability to rectify. If the world needs the food, prices must be fixed for the products of the soil which will enable the farmer on this sort of land to make a living.

So the basis of determining the cost will always be the average cost in producing a necessary amount of food just as it is with the production of iron ore, just as it is with human labor. If the world needs maximum production from all the land then we must have prices which will enable people to make a profit from the poorest land. If the world only needs an amount of food which can be produced without the aid of the most unproductive land then a cost price will be determined that will not allow this land to be operated.

But you say this is nothing more or less than the old law of supply and demand. In a way, yes. But one of the great fundamentals of the proposed Chamber of Agriculture will be to try and direct production in such channels that production is modified to demand. There is no business sense in the people of this country putting in bumper acreage of any one crop if the yields will produce more than the consumers need. There are crops that the land can be devoted to where there would be no danger of an over-supply. Now determining the cost of production would be only one of the functions of the proposed economic organization. It would be eminently proper to advise

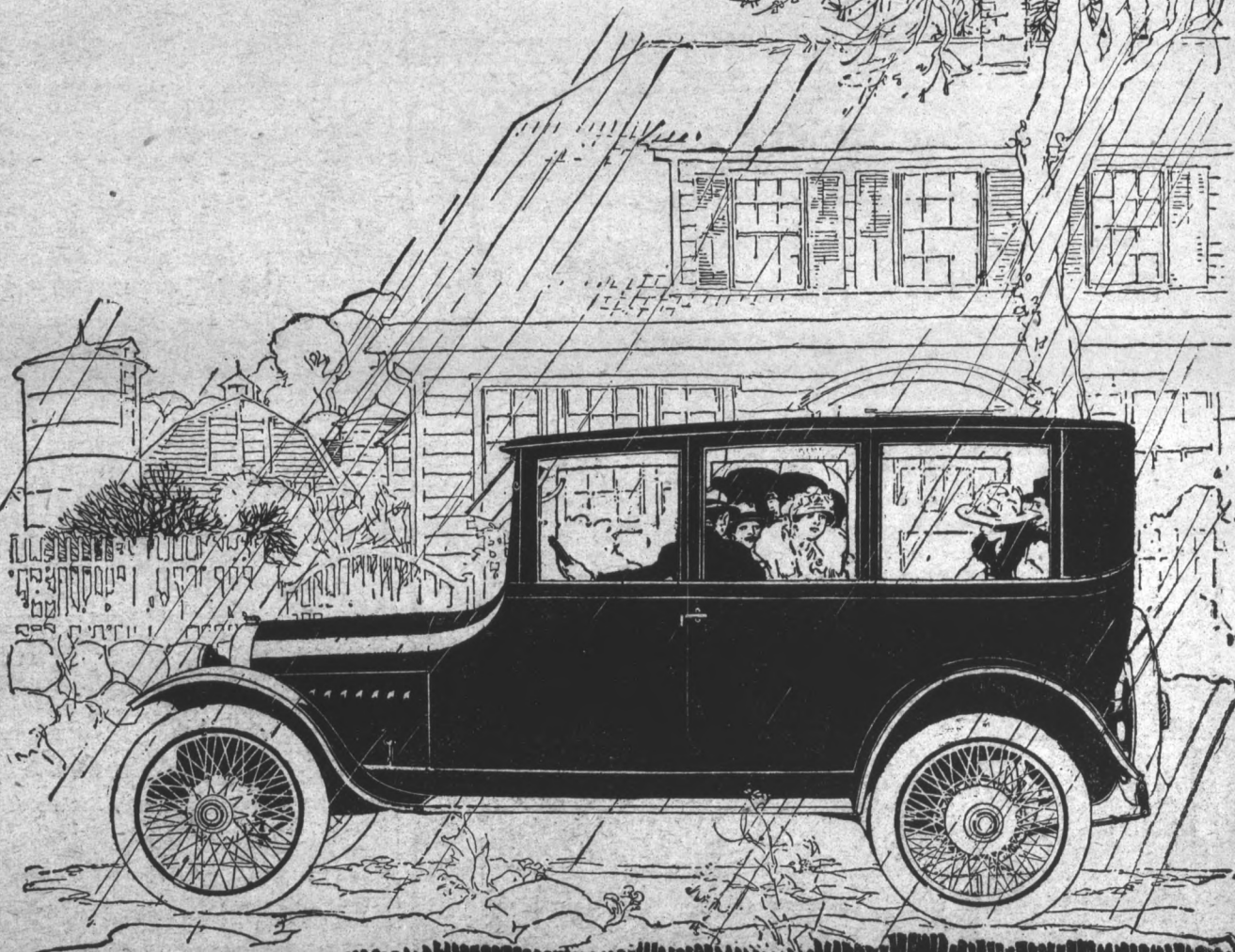
(Continued on page 411).

PARTICULARLY under present conditions can the all-year transportation needs of farm families be well entrusted to the Oakland Sensible Six Sedan. Its exceptional fitness is based on its scientific light-weight construction which makes this Sedan weigh 300 to 500 pounds less than others of similar wheelbase, roominess and completeness. Principally for this reason it is unusually quick, active and economical, affording utmost service at low cost. Further evidence of the high utility value of the Oakland Sensible Six Sedan is noted in its large floor and seating space, permanent pillars, wide doors, efficient heater, and durable fittings.

The high-speed overhead-valve Oakland Sensible Six engine delivers 44 full horsepower at 2600 r. p. m., or one horsepower to every 56 pounds of car weight in this Sedan model. Oakland owners regularly report gasoline returns of from 18 to 25 miles per gallon and records of from 8,000 to 12,000 miles on tires.

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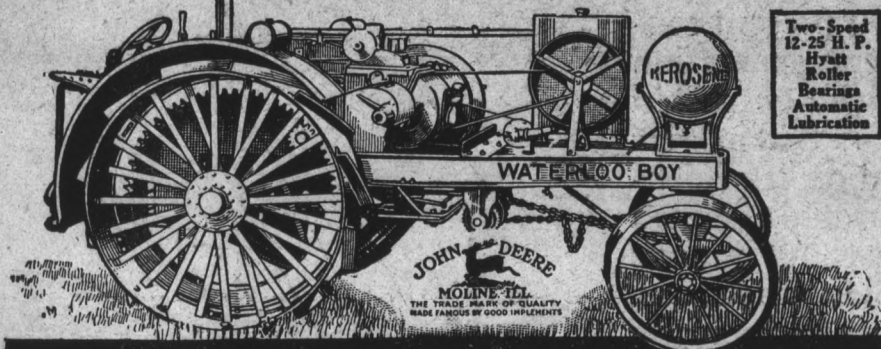
Touring Car, \$1285; Roadster, \$1285; Sedan, \$1860; Coupé, \$1860. F.O.B. Pontiac, Mich. Additional for wire wheel equipment, \$75.00



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Geo. W. Brending, Milford, Ill., writes: "Our tractor has given complete satisfaction. I plowed seventy acres in eight days with a three-bottom John Deere Plow; did most of my discing with it using two 18 in. wheel discs at all times. Kept close record of operating cost—\$2 per day paid for all fuel and lubricating oil when doing a full day's work."



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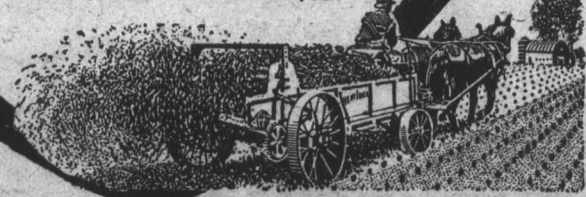
See your New Idea dealer. He is pretty busy and may not get around to you. Call him up and when you go in, insist on the "New Idea"—the machine you are sure of.

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(The following address by Ezra Levin, Muck Crop Specialist of the M. A. C., was delivered before the recent meeting of the Michigan Bean Growers' Association at Saginaw and is here published by request of the farmers present at that session).

MOST of us know that Michigan agriculture was confronted with grave problems before the war. In a few sections these may be clouded by the favorable season that has just passed, but the fundamental ills which are threatening the future of the farming industry are still with us and appear exceedingly serious in view of recent national and international events.

To prove that a representative body of farmers in this state must be formed immediately in order to guide and inform our leaders who are concerned with shaping domestic and international policy of the facts of Michigan agriculture is the purpose of this address.

Our war has taught us the power of propaganda. You have heard this: "The farmer is getting rich," "the farmer has no help because he is too stingy to pay the price," "the farmer is being petted and pampered, look at the automobiles." This vicious propaganda is passing among the commercial men of our state, not through purposeful antagonism but because of the tragic ignorance of the city man of the farmer's problems. Our protests usually do not leave our hearts, we have heard the hiss of the venomous snake who cries, "Disloyalty."

It is hardly necessary to go into the details of our problems. You have experienced them. Your boys and girls have left the farm, your labor income has been less than that of the unskilled laborer, you have been fooled by the unscrupulous buyers and commission men; the fertilizer, feed and seed sharpeners have exacted their toll. Our problems are still with us, as wheat farmers in Michigan, as farmers who bought cattle last fall, fed them all winter and sold them for less than they paid for them, as you bean growers who went through last fall's and this fall's experience, and as the potato growers in Michigan can well testify. Beneath all our problems, peering at the foundation of agriculture, we can see why the structure is in danger of collapse, farming is not a profitable business. Farming does not pay the rewards for the same investment, the same risks, same education as is paid when applied to other lines of endeavor. It is safe to say that the men farming the farms of Michigan even before the war were more than sixty per cent past forty. The younger men were gone, and they will never return, nor will soldiers or sailors which we contemplate placing on farms remain on the farms unless farming is made to pay.

Rest rooms, comfort stations and hitching posts will never challenge this fundamental statement. As a business, as a profession, as a life's work, farming does not pay.

Fourteen thousand farmers in the United States paid an income tax last year. This includes farmers who grow special crops or sell purebred cattle, and seed farmers who cannot be placed in a group of the general farmers of Michigan. Very few farmers in Michigan paid an income tax. How, then, has he all these things, how does he live and save? He pinches and starves, he denies himself and family common conveniences and pleasures for a calculated income of less than \$2.00 a day, twelve to sixteen hours. The wages which his wife and children earn he saves. At the end of ten years after he has paid for the farm, his children leave him, for no other

reason than that farming does not pay. The farmer who works his own place with a hired man today could allow his implements and barns to rot away, leave his land idle, work in the factory in the city, pay his farm interest and depreciation and save more money and be where his children can have a better education and can have the conveniences which his meager income never allowed him to have on the farm, I repeat, it is true today.

We do not have better schools, better recreation, better churches because we do not get enough money for our stuff. Let us not dodge that fact. The economic basis of the future of agriculture in this state of Michigan is "more money for our product." That was true before the war, when civilization was ambling along at slow freight train speed. As a farmer looks around him he is impressed with the fact that the rest of the world is moving along at express train speed while he is still on the slow freight. A little more looking will prove that everyone else is riding in a Pullman while the farmer is pulling the freight.

We have all reached the realization that the great war means more than the mere adjustment of territory. A tremendous rumble is being heard throughout the world beneath the roar of cannon, a rumble of a new civilization which has in its wake a better world to live in, a civilization which can never come unless Germany is defeated and the philosophy of the Hun wiped off the earth.

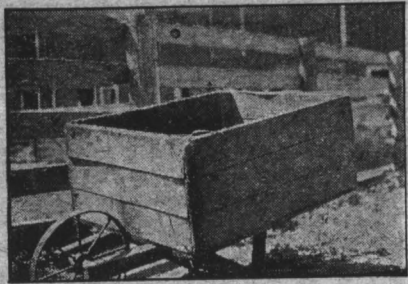
What part, I ask, in this new civilization does the farmer take? Glance over the past year and note the importance and power of labor industries. Their power has been tremendous; organized, they have used it constructively and patriotically for war to the finish by obliterating this monstrous enemy to civilization. They have been assured that the world will be better to them in the future than it has been in the past. We see them taking their places in all the allied countries of the world in the politics of nations. Industrial labor has come into its own, it has been recognized not only as an integral part of war industries, but has made its influence felt in international politics in the new civilization. I call your attention to the fact that today Gompers, the leader of the American Federation of Labor is on the continent discussing with allied representatives the political aspect of the war, the common basis upon which workmen will fight this great war. I call your attention to Arthur Henderson, of the British Labor Party, who has represented labor in the cabinet of England. The upheaval is coming—reconstruction and labor is to exact its rights.

I wish to point out the presence of the War Labor Board and the War Labor Policies Board, and the War Industries Board in relation to industrial labor. The laborer has been urged to unionize, he has been asked by the administration to bargain collectively. His time of work has been defined and it is now being arranged so that wage shall be stabilized through the cooperation of these boards. It has been arranged that those employers engaged in war industries shall be guaranteed a substantial profit, above the interest on the investment, above the cost of labor, without consideration to the price paid. Not only have the owners of the war industries been assured of

(Continued on page 406).

A Handy Barrow

STARTING with one iron wheel the poultryman can usually find enough scrap lumber on the farm to build a satisfactory wheelbarrow for use in the poultry houses. On the frame of the wheelbarrow build a box of any desired height, as illustrated in the photograph. The outfit will be handy for removing the litter from a poultry house at cleaning time. It can also be



used for wheeling mangels, cabbage, cut clover or any kind of bulky green food which is to be distributed to the fowls in the laying houses during the winter. In placing the handles on the wheelbarrow, make them of a width which will permit passage through the doors in all the laying houses.

CORN, SUNFLOWERS AND SOY BEANS.

Having had some experience last year on a large dairy farm, feeding corn, sunflowers, and soy bean ensilage, I decided to try raising them on my own farm last spring.

The field selected was a clover sod. This was plowed early and worked down in good shape. The corn was planted about May 20. This was planted with a hand planter and rowed one way.

As soon as the corn was up nicely, the sunflowers and soy beans were planted. One pound of the sunflower seed and four quarts of the soy beans were planted per acre. These were mixed before planting and then planted with a hand corn-planter, between the hills of corn. They came up quickly, and we soon had prospects for a fine field of ensilage. The frost of June 21, however, blasted our hopes, as the corn was killed to the ground, and some of the soys damaged. The sunflowers alone stood untouched by the frost. Then we had a week of dry, hot weather, during which the corn continued to look dead. The sunflowers, however, made a fine growth. Then, on June 28, came a good shower which started the corn, and soon the field was a thing of beauty.

About the first of August I became convinced that it would be impossible to put up a silo this fall, so was at a loss for a use for my sunflowers, as I was afraid the cattle would refuse to eat them with the cornstalks. However, as the pastures were very poor, I decided to attempt feeding them green. The cattle ate them eagerly, and seemed to do well on them.

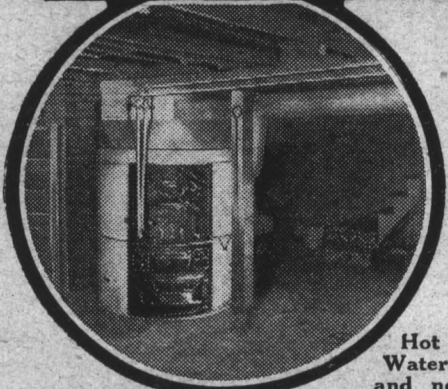
The corn and soy beans also did well, some of the corn reaching maturity before frost. The soys made a great growth, many of them being waist high, and loaded with beans. The medium brown variety was used. Some of these were nearly ripe before the frost of September 25 made it necessary to harvest them. The corn and soys were killed by the frost but the sunflowers still stand green and untouched, (October 1), although it has frozen every night since September 25.

I cut the corn and the smaller sunflowers, shocking it up like corn alone, and pulled the soys, leaving them in small piles to cure out. This should make very valuable hay for the cattle. The larger sunflowers I shall leave to feed green until they freeze. The ripe heads will make valuable feed for the poultry flock.

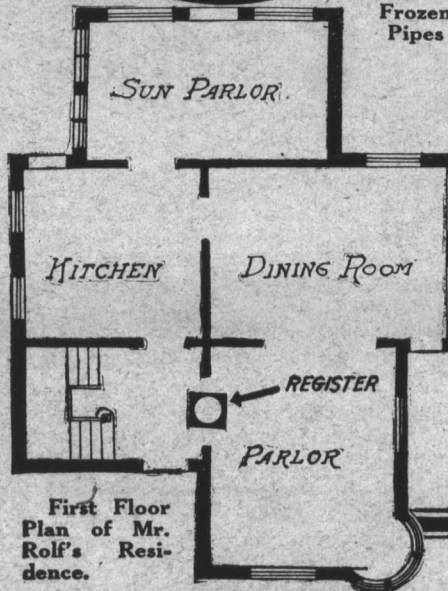
Considering everything, that field is the most profitable one on the entire farm this year. D. D. WOODIN.

Save Fuel
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Win the War

"Real comfortable
at all times."



Hot
Water
and no
Frozen
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Heated All Winter with Five Tons of Coal

In Minnesota, where the cold is severe and steady, the Caloric has made thousands of friends. There's good reason for it, too. Take the story of Johan Rolf, who lives at St. James. Mr. Rolf has had only one winter's experience—but we all know what a winter it was! He says:

"We installed one of the No. 148 Caloric Pipeless Furnaces in our home in November, 1917. Our house consists of eight rooms, one room being on the third floor.

"We have burned only five tons of coal during the last winter and have been real comfortable at all times. None of our water pipes were frozen during the winter. Our house, including the bathroom, has been at all times

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"The Caloric combination system of heating and ventilating makes it one of the most healthful and economical appliances in use. As the air passes through the hot radiator many times every twenty-four hours, it is being sterilized constantly.

"We are greatly pleased with the Caloric Furnace and its work, and recommend it highly to anyone wishing real comfort in the home."

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Think of heating an eight room house in Minnesota all winter through with five tons of coal!

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The Caloric dealer will be glad to show you this furnace, or we will send you our free catalog, which describes this wonderful advance in heating methods, and the names of users in your section, where you can see for yourself. Write to us today.

Burns coal, coke, wood, lignite or gas.

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COW BOY TANK HEATER

Quickest to heat; strongest draft; adjustable grates; ashes removed without disturbing fire; keeps fire 24 hours.

Absolutely Safe; pays for itself in 2 months with 4 cows; Self-Sinking; can be used in Wood, Steel or Concrete Tanks of any size. Most reliable, practical, efficient and durable Tank Heater manufactured.

Purchased 3 of your Tank Heaters last Winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one. W. H. Fox, Prof. of Animal Husbandry, Iowa State College, Ames, Ia. Get a Heater early. Write now for illustrated circulars and dealer's name. THE WILLS MFG. CO., 56 Seventh St., MENDOTA, ILL.



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A dependable, easy running, speedy, high power motorbicycle at low cost. Chain drive. 90 to 125 miles on a gallon of gasoline. Absolutely guaranteed. Write at once for full information, also about the Shaw Attachment—makes your old bike a motorbicycle. SHAW MFG. CO., Dept. 225, GALESBURG, KANSAS



I will condition a Horse or Cow in twelve days.

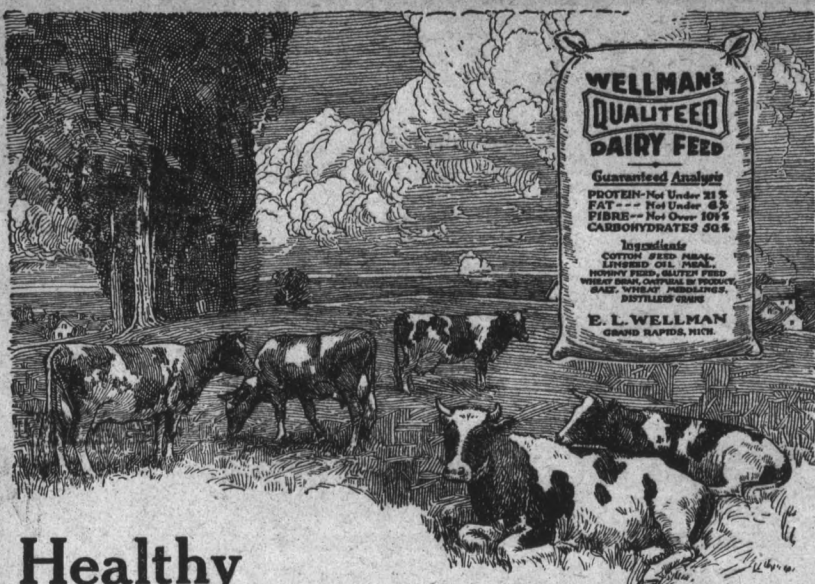
Put flesh on its bones. Give it life and vigor. Can add 50% to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer. P. M. FAUST, BRYN MAWR, PA.



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IT has taken extensive, scientific experimental work with big dairy herds to determine correct rationing. It is an established fact that Health and Condition must come first, Big Production afterward.

Wellman's QUALITEED Dairy Feed

is the solution of the Dairy Ration question. It is the result of new thought and new feeding knowledge; it eliminates the shortcoming of many old-time feed formulas and feeding ideas. See the guaranteed analysis of Wellman's Qualiteed Dairy Feed on the bag here illustrated. It is a well balanced, high grade feed, guaranteed to keep the dairy herd healthy and make it produce, and it costs less than other high grade dairy feed.

It's Wise To Order NOW

Do not delay ordering your winter's supply. Feed will be scarce. Transportation is not as certain as it used to be. See your feed dealer without delay and tell him how many tons you will want. Give him time to order a car. If he cannot supply you, write us.

E. L. WELLMAN
GRAND RAPIDS, MICHIGAN

FEEDING HOGS? THEN HERE IS WHAT YOU WANT!

Ask your dealer for

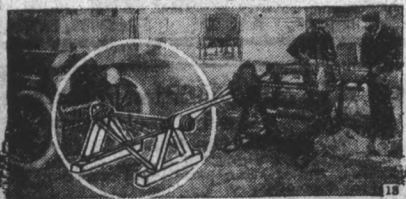
DIAMOND HOG MEAL

Made from the nutritious hearts of corn kernels

Write to C. FRANCIS, 909 Ford Building, Detroit, for sample, literature and particulars

Use Your Ford!

or your OVERLAND, DODGE or CHEVROLET to
Saw Your Wood
Grind Your Feed Fill Your Silo
Shell Your Corn Pump Your Water
and do all other power jobs.



