

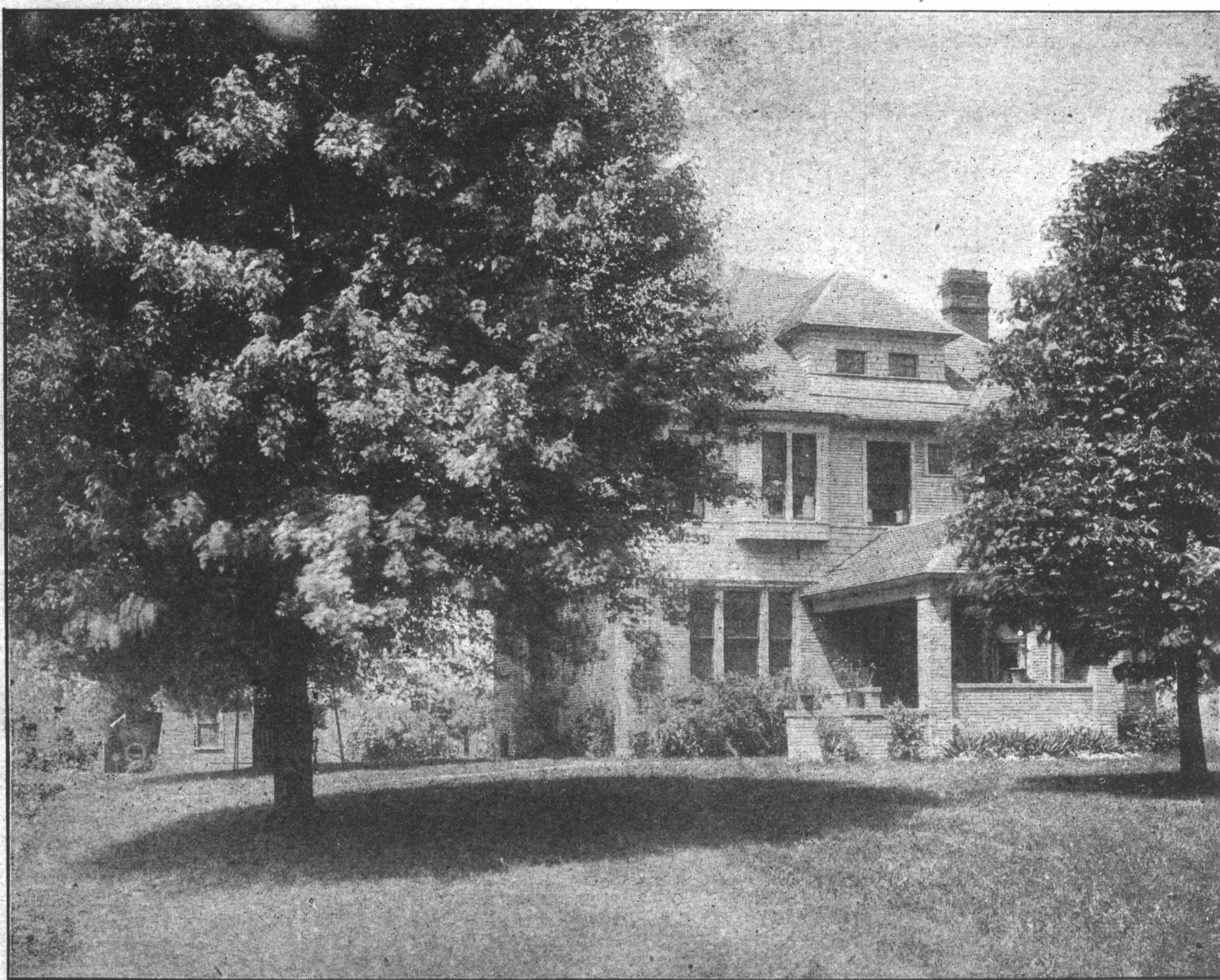
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(Boardman Home, Jackson County)

THE WONDERFUL resources of the country have constantly kept the temptation to lavishness, extravagance and speculation before the American people. Their environment has led them to become unthrifty and we may say, with little hope of successful contradiction, the most extravagant people in the world. The sky has been so well illuminated with stars of industrial opportunity, that we have thought it superfluous to prepare for a rainy day. Sooner or later, however, we shall be obliged to learn the old lesson of economy when the income turning to us through thrift, will be greater than we can expect to receive by luck or

chance investments. As that day approaches we shall increase our interest in cooperation, for it offers the simplest and most natural way of saving. In fact we find in those communities, where the people in days past were for some reason hard pressed, that they have turned to it and found relief. By stopping losses in the cost of growing and marketing and by saving through scientific purchasing of supplies, these people have developed thrifty communities in which the future looks even brighter than the skies over those districts where nature has been most lavish in her resources but where the need for cooperation has not yet been appreciated.

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DETROIT, AUGUST 28, 1920

CURRENT COMMENT

The Primary Election

ON Tuesday next the general primary election, for the nomination of candidates for state, district and county offices will be held. On this day it is the duty of every citizen of voting age to attend the primaries and express his choice of candidates for public office. This is a duty which none should shirk, to the end that "Government of, by and for the people" may be maintained. We would particularly emphasize this matter of civic duty at this time, in view of the fact that the women of our state have been given the right of franchise, and should realize that the right carries with it the same responsibility and obligation which devolves upon the male voters. It is a responsibility and obligation which every citizen should recognize and discharge in the interest of good government. The duty of voting at the primary election is just as incumbent on every good citizen as is the duty of voting at the general election. Indeed, the kind of public servants for whom we have the opportunity to vote at the election is determined, so far as the major offices are concerned, at the primary election and from this standpoint the primary election is the more important.