Ward Work-a-Ford

Gives you a 12 h. p. engine for less than the cost of a 2 h. p. The Ford car has a powerful engine—it will outlast the car—and you might as well save your money and use it to do all your farm work.
No wear on tires or transmission. Hooks up in 3 minutes. No permanent attachment to car. Cannot injure car or engine. Also used on other cars.
Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. Money back if not satisfied. Ask for circular and special price.
THE WARD CO., 2038 N St., Lincoln, Neb.

NEVERSLIP

Red Tip Calks
Insure
STRONG EVEN PULLING
ON ICY ROADS
No Farmer can afford to risk losing a valuable horse through falls on icy roads when safety is so cheap and convenient. Red Tip Calks insure safety to the horse and comfort to the driver.
Your Blacksmith Has Them.



THE NEVERSLIP WORKS
NEW BRUNSWICK, N.J.

Spring Wheat for sale, marquis variety, heavy yielder, the new kind that does well in Michigan.
FARWELL MILLS, Farwell, Mich.



Our Farmers Must Save Themselves

(Continued from page 404).

a profit, and labor a high wage and adjustment of conditions during the war, but they have been given by their recognition in the councils of state and assurance as to their representation in the future and a promise of solution of their serious problems to come. These are facts. Let us add another fact. We look at ourselves and see the biggest, most important basic war industry, the most precarious, the business of the biggest risk—the farming business. It has been conducted by capitalizing the patriotism of the farmer of Michigan by appealing to his loyalty to raise wheat at less than production cost, potatoes and beans and other farm produce at the mercy of all the tragic conditions which confronted us before the war except with the added most significant problem—farm labor shortage.

The farmer is a farm laborer, he is not a capitalist. He works; he is an actual producer. He hires laborers, not only for him but to work with him. What would happen if the farm laborers and hired men would unionize and demand their rights, demand a place in conducting their business as has been the case in other industries urged and fostered by the War Labor Board of the administration? Should they not receive the price of skilled labor, five to ten dollars a day? Are they not skilled laborers in the most essential war industry? How quickly could a machinist become a valuable farm hand as compared with the time that a farm laborer can become a machinist.

We have a farm laborer shortage because we cannot compete with other war industries. Our men, not only farm help but farm owners, are leaving their farms to work for the wages that the war industries are paying on a basis of so much profit above your expenses, no matter what they pay their men. Why has there not been an arrangement with us on that basis? The farmer will be glad to accept the price of an impartial commission which will fix the labor income of the farmer equal to the wage of a machinist, take in consideration interest and depreciation upon the capital invested; pay him percentage above his production costs in the same manner that munition makers receive. Moreover, the farmer would assume the risk, a risk which is even greater than the making of munitions. Why should we be called upon to subsidize the rest of the workers of the United States? The fundamental reason for labor shortage is that we cannot afford to pay the price. If we are to pay ourselves and our help the price they should receive, we would have to quit. We have a labor shortage because we producers are not getting enough for our product. We cannot pay our help enough. That is the reason our boys have left the farm. We could not pay them enough.

What is the new civilization going to do with the farmer? Have we representatives, the proper representatives to present our case? We are also interested in reconstruction, vitally interested. Soldiers and sailors are to be placed on farms; that concerns us. If changes are to take place in the labor conditions in the world, what is to happen to farm labor? Farm laborers must be guaranteed more than a living. He must be assured an opportunity for

advancement, namely—the accumulation by saving enough to buy a farm. To guarantee an education for his children without starving himself or denying himself the common pleasures and desires. This is what industrial labor will demand. The condition of labor will be better than it has been in the past. If we have not been able to compete with industrial labor in the past, how much less will we be able to do so in the future? It points again to the fundamental consideration, we must get more money for our produce. Yet we have nothing to compare to the various boards and committees which have been appointed for adjustment of industrial labor difficulties and much less have we a representation of the farmers of this nation to resemble the American Federation of Labor who are dictating policy in the offices of the administration, not only national but international policy.

Secretary Lane recently said: "We do not want a peasant class. We want men of supreme self-respect. We do not want a tenant class, now growing rapidly in this country. We want men who work for themselves, who preserve the values in the soil, who make improvements and who become a part of the permanent community."

If we wish to maintain our farms as independent units, if we must pay ourselves and our help what they ought to have, then we must get more money for our produce. If not, the exodus of the fine young men and women will continue—to better fields—better, not spiritually or socially, but better economically.

The problem of the reconstruction in relation to agriculture is here today. How are we to get more money for our produce?

In view of the fact, there are those who believe that it is to be accomplished by a better agriculture, a better system of farming and application of scientific facts; there are those who believe that our distributing system of farming is all wrong and that the middleman must be eliminated; there are those who believe that the price of food must be raised to the consumer.

The future of American agriculture is at stake. There can be no question but that the proper handling of soils, prevention of diseases, and insect injury, pedigreed grains and better methods of distributing by regulating or eliminating our unnecessary middlemen and preempting his place by cooperation and organization will give the farmer a greater income. There may be some question as to making the consumer pay more for his food. They must all be considered but there can be no question but that the farmer must get more money for his produce, in order to pay himself a decent living wage, which will allow him to be a vital, active force in his community, and will be attractive to his boys and girls, in comparison to the city opportunities which will be much more attractive after the war than they have been before.

(The second portion of Mr. Levin's article will appear in next week's issue of the Michigan Farmer).

The coming of peace will not add one pound of food to our supply.

There will be greater demands for food over a considerable period after the war than now.

Please Mention The Michigan Farmer When Writing to Advertisers

Save the Michigan Seed Potatoes

IF the people of the state of Michigan are to realize maximum benefits from the well-directed labors of Prof. C. W. Waid and the agricultural agents of several potato-growing counties in improving the quality of the potato crop, immediate plans must be made to assist in financing the seed potato business. In justice to the progressive farmers, who have gone to extra expense to produce a quality of seed adapted to Michigan conditions, plans must be made to insure them against speculating buyers from other states who are preparing to take advantage of the situation and gain control of next year's supply.

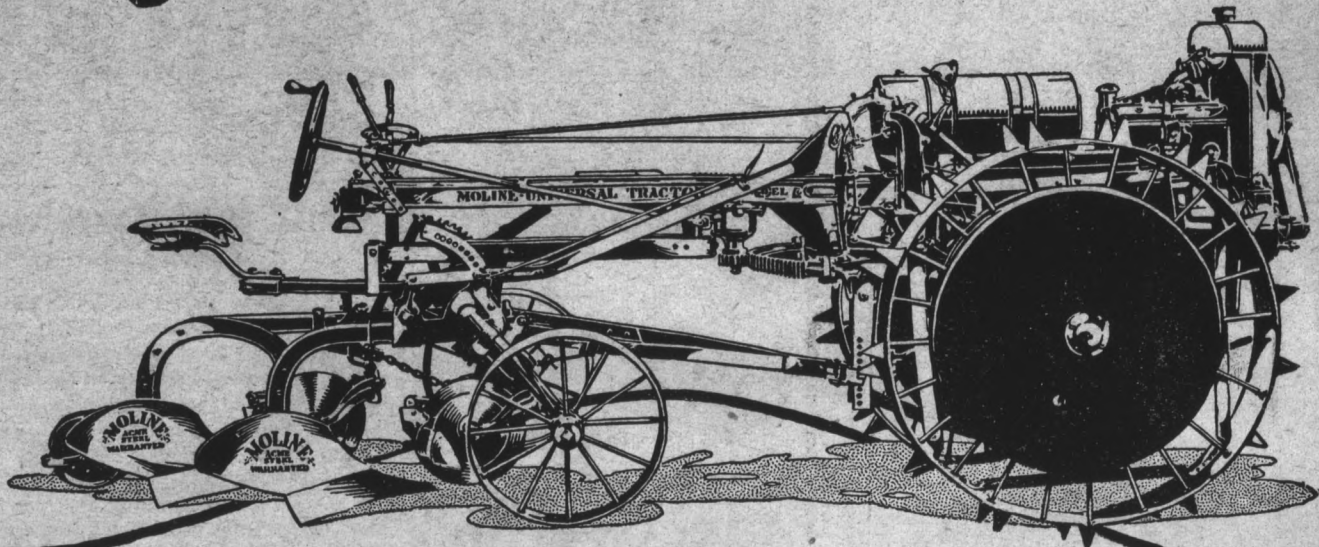
As the potato industry in Michigan develops, the growing of pure seed for home-planting is sure to prove the very life roots of the industry. Discourage seed production and the future of the industry in the state is ruined. Some of the farmers in the northern counties depend upon potatoes for most of the good things in life, and if we neglect to encourage the production of good seed at least one-third of these good things must be sacrificed.

Growing improved seed potatoes certainly sounds like a feasible and attractive business proposition, but like all other new schemes it will have to go through various processes of development before it can be made a safe and dependable business for the farmer who lacks the capital necessary to hold his seed crop until planting time the following spring. More than two-thirds of the growers in several of the northwestern counties, who have worked for the betterment of their fellow growers, through growing seed of superior quality, must dispose of their crop at little above table prices unless they can secure substantial loans.

A conservative estimate of the increase in annual yield that might reasonably be expected from the use of high-grade seed in Michigan is certainly not less than twelve and one-half per cent. Such an increase, based on the past five years' production would amount to more than four million bushels, having an approximate value of five million dollars per year. Then, we must bear in mind that planting pure seed of a given variety not only increases crop yields, but it makes it possible for Michigan potato growers to break into new markets with a quality product for which a premium will gladly be paid. It is the opinion of the leading potato growers and shippers of Michigan that the potato industry will never come to its own until it reaches a vastly higher condition of standardization than it has attained today. To accomplish this the growers of pure seed must be encouraged in every way possible until they are able to develop an organization that will put the business on a safe basis.

The stringency of the money market at the present time renders the proposition of financing the pure seed business far more perplexing than it would be during normal times. Then, too, the fact that so few country bankers are able to assist in building up the agriculture of the communities through acquiring connections with Federal Reserve Banks, which have the authority to loan up to eighty per cent of the value of the potatoes upon warehouse receipts as collateral security, is making it doubly difficult for Michigan seed growers to finance their business. In the face of these facts it seems that it would prove sound business policy on the part of the state, through its War Preparedness Board, to set aside funds that could be loaned to country banks so that the money could be made available to loan the growers of pure seed. In this way the farmers of Michigan would be assured of a supply of good seed potatoes for next year's planting.—W. M. K.

Buy Your Moline Tractor Now



Because:

You may not be able to get a Moline Universal if you delay ordering.

You will help relieve spring congestion of shipping by buying now.

You will have plenty of time to become familiar with its construction and operation before the spring rush and will be able to work your tractor in on belt work and other light jobs.

It is the only tractor which does all farm work including cultivating.

One man operates both tractor and implement from the seat of the implement where you must sit in order to do the best work.

Tractor and implement form one unit—backs as easily as it goes forward—turns in a 16-ft. circle.

It has plenty of power for your heaviest work, yet light in weight to operate economically on light jobs. All the weight on two big drive wheels—no dead weight—no extra expense.

Substantially constructed for many years of service.

Electric lights for night work and self starter for non-robust labor.

You can practically double your efficiency—you can produce more food with less help. You will need it, order now.

Write today for full information and name of your nearest Moline Dealer. Address Dept. 42.

Moline Plow Co., Moline, Illinois

MOLINE UNIVERSAL TRACTOR



Only \$2 DOWN and One Year To Pay

For any Size—Direct from Factory

You can now get one of these splendid money-making, labor-saving machines on a plan whereby it will earn its own cost and more before you pay. You won't feel the cost at all.

\$38 BUYS THE NEW BUTTERFLY

No. 24 Junior—a light running, easy cleaning, close skimming, durable, fully guaranteed separator. Skims 120 quarts per hour. We also make four other sizes up to our big 800 lb. capacity machine shown here—all sold at similar low prices and on our liberal terms of only \$2 down and a year to pay.

30 DAYS' FREE TRIAL GUARANTEED A LIFETIME

Against defects in material and workmanship

You can have 30 days FREE trial and see for yourself how easily one of these splendid machines will earn its own cost and more before you pay. Try it alongside of any separator you wish. Keep it if pleased. If not you can return it at our expense and we will refund your \$2 deposit and pay the freight charges both ways. You won't be out one penny. You take no risk. Postal brings Free Catalog Folder and direct from factory offer. Buy from the manufacturers and save money. Write TODAY.

ALBAUGH-DOVER COMPANY, 2165 Marshall Blvd., Chicago, Ill.

Patented One-Piece Aluminum Skimming Device, Rust Proof and Easily Cleaned—Low Down Tank—Oil Bathed Ball Bearings—Easy Turning—Sanitary Frame—Open Milk and Cream Spouts.

Over 125,000 new Butterflies separators now in use.

Cow Waters Herself

With this wonderful new Libbey Automatic Water Bowl. Each bowl controls own water supply. Animal moves lever, opening water valve, when it starts to drink. Lever swings back closing valve when animal stops drinking. No float tank required. Bowls may be put at different heights or in any stall or pen. Cannot overflow; cannot get out of order; almost no water left in bowl. Most sanitary bowl ever sold. Prevents spread of contagious diseases. Increased milk yield quickly pays back cost. Saves labor; saves feed. Write today. If interested in Stanchions, Stalls, Carriers, etc., ask for General Catalog. Sent free.

C. A. LIBBEY COMPANY
4 Jay St., Oshkosh, Wis.

Lump Jaw

The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

Sold for \$2.50 a bottle under a positive guarantee since 1896—your money refunded if it fails. Write today for FLEMING'S VEST-POCKET VETERINARY ADVISER. A book of 197 pages and 67 illustrations. It is FREE.

FLEMING BROS., Chemists, 252 Union Stock Yards, Chicago

You can be quickly cured, if you STAMMER

Send 10 cents coin or stamps for 70 page book on Stammering and Stuttering. "Is Cause and Cure." It tells how I cured myself after stammering and stuttering 20 years.

BENJAMIN N. ROGUE, 1199 N. Illinois St., Indianapolis, Ind.

Earn Big Money Cutting Wood

With a Howell Drag Saw Machine. Turn your timber into cash. Big coal shortage. The demand and prices for fire wood are greater than ever. Our drag saw cuts more wood in less time and at less expense than any machine built. Send today for our FREE catalog and prices.

R. R. Howell & Co., Mfrs., Minneapolis, Minn.

Investigate Now.

WOOL HELD BY GROWERS NEEDED.

A SURVEY of the wool situation shows that there is still an appreciable amount of wool in the hands of growers, particularly in the fleece wool sections. The military needs of the government make it desirable and necessary that this wool be gotten to the wool centers as soon as possible. Farmers who have not marketed their fleeces are being asked and urged by the Wool Section of the War Industries Board to send whatever supplies they may have as quickly as possible, and thereby confer a public benefit in overcoming to some extent at least, the shortage of wool for military purposes.

FEEDING SILAGE OF CORN AND SUNFLOWER.

MR. C. J. THOMAS & SONS, farmers living south of Owosso, have received a carload each of sheep and cattle, the sheep coming from northern Michigan and the cattle from Detroit yards. To this stock the men will feed ensilage containing a liberal percentage of sunflowers. Mr. Thomas, who was the first in the country to raise sunflowers with his corn, declares that these plants contain a large percentage of protein and for this reason make the ensilage much more valuable for feeding. He raised sunflowers for the first time in 1917 and asserts that his milch cows produced more milk with fifty per cent less grain when fed on ensilage containing the sunflowers than they did the year before on the ensilage without the sunflowers. That Mr. Thomas is right may be seen in Henry's comparisons of green sunflower and corn silage as follows:

	Corn Silage.	Sun- flower.
	%	%
Water	73.7	76.0
Ash	1.7	2.6
Crude protein	2.1	3.6
Carbohydrates	21.7	15.4
Fat	0.8	2.1

WHEAT SAVING IN "BREAD AND BUTTER STATE."

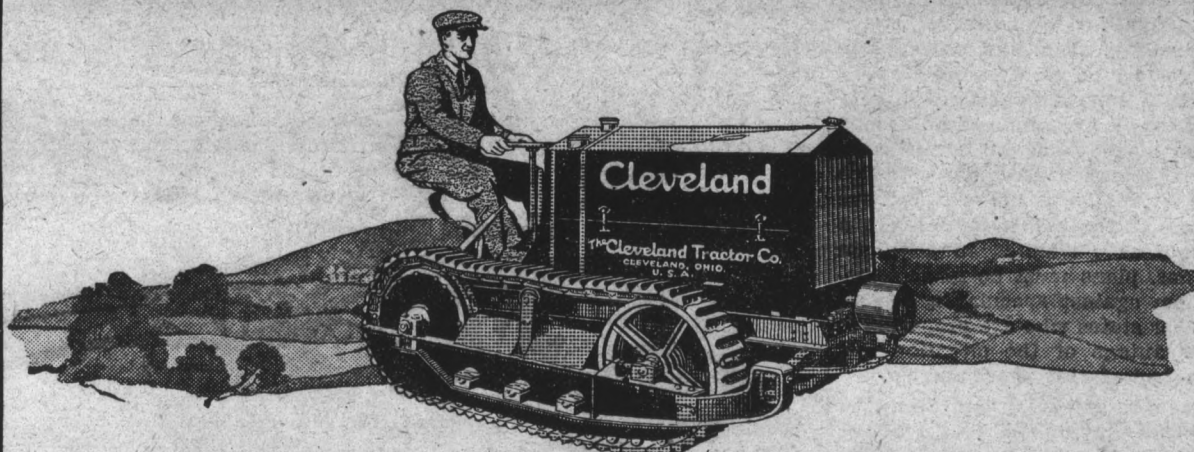
FOLLOWING the discovery that a million bushels of wheat, valued at more than two million dollars, had been saved as a result of activities of the Food Administration Grain Threshing Division in the state of Minnesota alone, plans are now under consideration for making the work permanent. L. D. Bassett, of the University of Minnesota, proposes annual farm courses in each county to last a week between corn planting and the haying season of 1919.

Mr. Bassett declares it will be possible to retrieve immense quantities of wheat and other grains when the grain producers are thoroughly alert to improved threshing methods which not only eliminate waste but frequently reduce the amount of labor required.

A BIG ARMY.

DURING the past year a million and a half boys and girls have enlisted in the school garden army, twenty-five thousand acres of unproductive home and vacant lots have been converted into productive land, and hundreds of thousands of parents have been enlisted in the movement, according to statistics furnished by the school garden commission. Nor is this all, for fifty thousand teachers have received valuable instruction through the booklets sent out, and boards of education and other civic organizations have given financial and moral support to the movement. All this has given the country not only a great store of food, but a great moral and spiritual uplift, according to the authorities of the school garden army.

Cleveland Tractor



Machinery Must Replace Muscle

Man-power is at a premium on our farms.

War has taken several million men into the service.

And in spite of these conditions, which are steadily growing worse, there must be more crops produced than ever before.

Machinery must replace muscle.

Thousands of Cleveland Tractors are successfully meeting the labor shortage and the demand for increased production.

The Cleveland Tractor, pulling two 14-inch bottoms in medium soil, plows $3\frac{1}{2}$ miles an hour—eight to ten acres a day. That is all you can expect from three good men with three good 3-horse teams.

The Cleveland travels on its own tracks, laying them down and picking them up again like the famous battle "tanks." It turns around in a twelve foot circle. It gives you 12 horsepower at the drawbar for pulling, and 20 horsepower at the pulley for stationary work. It has 600 square inches of traction surface continually on the ground and will go almost anywhere. It weighs less than 3200 pounds.

But in spite of its power, the Cleveland Tractor is so small that it can easily go under and among small trees.

It will go through ditches, gumbo, sand and gravel, over unused roads, plowed fields and stubble. It will not pack the soil, will not mire or flounder.

Rollin H. White, the famous automotive engineer, is the designer of the Cleveland Tractor. It is produced under his supervision.

He has used only the best materials. Gears are protected by dust-proof, dirt-proof cases.

The track is designed for long service. The sections are joined with hardened steel pins which have their bearings in hardened steel bushings.

You must replace muscle with machinery on your farm.

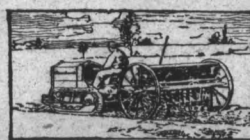
The Cleveland Tractor offers the means of meeting the emergency.

Write us for detailed information and name of the nearest Cleveland dealer.



The Cleveland Tractor Co.

19021 Euclid Ave., Cleveland, Ohio



INTERNATIONAL LIVESTOCK SHOW

Nov. 30th to Dec. 7th
Union Stock Yards, CHICAGO

A Food Production Camp in the
Service of the United States

Daily Sales of Pure Bred Live Stock.

RED POLLED SALE

Wednesday, Dec. 4th, 10:00 A. M.
For particulars write H. A. Martin,
Gotham, Wis.

POLLED DURHAM SALE

Thursday, Dec. 5th, 10:00 A. M.
For catalog write J. H. Martz,
Greenville, Ohio.

HEREFORD SALE

Friday Dec. 6th, 1:00 P. M.
For catalog write R. J. Kinzer,
1009 Baltimore Ave., Kansas City, Mo.

ABERDEEN-AUGUS SALE

Wednesday, Dec. 4th 1:00 P. M.
For particulars write Chas. Gray,
Union Stock Yards, Chicago.

SHORTHORN SALE

Thursday, Dec. 5th, 1:00 P. M.
For catalog write F. W. Harding,
Union Stock Yards, Chicago.

A season of Instruction in the Art of Breeding
and Feeding of Live Stock Economically

ANSWER THE NATION'S CALL and put Into Practice
The Lessons this Exposition Teaches
Brilliant Evening Shows and A TRIP TO CHICAGO
Lowest Rates on all Railroads

Warranted to Give Satisfaction

Gombault's Caustic Balsam



Has Imitators But No Competitors

A Safe, Speedy, Positive Remedy for

Curb, Splint, Sweeney, Capped Hock,
Strained Tendons, Founder, Wind Puffs
and Lameness from Spavin, Ringbone
and other bony tumors. Cures skin
diseases or Parasites, Thrush, Diphtheria.
Removes Bunches from Horses or Cattle.

As a Human Liniment and Antiseptic for
external use it is invaluable.

Every bottle of Caustic Balsam sold is war-
ranted to give satisfaction. Price \$1.75 per
bottle. Sold by druggists, or sent by parcel
post, with full directions for its use. Send for
descriptive circulars, testimonials, etc. Address
The Lawrence-Williams Co., Cleveland, O.

Please Mention The Michigan Farmer When Writing to Advertisers

CAMERAS THAT MAKE MAPS

By Earle W. Gage

THE new map in your school geography of Alaska and northwestern Canada; the recent maps of the European battle fronts, and of remote parts of the world—these were made with a panoramic camera. The first map made by men was probably drawn upon the sands as he showed his brother man how a certain country lay, and the distances between principal centers of interest. Various unique and complicated instruments have from time to time been devised by the mind of man in supplying our need for new and accurate maps of the world's countries.

But the greatest advance in map making was made when it was discovered some time ago that the plate or film camera could be used to make maps far more accurate; make them quicker and more economically, than any other instrument.

The value of perspectives to engineering had been recognized many

years before the advent of the photographic camera, and when in 1839 the facts of the discoveries that had been made by Niepce and Daguerre were presented to the French Chamber of Deputies the aid which photography promised to bring to the construction of topographic maps was forecast.

Though France led in this particular field of thought it was not long before scientists of other European countries began to experiment with the camera. In Germany, Meydenbaur was the leading spirit in adapting photographic methods to engineering needs. His work consisted of devising original methods of his own as well as introducing those that had been developed earlier in France. The interest which he and others aroused led to the employment of photography for a great variety of scientific purposes. One of

the significant developments was the adoption by the Prussian general staff of photography for military surveys. Before 1870 a corps had been organized and trained in photographic methods, and it assisted in the military operations of the Franco-Prussian campaigns.

But it is of the panoramic camera that we are more interested, since map-making was crude until modern engineers discovered the wonderful utility of this instrument in making accurate maps.

The first period of activity in applying photography to engineering practices is characterized by the development of the plate camera in connection with the theodolite. Instruments of considerable precision resulted, and these were mainly phototheodolites of various forms and arrangements. This

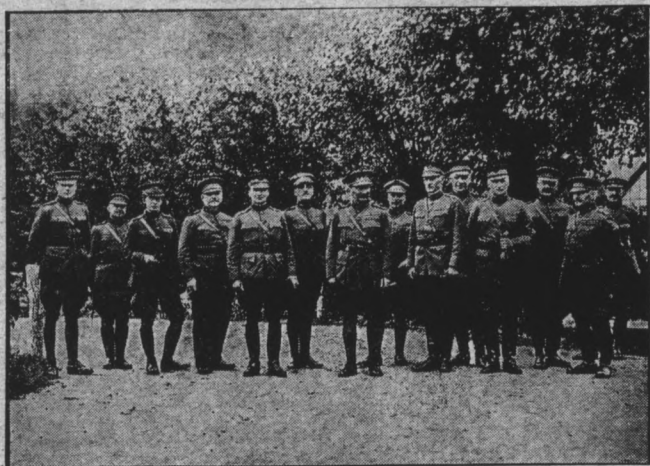
period extends to about 1900. About that time E. Deville, surveyor general of Dominion lands, Canada, took up the idea of using stereoscopic (double) photographs instead of single photography. More than thirty thousand square miles of territory has been mapped by the Canadian government bureaus, including the International Boundary Commission and the Geological Survey of Canada, with the camera since this discovery was made.

It was F. E. Wright, and C. W. Wright, brothers, in the employ of the United States Geological Survey, who in making their survey of Alaskan territory, evolved the panoramic camera for making maps of mountainous regions. The latest maps of these regions were made with this camera.

With the rapid development of the airplane and dirigible balloon in European countries came a corresponding development of aerial photography for

(Continued on page 420).

WORLD EVENTS IN PICTURES



Belgian Leader in Recent Successes (Center) Entertains American General and Staff.



General Bullard, Commander of American Forces in Argonne District.



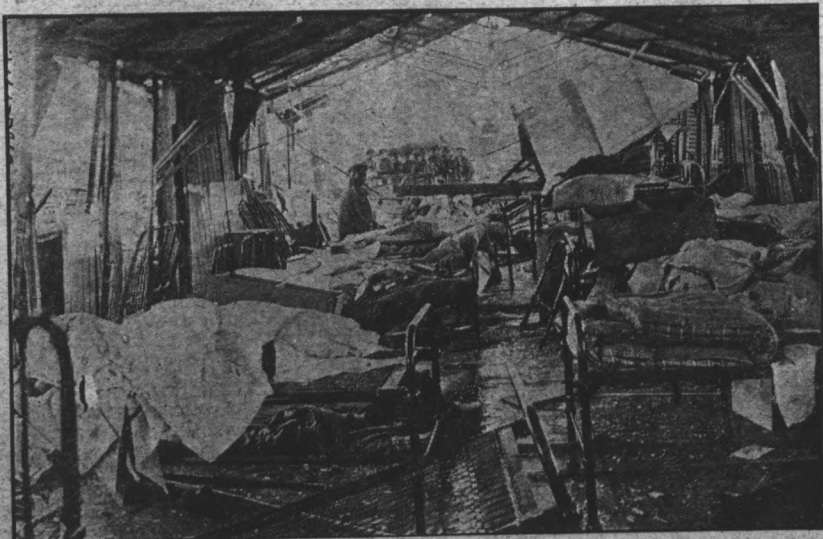
British Cavalry Charging Over the Top of a Ridge, Galloping at Full Speed.



Bethune, Once Beautiful and Prosperous, Devastated by Retreating Huns.



All that was Left of a Minnesota Farm Home After the Fire.



British Hospital After a Deliberate Air Raid by the "Peacemakers."



President Wilson Marching in Liberty Day Parade in New York City.

Serious Questions Confront Michigan for Decision in the Next Few Days.

Are the laws made only to control the poor and to be cast out by the rich?

Will the people approve the auction sale of a seat in the United Senate---"SOLD" to the highest bidder?

The Newberry millions have been known in exclusive circles for forty years, yet Mr. Newberry's campaign managers claim it was necessary to spend \$176,000 to introduce him to the people.

Within fifteen years, Henry Ford by his own ability is known to the entire world—Why? Because he believes that the welfare and happiness of all mankind is the most essential thing in the progress of a nation.

Newberry's managers paid \$176,000 for his nomination—Henry Ford paid not one cent.

Fair wages—The right to live and be respected, is the Ford idea of life.

Think—which of the two types of men would you have to represent you in the U. S. Senate?

John W. Bailey, candidate for Governor, rises from the ranks by his work. Is introduced by his home folks as absolutely fearless, because he has lived his life an honest, honorable man.

He knows no middle ground—and as Governor he would be Governor—not a neutral politician.

President Wilson needs helpers in Congress. If you send the democratic candidates to him you are helping.

PUBLISHED BY DEMOCRATIC STATE CENTRAL COMMITTEE.

(ADVERTISEMENT).

News of the Week

Wednesday, October 23.

ALLIED troops reported near Valenciennes, despite desperate enemy resistance. British troops take positions on the Scheldt river south of Tournai and also villages to the north. —Belgian troops reach the Lys canal. French advance in the Laon district. —Enemy brings forward fresh troops to oppose the American lines northwest of Verdun. —Serbians and French operating in Macedonia make satisfactory progress. —The military war council in France will probably dictate President's reply to German's latest note. —Counter revolutions are gaining force in nearly all sections of Russia, although Bolsheviki officials harshly oppose the movements.

Thursday, October 24.

PRESIDENT WILSON informs Germany that there can be no armistice except on terms that would make it impossible for Germany to renew hostilities; this virtually means the surrender of the Teutonic armies. —Serbians and French are within six miles of the Danube river. They capture 3,000 prisoners at Ipek. —Roumanian government declares all Roumanian ports on the Black Sea and the Danube river closed. —Germans are quitting Ghent. —The west bank of the Lys canal is in the hands of the Allies. —American troops resist strong German attacks and make additional advances northwest of Verdun. —Secretary Baker reports 2,008,931 American soldiers have left this country to participate in the war.

Friday, October 25.

GERMANS stubbornly resist the Allies between Valenciennes and Le Cateau, north of Laon between the Oise and Serre rivers and on the front from Grand Pre to the river Meuse; but in each of these sectors the enemy is retreating. Valenciennes is being gradually enveloped. American and British forces repulse heavy attacks by Bolsheviki infantry against Allied positions on the Dvina river which flows into the White Sea at Archangel. Independence party of Hungary demands immediate independence, a separate peace, the resignation of the present Hungarian cabinet, the dissolution of the alliance with Germany and an independent Slavonian state under a Hungarian king. These demands were made under threat of a revolution if not allowed.

Saturday, October 26.

THE advance of British, French and American troops south of Valenciennes threatens the whole German line and is forcing the enemy to bring raw troops from the east to bolster up his weakening lines. In this battle 12,000 Germans are reported captured. —In a furious battle near the Meuse, Americans capture advanced positions which firmly fix their position in Belleau woods. —French patrols cross the Danube river, invade Roumania and defeat German detachments. Italians start major offensive on a sixty-mile front along the Piave river; nearly 5,000 prisoners are taken. —Fuel Administrator Garfield refuses bituminous coal miners an increase in wages. —Accredited representatives of Slavonic countries opposed to the central powers meet in Independence Hall, Philadelphia, to renounce Imperialism and declare themselves in favor of government by and for the people.

Sunday, October 27.

BRITISH make gains south of Valenciennes, force enemy across the Rhonelle river, take 1,000 prisoners and advance two miles in a northwesterly direction. —French forces supported by tanks carry out a vigorous thrust between the Oise and Serre rivers, driving the enemy from several villages. —Americans maintain their positions along the Meuse river, despite violent opposition. —Italian cavalry reaches Bulgarian border fifty miles south of Sofia. A successful assault on Austrians along the Piave river is carried out and 2,000 prisoners taken. —Canadian steamship Princess Sophia with 268 passengers is lost off Alaskan coast in heavy storm. —Eastern cities put clocks back one hour after nearly seven months under the "daylight saving" plan. —Ella Flagg Young, noted educationalist, for six years superintendent of schools in Chicago, and chairman of National Woman's Liberty Loan committee, died of pneumonia following an attack of influenza.

Monday, October 28.

GERMANY'S answer to President Wilson's latest communication notes the far-reaching changes which the German people have carried out, that peace negotiations are being conducted by a people's government in whose hands rests, both actually and constitutionally, power to make deciding conclusions, and that the German (Continued on page 426).

SHEEP

Hampshire

Shropshire and Oxford, either sex, send for circular and prices.
KOPE KON FARMS, Kinderhook, Mich.

Hampshires am offering for sale 10 yearling Rams also 5 ram lambs
F. A. SIMMONS, Rockford, Mich.

Merino and Delaines having size, covering, oily fleeces, quality, rams worth the price, write wants. S. H. Sander, R. 2, Ashtabula, O.

8 Shropshire Ewe Lambs \$200 8 Hampshire Ewe Lambs \$320. 8 Hampshire Ewes (bred) \$400.
J. M. WILLIAMS, Box G, No. Adams, Mich.

For Sale—Eight Registered Yearling Shropshire Rams For \$40 each, one three yr. old at \$60. Sired by Coopers (8120) that was champion at Detroit.
O. V. TRACY, Ithaca, Mich., Union Phone

Shropshires Ram lambs for sale, sired by an imported Butter ram.
W. B. McQUILLAN, Howell, Mich.

Shropshire yearlings and ram lambs, one Kope Ram 2 yr. old ram. All wool-mutton type
G. P. ANDREWS, Danville, Mich.

Brookside Farm offers Shropshires of quality, 10 ewes 40 rams.
DAN BOOHER, R. 4, Ewart, Mich.

Registered Shropshire yearling and ram lambs with best of breeding and size. A son of Tanners Royal at the Head. Priced to sell.
H. F. MOUSER, R. 6, Ithaca, Mich.

Registered Yearling Shropshire ewes of a quality that give satisfaction. Bred to high class ram. Also strong vigorous ram lambs ready for service. Flock established 1890.
C. LEMEN, Dexter, Mich.

Have a few good yearling and ram lambs Also a limited amount of young ewes.
HARRY POTTER & SON, Davison, Mich.

FOR SALE Shropshire Ram lambs 10 bred ewes and 10 Ewe lambs.
ARMSTRONG BROS., R. 3, Fowlerville, Mich.

Registered Shropshire Rams Good Wool, Good Quality.
LAKE SIDE DAIRY, Lake Odessa, Mich.

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EARL C. McCARTY, Bad Axe, Mich.

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Reg. Oxford ram lambs; come by auto and take the choice at \$30 and \$35 fine stock. 2 S. 3 W. St. Johns.
J. R. HICKS, St. Johns, Mich.

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H. B. PETERS, Carland, Mich.

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FOR SALE Oxford Sheep, Yearling and ram lambs.
H. W. MANN, Dansville, Mich.

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and yearling rams. O. M. York, Millington, Mich.

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R. L. LYBROOK, Berrien Springs, Mich.

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BARNARD SHEEP RANCH, Clare, Mich.

For Sale Thoroughbred Registered Rambouillet, Yearling Rams \$65.00 per head.
J. W. GRAHAM, Davisburg, Mich.

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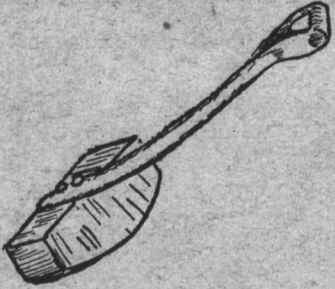


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Silage Filling Tool

I CALLED to see a farmer friend one day; it was in the fall, and he was busy filling his silo. I looked into the silo, and there were two men tramping the silage down, as it came in from the cutter. I noticed that they had a peculiar tool which they used; I had never seen such before. I have drawn a picture of this instrument, which is shown herewith. I asked



the farmer what its use was. He told me that for quite a few years he had more or less bother with the silage not keeping well around the edges of the inside of the silo, notwithstanding he had given particular instructions that it was to be thoroughly tramped down by the men inside the silo, while filling. So he devised this tool as shown, which each man uses, and as he walks around, although he tramps it with his feet as usually done, he also presses the silage down with this tool, thereby making sure that it all gets forced down. The curved block reaches every part of the wall, where the feet might not get. Since using this means to press the silage down he told me that he has had better "luck" with his silage.

This tool is made by taking a block of 4x4, or 6x6, about twelve to eighteen inches long. Plane off each end of one side, to make it curved to fit the curve of the silo. Put a shovel handle on or stick for handle.—C. E. Richardson.

ONE FARMER'S IDEA ON PRICE FIXING.

farmers as to the extent of acreage that should be grown in order to keep agriculture on a profitable basis.

That such an economic organization as the proposed Chamber of Agriculture would have complicated problems to solve is not to be denied, but in my judgment it can solve every one of them satisfactorily. What we want is the organization, the machinery to work with, and there are plenty of brains in agriculture today to solve all these problems if these brains can only be organized and concentrated on the subject. But one man or a few men who have the right idea about some subject speaking occasionally to an assembly of farmers, or one man speaking through an agricultural paper occasionally amounts to but little. His ideas are lost. His influence is much lessened because there is no machinery to take these ideas into consideration, to analyze and fix them so that they can be used for the benefit of all agriculture.

In the past, having no organization to work through, the individual farmers have struggled like a balky team. First one would pull, then the other, and in this way they accomplished practically nothing. The result is that the American farmer has sold much of the available fertility of his land and his long hours of hard labor at a very poor price and besides he has thrown in the labor of his wife and children. There is nothing particularly new about the whole idea; it could have been done a hundred years ago, but there has been no machinery to put it into operation. Now it seems to me that a satisfactory organization has been proposed, one that has a broad enough foundation so that the farmer's problems can be analyzed and their merits crystallized into a form that can be used with much effect.

Under-Secretary of Agriculture Hon. Alex. Holm

In His 1917 Report to the
Minister of Agriculture of the Union of South Africa
Says:

"Spraying with 'SCALECIDE' versus Lime Sulphur—One row of 10 Beurre Hardy pear trees which have been regularly sprayed for three years with 'SCALECIDE' as a winter spray, gave a crop this year which exceeded that of the trees sprayed with lime sulphur as a winter spray by 58 per cent. The 'SCALECIDE' seems to exert an extraordinary stimulating effect on the trees, bringing them into bloom and fruit much earlier than those sprayed with lime sulphur."

Praise for "SCALECIDE" comes from far and near. Mr. H. O. Arton, also in distant South Africa (Cape Colony), writes: "I would be compelled to use 'SCALECIDE' if it were three times the price."

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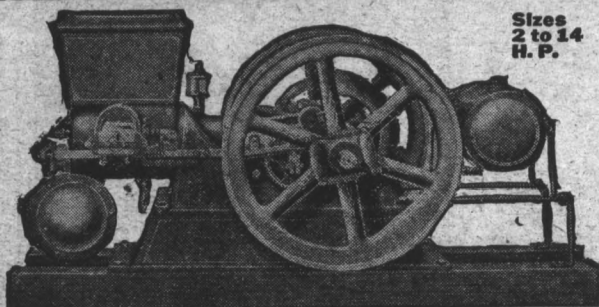


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Eighteen-year-old York Imperials sprayed for 14 years with "SCALECIDE," averaging about 30 bushels per tree. This is the eighth consecutive crop, each one of which was larger than the previous crop

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Soy Beans: Ogemaw, Manchu, Medium Green, Ito San, Black Eyebrow.
Red Clover and Alsike [free from buckhorn and mustard].
Garden Peas and Garden Beans.

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WEST BRANCH, - - - MICHIGAN

A Letter From President Roosevelt to His Secretary of the Navy

Oyster Bay, Long Island, October 19, 1918

Commander Truman H. Newberry, New York City.

My dear Commander:

I congratulate you on your nomination, but far more do I congratulate Michigan and all our people. It was my good fortune to have you serve under me as Secretary of the Navy, and I can testify personally to your efficiency and your disinterested and single-minded zeal for the public service. To a very peculiar degree you have stood for that kind of government which puts the interest of the people as a whole first and foremost, and treats all other considerations as negligible, when the public weal is involved. The record made by you and your two sons in this war is typical of your whole attitude as a public servant. Both your boys at once entered the Navy, and are now on the high seas. You sought employment abroad; when that was refused you, you accepted any position that was offered in which you could render public service.

The nomination of Mr. Ford makes the issue sharp and clean. It is not primarily an issue between the Republican party and the Democratic party, for Mr. Ford does not seem to have any firm political convictions, and was content to take the nomination on any ticket without regard to what the general principles of the men supporting that ticket were; and his memory about past politics is so hazy that although he has mentioned a Republican candidate for president for whom he thinks he once voted, it does not appear that this is possible, unless he is in error as to his own age.

The issue is infinitely more important than any merely political issue. It is the issue of straight Americanism, of straight patriotism, and of preparedness for the tasks of peace and war, as against a particularly foolish and obnoxious type of pacifism, preached in peace and practiced in war. This is the first time in the history of our country in which a candidate for high office has been nominated who has spent enormous sums of money in demoralizing the people of the United States on a matter of vital interest to their honor and welfare. The expenditures on behalf of pacifism by Mr. Ford in connection with the Peace Ship, and in connection with his great advertising campaign in favor of the McLemore resolution and of the pacifist and pro-German attitude against our participation in the war, was as thoroughly demoralizing to the conscience of the American people as anything that has ever taken place. The failure of Mr. Ford's son to go into the army at this time, and the approval by the father of the son's refusal, represent exactly what might be expected from the moral disintegration inevitably produced by such pacifist propaganda. Mr. Ford's son is the son of a man of enormous wealth. If he went to war he would leave his wife and child immeasurably distant from all chance of even the slightest financial strain or trouble, and his absence would not in the smallest degree affect the efficiency of the business with which he is connected. But the son stays at home, protesting and appealing when he is drafted, and now escaping service. Your two sons have eagerly gone to the front. They stand ready to pay with their lives for the honor and the interest of the American people, and while they thus serve America with fine indifference to all personal cost, the son of wealthy Mr. Ford sits at home in ignoble safety, and his father defends and advises such conduct. It would be a grave misfortune to the country to have Mr. Ford in the Senate when any question of continuing the war or discussing terms of peace may arise, and it would be an equally grave misfortune to have him in any way deal with the problems of reconstruction in this country.

Michigan is facing the test, clear-cut and without shadow of a chance for misunderstanding, between patriotism and Americanism on one side, and on the other pacitism, and that foolish sham-cosmopolitanism which thinks it clever to deride the American flag, and to proclaim that it would as soon be a Hindoo or Chainamn as an American. If there should be at any time in the future a Hindoo Senate, and it should choose, in a spirit of cosmopolitanism, to admit outsiders, there is no reason why Mr. Ford should not aspire to membership therein; but he would be signally out of place in the American Senate so long as that body is dominated by men who zealously believe in the American ideal and faithfully endeavor to serve the American people.

Wishing you all success, I am

Very faithfully yours,

Theodore Roosevelt

(ADVERTISEMENT).

"By the Way"

CHANGES.

I remember, I remember
The house where I was born;
The little window where the sun
Came peeping in at morn.
You'd hardly know the old place now,
For Dad is up-to-date,
And the farm is scientific
From the back lot to the gate.

The house and barn are lighted
With bright acetylene,
The engine in the laundry
Is run by gasoline.
We have silos, we have autos,
We have dynamos and things;
A telephone for gossip,
And a phonograph that sings.

The hired man has left us,
We miss his homely face;
A lot of college graduates
Are working in his place.
There's an engineer and fireman,
A chauffeur and a vet.,
Electrician and mechanic—
Oh, the farm's run right, you bet.

The little window where the sun
Came peeping in at morn
Now brightens up a bathroom
That cost a car of corn.
Our milkmaid is pneumatic,
And she's sanitary, too;
But Dad gets fifteen cents a quart
For milk that once brought two.

Aunt—"My gracious, child! You
certainly do eat an awful lot for such
a small boy."

Bobby—"Well, Aunt Grace, maybe I
am not so little as I look from the
outside."

GLAD TIDINGS.

In a burst of eloquence in denuncia-
tion of the world's wickedness, the
worthy parson declared:

"Hell is full of cocktails, high balls
and peek-a-boo waists."

Voice from the gallery:

"Oh! Death, where is thy sting?"

HE HAD HEARD.