The Michigan Farmer is in no sense a political organ. We have no favorites or affiliations among political parties or candidates for political offices. We always have confined, and shall continue to confine, our efforts toward civic betterment to principles of good government and issues relating to them, rather than to advice regarding the selection of men to fill public offices. But we are interested in good government in nation, state and all of our lesser civic wants, and deem it our plain duty to urge our readers to attend the primaries and express their own choice of available candidates for all offices for which candidates will be selected on Tuesday, August 31.

The state offices for which candidates will be selected at the coming primary election are governor and lieutenant-governor. Candidates for the other state offices will be nominated at party conventions to be held within thirty days thereafter. For these nominations the principal contest is on the republican party ballot, due to the large normal republican majority among the voters of this state. For governor there are nine candidates on this ticket, and for lieutenant-governor two. For the information of our readers we are giving herewith a list of these candidates and such brief statements of the past public activities of each as we have been able to glean from impartial and authentic sources,

believing that our readers are more interested in the public records than in the political platforms of the men who are appealing to them for political preferment. The list of these candidates follows in alphabetical order:

Milo D. Campbell, Coldwater. Born in Branch county in 1851. Resident of county ever since. Graduate State Normal. Studied law and was admitted to bar in 1877. Elected county superintendent of schools at 21. Representative in legislature in 1885. Executive secretary to Governor Luce 1887-1891. Appointed as state commissioner of insurance by Governor Pingree in 1897. Made chairman state tax commission when body was created in 1900. Later served eight years as United States Marshall for eastern district of Michigan. For a time served on state prison board and on railway crossings board. In addition to professional and political activities has long been interested in agriculture. Owns a fine dairy farm. Is now President of National Milk Producers' Association and Chairman General Board of National Board of Farm organizations. While a tentative candidate was petitioned last January to run for governor by joint committee of nine members made up from legislative committees of the State Grange, State Association of Farmers' Clubs and Gleaners, and as representatives of these organizations tendered their support.

Luren D. Dickinson, Charlotte. Born in western New York in 1859. Has lived on a farm in Eaton county sixty years. Was educated in Charlotte High School. Taught school for nineteen winters and was at one time principal of the Potteryville High School. Always been a farmer and is interested in local banking and manufacturing enterprises. Has been member of county committee for twenty-five years and chairman representative committee four years. Has held many local offices including superintendent of schools and supervisor for several terms. Was representative in legislature for three terms, 1897-8, 1905-6 and 1907-8, and state senator one term, 1909-10. He was nominated for lieutenant-governor at the primaries in 1914 and elected, and has since been twice reelected to the same office, being the present incumbent. Was prominent leader of dry forces in the legislature during the fight to make Michigan dry.

Horatio S. Earle, Detroit. Born in Vermont in 1855. Came to Michigan in 1889. Interested in bicycle riding, he became an advocate of better highways, and was one of the first men in Michigan to urge state organization for building better roads. He was elected to the state senate in 1901, where he was pioneer good roads advocate. When state highway department was created in 1905 he was appointed first state highway commissioner and served till 1909. Was an unsuccessful candidate for governor in 1908. Business is manufacturing and distribution of manufactures.

Cassius L. Glasgow, Nashville. Born in Hillsdale county in 1859. Educated at Hillsdale College. Spent his early life on father's farm, later clerked in hardware store and went west, where he was connected with wholesale hardware house. Came to Nashville, Barry county, in 1881, and engaged in hardware and implement business. Held several village offices and served as county treasurer. Was elected to state senate of 1903-4, serving in that capacity till 1907. He was made a member of the state railroad commission in 1907, serving on that body for ten years. In 1910 he entered as a candidate for governor, but withdrew before primary day.

Alex. Groesbeck, Detroit. Born in Macomb county in 1873. Educated at Wallaceburg, Ont. Worked in sawmill as boy. Studied law at Port Huron and University of Michigan, graduating in 1893. Since practiced law in Detroit. Was chairman republican state central committee in 1912. In 1914 he was one of the five candidates in the republican primary. In 1916 he was elected attorney-general and was reelected in 1918, being the present incumbent. In business he has been successfully interested in interurban railway building.

James Hamilton, Detroit. Chairman Wayne County Civic Association, that is directing the fight for the proposed school amendment.

Frank B. Leland, Detroit. Born on an Oakland county farm about sixty years ago. Completed four-year course at University of Michigan in 1882 and graduated from University law school in 1884. Practiced law in Flint till 1889, when he moved to Detroit. Later became manager of a loan and investment company, and some twenty years ago organized the Detroit bank

of which he is now president. Was elected Regent of the University of Michigan in 1907 and was reelected in 1915 for a second term. He served for a time on the board of control of the State Sanatorium, at Howell. He was a candidate for governor in the republican primary four years ago, finishing second.