Said the evangelist: "Who is the
most perfect man? Is there such a
being? If anybody has ever seen the
perfect man let him say so now."

A small, nervous man rose quietly
in the rear of the hall. The evangelist
gazed at him in astonishment.

"Do you mean to say, sir, that you
know who is the perfect man?"

"I do."

"Who may he be?"

There was a breathless silence as
the man replied effectively:

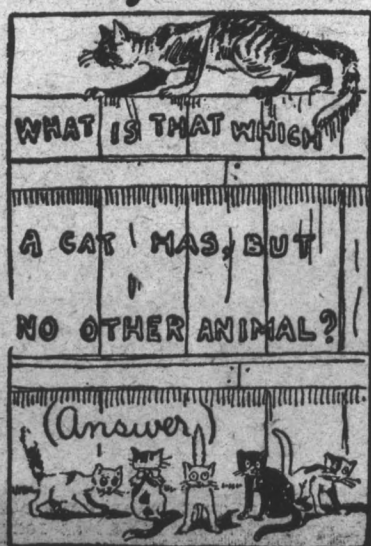
"My wife's first husband."

"What did Rastus get married for?"

"Lawd only knows, chile. He keeps
right on workin'."

Cousin Bill says:—I wonder if the
feller who says a woman ought not to
have the ballot because she changes
her mind so often, ever tried to change
a woman's mind after it was made up?

Today's Riddle



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*Because they are stylish in appearance—designed
and tailored by experts.*

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constructed of good materials that can be de-
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*Because they are moderate in price—enable
you to dress well and practice thrift.*

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At the price, each grade is always an excep-
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clothes.

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Three grades in Styleplus overcoats: \$25, \$30 and \$35.

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safe to drive. It is just as comfortable as the old
family sleigh filled with piles of soft furs.

Secure this comfort at no cost to yourself. Install a set of
Hasslers and let them pay for themselves over and over
again by adding to your tire mileage, giving you more miles
per gallon of gasoline and oil, reducing the number and amount
of your repair bills, and increasing the resale value of your car.



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Hasslers put on your Ford without a cent of expense to you.
Try them 10 days. Then if you are willing to do without them,
they will be taken off without charge. Don't ride without Has-
sler simply because someone discourages you from trying
them. Accept this offer and see for yourself. Nearly a mil-
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will require 4 1/2 yards of 27-inch ma-
terial. Price 10c.



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terial. Price 10c.

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sizes, 8, 10, 12 and 14 years. Size 12
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return you money or
give you a new garment
if any seam breaks.

PUT the fleecy warmth of Hanes Heavy Winter Weight Union Suits or Shirts and Drawers next to your skin—and, you're fit to face the stiffest blast the North can let fly! Get the friendly hug of the elastic knit, long-fibre cotton, and prove how perfectly Hanes gives-and-takes with every body movement!

Realize what Hanes offers you at a popular price: guaranteed unbreakable seams; elastic tailored collar that cannot gap; pearl buttons that are sewed on for keeps! And, behind them all stands Hanes workmanship—perfect knitting, tailoring and finishing—an unbreakable combination!

Illustrated above are Hanes Shirts and Drawers—for many years the American standard at popular prices! Note the snug-fitting, three-button, sateen waistband.

Greatest underwear for boys! Hanes Boys' Union Suits exceed in quality, workmanship and service any boys' underwear we have ever seen. They combine the features of men's union suits with the cosiest warmth.

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Greatest winter underwear
sold at popular prices:

Shirts
and
Drawers **HANES** Union
Suits
ELASTIC KNIT
UNDERWEAR

Auto Traveling Made Comfortable

(Continued from page 399).

outfit for a touring and camping trip at very little expense. It is not at all necessary to have such a varied and expensive equipment as ours. And we would never have secured ours if we had been obliged to purchase it outright. The writer himself built a goodly portion of the car and invented and made the touring tent, luncheon kit, refrigerator, folding dining-table, twin folding bed for use inside the car tonneau, the baggage and wardrobe during the last two seasons. The tent framework is rigidly bolted together and stout enough to hold a ton. Not a single wing nut is removed from the bolts, yet the tent and beds can be set up in twenty minutes and taken down in ten minutes. The pictures illustrate the car beds inside the tonneau. A single long khaki curtain but-tons on around the bed which extends from the rear curtain of the car to top of the front seat back. Car is one-



After a Meal at the Michigan State Fair Grounds.

trunks, etc. We have a work-room in the basement and have spent many hours during the middle of many nights working on various things that we had thought out in our mind as something worth while. Some were worth it, and some abandoned before completion.

The accompanying pictures show the car and equipment on the road and in use at various places. When on the road very few people would notice we had so many conveniences for cooking, eating and sleeping any number up to six adults. Everything is covered or packed in water tight and dust proof cases and duffle bags, and do not show much. The entire tent, poles, beds and accessories are shown on the right running board. This stuff is covered with heavy pantasote covers in three sections to keep out dust, mud and water. The end covers are off in the picture to show what is inside.

The tent floor space is seven by eight feet. Ridge is seven feet high. Bed section is seven feet long and four feet four inches wide. Beds are spring construction and have frequently been tested by four two-hundred-pounders

hundred and thirty-four-inch wheel base, and body is built for eight passengers, so that bed does not extend over front seat. For a Ford car such a bed should be made to run forward to the steering wheel. We made openings in the bed side curtain, one each side and in front, oval shape, and fitted with celluloid windows and wire screens, with khaki draw-shades inside.

All these things are home-made. The writer's wife helped him make the luncheon kit four years ago. It has traveled over twelve thousand miles and never met a single accident. It cost only for the three-ply oak, pantasote leather for cover, strips of brass, trimmings, plus fifty cents to get them nickle-plated. Much of the work was done cold winter evenings in the warm basement. The kit contains dishes and silverware for six persons, including one pint and two one-quart thermos bottles.

The refrigerator is carried in the tonneau back of the front seat on the right side of the car. It is built just like the patented ones and melted ice drains through a trap and water seal through the car floor. It cost less than



An afternoon party. Table is fastened to heavy irons bolted to the running-board for carrying tent outfit. Table folds and goes into khaki duffle bag, then all are packed in space back of front seats. Tent at rear is lighted from auto batteries. Gas stove in foreground.

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Model 20

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WE WANT VETCH. SAMPLES SEND US YOUNG-RANDOLPH SEED CO., Owosso, Mich.

Mention the Michigan Farmer when writing Advertisers

three dollars for material, has been used eight years, and is just as good as new. Ice lasts from thirty to forty hours in the hottest weather. Our ice bill on the road has been usually five, and occasionally, ten cents per day. We buy meat, butter, etc., at some grocery store as we pass through any town in the afternoon, also bread and vegetables, and everything is kept in as fine condition as at home.

When we stop at some farm home, after securing the hearty permission of the owner or his wife, we locate where it is dry, fairly level and shady. The gas stove is unpacked, set up and lighted and water boiling in less than ten minutes. The gas stove has now been used for three seasons, traveled over twelve thousand miles and is good for ten years yet. It cost \$16 and paid for itself the first season. Has three burners, oven, uses gasoline and is generated the same as any house stove. It works on the same principle as a plumber's torch, air pressure, and gives an intense heat. We can make coffee, boil potatoes and fry steak at the same time and have all ready to eat in twenty-five minutes. We had previously tried alcohol and oil stoves, and on one trip tested a wire frame grid, with open fire of charcoal underneath. These were all abandoned ultimately for the gas stove shown in the pictures. When folded it is about the size of a suit case. We wrap it in a duffle bag and carry anywhere most convenient. This accessory is about the only thing of all our camping equipment that we purchased. The rest we made ourselves during odd spells.

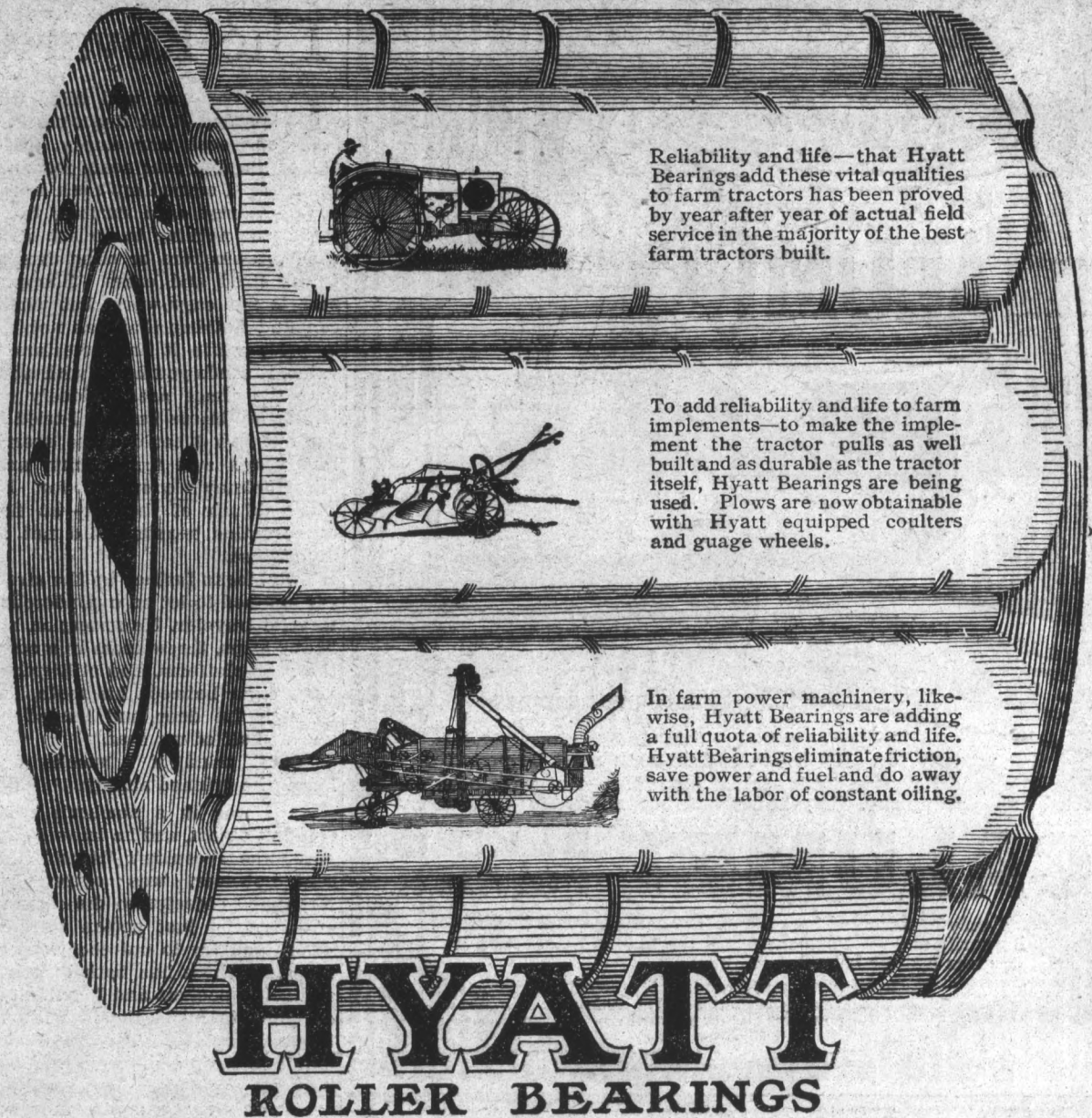
The folding dining-table is made of thin oak, in three pieces twelve by forty inches, hinged together, finished with a paste wood filler and waxed, and cost about one dollar for the lumber and hinges. It is rigidly bolted together, when used, by two iron cross bars, three-eighths by three-quarter inches and long enough to cross the leaves and project to attach to the running-board irons, as shown in the picture. A single center rod leg holds up the outside edge.

We made the table and did the blacksmith work so that we were very little money out. Table is a mighty handy one and handsome in appearance. Iron work is painted black enamel. Table folds up the size of a single leaf and is enclosed in khaki duffle bag. It slips down in a socket below front edge of tonneau seat out of the way. This accessory would cost \$5.00 to \$7.00 to buy complete these days. Any farmer or his boy could make such a table in one evening, almost. We attach the table to the car running-board in pleasant weather. When it rains, or during cool mornings, we roll up the beds in the tent and set up the table in that section, using the same projecting table irons to rigidly attach to the tent frame. Two folding chairs and two board seats furnish room for six at one time. The gas stove is set up in the other half of the tent space and we can cook and eat in solid comfort, no matter if it is cold, or rains.

The car is fitted with hot and cold water supply, faucets, and the cold water tank holds ten gallons of pure water used for cooking, washing hands and dishes, filling the radiator, and loaning to other tourists on the mountains or wherever we meet one stranded with no water in sight and radiator dry and steaming. We installed all these features at home at odd times, also a complete wiring system for tonneau light, center headlight, pitched down to solve glaring nuisance, extension light for tent, rear headlight, electric fan underneath cowl for cooling feet and legs during hot weather driving, etc. The cost was only for insulated wire, tape, lights, bulbs, etc. We have shown several farmer boys how to fix up their fathers' Ford cars in a somewhat similar manner at little cost.

(Continued on page 419).

Adding Reliability and Life to Farm Machinery



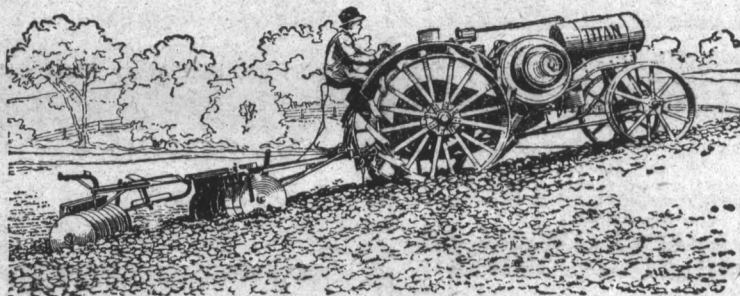
Reliability and life—that Hyatt Bearings add these vital qualities to farm tractors has been proved by year after year of actual field service in the majority of the best farm tractors built.

To add reliability and life to farm implements—to make the implement the tractor pulls as well built and as durable as the tractor itself, Hyatt Bearings are being used. Plows are now obtainable with Hyatt equipped coulters and gauge wheels.

In farm power machinery, likewise, Hyatt Bearings are adding a full quota of reliability and life. Hyatt Bearings eliminate friction, save power and fuel and do away with the labor of constant oiling.

HYATT

ROLLER BEARINGS



When You Buy a Tractor—

REMEMBER, it's the plows, disks, drills, binders, ensilage cutters, feed grinders, threshers and the like that do your farm work. The tractor is useful only as it furnishes cheap, dependable power for all the other machines.

That's why we say, if you need a tractor, you can't make a mistake in buying an **International kerosene tractor**.

We have had over 75 years' experience with farm machines. We know the kind of power they require—all of them. For over twelve years we have sold tractors that supplied that kind of power. We know from experience that the sizes and styles of tractors we sell today will work with the machines you depend upon for your success and prosperity. And—our tractors all operate successfully on cheap kerosene.

When you buy an International kerosene tractor you buy with it the benefit of our long farm machine experience and all the advantages of dealing with a service organization which brings a well stocked branch house or a live, wide-awake retail dealer within telephone call of you. It may surprise you to know that an International tractor, plus these advantages, which no one else can give, costs you less per year of active service than any other tractor sold in anywhere near the same numbers.

International Harvester Company of America



CHICAGO

(Incorporated)

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IT'S PERFECTION GIVES
POSITIVE PROTECTION
AGAINST BAKE DAY FAILURES



U. S. S. Michigan. First class battleship of the dreadnaught type. Steel vessel 16,000 tons. Length 450 feet. Breadth 80 feet. Horse power 16,517. Speed 19 knots.

Foods are as important as Fire Arms in war times. A soldier or sailor can't do his duty properly unless properly fed. His health and strength must be protected. The Army and Navy use foods—baking ingredients—that have been selected with exacting care. Only the best have been allowed to "pass muster."

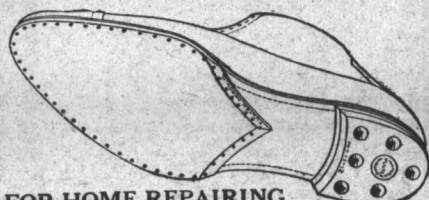
CALUMET BAKING POWDER

could only be accepted because of its excellence, and because of its purity and wholesomeness and the absolute protection it gives against bake-day failures.

Uncle Sam chooses from all. His selection should show you which brand of baking powder is best for your individual use.

Vul-Tex Fibre

Half Soles & Heels



FOR HOME REPAIRING

Half Soles $\frac{1}{4}$ in. thick put up pair in envelope WITH NAILS and FULL instructions for NAILING ON OLD SHOES. Heels with nails in cartons. Water-proof, keep feet dry and warm. WEAR BETTER THAN LEATHER.

Very high quality.

Pair half soles 50c and heels 25c post paid. Send size of shoes, and pencil outline of exact size of heel.

THE VUL-TEX COMPANY,
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4 Tools That Fit on 1 Handle. Can be set at any angle. Saves stooping and bending.

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Schoener adjustable garden tools are sold by most dealers. If your dealer cannot supply you, let us know, and we'll tell you where to get them. Illustrated Folder on Request.

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

Mention The Michigan Farmer When Writing Advertisers

Woman and Her Needs

The Royal Order of Smilers

THE car was well filled when I boarded it at five o'clock. But one seat was empty, and that

one of the four rear seats reserved for smokers. I craned my neck in vain to see a vacant spot further front, so there was nothing to do but sit down with the smokers or cling to a strap. I was tired and cross. Shopping at best is not easy work, but when you can find nothing that has not trebled in price while it has deteriorated in value, it sends you home with a feeling that the times are decidedly out of joint. My brows knit as I tried to figure out how I could make over Dad's last year's suit for Johnny, and cut down Johnny's overcoat for Bobby. The cold air of the car—no fire for conservation reasons—did not lessen my glooms.

Two blocks further up the street the car stopped to let on a ponderous commercial traveler. He swung on his two heavy grips, threw them in a corner of the rear platform, and still gripping a huge cigar between his teeth, lurched through the door and landed in the vacant half of my seat.

"Don't mind if I smoke do you, lady?" he grinned affably.

As I was in a smoker's seat and couldn't object, and he knew I couldn't, of course I couldn't "mind." My assent, however, was extremely acid. Not that I objected to the cigar really, but that I'd just gotten to the part where you try to cut the front out of the side which has both button holes and set-in pockets and I couldn't figure out how to avoid Scylla without hitting Charybdis. The traveling man didn't know that, however. He could only see my dark brown mood.

He was cheer itself, though, this man.

"Speaking of one thing and another," he began affably, "we've had a mighty cold September."

Stony silence on my part. That miserable pocket would not move even an eighth of an inch, and I couldn't see how to get that other front out. Be-

sides, the impertinent person at my side needed to be squelched.

"I said, speaking of one thing and another, it's mighty cold," he persisted, puffing away at his vile cigar.

"Oh, pardon me," icily. "I didn't know anyone had been speaking." And I turned to the window to add up once more the must have's and deduct the cost from the capital to see if I could manage a school suit and thus evade those pockets.

"Yes," mused the man right out loud to himself. "It's darn cold, both the weather and folks. I notice it everywhere I go. Everybody irritable, nobody sociable. Times are hard and nothing is normal and we're all up against it more or less. But, darn it all, why can't folks grin about it? It wouldn't make things any harder than they are now for the grinners and it would help the other folks a lot. I ain't made my traveling expenses on this trip, but I'm goin' to meet my wife and the kids with a grin, you bet. It'll cheer the old girl up, and it won't make my commissions any smaller. Here's my corner. Good-bye, everybody. You all look like you're going to your own funerals, but you might as well smile over it." And with this parting shot, which hit one hearer right between the eyes, he swung off.

It's a mighty good philosophy, isn't it? We're all under a terrific strain just now, and the ones who will weather it best will be the ones who can take the traveling man's attitude. Scowls and groans and lamentations, really only make things worse, for they add to the general discomfort. Smiles and jokes won't alter conditions but they will change our mental attitude, which, after all, is the thing that makes our life. Probably there never was a time when it was harder for most of us to be cheerful, but we've got to do it. We owe it not only to our families but to ourselves.

Let's all line up with this "Knight of the Grip," and pretend we like things, anyway.

DEBORAH.

Wanted By a Boy--A Home on a Farm



One way in which a farmer and his wife can render high-class service to America today is to share their home with a homeless boy.

Just for the period of the war, or until the soldiers and sailors come home, why not give a free home to a boy; share its comforts and happiness with one of the little fellows that today are homeless?

Besides all the money you are giving to war relief, besides the Red Cross materials you are helping to make and send over, there is this splendid ser-

vice you can render to some definite human being who is as important as any person in all the world—excepting perhaps, the man at the front.

Boys between five and ten years are the ones left out. Nobody seems to want them. Why not? They are the ones who make the soldiers and the sailors and the ship builders and the all-important farmers. Certainly they are the very most important people, and yet nobody seems to want to take them in and give them a chance.

Will not the good farmers of Michi-

HEALTH—FREE

Your name and address on a post-card will bring you absolutely free an interesting booklet called "Thirty Feet of Danger," presenting in plain American language the facts every human being should know and act upon in keeping his system clean and healthy. It is sound advice, and it may be the means of avoiding illness for you and your family. A clear statement on the best of medical authority. Write today to

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway New York

gan come to the rescue? Write to the Michigan Children's Home Society, St. Joseph office, and say: "We will share our home with one of your boys. We will receive one of the little fellows that nobody wants." Those are the words the boys are waiting to hear.

Then Uncle Sam may be heard to answer: "Inasmuch as ye are helping one of these, my little children, ye are helping me."

CONTRIBUTED RECIPES.

I am sending you a good recipe for bread. Everyone who has tried it says it is as good as any they ever ate, and we like it better than all wheat bread.

War Bread.

- 4 cups mashed potatoes
- 4 cups boiled rice
- 4 cups rolled oats
- 2 cups corn meal or corn flour
- 2 tablespoons of sugar or one cup of corn syrup
- 2 tablespoons salt.