Frederick C. Martindale, Detroit. Born in Canada fifty-five years ago. Came with parents to Wayne county when two years old. Graduated from Detroit High School and taught school six years. Then took course in Detroit College of Law and was admitted to practice in 1897. He was elected to the legislature in 1900, and to the state senate for the terms of 1905-6 and 1907-8. Was elected secretary of state in 1908 and twice reelected. In 1912 he was an unsuccessful candidate for the nomination for governor. In 1914 he was again a candidate, finishing second at the primaries. He now lives on his farm in Oakland county.

Charles S. Mott, Flint. Born in New Jersey forty-five years ago. Graduate Stevens Institute of Engineering. Began manufacturing business in small way in New York City. One of organizers of Weston-Mott Co., Utica, N. Y., in 1900. Business later moved to Flint and became unit of General Motors Company, of which Mr. Mott is a vice-president. Has been three times elected mayor of Flint, when he relinquished a remunerative salary to devote his entire time to the city's interests. Resigned as mayor when United States entered the war. Was commissioned major and placed in charge of army motor truck production in Detroit district. Served in Spanish-American war as naval gunner's mate.

The office of lieutenant-governor is an important one for the reason that he is presiding officer of the state senate and as such appoints the committees of that body, which committees first consider all proposed legislation. A brief statement regarding the two candidates on the republican ticket follows in alphabetical order.

Thomas Read, Shelby. Born at Rochester, N. Y., in 1881. Educated at Ferris Institute and University of Michigan, graduating from law department in 1913. Practiced law in Shelby since that date. Elected to legislature of 1915-16 and reelected two terms, becoming speaker of the house.

Charles B. Scully, Almont. Born on farm in Lapeer county in 1878. Educated in Almont High School and the Michigan Agricultural College. Farmer and live stock breeder, and interested in farmers' business and social organizations. Two years president Michigan State Association of Farmers' Clubs. Elected to state senate in 1916. Reelected in 1918 and made president protem.

There is no contest for the nomination for these offices on the democratic ticket. The candidate for governor is Ex-Governor Woodbridge N. Ferris, of Big Rapids, and for lieutenant-governor, Col. Guy M. Wilson, of Flint.

The selection of candidates for legislative offices is quite as important as are the selections for executive positions. But the civic units which they represent are smaller and the average voter is better acquainted with their public records. It is important that the best available men be chosen as candidates for these offices on every ticket, and this can be accomplished only by intelligent selection at the primaries.

The efficiency with which the business of the counties is conducted during the next two years will also be largely determined at the coming primaries, at which the electors of the state have a complex, as well as an important duty to perform.

News of the Week

Wednesday, August 18.

THE German government decides to take immediate steps for the protection of the east Prussian frontier.—The military is called out at Kingston, Jamaica, to restore order following the general strike of policemen.—Polish military successes threaten four Bolshevik divisions in the counter-offensive against the Bug river.

Thursday, August 19.

THE American Farm Bureau Federation decides to proceed with more vigorous national organization work at executive committee meeting in Denver.—The Tennessee legislature ratifies federal suffrage amendment, which

makes the thirty-sixth state to approve the amendment, thus making it a part of the federal constitution and giving to women the right of franchise throughout the United States.

Friday, August 20.

ITALIAN steamship lines report that there are at least two million Italian applicants for passage to America.—Polish reserves mass between Posen and Thorn to complete their victory over the retreating Russian army, while General Wrangel begins an offensive against Bolshevik troops in southern Russia.

Saturday, August 21.

THE Polish army is rapidly following up the retreating enemy to the northeast and east of Warsaw.—James Wilson, who served twelve years, as secretary of agriculture, is critically ill at his home in Iowa.—Detroit as an exporting point stood fifth among all the cities of the country during the past fiscal year and easily first among the ten important lake ports.

Sunday, August 22.

POLISH troops have reached the valley of the middle Bug river, taken an aggregate of 19,000 prisoners and captured great quantities of war material, while the reds are attempting a counter-offensive on the Galician front.—The steamship Willis L. King rammed and sunk the steamer Superior City off Whitefish Point, Lake Superior, Friday night, and it is feared that twenty-eight members of the crew are drowned.—Mine leaders call off the miners' strike in Indiana.

Monday, August 23.

ACCORDING to information coming through England, Great Britain has agreed to recognize the independence of Egypt.—The number of Russian prisoners captured by the Poles is now placed at 30,000.

Tuesday, August 24.

ATTORNEY-GENERAL PALMER calls for an inquiry into the reasons for the present high prices of coal.—The Russian Bolshevik forces are reacting along the whole front line in an effort to save the remnants of their army, but so far all efforts have been frustrated by the Poles.—Rumania joins in the Czecho-Jugo-Slav agreement.

POTATO EXCHANGE MAKES CHANGE.

THE Michigan Potato Growers' Exchange has made plans to market its potatoes through its own sales force, thus dispensing with the services of the North American Fruit Exchange which has had control of the sales for the past two years.

At the annual meeting of the representatives of the various local associations held at Cadillac August 18, the following board of directors was elected for the coming year: Henry Curtis, Jennings; H. F. Baker, Weadlock; A. B. Large, Cadillac; Oscar Welrich, Hart; Charles A. Wood, Kingsley; E. Harvey Wilce, Empire; Fred Smith, Elk Rapids. The board is the same as last year with the substitution of Fred Smith for Dorr D. Buel, who recently resigned to accept the position of Market Director of the Michigan State Farm Bureau.

MUCK FARMERS MEET.

THE interest taken in muck land agriculture has already added millions of dollars to the value of the agricultural industry of this state and the work along this line is as yet scarcely begun. Ezra Levin, pioneer muck land specialist informs us that the next meeting of the Michigan Muck Farmers' Association will be held on the farm of William Clarkson, six and one-half miles southwest of Brown City, on September 6. Experiments have been carried out on this farm by the Michigan Agricultural College and the results of the work will be studied by the members and friends who attend this meeting.

The meeting will continue throughout the day, the morning being given over to a study of the plots and the afternoon devoted to addresses on topics related to this line of farming. Bring your lunch and stay all day. Arrangements have been made to meet the two morning trains at Brown City. Automobiles reach the farm from that point by going one-half mile west, five miles south and another half mile west. From Imlay City go north on state road to "ten mile" sign and then turn east one and one-half miles.

Do We Need A Forestry Policy?

Productive Land Makes Busy People Who Are Always More Contented Than Those With Idle Hands—By F. H. Sanford

HENRY S. GRAVES, late Forester of the United States, recently said, "A national policy of forestry seeks: 1. The protection and beneficial utilization of our present forest resources; 2. The renewal after cutting of forests on lands not needed for agriculture and settlement. 3. The stability of forest industries, and of satisfactory conditions for forest workers, and the restoration of forest growth on lands now unproductive and idle."

When he made this statement he had in mind no particular state but rather the whole great forest area of the entire union. But if Michigan had been the subject for which a policy of forestry was being evolved his definition could not have been more complete.

Let us consider this as a policy of forestry for Michigan under the same headings and see how it fits us.

1. It seeks the protection and beneficial utilization of our forest resources. Such an item in a policy for Michigan today comes too late to save state forest wealth in the form of standing, mature or semi-mature and growing timber. It would not be too late to protect the yet unburned reproduction and soil humus of the vast cut-over areas, and in so far as the prevention of ground burning and vegetable cover destroying yearly fires is concerned, it would help to conserve a natural resource.

The State owned lands are very largely cut-over and few or many times burned over lands. They have some timber and this will doubtless be beneficially utilized under the present policy. The biggest job is the bringing of privately owned cut-over lands and the remaining timber on them, under "beneficial utilization," because of the hope of the owners for profitable sale.

Development along right lines does utilize the resources beneficially. Bona fide agricultural development of cut-over Michigan land is the very best work that can be done. Michigan needs every acre of her food producing land handled in the most intensive manner and with profit to the farmer who does that work or is to do it.

The State has a duty to fulfil to that man and his family before it can expect him to go upon new land and spend his life and his savings in the struggle to subdue and develop a farm home.

That duty may be stated clearly and briefly in this way. The State should

furnish that man and his family with: 1. Evidence as to the value of the land for agriculture.

2. Service in assisting that farmer to adapt his operations to the new conditions.

The evidence regarding the value of the land for agriculture can only be obtained by expert study and investigation. Michigan soils vary so greatly that it is a common thing to find adjoining farms or lots on a single farm lying at the two extremes of soil value. It is not safe to pass judgment on one quarter section of land and report the whole section as the same. Soils with a single acre may vary from clay to sand, from rich loam to shallow swamp.

The need for a careful and com-

able in new land holdings where personal service alone can give the aid needed.

The second item calls for the renewal after cutting of forests on lands not needed for agriculture and settlement.

Michigan lands may be "needed" for both agriculture and settlement but there are very apparent and real obstacles to the fulfillment of that need. Agriculture must be capable of establishing and maintaining itself on new land as well as insuring the settler a good living, otherwise that settler soon goes to the industrial center where wages give him the things he demands for his family. To illustrate this, it is only necessary to mention the general exodus that has been tak-

farmer of today produce more crops.

It must begin with the demand on the part of the whole people that every activity of mechanic and farmer, of labor and capital, be honest and fair.

It must begin with the demand that every hour of labor be a just hour and worth its pay: that a fair profit is just and that an unfair profit be punishable as is any larceny;

That every acre of producing land in Michigan must produce its crop and that that crop must pay its way. Good soils produce good crops and with such there is little need for worry. The good soil farms are not losing their workers today. There is little need for the State to send its experts to analyze and classify such farms, for they have been well classified by their owners for years.

The need for classification and assistance lies with doubtful farms, the abandoned and non-producing farms and with the idle cut-over and privately owned waste lands of the State.

The question of agricultural value of such land must be definitely settled once and for all before forestry cropping can be undertaken as the remaining alternative.

And now to the third part of our text—"The stability of forest industries and of satisfactory conditions for forest workers."

No land should be allowed to lie idle. If it fails to produce a living return to the farmer, it should at once receive the necessary aid from the State to place it in the producing class.

Forests are long time crops. No man can plant and live to harvest his Michigan forest crop. This fact renders the growing of timber as a money crop an impossibility of the individual.

In such a case the State or the Public Service, or long time Private Corporation becomes the logical promoter of forest cropping.

Michigan used her forest wealth in order to develop and establish her prosperity. She now becomes the logical one to call upon her prosperity to recover and make her waste land productive.

Michigan has a long life ahead of her. One hundred years will be but as a day in her life. The crop of timber that she will produce in the next one hundred years will save her "day."

Luckier than many states of the union, she has millions of acres that

(Continued on page 237).



Community Camp in Cut-over Lands of Roscommon County.

plete soil survey on these cut-over and undeveloped lands is most urgent.

No man or company should be allowed to offer such land for sale as farm land until they could vouch for its agricultural value and cropping endurance.