Put in a large pan and pour boiling water, stirring it until it is thin enough for sponge. After cooling to the right temperature add two and a half dry yeast cakes or one compressed yeast cake. If bread is set in the afternoon, mix in stiff loaf with wheat flour and let raise over night. Mix down and let rise again and put in greased tins, greasing between loaves, and bake in a slow oven until done. In mixing at first make quite stiff, it may stick to the hand. In mixing down the second time and putting in tins, don't put in more flour, use a little flour on hands and board. If wanted, can use about one-third barley flour in place of wheat flour. Can use more rolled oats in place of potatoes or corn meal. The sponge, when thinned, makes good griddle cakes.—I. C.

CARE OF PILLOWS.

BY MRS. L. M. THORNTON.

"This has been a dreadful autumn," Aunt Elizabeth sighed disconsolately, "No I don't mean the war nor the high cost of living nor the fact that Helen Louise is to be married and leave the bosom of her family," glancing merrily at the latter's blushing face. "When I came here to help you with the making of the last of your wedding finery I had not washed my pillows yet and I don't see how I'm going to get it done. Washing does lighten feathers though, and they won't seem like my pillows if I can't get it done. Every year since I can remember I've given them a good scrubbing in the wash tub and then hung them on the line in the bright sunshine for three or four days, or until they were thoroughly dry."

"Why don't you steam them?" ventured Helen Louise, half afraid that her suggestion would be ridiculed by the elder woman. "I read in a magazine that you make an extra pair of pillow cases. Leave a tiny hole in one end and cut one of the same size in the case that holds your feathers. Sew around these so that you can slip the feathers from one case to the other and then when all are in the clean case sew it up. Fill the boiler half full of hot water, set it over the stove and hang the pillows over the edge just so they are well above the water. Put the cover partially on and steam the pillows until they are smoking hot. Then hang them out on the line and they will dry in a few hours, or on a line over the kitchen range if necessary. Beat them until they are light and fluffy and the magazine says they will be just as nice as if washed."

"Book ways of doing things, I don't take much stock in," said Aunt Elizabeth, "but that looks reasonable and the hot steam won't leave any germs in your feathers, that's certain."

Hosiery Saving.—Make hosiery double its length of service by never wearing more than two without washing.—Mrs. E. G. W.

Complete Satisfaction Is What You Desire

when you bake bread for the family or knit sox for the boy in France. It is just as impossible to bake good bread from poor flour as it is to knit good sox from poor yarn.

Big sounding words and claims of superiority are quickly forgotten, but the delights of a successful bake-day are long remembered by every member of the family.

The next time you bake, and it is cheaper to bake your bread than to buy it, use

Lily White

"The Flour the Best Cooks Use"

You will have better bread, too.

No difficulty will be experienced in mixing 25% of Corn Flour or Barley Flour with the LILY WHITE FLOUR and a thoroughly delicious loaf of bread will result.

The same will be true of the other substitutes, so you will have an opportunity to make a suitable choice of substitutes and still be assured of splendid results if you use LILY WHITE FLOUR, "The flour the best cooks use."

Sold and guaranteed by your dealer to give complete baking satisfaction for every requirement of home use; both bread and pastry baking.

Our Domestic Science Department furnishes recipes and canning charts upon request and will aid you to solve any other kitchen problems you may have from time to time. Public demonstrations also arranged. Address your letters to our Domestic Science Department.

VALLEY CITY MILLING COMPANY

Grand Rapids, Mich.

Fresh from the Gardens

of the finest Tea-Producing country
in the world.

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TEA

Sealed Packets Only.

Try it—it's delicious.

BLACK, GREEN or MIXED.

Chickens Sick or Not Doing Well?

An Extraordinary Offer: Germoxone is a standard remedy everywhere for chicken troubles, roup, colds, cholera, swelled head, bowel complaint, chicken pox, canker, not doing well, non-laying, etc. Now our proposition: If no dealer these handling Germoxone and you will agree to use it and pay if satisfied, we will send you a 75c package without a cent in advance. No pay if not satisfied. Can we do more? And we will send free 5 poultry booklets. Write today. Local dealers handling Germoxone will do the same.
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Fowlers Buff Rocks, Cockerels, hens and pullets \$3 up. White Holland Turkeys \$5 & \$6 each.
R. B. FOWLER, Hartford, Mich.

Pine Crest White Orpington greatest egg producers—hens and young stock, buy now for next winter. Mrs. WILLIS HOUGH, Pine Crest, Royal Oak, Mich.

PULLETS at \$2.00 each. Brown Leghorns White Leghorns, White Wyandottes.
WALTER PHIPPS FARM, 80 Alfred St., Detroit.

SILVER Golden and White Wyandottes, good breed. Sing stock after Oct. 1st, fine lot of cockerels \$3 to \$5 each.
C. W. Browning, R. 2, Portland, Mich.

Rhode Island Reds Both combs. No stock for sale until December. **INTERLAKES FARM,** Box 39, Lawrence, Mich.

White Wyandotte eggs for hatching also baby-chick out of choice stock; send for a 1918 circular.
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Barred Rocks—EGGS FROM STRAIN with records to 230 eggs a year; \$2 per 15. Delivered by parcel post, prepaid. Circular free.
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Buff Leghorns New is the time to place your order for next year's stock.
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Cockerels: R. and S. O. R. I. Reds and R. I. Whites. \$2.50 up, good stock, satisfaction guaranteed.
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Yearling Leghorn Pullets About 50 yet for sale.
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Ferris White Leghorns A real heavy laying strain, trapped 17 years, records from 200 to 264 eggs. Get our special summer prices on yearling hens, breeding males, eggs for hatching, 8-week-old pullets and day old chicks. We ship C. O. D. and guarantee results. Catalog gives prices; describes stock; tells all about our farm and methods; results you can get by breeding this strain. Send for your copy now—it is free.
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Giant Bronze Turkeys. Big boned young thoroughbred. Hardy strain. 140 turkeys raised from 9 hens, 1917. Early orders give better quality, lower prices.
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ROSE COMB BROWN LEGHORNS from winners at the largest shows in America.
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R.C.Br. Leghorns Cockerels bred from Madison Sq. winners \$2.50 choice yearling hens \$1.25 each. **Flemish Giant Rabbits** Black and Gray.
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Giant Mammoth Bronze Turkeys. Big boned young thoroughbred. Write for prices.
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Choice Naragansett Turkeys hens \$4, gobblers \$5 until Nov. 10.
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HARVEY CABLE, R. 2, Scottville, Mich.

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Hennery
EGGS**
Write Us For Prices
F. J. Schaffer & Co.
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Guaranteed Never to Rust, Twist or Warp Out of Shape

HERE is one good reason why you get such long wear out of a JOY ECLIPSE: *Not a scrap of asbestos is used in making the oven.* Because—asbestos collects moisture and rusts out the body. With the JOY you can be sure that steam and vapor from the roasts won't rust out the oven.



ECLIPSE

It isn't the price of a range that counts—it's what it costs you in fuel and repairs; it's the length of service. The JOY ECLIPSE is very economical of fuel. With two sticks of stove wood or five pounds of coal you can do an average baking and cook a family meal.

Write us for name of Eclipse Dealer. Then ask him about Eclipse cast ranges. He can show you why the JOY is such a wonderful baker.

Write for Free Illustrated Book of Stoves and Ranges

The Eclipse Stove Company
Mansfield, Ohio

Outdoor Life Builds up Weak Children

WAR work is taking chief place everywhere these days, and rightly so, for there is nothing else in the world of so much importance. But there is another form of social service which should not be forgotten, the anti-tuberculosis work, and thanks to the devotion of a few men and women it is still being carried on. According to statistics tuberculosis is carrying off more lives than the great world war. But it is so quiet, so ever-present, that we lose sight of it in the face of the more horrible and spectacular calamity.

One of the most important of the anti-tuberculosis society's forms of help is the care it gives to children with tubercular tendencies. There are many such children in every neighborhood, boys and girls who, while not actually afflicted with tuberculosis and incapable of giving it to others, yet are inclined towards the disease and liable to suffer from it if not properly cared for. These children are not admitted to the fresh air camps provided for other more vigorous youngsters, and the anti-tuberculosis society in Grand Rapids has for several summers given them a camp of their own at some one of the lakes surrounding the city.

Even the past summer, with all the money that was spent for war work, the society managed to take care of twelve girls and boys. The children are accompanied by a trained nurse and a housekeeper and their health is strictly watched while they are there.

A schedule is laid out, which includes regular rising, breakfast, supervised play, a swim, a cup of milk at

the simple supper. Then there is gentle play or story telling until bedtime, which comes early, for plenty of sleep is essential to good health for growing boys and girls. Temperatures are taken every day and any child whose temperature is off of normal is given especial attention until he is quite right again.

Meals are simple, cereals, milk and eggs forming the basis of the diet, with meat once or twice a week, fish



Ready for School Again.

and chicken, fruit, fresh, stewed and in jam, and the easily digested vegetables. This summer eggs could not be given so plentifully as formerly owing to their high price and the necessity of making every dollar count, but there was always plenty of milk. The children were weighed when camp opened and when it closed and an average gain of around five pounds was shown. All the children gained except one, who lost eleven pounds, and thus brought down the average gain of the others.

Regular hours of sleep, plain simple food, with plenty of milk, outdoor air as many hours as possible, and congenial surroundings—these are the things which help to make robust boys and girls. Do your children get them?



A Friend Takes the Boys for a Motorboat Ride.

ten o'clock, and a carefully prepared dinner at noon, followed by a nap. Then more milk on rising, walks, play, nature studies, boating, all sorts of healthful games and exercises which will take them out in the open and keep them interested and happy until

What is Sorghum?

Sorghum is not, like molasses, a sugar-house by-product, but an unmixed syrup made directly from sorghum cane by crushing and boiling. The grade and color of the syrup will depend on the making; if the syrup is allowed to caramelize or burn on the side of the pan, a dark, strong syrup will result.

Lime is used by some makers to overcome the acidity of the raw juice. Where this has not been done in the making, heat the syrup with a pinch of soda before using it.



It's One Hundred Degrees in the Shade But They Are Comfortable.

ACT QUICK BUY ROOFING NOW!



JIM BROWN

Save Big Money!

I'll furnish you with a style of Ready Roofing in rolls or shingles suitable for any building at a price that will surprise you, if you order quick before prices advance. The reason I save you money is because I sell this roofing on the same Direct-From-Factory-Freight-Paid plan that has enabled me to build up the biggest direct-by-mail fence business in America. No in-between profits to pay. My prices low—quality high.

FREE Roofing Book

My Free Roofing Bargain Book is an eye opener—it gives you the inside facts on Ready Roofing. Shows my various grades of roofing—both rolls and shingles—in actual colors. My Direct-From-Factory-Freight-Paid prices will be a pleasant surprise to you. Send for your copy today—don't wait—get your order in before prices advance.

Prices Slashed Write Today

BROWN PAYS THE FREIGHT

The Brown Fence & Wire Co.
Roofing Dept. U
Cleveland, Ohio (5)

Ro-San Indoor Chemical Closet



Be ready for the long cold winter. Have a comfortable, healthful, convenient and sanitary toilet right in the house. You can place it anywhere—in any room or closet. Endorsed by State Boards of Health. This is the original Chemical Closet you have seen advertised for four years. Superior in construction, design and finish. Color, beautiful XXX high finish grey with gold trimming. Aluminum or mahogany seat.

GUARANTEED ABSOLUTELY ODORLESS—30 Days Trial

The germs and odor are killed by a chemical process in water in the removable container—extra large size. You empty once a month as easy as ashes. A. C. Cook, Mass., writes, "We are well pleased with the Ro-San Closet. We find it all you advertised it to be, and absolutely odorless as you claimed." Mrs. D. T. Crandall, Mich., says, "It has proved a blessing to me. I find it perfectly odorless." That's the way the letters run. All as pleased and satisfied. It truly is a blessing to all homes without sewerage. Absolutely guaranteed—guarantee slip is packed with each closet. Don't go another day without this great convenience. Write now for free catalog, full description and price.

ROWE SANITARY MANUFACTURING CO., 7412 SIXTH STREET, DETROIT, MICHIGAN

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Manufacturers of Extra-Quality Motor Oil



When writing to advertisers BEE SUPPLIES, BEESWAX, BERRY SUPPLIES, AND HONEY. M. H. HUNT & SON, Lansing, Mich.

Convenience— Comfort— Luxury

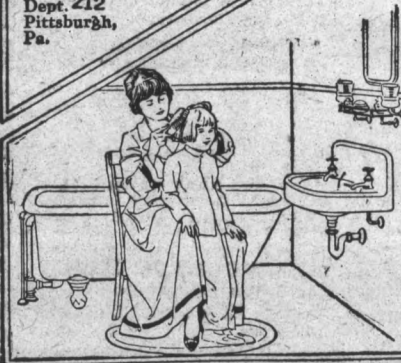
Good Plumbing—
—“Standard”
fixtures—should
be in every home
which has running
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have the luxury and comfort
of these modern conveniences in
Bath, Kitchen and Laundry.

“Standard” Plumbing Fixtures

If you have running water or expect to build or remodel, with a water supply, consult your contracting plumber. Ask about “Standard” fixtures. They represent highest quality; are the product of long manufacturing experience and offer a wide variety of styles. Look for the “Standard” Green and Gold Label. See that it is on the plumbing fixtures you buy. It is an assurance of satisfactory service.

Write for book, “Standard Plumbing Fixtures for the Home.”

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QUIT Wasting Cream Profits

NINE out of ten dairy farmers are actually throwing away \$20.00 per cow per year! They are doing it by using wasteful, inferior cream separators—or, even worse, by clinging to the old-fashioned gravity, shallow-pan method of separation. Stop this cream waste at once on your farm.

Get ALL the Cream—Use a

VIKING CREAM SEPARATOR

Over One Million in Use! Each Viking Guaranteed For a Lifetime! Greater in capacity than any other separator of equal rating. Easiest operated and easiest cleaned separator on earth. Lower in price than other standard separators—because it is made in the World's Largest Separator Factory. See the Viking at your dealer's.

Send For These
2 Free Books

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Swedish Separator Company,
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I want those two free books—send them to me at once.

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When writing to advertisers please mention
The Michigan Farmer.

Home Queries

Can any reader of the Michigan Farmer tell me what I can do with my linoleum? It blisters and peels off in one place. The floor at this place is oily. Would that have anything to do with it? I have had this linoleum only since February.—L. B.

Can anyone give help?

Miss Mary A. Gaines:—Write to the Red Cross or War Relief in your nearest city and ask them if they can forward your pillows.

A Farmer's Wife:—I don't just know what you mean by a fruit cocktail made largely of grape juice. “Cocktail” means so many different things in different localities. If you simply want a drink use half grape juice and half ginger ale. If you want a fruit cup to start a dinner use any fruit you can get, diced, chilled and sweetened. This is served in sherbet cups.

AUTO TRAVELING MADE COM- FORTABLE.

(Continued from page 415).

We showed them the principle of ignition, battery and magneto wiring, and boys generally who drive cars should become more or less familiar with such installation.

One picture shows our camp on the State Fair ground at Detroit last fall. We were located in the boys' state fair school section and there were eight of us. We gave the trip to Detroit and a week's camping on the fair grounds free of all expense to two boys and two girls who were the champions in the junior agricultural clubs of Calhoun county last season.

If we had a small car, and wished to fix up for a trip we would plan to camp out, cook and eat and sleep and have a good time along the way. Hard pine sticks of the proper length and one and one-half inches square can be used to make folding cots for use on the ground or inside the car. Use heavy ducking or khaki and sew the sides into loops for the sticks to slip through. There are several ways of giving proper tension to the beds. A good tent can be cut out and sewed up at home. Make it of eight or ten-ounce material. A small packing box makes a good ice box for hot weather and can be carried on the running-board. Ice costs but little for such a purpose and is mighty handy to have along.

In planning to carry passengers and equipment on a small car be sure to balance up the entire load so as to carry it as nearly equal on all four wheels as possible. As the wheels on the right side of the car in this country are given greater strain when driving on that side of the road and turning out when meeting other vehicles, it is better to carry the greater weight on the left side of the car. A light rear trunk helps dispose of lots of light weight baggage and bedding.

The picture of the tent on the job holding four full-grown persons was taken late at night by flashlight to show the double pullman beds in actual use. State Highway Commissioner Frank F. Rogers, and chairman E. H. Puffer, of the Calhoun county road commission, occupy the lower berth. The location was on the new “monolithic” brick road being built between Marshall and Albion. We were on an inspection trip and stopped right behind the big concrete mixer in the center of the road-bed to camp out for the night. After the writer had cooked supper for the party of six, and time came to turn in, four retired to the tent beds. It was very dark all around but the flashlight revealed existing conditions very clearly.

At best the Allied table will be less than ours, for the Allied peoples are denying themselves more in order to transport soldiers.

After the war Europe will continue to look to America for help; there will be no crops raised over-night.

Great Majestic

“The Range
with a
Reputation”

The Nation's needs come first

The U. S. Government must have metal for ships, munitions, guns. Help win the war by helping to

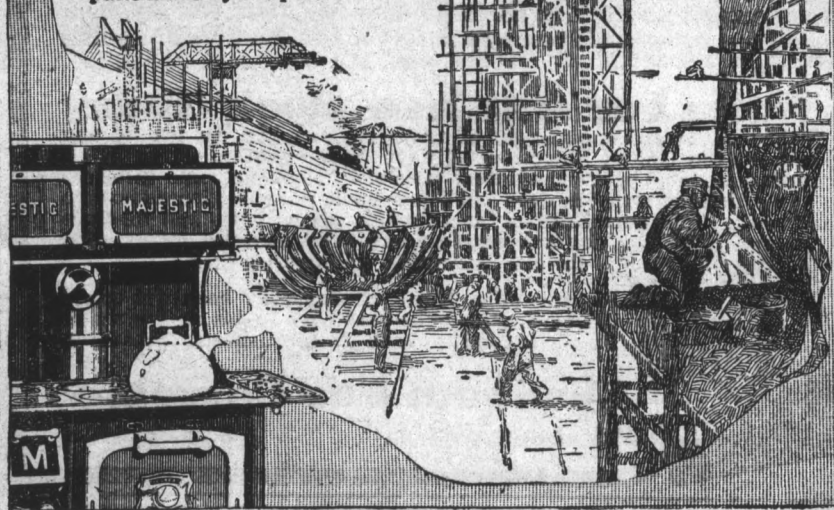
save iron and steel—
don't buy a new range

now unless you must. Put the old range in good repair, and get along with it another year. If you can't, then buy a Majestic—the range that saves fuel because it is heat-tight, saves food because it bakes right, saves repairs because it is built of unbreakable malleable iron and rust-resisting charcoal iron.

Sold by leading dealers in every County of 42 States.

Majestic Mfg. Co., Dept. 21, St. Louis, Mo.

Caution: If your Majestic needs new parts, get them from a Majestic dealer, and insist on genuine Majestic materials—not light, inferior parts made by scalpers.



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RAW FUR MERCHANT
164-166 W. 23rd St.
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OUR TEN COMMANDMENTS.

1. Quote actual market prices.
2. Honest and Liberal Grading.
3. Highest obtainable values.
4. Give shipper the benefit, if doubtful in assortment.
5. Check mailed promptly upon receipt of shipment.
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Send for our latest price list “506”



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PETROLEUM JELLY

For sores,
broken blisters,
burns, cuts
and all skin
irritations.

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Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our Fashion book, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address

The Crosby Frisian Fur Company,

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For Your

RAW FURS

I need all your furs to fill waiting orders and will pay the highest prices to get them. Coon, skunk, fox, opossum, mink, muskrat, wolf and all others. Five percent additional on all shipments over \$5. Send shipments at once. Checks sent same day shipment arrives.

BEN CORN, 262 SEVENTH AV.,
NEW YORK, N. Y.

Abraham Fur Co.

St. Louis, Mo.

America's
Leading
Fur House



Furs Are Worth Big Money

Furs will be higher than they have ever been in the history of the fur business and the Abraham Fur Co. will again be the leaders in paying trappers more money for their furs than they can get from any other fur house in the World.

We were the only large fur house in the United States that made a gain in number of shipments received last year; all others showed a decline. Why? Because trappers everywhere have found out that it pays and pays big to ship furs to Abraham Fur Co.

Anybody can tell you how high furs are but we will show you with real money. Send us furs you have on hand now.

For many years we have made a specialty of handling early caught furs and we can pay you a better price for this class of furs than ever before.

We will pay you more than you can get at home—more than you can get from any other fur house and more than you expect yourself—that's going some, but we are in a position to beat all price records for furs and we are going to do it.

Write For Our New Book Today

—the most complete catalogue of trapper's supplies carried by any house in the United States—quality of goods guaranteed to be as represented and prices the lowest possible. Most valuable information for trappers ever published—will show beginners how to be successful on the trap-line, giving rules and methods for trapping that never fail, contains information for old timers that will surprise them.



Pictures of a Herd of Seals in beautiful colors illustrating how the seal lives in his native state. Free to anyone interested in fur business. Write today.

Abraham Fur Company

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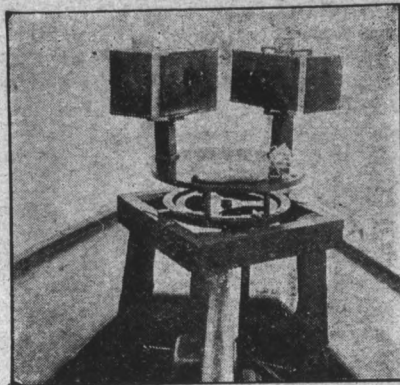
Cameras that Make Maps

(Continued from page 409).

military reconnaissances and an awakening to the value of aerial photography, provided the camera can be a military character. French engineers endorse the aerial methods of photographic surveying as being both rapid and economical.

It is not commonly realized that a photograph of a plane surface taken with a plate camera directed perpendicularly toward that plane is a map of the area which the photograph embraces. In other words, it is possible to use the camera to produce charts, in the form of negatives, of level ground, provided the camera can be placed in a position directly above.

Only recently a topographic survey of the island of Tutuila, Samoa, was completed by the hydrographic office of the navy department. For these



surveys a plate camera was employed to obtain double views, and the negatives forwarded to Washington, where experts worked them into accurate maps. An instrument known as the stereocomparator is used to reproduce the map from the picture shown.