Only by such action may the natural resources of Michigan be developed beneficially, for along with the determination of agricultural soil, the forest soils will become known and recognized as such as well.

The State aid to the new seller is now available in a limited way through the County Agent and specialist service, but should be much more developed, and further. The rule for specialist demonstrations is not work-

ing place from farm to city in some sections of Michigan during the past two years.

An era of Mechanical Life bids fair to overshadow and cripple the agricultural activity of Michigan.

To combat this tendency the State must develop and handle its soil wealth as intensively as possible. A balance must be maintained between these two great industrial forces—the producers and the consumers.

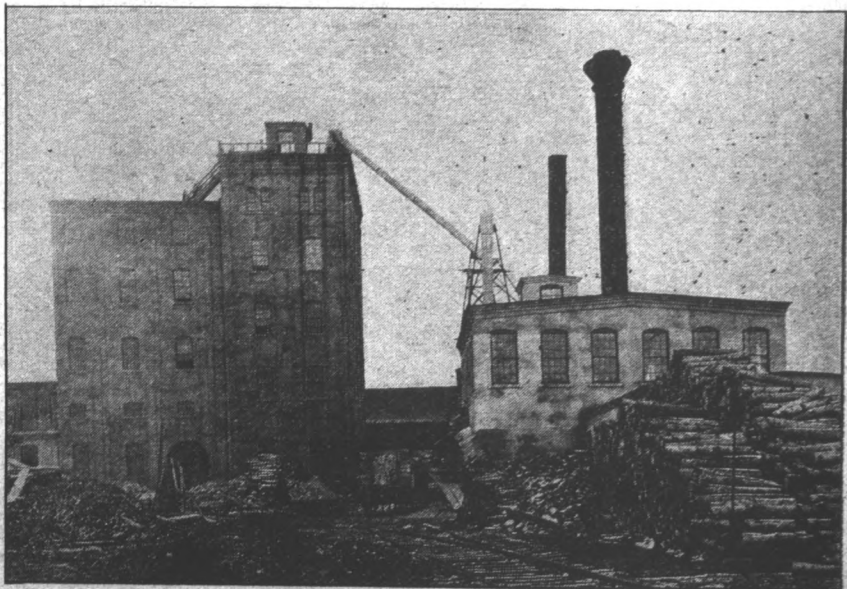
This can only be done by:

1. Increasing production on one hand.
2. Decreasing cost of life on the other.

Increasing production must start farther back than the demand that the



Forest Schools of the State are Annually Turning Out Foresters, Trained and Ready to Take Part in the Great Job of Reforesting Vast Areas Now Standing Idle.



Many of Michigan's Wood-working Plants have Left the State. Her Paper Mills will be the Last to go Because of the Small Size of Trees Needed to Supply Them.

Why Money is Hard to Get—By Sanders Sosland

SIGNALS of vast importance to the farmers of Michigan and other states are coming from money markets. Only the farmers who carefully weigh the significance of these signals will be able to plan their buying and selling operations with full light on the outlook in their markets, for the money situation is playing a highly important role in price movements.

"I planned to buy five loads of feeding cattle, but my bankers told me their supply of loanable money was short and held me down to two loads," an Iowa feeder recently reported to his commission man at Kansas City, the country's leading stocker and feeder cattle market. This is becoming a common remark on cattle markets.

"The money market," said an exclusive sheep commission house in a confidential letter to its customers a few days ago, "will be a factor in the feeding business this season. Unless the banks make more loans to the big professional feeder than they have thus far promised, feeding will be curtailed and the market for feeding lambs will be unfavorably affected."

Why are commission houses making such comments on the feeding lamb market outlook? Why are farmers being urged by their bankers to borrow less money for the purchase of feeding cattle? As this is the season for the largest movement of stocker and feeder cattle and feeding lambs, it is important that producers have a full understanding of the reasons for these abnormal conditions. It is equally important that farmers study them because they are powerful influences in the fluctuations in prices of hogs and horses and mules as well as in cattle and sheep. They also affect the prices of wheat, corn, hay, produce and the manufactured commodities which the farmer buys.

BANKERS are telling farmers, professional feeders, merchants and manufacturers who seek loans that money is tight. In other words, the banks of the United States as a whole have been increasing their loans without adding proportionately to their

cash reserves. As prices of many articles moved upward in the past year, bank loans were expanded to enable merchants to finance their business. Higher wages also forced increased demands for money with which to conduct business. The Federal Reserve Banks, of which there are twelve in the twelve federal reserve districts of the United States, assisted the national and state banks which are members of the federal reserve system to expand their loans.

The loan expansion was started by the wave of buying which developed with the return of American soldiers from the European war. As this wave gained force, it received impetus from the speculation and the fever of bullishness which spread over the country. The profits, including huge sums never realized but computed as gains, or "paper" profits, increased public spending. As this upward movement was supported by constant expansion in the circulation of money through the issuance of federal reserve notes by the Federal Reserve Banks in making loans, labor took a hand and demanded and received higher wages. Even farm land prices soared. The market for farm products was not so strong because it was affected by the contraction in European demand following the close of the world war. But farm products held at a higher average level than would have been witnessed without the expansion in bank loans, or what is technically termed inflation.

ANOTHER factor which brought about great expansion in loans was the heavy buying of many products on credit in the United States by Europe. These loans have not yet been paid off by the foreigners.

What has been the extent of the inflation and what is the present position of banks? A mass of statistics bearing on these vital points can be cited, but only a few are necessary for a general understanding of the influence of the money markets of today on prices. The statements on the twelve Federal Reserve Banks combined, in-

cluding the three in the middle west—Chicago, Minneapolis and Kansas City, tell the story more briefly and more convincingly than any other group of statistics. The last combined statement of the twelve Federal Reserve Banks showed that they had outstanding about \$2,835,000,000 in loans. This is an increase of about \$700,000,000 over a year ago and a gain of \$1,200,000,000 over the total of two years ago. In gold reserves the last combined statement showed about \$1,980,000,000 against \$2,075,000,000 a year ago and \$2,003,000,000 two years ago. Thus, while loans and the federal reserve notes issued against them have been expanding, the gold reserves of the twelve banks have been decreasing. In consequence, the combined reserves of these banks against their notes in circulation and their net deposits have been around forty-four per cent recently, compared with fifty-one a year ago and fifty-six two years ago. The legal minimum reserves are slightly less than thirty-nine per cent.

Having reduced their gold reserves and increased their loans, the Federal Reserve Banks are now seeking to bring about what is technically termed deflation. They want to reduce their loans and their note issues in order to maintain higher reserves. As the fall season is at hand, it is necessary for the Federal Reserve Banks to improve their position in order to meet the increased demands for financing fall and winter trade in the new crops and in the products of non-agricultural industries. The loan rates of the Federal Reserve banks have been advanced to discourage borrowing and to encourage the liquidation or paying-off of loans. They are charging seven per cent on agricultural and commercial loans to their member banks, while at Kansas City, Dallas, St. Louis, and Atlanta a progressive system of loans rates is in effect. A year ago the rates were around five and a half per cent. The higher loans rates of the Federal Reserve Banks explain the increased cost of loans to farmers, to packers and to other borrowers.

As the national and state banks which borrow of the federal reserve

system must indorse the agricultural or commercial paper of their customers which they present as security, they want a profit on the loans over the cost to them. Of course, it should be understood that the banks usually borrow from the federal reserve system only after they have loaned up to the limit out of their own resources. The Federal Reserve Bank loan rates, however, are a barometer of the value or cost of loans in the middle west and other sections of the United States.

BROKERS and banks handling packers' loans have been glad to obtain money recently on that collateral at a return of eight per cent to the investor. The packers' loans rank high in safety. Country bankers can get them freely in Iowa, Kansas and other states of the middle west. I mention this to throw light on the high cost of money to the biggest business organizations.

With packers paying so much, it is well for farmers to ask, what is money going to cost the average feeder who wants to borrow to buy cattle or sheep? Country bankers owe it to their communities to favor their local borrowers with loans, but millions of dollars of cattle and sheep money for feeding are obtained each year on the open market. Not only will rates be very high this season in view of the fact that banks are heavily loaned up, but money will be very difficult to obtain.

Feeding cattle are in disappointing demand in view of the outlook for great crops of feed. Not only are buyers being restricted in their purchases, but banks, seeking to reduce their loans to a more comfortable position, are urging larger sales by ranchmen and other holders. The same may be said of feeding lambs and other live stock. Merchants in cities are also restricted. They are feeling more pressure to sell, so manufactures and other commodities which farmers buy are on the down grade. Labor will be affected adversely. It is therefore well for farmers to pursue an extremely conservative policy in their feeding and other prices. This is the prospect carried by the signals of financial markets.

Present Wool Market Situation

AT the Bureau of Markets I find little encouragement in the wool market situation. Reports to the bureau indicate that few sales are being made. So many woolen mills are closed down, owing to cancellation of orders for goods, that there is practically no demand from the mills for wool. A market specialist who has just returned from South Dakota says buyers in that state are offering sixteen cents a pound for wool, and are picking up small lots here and there from growers who are obliged to sell. In Montana the big wool growers are holding their wool for higher prices and many small growers are pooling their clips. Wool pooling associations in Iowa, South Dakota and Minnesota are consigning their wool to the national wool warehouse in Chicago, where it is being held for a more favorable market. Michigan wool growers, with a combined clip of 4,000,000 pounds, are assembling their wool in pools and storing it in Lansing warehouses, where it is graded and prepared for market. In Ohio, country buyers are offering twenty to twenty-five cents. About 1,500,000 pounds of wool is being held in storage at the growers' warehouse in Columbus. Idaho wool growers have assembled 1,750,000 pounds of wool in pools to be sold on

a cooperative basis. The latest market report says a little better feeling exists throughout the interior regarding the wool market situation, a little higher prices are being offered by local dealers in certain localities than were quoted a short time ago, but the wool specialists are unwilling to make any predictions as to the future of the market.

William H. Wood, president of the American Woolen Company, is quoted as saying that men's clothing will sell at lower wholesale prices this fall; but woolen cloth will not drop in price. He also stated that the company's mills, according to present indications would be reopened soon after Labor Day.

In regard to the cooperative wool pooling movement, George T. Willingmyre, who has charge of the wool market investigations in the bureau of markets, said wool pooling is contagious, especially during such situations as now confront the growers. The first movement for cooperative wool marketing was started by the Canadian government in 1913, under the supervision of Mr. Willingmyre. After five years of study, investigations, and active cooperation with the wool growers, the Dominion Wool Growers' Association, a non-profit organization, was

developed, and the Dominion warehouse erected at Toronto.