The plate camera can be used in taking a limited number of pictures, since each picture is of limited size, and plates weigh too heavily to warrant carrying a sufficient number to photograph from lofty mountain sides of the surrounding country. On the other hand, cartridges for four exposures may be packed in a case weighing five ounces, when the panoramic film camera is used. Three exposures complete the horizon, so that the cartridge has a scope of four hundred and eighty degrees with necessary overlap. In the prevailing type of camera used in surveying, nine plates would be required to embrace the same four hundred and eighty degrees. These would weigh twenty ounces packed, or four times the weight of the film. Two hundred rolls of film, weighing less than seventy pounds, have been used during a season of about three months. The equivalent weight in glass plates would be about three hundred pounds. And the chance of a plate being broken and the work of days lost is many times as great as that a film will be damaged.

The camera was probably first used from aboard a traveling boat, in making maps, at Prince William Sound, by government engineers. Here the mountains rise abruptly from the water's edge, and their tops reach elevations ranging from two thousand to ten thousand feet. Two plate cameras were used in the work mounted on a stand with gimbal rings to retard the steady chug of the engine, and any movement of the boat.

This survey covered about two thousand square miles of territory and included five hundred and sixty-two miles of stadia. The motor boat was run about two hundred and twenty miles, and two hundred and twenty pairs of photographs were taken during the cruise. The time spent in running was fifty-eight hours. To have accomplished the same feat with former surveying instruments would have been an endless task, requiring several weeks, if not months, and not so accurate a map as resulted.



Don't Divide
Your Fur Money
with Brokers and
Middlemen

Ship Direct to

**Silberman
and Sons**

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"The Check That Satisfies"

Here is a money-making opportunity for every trapper to get full value for his furs. We now buy direct and save you all broker's commissions and middlemen's profits. Our new policy means thousands of dollars and greater satisfaction to trappers. It makes trapping worth while.

Get Your Share of
These Higher Prices

We have over two million dollars waiting for furs. And leading manufacturers are asking for immediate delivery. This makes it to your advantage to act quickly. Send a trial shipment and see what it means to get Silberman's extra prices.

"The House With
A Million Friends"

We have been in business for 52 years. Our liberal treatment and honest prices have brought us a million friends. Join this army of satisfied shippers. Send your trial shipment now.

Also send for new guaranteed price list and latest fur market information. Quick action means more money for you.

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Capital, \$1,100,000
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We Pay the Market's Highest Mark

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Price List and Booklet
"Successful Trapping"
Write TODAY

TRAPPERS

Know the value of skins, and should be sure they get it.

We Want Your Raw Furs

We promise you fair treatment and absolute satisfaction whatever the size of your shipment. We will spend \$500,000 this season. How much can YOU send us?

One Skin or a Thousand We will grade them carefully and pay you full value. We charge no commissions. We do not claim to be the largest house in the world, but our check will convince you it is worth while dealing with us.

WRITE FOR PRICE LIST.

Vreeland Fur Co. 43 Jefferson Ave., Detroit, Mich.

RAW FURS

Send for our price list today. Let us prove to you that we pay HIGHEST PRICES. We pay exactly what we quote and know you will be pleased with our LIBERAL GRADING.

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A house you can depend upon. We make no deductions of any kind, give every shipment individual consideration regardless of how small or large. On account of our unusual outlet for furs, we can actually pay you more money. Write for price list.

M. Wulfsohn & Co.
208 West 27th Street
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Will soon be here. Are your Fur Coats, Robe and Fur Sets in condition to last you the coming season. If not, we would like to do the work for you. We Reline-Repair any kind of Fur Coats or Robes, make over Ladies Fur Coats, remodel Ladies Furs and reline Muffs and etc. Write to us for an estimate. We will gladly send samples of lining, catalogue and etc.

THE BLISSFIELD TANNERY, W. G. White Co., Inc., Blissfield, Mich.



TRAP ALL
YOU CAN THIS YEAR

Wool and fuel are very scarce. Fur Garments are needed all over the world. We can use immense quantities of raw skins. Are there mink, skunk, coon, muskrat, or other fur bearing animals in your region? Trap all you can and ship the pelts to us.

Get your name on our
Mailing List at once

No commissions. We pay express or mail charges. We are the largest and oldest fur house in the world.

Revillon Frères

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New York—the World's Fur Center

New York, the greatest city in the world, is the center of the World's Fur business. No matter where you ship your Raw Furs, they must eventually come to New York. We are the Fastest Growing Raw Fur House in New York because we always pay the highest market prices.

Our Latest Price List is free on request.

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168 West 27th St. New York

Mention The Michigan Farmer When Writing Advertisers

Humorous Happenings—By G. W. Tuttle

CURIOSITY was frank and unabashed in the country. A young man was about to be married, and was building a new house, a nest for the bride. She lived in another town and few of the neighbors knew as yet whom he was to marry, and they were saying one to another: "Whom is John H— going to marry?" The carpenter who was building the house was commonly called by his first name—"Solomon."

Well, one Sabbath evening John H— brought his prospective bride to the little church in the old town, and people stared to their heart's content. Hardly had they settled in their seats before her eyes fell upon the blackboard, and she nudged John, and said: "For goodness sake, see what they have written on that blackboard!" On the board had been written in huge letters, "For whom did Solomon build?"

A neighboring farmer had an experience one day in which the humorous side failed to appeal to him, but which his small son never forgot. This farmer kept a few sheep. It was winter and he had let the old ram out that he might have a little exercise. This farmer stepped out to draw a pail of water from the old well. The incline leading up to the well was slippery with ice. The farmer discovered that his young son and a playmate had dressed in old clothes and were trying to induce the ram—whose disposition was very uncertain—to pursue them.

"Now, boys," said the farmer, "this will not do. You will get hurt if you fool around that ram." As he spoke he started down the incline with his pail of water. The ram came up behind him and—unnoticed by him—shook his head threateningly. This was very interesting for the boys and they awaited developments. Suddenly the cunning old fellow charged, the farmer's legs flew out from under him, and he went sliding down the slippery incline. The humor of the incident appealed strongly to the boys, but not to the farmer.

We had many Irish neighbors and humorous happenings and Irish neighbors are inseparable. I remember one Irishman who purchased an adjoining farm. Many things were new to him but he learned rapidly in the school of experience. How the eyes of his wife twinkled as she told us of Phil's encounter with the skunks.

Now, Phil had never read Josh Billings on the polecat. He said: "I don't know why they call it a polecat unless it is because a pole is better to kill it with than a club."

Well, Phil saw two skunks in his field and he undertook to kill them with a club; then, as his wife told us, "Thinkin' it could be no worse, Phil jumped on them and stomped them to death." Phil's memories of the encounter were lasting and fragrant.

Another Irish neighbor owned a small farm but worked most of the time in a small fertilizer factory. He was a slow-motioned man, who smoked incessantly. The foreman of the factory was a wide-awake, bustling Irishman. My father was at the factory one day and was in the room where Pat was sacking ground bone in his deliberate fashion. Just then the foreman came in. "Come, come, Pat," said he, ten tons of bone to sack before night," and out he hurried.

Pat's calm, unhurried manner was unchanged. For a moment or two he worked on leisurely, then he stopped, took his beloved pipe from his mouth, watched the smoke wreaths until they had entirely vanished, then turned and looked at father with a twinkle in his eye, as he said: "Mr. T—, if I work here a bit longer I shall get to be a smart man." Having uttered this prophetic saying he slowly replaced his pipe and turned to his work again.

DELCO-LIGHT



Increases Farm Efficiency

IT'S no hardship to do the chores after dark these long evenings if you have Delco-Light.

Plenty of bright, clean, safe light, in house, barn and yard.

Running water everywhere.

Electric power to operate the churn and cream separator, the washing machine, the vacuum cleaner and the milking machine.

Delco-Light is making farm life attractive and profitable on over sixty thousand American farms.

The Domestic Engineering Company, Dayton, Ohio

M. L. LASLEY, 23 Elizabeth St. East, Detroit, Mich.

Delco-Light is a complete electric light and power plant for farm or country home.

It is self-cranking.

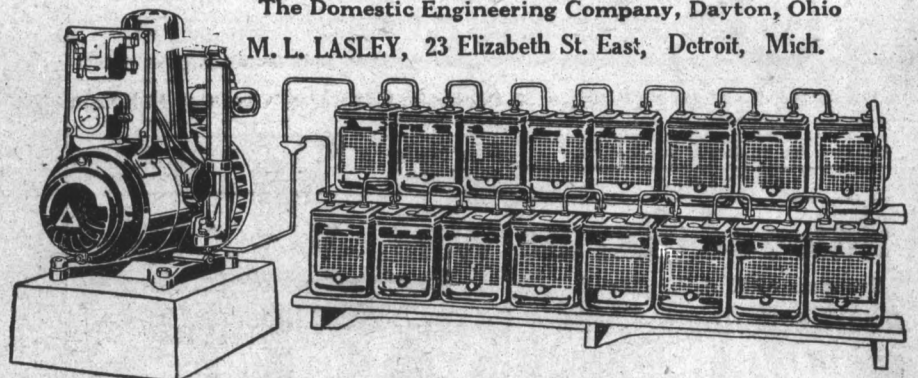
Air cooled.

Ball bearing.

Has thick plate, long lived storage battery.

No belts.

RUNS ON KEROSENE



Are You Wasting or Saving?



Is Your Motor Producing or Consuming?

Thousands are running old cars this winter as a necessary measure of loyalty and economy. But it is not necessary to put up with an old car's loss of power and waste of gas and oil.

Renew your old car's power—stop its waste of gas and oil—check its carbon troubles—make it economical transportation by installing a full set of

McQUAY-NORRIS LEAK-PROOF PISTON RINGS

They repay their cost many times over in saving gasoline and oil. They increase power, reduce carbon, save trouble, delay and expense.

Send for FREE Booklet—"To Have and To Hold Power"—a simple, clear explanation of piston rings, their construction and operation.

McQUAY-NORRIS Superoyl RINGS

A special ring for engines that pump oil. Used in top groove only of pistons to control excess oil, with McQuay-Norris LEAK-PROOF Rings in the lower grooves.

Your dealer can get you any size or oversize quickly. Over 300 jobbing and supply houses in all parts of the country carry complete size assortments. If you have any difficulty getting them, write us.

Manufactured by

McQuay-Norris Manufacturing Company
2877 Locust St. St. Louis, U. S. A.

MIDDLE AGED,

married farmer to work farm on shares. Hundred and sixty acres under plow. Forty acres wood and pasture land. Fairly stocked with horses, cattle, sheep and hogs. Good house and barns. An ambitious, capable, honest, man will find this an exceptional opportunity. Write stating age, number in family, send copies of recommends to Box L 112 care of Michigan Farmer, - - - Detroit, Mich.

Farms and Farm Lands For Sale

\$800 Down Gets 105 Acres, Building Alone Worth

More than whole price asked. On improved road, mile to R. R. town, stores, school, factories, etc. 70 acres smooth, level loam fields, river-watered, wire-fenced pasture, abundant wood, timber, fruit. Good 8-room house, verandas, 50-ft. barn, painted, good condition, other buildings. Immediate sale demanded to settle. \$1900 gets all, \$860 down, easy terms. Details page 25 Strout's Fall Farm Catalogue of this and other bargains, many with stock, tool, crops, fitted wood; copy free. E. A. STROUT FARM AGENCY, Dept. 101, 814 Ford Bldg., Detroit, Mich.

TO RENT Grosse Pointe Farm

Situate on seven mile road, one block from Electric line. 120 acres with barns, house of nine rooms, bath, gas, electric lights. Excellent for chickens or dairy. Enquire

John Wynne, Jr., 721 Ford Bldg., Detroit, Mich., Telephone Main 57

CHOICE Florida Lots and farm locations at Oldsmar, Florida, by Mr. R. E. Olds—famous automobile manufacturer, 15 miles west of Tampa, on Tampa Bay, Dixie Highway, Seaboard Railway. Delightful climate, tropical scenery, low prices, easy terms. Free booklet. REOLDS FARMS CO., Oldsmar, Florida.

Beautiful modern home, steam heat, 8 lots, expensive shrubbery, fruit and shade, block from CENTRAL MICHIGAN NORMAL COLLEGE, will sell or trade for small farm, or stock general merchandise. Cooper, Gover & Francis, Mt. Pleasant, Mich.

A good corner property at the junction of West Mich. pike and Chicago Detroit trunk line highway. Splendid location for Garage and supply house or tourist hotel. Price right, cash, bonds, or terms to suit. G. A. WIGENT, Watervliet, Mich.

For Sale A 1 farm 320 acres Clare Co., Mich. fine new buildings, fenced, everything first class, \$20 per acre. Bargain, owner must sell. FRED MATCHER, 1324 Majestic Bldg., Detroit

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1918 NOVEMBER 1918						
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

NOW IS THE TIME to get your new **DE LAVAL** CREAM SEPARATOR

WITH butter prices soaring no cream producer can afford to go another month without a New De Laval Cream Separator.

This is true whether you have no separator, or an inferior or half-worn-out machine, or even an old style De Laval.

In cold weather your waste of butter-fat is relatively greater, either with gravity skimming or a poor separator; and at present prices for cream a De Laval would very soon pay for itself out of its own savings.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR COMPANY
165 Broadway, New York 29 E. Madison Street, Chicago

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Breeders of Best Strains of
Aberdeen Angus Cattle
and **Duroc Jersey Hogs**

Several young bull calves on hand, three of which are of serviceable age, out of Black Monarch III, three times Grand Champion, Michigan State Fair. Also several AI Brood sows. Will be glad to correspond with you by letter regarding stock. Write

SIDNEY SMITH, Supt.
Wildwood Farms, Orion, Michigan
W. E. SCRIPPS, Proprietor.

WOODCOTE ANGUS

TROJAN-ERICAS & BLACKBIRDS (BLACKCAPS) only. The most fashionable strains of the breed. Great care given to matings and pedigrees. Every animal BRED IN THE PURPLE. Breeders and feeders of many INTERNATIONAL WINNERS. WOODCOTE STOCK FARM, Ionia, Mich.

Cloverly Angus Good quality bulls of serviceable age and younger. Inspection invited. Geo. Hathaway and Son, Ovid, Mich.

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Tabulations made by the U. S. Department of Agriculture show that the average income over cost of feed from one cow that produces 450 lbs. fat is equal to the average income over cost of feed from 20 cows that produce 100 lbs. each. The average of all official Guernsey records is 450 lbs. fat. Learn more about these profitable cows. Ask for our free booklet "The Story of the Guernsey."

THE AMERICAN GUERNSEY CATTLE CLUB, Box 1, Peterboro, N. H.

GUERNSEY BULLS

Eighteen months old and younger. Grandsons of Golden Noble II: free from disease. Guaranteed in every particular and at farmers' prices. J. L. SNYDER, East Lansing, Mich.

Ballard Farm Guernseys. 40 head, May Rose and other popular lines of breeding. State tuberculin tested, free from disease. Herd bull, son of Don Diavolo of Linda Vista greatest bull of breed. A. R. Cows, bred heifers, heifer calves and bulls from A. R. dams. A price on each individual, take your choice. **BALLARD BROS.,** R. 4, Niles, Mich.

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

Guernseys 45 Registered head, all tb. tested. Nora's May King, son of Imp. May Rose King, heads our herd, 19 of his half sisters sold averaging \$1950 each. His bull calves are booked ahead at reasonable prices. **Avondale Stock Farm,** Wayne, Mich.

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

Registered Guernseys—that last heifer was sold in first issue, went to Ohio. Another just as good, will freshen this fall—\$300 will buy her—she is worth more. 4 years old. Right in every way. **J. M. WILLIAMS,** No. Adams, Mich.

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For Sale Entire herd of Registered Guernsey cattle 30 head May Rose Breeding. **JOHN EBELS,** R. 2, Holland, Mich.

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Winn--Wood Herd
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Sire in Service
Flint Maplecrest Boy

Who is bred for real production his sire Maplecrest Korndyke Hengerveld is one of the best bred long distance bulls in the world. He or his dam are brother or sister to six cows with records above 1,200 lbs. of butter in one year and ten more above 1,000 lbs. in a year. Flint Maplecrest Boys' Dam is Gluck Vassar Bell 30.57 lbs. of butter in 7 days, 121 lbs. in 30 days. Butter fat test 5.27. Is there a reason why Flint Maplecrest Boy is not one of Michigan's greatest young sires. None of his females are for sale until after we test them. But we have 10 of his bull calves from 2 to 9 months old, with A. R. O. dams which we now offer for sale at prices any dairy farmer can afford to pay. Just tell us the kind of a bull you want.

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



Are You A Member?

The Holstein-Friesian Association of America—the organized breeders of cattle of that name—was organized in 1885, then having 275 life members. Today it has nearly 12,000 members, and is recording 80,000 Holstein-Friesian cattle per year, giving employment to 150 clerks, and has a reserve fund of nearly a quarter of a million dollars. It spends nearly \$50,000 per year for publicity and extension work, promoting the interests of its membership. The Holsteins are prosperous and popular.

HOLSTEIN CATTLE

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OAK Leaf Farm. Herd sire Lenawee Pontiac Calamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 706.3, butter 12.51—35 days milk 2572.5, butter 926.75. **E. H. GEARHART & SON,** R. 4, Marcellus, Mich.

Additional Stock Ads on Page 424



Does Your Dairy Pay?

(Continued from page 399).

times as much as cost of production. **The Real Gain Still Greater than Shown Above.**

If no expenses save the cost of feed had been considered, one cow that produced 450 pounds of butter-fat a year would have shown as much income over cost of feed as twenty cows belonging to the group where average production was 100 pounds. Had all expenses been considered, the results would have been even more striking. As applied to any particular herd of cows, the figures are only approximate, and doubtless they are true only within a limited range of production when applied to any group of cows, yet within reasonable limits of production they would appear to hold true of all classes of dairy cows regardless of breed, age, weight, date of freshening, or geographical location.

A further study was made of the records of these forty cow-testing associations, by Mr. McDowell, to ascertain the cost of roughage to production. He found that the records showed that this cost was about the same for all groups, regardless of production. The cost of grain was considerably higher for the more productive cows than for the low producers, but it was much lower per pound of butter-fat. The increased income, therefore, though it should be credited to better feeding, was evidently more largely due to better cows.

Some Examples.

A herd of ninety-one cows in one association produced in one year a total income of \$58 over cost of feed, or sixty-four cents for each cow. When the owner sends that herd to the block he is to be congratulated, for he is an excellent example of the haphazard farmers who demonstrate to the world that agriculture and live stock breeding are unprofitable, because of his own failure to apply common sense business principles to his business. America nor Europe are not so short of dairy products that there is any need for anyone to keep such stock.

Mr. McDowell found in a herd of cows in another association, the poorest produced only income enough over cost of feed to buy a two-cent postage stamp, and a little further lack of business would have meant a cancelled stamp. For labor and miscellaneous expenses of all kinds the owner had only the manure, skim-milk, and calf. It seldom pays to sell a good cow; it never pays to keep a poor cow.

Why Testing Associations Stick.

Estimates show that the average production of all the dairy cows in the United States is 160 pounds of butter-fat per year. Mr. McDowell found that the average for the cows of the forty cow-testing associations was 247 pounds per head per year. This gives a practical demonstration of the profitability of knowing what your cows and yourself are doing. The same records show that a production of but 160 pounds of butter-fat a year gave the farmer an income of \$23 over cost of feed, while the average income over cost of feed for all the cows in these associations was \$47, or a little more than twice as much.

"The dairymen who join the cow-testing association are more progressive than the average," says Mr. McDowell, "and own cows and farms that are much above the average, but the fine showing made by association cows should be credited, in large measure, to association work. Certainly the

cow-testing association return many dollars more than they cost. It is encouraging also to know that the cow-testing association records indicate that the large-producing dairy cows are the least affected by the increased cost of feeds. Therefore, every dairyman should aim to keep all his good cows, or to place them where they will continue the economical production of human food. Economical production can be obtained not only through careful selection of dairy cattle but through intelligent breeding and skillful feeding.

And there is no information equal to the cow-testing records to aid the breeder in intelligent advancement from generation to generation. Of the seventeen daughters of carefully selected bulls in one association, sixteen excelled their dams. The bulls were owned by a local bull association, whose members also belonged to the cow-testing association. On an average the daughters of association bulls produced 1,145 pounds more milk than their dams, and sixty-three pounds more butter-fat. The average production of the daughters for the year was 6,919 pounds of milk and 301 pounds of butter-fat. The record of the highest-producing daughter was 410 pounds of butter-fat, which was 208 pounds above the normal of her dam. Intelligent breeding was wholly responsible for the better generation. The country may need more cows, but the great need is more better cows.

Mr. McDowell made a careful study of the relation of feeding to the milk-pail profit end. "Tabulations of association records show that production depends largely upon the feed as well as upon breeding," he says. "Legume hay and corn silage formed a large part of the rations of the cows where income over cost of feed was high. Therefore, while grain is high-priced and needed for other purposes, the dairy cow should get a large part of her protein and carbohydrates from legumes and silage. In this way large production can be combined with economical production, and the income over the cost of feed can be increased. Economical production benefits both the producer and the consumer."

But how is the dairy farmer to know what his production is, and what proportion of grain to feed in comparison to this? It is conceded among all practical dairymen that the feeding of concentrates to dairy cows should be based on known production. The farmer must secure this knowledge through a well managed cow-testing association. Farmers who are too busy to test their own cows may, by joining an association, secure competent aid in this work. As ordinarily conducted, a cow-testing association is an organization of about twenty-six dairy farmers who cooperatively employ a man to test their cows for economical production. The tester not only weighs the milk and the feed but he tests the milk for butter-fat and assists the farmers in feeding their cows according to production. Often he aids them to organize for the economical purchasing of feeds in carload lots, and for the efficient marketing of their dairy products and surplus live stock.

Selection, breeding and feeding! This is the trinity of successful dairy farming. And through no other channel may this be secured so economical and certain as through the agency of the cow-testing association.

Shipping Broilers

By R. G. KIRBY

IN most cities the best market days for broilers seem to be Wednesday and Thursday. If a farmer ships his broilers Wednesday morning to a dealer that can be reached by afternoon this dealer will have a chance to feed and water the stock to make it more presentable for sale the next morning. The retailer can then dress the birds on Thursday or Friday and they will be ready for the Saturday market and the Sunday dining-table.