There are two kinds of cooperative movements, according to Mr. Willingmyre. The chief aim of one is to standardize the product, to put onto the market the best possible quality of wool in the best possible condition as to grades and types, and by such co-operation enable the grower to secure larger returns and profits from his flock. The principal aim of the other kind of organizations is to hold up the price by cooperation.

The bureau of markets is striving to assist the first mentioned movement. Mr. Willingmyre and his assistants are now engaged in an effort to standardize wool grades. This, however, they have found to be a difficult matter. There are more factors entering into the standardization of wool and more variations in wool than in any other commodity.

The bureau began making investigations of wools for the purpose of developing a system of standard wool grades back in 1917, by sending men out into the field to study all the different phases of wool classification and marketing. As a result many worthless reports were received which were of no value, because, as Mr. Willing-

myre says, "you cannot describe wool on paper."

Samples of wool were then collected from many sources, and from these a comparative idea was had of the numerous variations in regard to wool, and the lack of uniformity among both growers and dealers as to the commonly accepted wool classes. The bureau is aiming to establish its standard grades based on diameter of fiber; class, meaning length of fiber; shrinkage, meaning all foreign substances, including grease and dirt; and spinning qualities, meaning adaptability of fibers for various spinning counts. A count in worsted equals five hundred and sixty yards; thirty's counts means thirty hanks of five hundred and sixty yards each to a pound of yarn. The finer the wool the greater number of hanks to the pound.

After extensive investigations the bureau has decided upon a few standard grades, under which it has assembled samples of the various wools collected during its investigations. These sets of sample grades have been made up in cases, and are being sent out to wool growers' associations and dealers in every sheep raising section, not for the purpose of having the grades indorsed by the recipients, but to see if (Continued on page 249).



Automobiles Streamed in from Every Direction.



Sheep Husbandry is Becoming a Strong Feature of Cloverland Farming.

Farmers Above Straits Are Progressive

They are Getting Much from Their Agricultural Service Institutions

THERE is the finest kind of teamwork between the various agencies looking after the agricultural interests of the upper peninsula. The men and women behind the program seem to have a single goal before them and that is to put the farming practices and farm life of that district on the very highest level. Toward that end those associated together to carry out the program seem always ready to subordinate their personal ambitions and prominence to the efficiency of the whole—and this constitutes the very essence of cooperation.

Here is the great cooperative scheme which comprehends practically the whole range of agricultural interests above the straits. The county agents and their local farm bureau organization with the home demonstration agents and boys' and girls' club members and workers know practically everything agriculturally that is going on in their respective communities. They have the keenest sense of the problems there and understand well what conditions have to be met in their solution. They know equally well the temperament of the people and how anxious these farm folks are to educate their children and to put their business on the best possible paying basis.

Naturally the great bulk of the questions coming up can be answered from the experiences of neighbors. This is just as true in the upper peninsula as it is elsewhere, and it is a most remarkable thing that we have waited so many, many years to learn from the greatest experiment grounds available—the grounds on which the final tests of all agricultural policies and practices are tried out—the farms owned and managed by the farmers themselves. Well, these agriculturists from

above the straits are not allowing opportunities from this source to get by them and in their teamwork they are getting the ultimate good from neighborhood experiences. This is not only qualifying them to do better farming but it is standardizing their work against the day when organized effort will be the rule and not the exception. But through this sifting of farm



The Boys were Camped Under the Spreading Elms on Slapneck River.

test out prospective crops or varieties for his farm. The trained plant breeder watching carefully his test plots can arrive at a better conclusion on the value of varieties under certain conditions than can the man with all his regular farm demands pressing him for attention. The Upper Peninsula Experiment Station at Chatham provides the men and the equipment

method and to encourage a first-hand study of the work done at Chatham the recent round-up was held. Despite rain, it was a great success. Whole families came and many of them, and none were there who did not find something that was worthy of attention. The men, the women and the boys and girls were busy from the time they came till they got away. The rural people of Cloverland are to be congratulated upon the success of this occasion and those who had arrangements in charge are to be highly complimented upon their efforts.

But in addition to this round-up the good things learned by the staff of the experiment station and their associates is taken back to the various agricultural communities by the same demonstration agents, and club leaders, and county agents who go out to discover the trouble or need in the first instance. In the gatherings held in the communities, in the junior club meetings, at the many county round-ups the gospel of better farming and better farm living is being constantly preached, and now with the movement already on for universalizing the Farm Bureau in the several counties of Cloverland, the service that is now being so well given will be expanded in a hundred ways. Besides caring for production alone the new order will look after marketing crops and buying needed supplies.

Thus we see the comprehensive machinery now in existence for the development of the agricultural resources of Cloverland. It starts with and ends with the farmer. His problems are diagnosed and then a remedy is sought and if found the receipt is brought back to him. This service and her wide-awake boys and girls, makes the future of Cloverland farming bright indeed.



Tractor Plowing was Studied Closely by these Practical Farmers.



Building Drains with Dynamite Proved a Big Attraction.