Most shippers figure about ten per cent shrinkage on broilers during transit and, of course, this will depend much on the weather and the general condition of the birds, also the length of time that they are on the road.

Many breeders lose money on broilers by selling all of them to dealers near home who are not able to pay high prices for such stock because they do not have the demand. It is not much more trouble to ship a crate of broilers at the express office than to carry it to the local dealers. The check soon arrives from the city commission dealer. The crate comes back in due time although that is sometimes after it ought to be due. Some breeders are using one-way crates, which are cheaper than the old style crates and they do not have to be returned. This seems a move in the right direction. Picking up the returned poultry crates has always been a nuisance to the farmer and probably neither the commission men or the express agents like to bother about returning them.

The best crates of broilers are all of one breed and of uniform size. For example, compare a crate of Barred Rock broilers ranging from two and a half to three pounds in weight, with a crate of mixed breeds ranging from one and a half to four pounds. There is absolutely no doubt as to which crate a hotel keeper would be apt to buy for his patrons. The uniform crate would bring the best price and the mixed crate would probably remain until all of the properly graded consignments had been sold.

To realize that two kinds of poultry are received in the average city it is only necessary to walk down a street and note the prices quoted on chicken dinners at some of the reasonable restaurants. They get the thin mixed stock that does not bring a profit to the shipper. Then visit any one of the best hotels and note the price asked for a chicken dinner. They deal with commission men who sell them the cream of the poultry that comes from the farms. There is no doubt concerning which kind of trade is the most profitable to the producer.

MORE CARE NEEDED IN SHIPPING EGGS.

A BIG improvement has been made during the past year in the quality of eggs marketed and in their handling on the way to market, but according to reports that have come to the United States Food Administration there is still room for betterment, particularly in the packing of eggs, by some shippers.

When a man ships eggs, say from Michigan to New York, and uses insufficient packing or second-hand materials he is inviting a heavy loss, the Food Administration points out, and is at the same time violating its regulations. Freight inspectors report that in some cases shippers use second hand fillers and flats, and occasionally newspapers are used for keeping the eggs separated. Often too little or no excelsior is used on top. New materials are sometimes of such poor quality as to afford little protection. In one shipment of eggs packed with these poor and insufficient materials eight out of ten cases were found to contain broken eggs.



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For fall or Winter Breeding. Address OAKROFT, R. 7, Pontiac, Mich.

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Percheron Stallions and mares of reasonable prices; inspection invited.
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Auction Sale of Reg. Perch., Reg. Shorthorns and Duroc Hogs, Tuesday Oct. 29th, write for sale list. J. M. Hicks & Sons, R. 2, Williamston, Mich.

Sheep ads will be Found on Page 410

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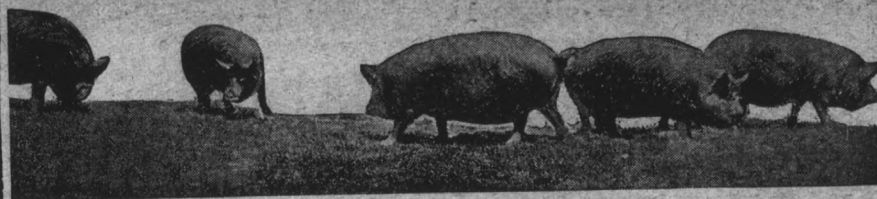
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Simplified Farming

(Continued from first page).

find that the trouble is beyond our control as individuals, then we should plan to combine and attack the problem cooperatively. The time has come when we must organize not only for social improvement, not only to discuss better methods of farming, but vitally, we must organize so that we shall have more to say about what we shall get for our products and what we shall have to pay for what we buy.

If the farm is to be improved and made attractive while at the same time yielding reasonably good profits to the owner, there must be a proper balance between land and equipment. Money must be put in the business before it can be organized and placed on a money-making basis. The hunger for a broad expanse of acres has induced many men to tie up so much of their capital in land that they have not working capital enough to handle their farms properly. The idea that land is the all-important foundation for successful farming has been unduly magnified in this country. Careful investigations of various systems of successful farm management show that when the land is extensively farmed it requires about as much capital in buildings, tools and live stock as in land.

No fixed rule can be laid down as to what shall be the balance between land and equipment. Much will depend upon the location, the character of the farm, the markets and other factors surrounding the business. Suitable and comfortable buildings so arranged and located as to facilitate the handling of the crops and live stock are needed on every farm, but all unnecessary expense becomes a constant charge upon the business. It is a mistake for a farmer to invest too much of his capital in buildings.

Farm machinery and equipment bears a close relation to the labor problem. By the use of improved machinery much of the work of the farm may be greatly lessened. Where the conditions are favorable it means a reduced cost of production, although that does not always follow. If the use of a machine proves but a convenience and not a positive reduction of expense, it must be classed as a luxury. The invention of improved machinery has been a God-send to the farmer, but it cannot be denied that its injudicious purchase and the needless exposure, as well as the failure to figure up the cost has been a tremendous drain upon the resources of the farmer. Clearing up the fields by removing stones, stumps, useless fences and trees, and tile draining the low, wet places that delay plowing and planting in the spring should precede the introduction of costly machinery, that the risk of breakage and the delay of planting and cultivating be reduced to a minimum. Breaks are expensive, for to the cost of repairs must be added the loss of valuable time. A little forethought and the use of a few days' time will often enable a man to enlarge his fields, remove obstructions and gradually get his farm in shape for better cultivation by improved implements. Connected with this problem of improved machinery comes one of the most perplexing of farm problems. Intelligent farm labor is becoming exceedingly hard to secure. Brains are needed to cooperate the varied equipment on a diversified farm, but it pays to hire competent men. A man's worth at farm work depends now more upon his ability, wits and speed than upon his brute strength. It requires some

head work to handle farm teams and equipment and waste no time during the day, and the man without some ingenuity is like an engine without a balance wheel. It is the man who has the faculty of keeping his team and implements in working order and steadily on the move each day that does the big season's work. The few odd minutes saved now and again tell greatly at the end of the season.

In organizing a system of farming, carrying the largest possibilities and insuring the greatest returns, crop rotation is inevitable. It distributes the labor of the men and teams more regularly over the year and greatly economizes the acreage cost of tillage operations and is a great aid in settling the labor problem. By growing a rational rotation of crops and feeding them to stock on the farm it is possible to furnish employment to the same number of men the year round and place them in cottage homes with their families.

Crop rotation aids in securing and conserving soil fertility. No two plants root at the same depth. Many farmers do not appreciate crop rotation as an aid in supplying plant food and conserving the time of men and teams. A rational rotation of crops is the basis of successful farming. All of the great agricultural regions are fairly screaming for intelligent diversification, for a change in treatment, for crop rotation.

In organizing the farm some kind of animal production should be a prominent feature of the farm management. In the absence of some kind of live stock the excuse for growing a wide variety of grass and forage crops is wanting. Feeding the soil through live stock makes it possible to secure two profits from farming, besides it increases the fertility of the soil for future crops. It is the only way of eating the cake and having it left. Crop rotation is not a sufficient means of building up the soil. It is merely a part of a complex system which involves stock feeding as its complement. As a business, farming is on a safer basis when the bulk of the field crops grown on the farm are fed to live stock and more than two-thirds of their fertilizing value returned to the soil in the form of manure.

Only animals that have the ability to profitably utilize what is raised on the farm should be kept. The feeding of live stock with no profit other than the resulting manure is a losing business. The animal can add nothing to the fertilizing ingredients of the food it consumes, and the increased value of the animal or its product must alone determine the profit.

In the first place we must aim to produce on our farms those products which are best adapted to our location and soil. Products which for our given conditions will give the largest profits. If a man makes a specialty of two or three crops and studies the kinds of soil best adapted to their growth he is more certain of success than the man who blindly follows the customs of others. There is such a science growing up around the growth and perfection of every farm crop that it requires continual study and effort to keep abreast of the times. Having determined the products we can produce to the best advantage, we must give attention to evolving a system of farming whereby due care may be devoted to each branch that is being followed and harmonize them all into a general scheme will eliminate all waste.

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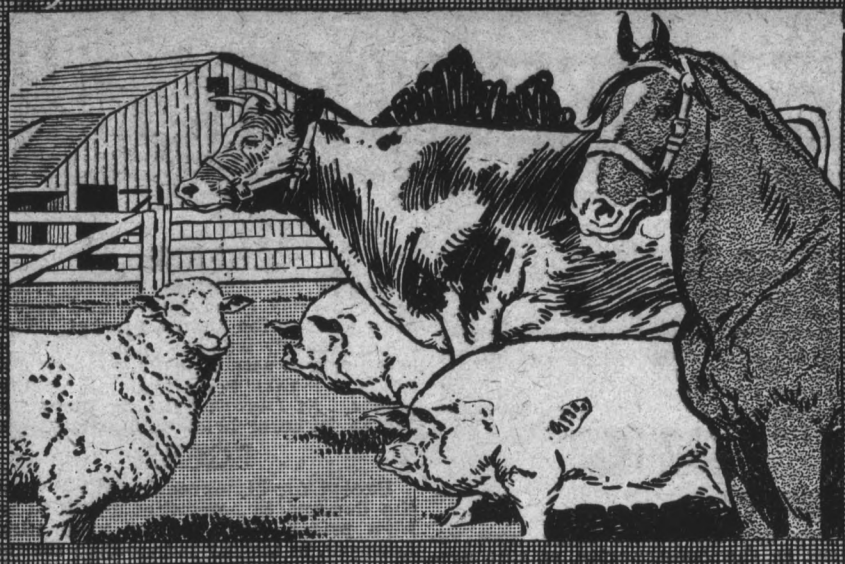
One particularly high class young bull now ready for service. If you want Holsteins of any class, will you please write to us for descriptions and photographs? Every animal guaranteed.

BLOOMINGDALE FARMS, Bloomingdale, Mich.

HOLSTEINS

5 yearling bulls from A. R. O. daughters of Johan Hengerveld Lad, son of Hengerveld DeKoi. Ready for light service this fall. Price \$75 to \$125. Genida Farms, W. T. Hill R. 5, Flint, Mich.

REG. Holstein: Bull calf born Dec. 28, 1917, a splendid individual, straight, deep bodied 3/4 white. 7 nearest dams have A. R. O. records, that average butter 7 days 22.21 lbs. milk 497 lbs. W. B. Reader, Howell, Mich.



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CATTLE

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\$50 Liberty Bond gets 1 mo. old gdson of Maplecrest Kora. Heng. dams are granddaughters of Pontiac Maid 50.21 lb. Heifers same age breeding \$150 terms Hard free tuber. **M. L. McLaughlin, Bedford, Mich.**

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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.**

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This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27 lbs in 7 and 110.25 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices but hurry for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired. **TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.**

For Sale Cheap 2 Holstein bull calves, born Jan. 28 and Mar. 22, both from 29.42 lb. sire. One from 28.90 lb. 4 years old dam, also a few females. **A. F. LOOMIS, Owosso, Mich.**

HOLSTEINS of quality. Bull calves from dams with 1 records high as 31 lbs. in 7 days. Also colts, puppies. **E. A. HARDY, Rochester, Mich.**

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Our new sire has four sisters whose semi-official records are 677, 742, 913 and 946 pounds of butter in one year respectively at 2 to 3 years of age. His dam is a daughter of Friend Hengerveld De Kol Buitar Boy, four of whose daughters have records over 1000 pounds and she is also a granddaughter of Pontiac Aagie Korndyke, with six daughters above 1000 pounds of butter in one year.

Peaceland Stock Farm, Three Rivers, Mich.
C. L. Brody, Owner Port Haron, Mich.
Charles Peters, Herdsman

For Sale Registered Holstein cow coming 3 years old 1/2 white, good bag and teats, easy milker, kind and gentle, sired by grandson King Fayne Segis; size of 50 lb. cow. Bred to 30 lb. bull, freshen soon, also 2 bull calves av. 1/2 white, 6 to 9 months old, sired by above bull, King Hengerveld Palmyra Fayne the 5th. Price \$250, \$175, and \$65 respectively with all papers. **WALNUT STOCK FARMS, Lewis J. Benjamin & Son, R. 1, Ohio, Mich.**

We Pay Spot Cash

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Owning to farm house burning down, and help scarce. Too many Jersey heifers, to winter, from 2 mos. to 2 years old, also one young bull, 10 mos. old, \$50. It's a bargain for some one and have got to sell. **Belding Land & Improvement Co., Belding, Mich.**

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JERSEY BULLS

Ready for service FOR SALE
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For Sa'e Choice Jersey bull registered, age 22 months. Strain St. Lambert and Majesty. Markings solid color, black tongue and switch. Reason of sale, related to owner's herd. **SEYBURN FARM, R. 7, Pontiac, Mich., Tel. 710F4.**

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1 Young bull, and several heifers bred to freshen next spring. Sired by grandson of Sophie 19th of Hood Farm and from good producing cows. Write for prices or what's better come and see them. **Hill Haven Jersey Stock Farm, F. CHAPMAN & SON Props, Vandalia, Mich.**

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Meridale Interested Owl No. 111311 heads my herd. bull calves from this great sire and out of R. of M. dams for sale. **C. B. WEBNER, Allegan, Mich.**

For Sale Registered Jersey Cattle of both sex. **Smith & Parker, R. 4, Howell, Mich.**

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5 Bulls 9 to 14 months old Prince Donald, Farmer and Perfection Fairfax breeding.

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Sires in Service: Fair Acres Goods and IMP. Lorne-Michigans Grand Champion Bull. Attend the Shorthorn Sale at Lansing Oct. 9th. We invite you to inspect the cows and heifers we have listed in this sale.

C. H. PRESCOTT & SON,
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Francisco Farm Shorthorns

We maintain one of Michigan's good herds of Scotch and Scotch Topped cattle. They are well bred, properly handled and price reasonable. Come and see; we like to show them.

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The Kent Co. Shorthorn Breeders Association are offering some choice animals at reasonable prices. Write your wants. **L. H. LEONARD, Sec., Caledonia, Mich.**

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

For Sale Shorthorns of Quality Scotch and Scotch Topped descendants of Archers Hope, Avondale, Maxwallow Sulton and White Hall Sulton by the Oscola Co. Shorthorn Breeders Ass. **JOHN SCHMIDT, Sec., Reed City, Mich.**

Shorthorn Seven Scotch and Scotch Topped bulls for sale. Price reasonable. **W. B. McQUILLAN, R. 7, Howell, Mich.**

Shorthorn Bulls ready for service of the choicest breeding. Write me your wants. **A. A. PATTULLO, R. 4, Deckerville, Mich.**

Dual Purpose Shorthorns all ages, a ton Roan 3 yr. old herd bull, also Duroc Hogs all ages. **CHAS. BRAY, Okemos, Mich.**

For Sale Shorthorn Bulls of the choicest breeding and ready for service. **LUD HASTINGS, Napoleon, Mich.**

Shorthorns 100 head to select from. Write me your wants, price reasonable. **Wm. J. BELL, Rose City, Mich.**

For Sale Reg. Red Poll calves of both sex, also two Reg. Duroc Jersey boars of Cherry King strain. **WILL COTTELL, R. 1, West Branch, Michigan**

HOGS

Berkshire spring and fall pigs, both sex. Pairs not akin, priced to sell, all stock guaranteed. **B. B. REAVEY, Akron, Mich.**

Durocs. Choice spring pigs out of selected sows and sired by our best herd boars. They are of the big type, strong boned, smooth and of excellent quality, and include some of the most popular blood lines such as Orion Cherry King, Top Col. Defender, Brookwater etc. Prices reasonable. **The Jennings Farms, Bally, Mich.**

DUROC BOARS

Big long, tall, growthy boars. The kind that will add size and growth to your herd. Biggest March farrowed pigs in country. Weigh 200 lbs. not fat. **NEWTON BARNHART, St. Johns, Mich.**

DUROCS April and May pigs of both sexes sired by a Defender bred boar. For prices etc., write **WELLS PARISH & SONS, Allendale, Mich.**

Pleasant View Durocs Spring boars and gilts of exceptional quality priced right. Inspection invited. **O. A. BURLINGAME, Marshall, Mich.**

Duroc Jersey spring boars sired by Orion Cherry King Col. Write for prices and description. **W. C. TAYLOR, Milan, Mich.**

Choice Duroc Jersey Gilts For Sale.
CAREY U. EDMONDS, Hastings, Mich.

Duroc Jerseys Big heavy boned spring boars winners at State and County Fairs. Place order early. **F. J. DRODT, R. 1, Monroe, Mich.**

Duroc Gilts and fall pigs sired by E. D's Defender Col. from King The Col. dams. **E. D. HEYDENBERG, Wayland, Mich.**

Registered spring Duroc pigs, excellent breeding and individuals. Prices low. **F. R. BAYLIS, R. 2, Dexter, Mich.**

Chesters May boars. Sept pigs in pairs for the best blood lines obtainable. **F. W. ALEXANDER, Vassar, Mich.**

LAST fall gilts all sold, have a good lot of last spring litters from 8 sires good growthy stock. Farm 1/2 mile west of depot. **CITIZENS Phone 124, Nashville, Mich.**

O. I. C.'s I will ship C. O. D., record free of charge and pay the express of every service boar sold in November. **F. C. Burgess, R. 3, Mason, Mich.**

Additional Stock Ads. on Page 427

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, October 31.

WHEAT.

The wheat movement is large, the increase in the United States visible supply amounting to 5,996,000 bushels for the past week. Exporters are buying this grain freely, with the result that prices this week remain unchanged in the face of heavy selling by the farmers. One year ago No. 2 red wheat sold on the local market at \$2.17 per bushel. Present quotations here are:

No. 2 red.....	\$2.23½
No. 2 mixed.....	2.21½
No. 2 white.....	2.21½

CORN.

Notwithstanding the fact that in the event of peace the central powers of Europe will be making heavy demands for American grain, corn prices subsided rapidly at the opening this week when new peace notes were sent out by Austria and Germany. This decline took place in face of the fixing of hog prices at 17½c, which would warrant corn prices to go above the present level. The movement of corn has also been interrupted by wet weather and lack of cars. The visible supply decreased 448,000 bushels last week. One year ago No. 3 corn was selling on the local market at \$2.19 per bushel. Present Detroit prices are:

No. 3 corn.....	\$1.30
No. 3 yellow.....	1.40
No. 4 yellow.....	1.30
No. 5 yellow.....	1.25
No. 3 white.....	1.40

At Chicago values declined with the present prices as follows: No. 2 yellow \$1.45; No. 3 yellow \$1.40; No. 4 yellow \$1.26@1.30; November \$1.17½; December \$1.14½.

OATS.

Oats borrowed weakness from corn and values declined somewhat although the margin of change was less than for the major grain. Eastern buyers are not taking hold of the trade at present. The visible supply shows practically no change from last week. One year ago standard oats sold locally at 62½c per bushel. Present Detroit prices are:

Standard.....	.70
No. 3 white.....	.69½
No. 4 white.....	.68½

RYE.

Farmers are marketing this grain more freely, and the trade is buying moderately. The price shows a fractional advance, cash No. 2 now being quoted on the local market at \$1.64 per bushel.

BARLEY.

There is improvement in the demand for barley from feeding quarters, and the market is gaining in activity. No. 3 barley is now quoted on the local exchange at \$2.05; No. 4, \$2; feeding grades \$1.90@1.95 per cwt.

BEANS.

Domestic trading in this product is expanding much more slowly than the dealers had anticipated with the result that prices are showing a downward tendency, now that the legumes are moving from producing sections. New York prices show a general decline with the best pea beans now quoted at \$11 per cwt., and the common to fair grades at \$9.50@10.75. The Detroit market rules steady, but very little business is being done. Immediate and prompt shipment are quoted here at \$8.75 per cwt. In Chicago the movement shows more freedom and prices are being held on a steady basis; the Michigan hand-picked beans are selling to jobbers at \$9.50@10.25 for choice to fancy, and \$7 for off stock; red kidneys \$11@11.50. Reported quotations from Michigan country elevators show that farmers are being paid on an \$8@8.50 basis.

HAY.

Prices remain unchanged and the market shows an easy feeling owing to larger receipts. Detroit quotations are as follows:

No. 1 timothy....	\$29.50@30.00
Standard timothy	28.50@29.00
No. 1 mixed....	24.50@25.00
No. 1 clover....	23.50@24.00

Pittsburgh.—The tone of the trade here is easier, with receipts now in

excess of demand. Prices show decline from last week. They are:

No. 1 timothy....	\$34.00@34.50
No. 1 light mixed	31.50@32.50
No. 1 clover mxd	31.50@32.50
No. 1 clover....	30.00@31.00

SEEDS.

Market is firm with red clover higher. Quotations are: Prime red clover, cash and March \$23.25; alsike \$18; timothy \$5.

POTATOES.

In general the potato markets are a little easier. Recent rains have had a tendency to decrease shipments. Total number of cars started in the various shipping states amounted to 662 for Wednesday. Cars moving from Michigan points on that day were 90 in number. In the Greenville section farmers are receiving \$1.50 and at the northern country loading points \$1.25

@1.40 from the wagons. The Cleveland market is steady to slow with Michigan round whites sacked, U. S. Grade No. 1 selling to jobbers at \$2.20; at Buffalo at \$2.20@2.30; at Pittsburgh \$2.20@2.35; at Cincinnati \$2.20 for the bulk. The Detroit market was unchanged on Thursday, with the above grade bringing \$3@3.25 in 150-lb. sacks and \$1.90@2 in bulk per cwt.

BUTTER.

Butter prices in the middle west are slightly advanced since last week. There appears to be some improvement in the consumption of this product. At Detroit fresh creamery firsts are now quoted at 55c; do extras at 55½@56c. Chicago market is higher, with creamery ranging at 52½@57½c per pound. At New York the range for creameries is 56@59c. In Philadelphia western creamery extra brings 58½c per pound.

CHEESE.

Recent advances in cheese prices have checked consumption and resulted in a reaction in the market. This is particularly true of the central western markets where prices were recently on a higher basis than at Atlantic points. At Detroit flats are quoted at 36c to jobbers; brick 40c; daisies 36c.

EGGS.

Except for high-grade new-laid eggs, the demand is somewhat modified by high prices. The limited production, however, is largely responsible for the advanced quotations ruling this week. At Detroit candled current receipts are jobbing at 52c; do firsts in new cases 54c; storage packed 42@44c. In New York the trade is firm with fresh gathered extras at 61@62c. The Chicago market is higher as follows: Firsts 53@54c; ordinary firsts 52@52½c; at mark, cases included 52@53c.

POULTRY.

Heavy receipts have eased off poultry prices and probably will encourage consumption. At Detroit springers are quoted at 29@30c; hens 29@30c; small hens 27@28c; roosters 19@20c; geese 24@25c; ducks 29@30c; turkeys 34@35c. The New York market is weak, with chickens 28c; fowls 28@30c; old roosters 22c; turkeys 32@33c.

APPLES.

Apple markets continue about steady with supplies fairly liberal and the demand and movement generally slow. On the Detroit tracks Michigan stock, orchard run and of ordinary quality brings about \$2.50 per bbl; No. 1 Jonathans in crates are selling up to \$1.50 per bushel. At Chicago the Michigan Greenings are quoted at \$4.50@5; Northern Spy \$5.50@6; Baldwins \$4.50@5; Jonathans \$6@9.

DETROIT CITY MARKET

Farmers continue to sell considerable produce on the city markets. Potatoes bring around \$1.30 per bushel; cabbage 50c for white and 75c for purple; carrots 50c; parsnips 90c; beets 50c; apples \$1.10@1.75; onions \$1@1.25; eggs 70c; butter 65c.

GRAND RAPIDS

The quantity of farm products that were brought to the city market last week was less than the week previous, owing to the storm which prevented harvesting. Onions dropped to 40c a bushel by the load, and 50c a single bushel; the crop is being moved fairly well by jobbers in carlots. Last year onions sold on the city market at \$1.25@1.50 per bushel. Potatoes in this section are sixty per cent out of the ground, and sell at \$1@1.25 per bushel; the larger per cent is still too green for cellar stock. Apple crop harvested except Ben Davis, and practically marketed. A larger quantity of older is being made this year than ever before. Many of the mills sell at 8@10c per gallon by the barrel. Jobbers in beans quote white at \$8 per cwt. to growers and \$8.50 red kidneys.

NEWS ITEMS FOR THE WEEK.

(Continued from page 410). government now awaits proposals for an armistice.—General Ludendorff tenders his resignation which is accepted by Emperor William.—French gain east of St. Quentin, and make a concentric drive on Richecourt, ten miles north of Laon.—Sixty American bombing aeroplanes succeed in bombing enemy troop concentrations in region of Grand Pre.—British occupy Aleppo, Syria, cutting off Turks from their supplies, and periling the entire Turkish forces in Mesopotamia.

Tuesday, October 29.

THE Germans yield ground on every front. Field Marshal Haig advances toward Mons and Maubeuge and is outflanking Valenciennes. The French make further advance between the Oise and Serre rivers. Northwest of Verdun the Americans use big guns to smash the back lines of the enemy fifteen miles distant from the American line positions. In northern Italy Italians aided by British and French force the enemy to fall back and inflict heavy losses, 9,000 prisoners being taken yesterday. Italians also advance in Albania.—Turks are being fast driven out of Mesopotamia.—Eighteen new ships were added to the American fleet during the week ending October 25.

Live Stock Market Service

Reports for Thursday, October 31st

BUFFALO.

In selling here today pigs brought \$16.50 and other grades \$18.75. Lambs ranged from \$17.25@17.50 and calves went to \$18.50. The trading in cattle was very slow.

CHICAGO.

Cattle. Receipts 25,000. Opening very slow. Good to prime choice steers steady; at \$15.75@19.75; others 20@25c lower; common and medium butchers \$9.75@15.75; heifers \$7.25@14; cows \$6.85@12.75; bologna bulls \$7.25@12.50; canners and cutters \$5.90@6.85; stockers and feeders, good \$10.25@12.75; do, medium \$7.50@10.25.

Hogs.

Receipts 41,000. Market active and mostly 15@25c lower than yesterday. Tops \$18.30@18.45; heavy \$18.15@18.45; mixed and light \$17.90@18.30; packers' hogs \$16.75@17.50; medium and heavy \$17.40@17.85; light bacon hogs \$17.50@18; pigs, good to choice \$14.75@16.50; roughs \$16@16.50.

Sheep and Lambs.

Receipts 31,000. Lambs and yearlings steady to strong; sheep steady. Choice to prime lambs \$16.65@16.85; medium and good lambs \$15@16.65; culls \$10@13.25; medium, good and choice feeders \$13.25@14.75; choice yearlings \$13.25@13.75; medium and good yearlings \$11.50@13.25; wethers, medium and good \$10.75@11.75.

Reports for Wednesday, October 30th

BUFFALO.

Cattle. Receipts 20 cars. Best grades 15@25c higher; common steady. Prime heavy steers \$15@16; best shipping steers \$13@14; medium shipping strs \$11@12; best native yearlings, 950 to 1000 lbs, \$15@16; light native yearlings, good quality \$12@13; best handy steers \$10.50@11.50; fair to good kinds \$9@10; handy steers and heifers, mixed \$9@10; western heifers \$9.50@10.50; state heifers \$7@8; best fat cows \$9@10.50; butcher cows \$7@8.50; cutters \$6@6.50; canners \$4@5.50; fancy bulls \$9@10.50; butcher bulls \$8@9; common bulls \$6@7; best feeders 900 to 1000 lbs, \$9.50@10.50; medium feeders \$8.50@9; stockers \$7.50@8.50; light common \$6@6.60; best milkers and springers \$10@15; mediums \$75@90; common \$50@70.

Hogs.

Receipts 20 cars; 25@50c higher. Heavy and yorkers \$18.40@18.50; pigs \$16.50@16.75.

Sheep and Lambs.

Receipts five cars; market higher. Top lambs \$17.25; yearlings \$12@13; wethers \$11@11.50; ewes \$9.50@10.50; calves steady at \$7@19.

CHICAGO.

Cattle. Receipts today are estimated at 15,000 head, making 64,600 for three days, comparing with 61,097 for the same time last week. The market is an active and strong one, with many cattle selling from 15@25c higher than at the close last week. Prime heavy steers are bringing \$19.15@19.70, although none here today are fancy enough to sell above \$19.50. Fair to fancy year-

DETROIT

Cattle.

Market strong; 75c higher than last week.

Best heavy steers.....	\$13.00@15.00
Best handy wt bu steers.....	10.00@11.00
Mixed steers and heifers.....	8.25@ 9.75
Handy light butchers.....	7.75@ 8.25
Light butchers.....	7.00@ 7.75
Best cows.....	9.00@ 9.50
Butcher cows.....	7.00@ 8.75
Cutters.....	5.75@ 6.00
Canners.....	5.25@ 5.65
Be sheavy bulls.....	8.75@ 9.25
Bologna bulls.....	6.50@ 8.50
Stock bulls.....	6.50@ 7.25
Feeders.....	8.50@10.50
Stockers.....	7.00@ 8.50
Milkers and springers.....	\$60@ 130

Veal Calves.

Market steady.....	
Best.....	\$ 17.00
Others.....	7.50@16.00

Sheep and Lambs.

Market strong.....	
Best lambs.....	\$15.75@16.00
Fair lambs.....	14.50@15.50
Light to common lambs.....	12.50@13.25
Fair to good sheep.....	8.50@ 9.00
Culls and common.....	5.00@ 7.00

Hogs.

Market dull.....	
Pigs.....	\$15.50@15.75
Mixed hogs.....	17.25@17.60

ling steers are selling on the basis of \$15@19.60. Very few choice beefs are showing up, and plain and common light steers are moving rather slowly. Butcher cows and heifers are quotable at \$6.65@14.75, canning cows and cutters at \$5.50@6.60 and calves at \$7.50@16.50. Stockers and feeders are active at \$7.25@12.75, but not many go over \$11.75. Western range steers are salable at \$9.50@17, desirable lots being as much as 25c higher this week. Native steers selling at \$10.25@12.50 and are very common.

Hogs.

Wednesday receipts are about 20,000 hogs, making a total of 82,500 for the first half of the week, comparing with 89,307 for the same time last week. Following the recent boom which landed prime hogs yesterday at \$18.85, the market had a bad break today, with common to prime hogs selling at an extreme range of \$17@18.50, while pigs sold at \$12@16.50, but not many sold anywhere near the bottom price. The light butcher hogs are market toppers, with rough heavy packing sows the lowest.

Sheep and Lambs.

Today's receipts are estimated at 16,000 head, making a total of 70,200 for three days, comparing with 77,465 for the same time last week. With steadily decreasing receipts from those of a few weeks ago, the market is active at the recently advanced prices, although the top for lambs is lower than a day or two ago. Lambs are salable at \$11@16.50, yearlings at \$10.75@13.50, wethers at \$9.75@11.75, ewes at \$4.50@10.35, bucks at \$8@8.50. Feeding lambs are on a \$14@15 basis.

Should Get Together

It frequently happens that middlemen make a whole lot of money when farmers in different sections of the country find themselves either short or long on feed. This year in many sections of Michigan there is a surplus of roughage, while in other districts farmers have too much stock for the feed on hand.

My business has taken me into a number of districts of this state which I have traveled over very thoroughly. I have observed this fact: Farmers living in the central portion of the state, including Ionia and Gratiot counties, western Saginaw and the north half of Clinton county, have a fine lot of hay but are short on cattle. I understand that it is impossible to secure wire for baling the hay, therefore making it difficult for these farmers to move this surplus to points where it is needed.

Now, I find that in Oceana and sections of adjoining counties quite the opposite condition prevails. The dry weather has resulted in a shortage of hay and fodder, and farmers are obliged to dispose of considerable live stock which they have not the feed to carry through the winter or to prepare for market.

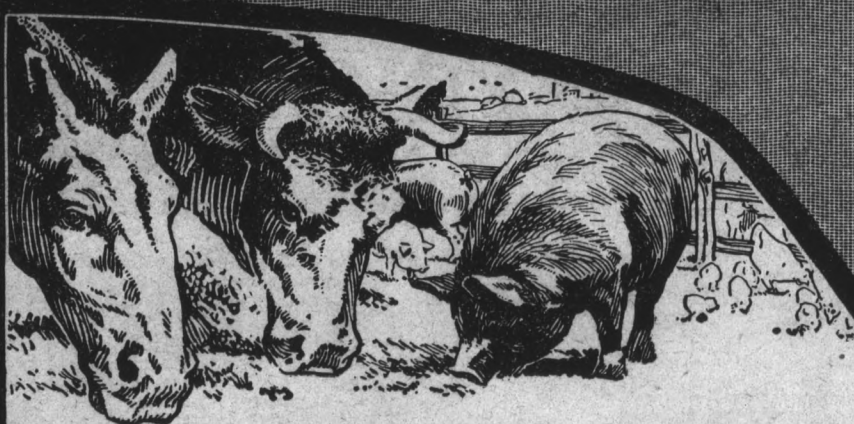
Now it has occurred to me that if the farmers of these two sections could get together so that those living in the first mentioned district could purchase the cattle from the second district, there would be mutual advantage resulting. Unless this is done, the following procedure will likely take place: The farmers with the surplus of stock will sell to the local drover, who in turn will send the stock probably to Detroit, and the farmers having the surplus of feed will go to Detroit and pay the commission houses a considerable advance over what the original owners of the cattle received to get this same stock for feeding this coming winter. And the extra price paid will represent a dead loss, for no service whatsoever will have been rendered in this case by those handling the animals, excepting, of course, that given by the transportation companies and the greater part of this would be wasted.

Therefore I say, if the county agents or other representative persons in these two sections could get together, there would be a distinct saving to the farmers of both communities. Why can't it be done?—LEW STERLING.

Sort Out the Culls

REMEMBER that more than half the potatoes moved this fall will go into storage. Putting your tubers into condition to keep well after they are put into storage qualifies them to sell at prices on the open market that will take care of your tremendously increased expenses for commercial fertilizers, seed and labor. That is why the problem of grading and sorting at harvest time becomes so important. Culls must be kept from the sound, marketable spuds; they must go into storage or else the good marketable stuff will all turn to culls and prices will take a high dive.

As prices advance in the fall cull potatoes become of more importance than firsts. The grower who detects a cull in his crop and who puts that cull where it belongs is helping his association to build up a reputation for Michigan potatoes. The grower who slights this precaution is not only jeopardizing his own interests, but he is making it difficult for his association to put Michigan on the potato-growing map. Always bear in mind that efforts of your association to sell Michigan potatoes at higher prices will prove a God-send or a fiasco, depending upon the integrity with which the growers grade and sort the crop before it goes into the cars.



Better results guaranteed!

To insure maximum results from work, growth or production, all stock need a tonic. My Stock Powders increase the proportion of flesh and energy animals get from the feed—produce perfect digestion and keep the systems toned up and worm-free. As a result, horses do better work, cows yield more milk, hogs make faster gains.

Dr. LeGear's Stock Powders (my personal prescription)

are the most *resultful* tonic and conditioner for all domestic animals, both to prevent and cure ailments. The formula for these powders has been carefully worked out from my 26 years' Veterinary practice, and I know they will prove as *profitable* to you as they have to thousands of stock raisers.

Dr. LeGear's Stock Powders put digestion in fine condition, expel worms, make pure, rich blood, and keep animals stronger and healthier all around, because they insure animals getting full nourishment from the feed, and also eliminate tendencies to sickness. They are an excellent remedy for coughs, colds, distemper, kidney troubles, loss of appetite, hide-bound, loss of flesh, etc.

You try them at my risk

My stock Powders are my own prescription, used with constant success during my twenty-six years of actual practice, and are *guaranteed* to do all that I claim for them. If they do not really benefit your stock, your dealer is authorized to refund your money.

Dr. LeGear's Poultry Powder
keeps hens healthy, insures winter eggs, and means more profits to you.

Dr. LeGear's Antiseptic Healing Powder
cleanses, dries and heals sores and cuts quickly. Handy to use.

Dr. LeGear's Lice Killer
(powdered) rids your flock quickly of lice, protects chicks, etc.

Free sample—ask your dealer

Dr. LeGear's Remedies are sold by 40,000 of the best dealers—never by peddlers. Ask your dealer today for liberal *free sample* package of Dr. LeGear's Stock Powders or Dr. LeGear's Poultry Powder, and get a free copy of Dr. LeGear's Stock and Poultry Book. If your dealer hasn't the samples and books, ask him to write us for them. We will supply him promptly.

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the best market in America; weekly market circular on request, please mention this paper. Are you doing your bit? Buy War Stamps.

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

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Remember! We guarantee your satisfaction with every shipment.

CULLOTTA & JUELL Eastern Market, Detroit, Mich.

We handle only on commission. No merchandise competition with your goods. Highest prices possible obtained on arrival, and you don't have to wait for your money.
Reference Peninsular State Bank.

Holmes, Stuve Co., 445 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank, Bradstreet, Detroit, Mich. Cad. 2878.

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

We are in the market for Seed Wheat.
CARLOTS MAIL SAMPLES
Farmers Elev. & Pro. Company, Bad Axe, Mich.

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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.
S. S. BENJAMIN, R. F. D. 10, Portland, Michigan

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O.I.C.'s Chester White Boars, Sows, Spring farrow, Shropshire Ram Lambs, new Marquis spring wheat. Frank Bartlett, Dryden, Mich.

O. I. C. & Chester White Swine

Strictly Big Type with QUALITY. Have a few spring pigs either sex for sale. They are of the right stamp, good enough to be shipped C. O. D.
NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

8 Large Type O. I. C. spring boars also 2 prize Jr. boar Mich. State Fair 1918.
CLOVER LEAF STOCK FARM, Monroe, Mich.

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Spring boar and gilts. Also fall pigs.
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This establishment has been head quarters for Big Type Poland Chinas. We have a nice lot of boars and sows of strictly big type breeding at very low price. Let me know what you want. Bell phone.
JNO. C. BUTLER - - - Portland, Mich.

Large type P. C. Mar. and April boars ready to ship, the big bone, big litter, biggest kind, that go out and make good, inspection invited. Free livery from Parma.
W. E. LIVINGSTON, Parma, Mich.

The Old Fashion Spotted Poland Hogs. Early fall pigs either sex for sale \$25 each, fine ones.
J. M. WILLIAMS, - - - No. Adams, Mich.

Big type P. C. Big boned fellows from Iowa's greatest herds, special prices on spring boars and choice bred gilts.
E. J. MATHEWSON, Burr Oak, Mich.

Big Type Poland Chinas. Spring pigs for sale. B. Healthy and growthy. From large litters. Prices right.
L. W. BARNES and Son, Byron, Mich.

LARGE Type P. C. Spring boars and gilts now ready to ship. None better in Michigan. Come and see them.
W. J. HAGELSHAW, Augusta, Mich.

Big Type P. C. Spring Boars for sale, also Hampshire Ram lambs.
A. A. WOOD & SON, - - - Salline, Mich.

Big type P. C. Boar one yearling. Large and fine every way 2 fall yearling 10 Apr. boars. Write for prices. Satisfaction guaranteed. R. W. MILLS, Salline, Mich.

Additional Stock Ads on Pages 410 and 427



Three distinct advantages of the 20 gauge gun

WHAT accounts for the increasing popularity of the 20 gauge shotgun, when only a few years ago the 12 gauge was considered the lightest gun that could be used effectively?

Aside from the fact that shooting with the 20 gauge gun provides keener sport for the hunter, three distinct advantages mark the 20 gauge shotgun as an ideal weapon for veteran or novice.

1. **Economy**—Ammunition for the 20 gauge gun is less expensive. With results just as effective, this is an important item to many hunters. Ammunition is also lighter to carry. Recoil is slighter.

2. **Light in weight**—The 20 gauge gun is not burdensome to carry. Having superb balance, it is easy to point and quick to handle. You can get onto your game quickly, which offsets any handicap that a quick opening shot pattern may impose.

3. **Does not mutilate**—At the range at which most small birds are bagged, the quick opening pattern of the 20 gauge gun does not mutilate the game. Its pattern is sufficiently even to insure a "kill," but you do not find your bird filled with shot, or portions torn away by dense shot

clusters.

These three advantages make the Winchester Model 12 in both 20 and 16 gauges a big seller to farmers and other sportsmen. Men who have used this gun, with its smooth, reliable action and its perfect barrel, find it difficult to go back to the heavier 12 gauge gun.

How the barrel is bored

Men who know guns realize that the accuracy and durability of a gun depend primarily upon the barrel. The barrel of the Winchester Model 12 is bored to micrometer measurements for the pattern it is meant to make. The degree of choke exactly offsets the tendency of the shot to spread. Until its pattern proves up to the Winchester standard, no gun can leave the factory. The nickel steel construction preserves the original accuracy forever.

The Bennett Process, used exclusively by Winchester, gives the Winchester barrel a distinctive blue finish that, with proper care, will last a lifetime.

What means

Look for this mark on the barrel of a Winchester gun. It means that the gun has been subjected to the Winchester

Definitive Proof test. It stamps the gun with Winchester's guarantee of quality, which has 50 years of the best gun making reputation behind it.

Every gun that bears the name Winchester, and that is marked with the *Definitive Proof* stamp, has been fired many times for smooth action and accuracy. It has also been fired with excess loads as a test of strength. At every stage of Winchester manufacture, machine production is supplemented by human craftsmanship. *Every Winchester gun is perfected by the test and adjustment process.*

It is this care in manufacturing that has produced the Winchester Model 12, 20 and 16 gauge, and the Model 97, 16 gauge, for those who prefer hammer action. Both shotguns have won the admiration of sportsmen everywhere.

Write for details of Winchester shotguns and shells

Detailed specifications of the Model 12 and Model 97, and also our new booklet on shells will be sent on request.

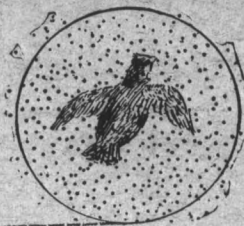
WINCHESTER REPEATING ARMS COMPANY

Dept. M-41

New Haven, Conn., U. S. A.



15 to 25 yards

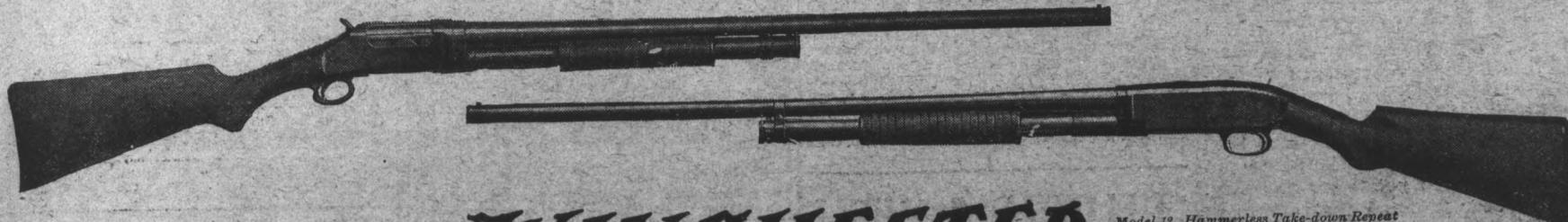


Most quail, snipe and prairie chickens are killed at 15 to 25 yards. At these distances the Winchester Model 12, 20 gauge shotgun opens up and makes its best pattern—the famous Winchester game-getting pattern.



30 to 40 yards

Heavier gauge guns do not make their best patterns short of 30 to 40 yards. The 12 gauge throws more shot, but at the range most upland birds are killed, it throws the shot in a more compact cluster. If a hit is made at a lesser distance, therefore, the chances are that the game will be mutilated.



Model 97. Take-down Repeating Shotgun. Made in 12 gauge, weight about 7½ lbs.; in 16 gauge, weight about 7½ lbs. The favorite with shooters who prefer a slide forearm repeating shotgun with a hammer.

WINCHESTER

World Standard Guns and Ammunition

Model 12. Hammerless Take-down Repeating Shotgun. Made in 12 gauge, weight about 7½ lbs.; in 16 gauge, weight about 6 lbs.; in 20 gauge, weight about 6 lbs.—more popular with women and new shooters because of its lightness and very slight recoil.