Farmers and Transportation Crisis

Governor W. L. Harding, of Iowa, accompanied by President J. R. Howard, Gray Silver, of West Virginia, E. H. Cunningham, of Iowa, and other representatives of the American Farm Bureau Federation, have been in Washington, following up the request made of the Interstate Commerce Commission, some weeks ago, that boats on the Great Lakes be utilized for relieving the grain moving congestion on the railroad lines leading from the western wheat and corn fields to the eastern seaboard. They are asking that the rail and water rate be so adjusted that all the boats on the lakes can be used in the grain carrying trade at a profit to the lake transportation companies. During the hearings it was pointed out that a group of capitalists in New York have in course of construction and are now delivering transport barges for use on the New York barge canal which will handle the traffic from Buffalo eastward.

In asking the commission to make this revision of freight rates, and thus relieve the rail transportation strain at the most critical point, Governor Harding said: "Previous to 1910 the lakes formed a most important link in the east and west freight traffic. At that time the railroads owned many boat lines and used them extensively. Following the enactment of the so-called LaFollette bill prohibiting railroads from owning boat lines, this traffic declined rapidly. The reason for this decline becomes readily apparent by the examination of the freight rate schedules. On wheat, for instance, the rate from Chicago to New York is 13.8 cents per bushel, but the rate from Buffalo, the transfer point from water to rail, on to New York is ten cents per bushel. The longer part of the haul is rated at only 3.8 cents while the shorter distance must pay ten cents. Since boats must receive at least five cents a bushel for hauling wheat from Chicago to Buffalo the combined water-rail rate makes a greater total than the all-rail route."

"This arrangement," it was said, "has largely driven the grain carrying boats out of business. It is inconceivable that this condition is allowed to continue at a time when farmers are losing millions of dollars through inability to secure freight cars to market the wheat crop. In some of the western states elevators are filled to capacity and grain is piled up on the ground awaiting shipment. There are enough boats available for immediate use on the lakes to handle the equivalent of 75,000 carloads of grain at a single trip. The available box cars can be shuttled back and forth between the upper lake ports and the wheat fields in the west and the same system used between Buffalo and the seaboard. The long tedious haul which now removes the box cars from the grain territory could be entirely eliminated."

J. R. Howard joined Governor Harding in requesting the commission to take immediate action in this connection and added that organized agriculture looks to the commission to mobilize every available transportation resource, whether rail or water, to move the crop to market and thereby relieve a condition that is not only causing serious losses but is rapidly becoming a menace to next year's food production.

O. P. B. Jacobson, representing the Minnesota Railway and Warehouse Commission, urged the use of government owned vessels for grain carrying and for storage purposes. To this Chairman Clark, of the Interstate Commerce Commission, replied that the commission had considered the question with the shipping board some time

ago and that the consensus of opinion had been that shipping interests could not and would not use government vessels for carrying grain. Replying to Governor Harding, however, Chairman Clark said that plans are now being worked out by the Interstate Commerce Commission and the railroads to insure the largest possible grain movement on the Great Lakes.

In asking for preferential assignment of cars for carrying the wheat crop of the northwest to market, Mr. Jacobson told the commission that 500,000 box cars are needed immediately to move the grain crop in the northwest, estimated at 700,000,000 bushels. Agricultural interests in the northwest face bankruptcy because of the present car shortage, witnesses informed the commission. Railroad commissioners and shippers from the northwest said indications were that the 1920 crop would equal that of 1918 and that failure to move it to market not only would ruin the growers, but would seriously affect the country, resulting in a food shortage. As a remedy for the situation, J. J. Murphy, state railway commissioner of South Dakota, suggested that the commission order box cars to be moved from territories which have more than one hundred per cent of their ownership and distribute the cars to northwestern grain shippers.

FOLLOWING the railroad wage increase, eighty thousand navy yard workers in forty-three navy yards operated by the government are asking for an increase in wages. Their representatives have appeared before the navy wage board with the demand for an immediate boost in wages of approximately forty per cent. It is reported by the officials of the Emergency Fleet Corporation that the shipyard employees are able to earn more money at the present wage scale than they did during the war, even when large bonuses were paid, owing to acquired skill, greater efficiency and steady employment. The present rate of \$6.40 a day prevails in government shipyards; but men on piece work are able to make big wages. Riveters and steelplate workers were making as high as \$750 to \$800 a month under the spur of war necessity, and it is said

by the officials that some men are now making more than this. The assistant secretary of the navy told the men that as the navy wage appropriation is fixed by law, it would be necessary to drop employees in direct proportion to the amount of increase granted. The men were agreed to this plan, and it is probable that this will result in a curtailment of naval activities.

Chairman Benson of the United States Shipping Board is quoted as saying that "persistent rumors have been abroad recently that the United States intended to cut rates on the Pacific, but it is not the intention of the board to cut rates arbitrarily as long as competition rests on a fair and equitable basis." Chairman Benson intimated, however, that should the board find itself contending with any unfair methods it held the power to protect American shipping interests.

Representatives from the American Farm Bureau Federation Washington office recently called at the shipping board office to interview Chairman Benson in regard to statements made by a shipping board official concerning a proposition to run lines of refrigerator ships to bring meat into the United States from South America and Australia. They were referred to Mr. Murphy, secretary of the shipping board. After a spirited discussion in which Mr. Murphy was given to understand that such a move would mean serious loss to the American live stock industry, the secretary gave out the statement that the shipping board does not now have such a service and does not at present contemplate such a plan. He qualified this statement by saying that the board equipped a certain percentage of the ships with refrigeration as the trade requires. Under present conditions he said it was more profitable to transport meat from South America and Australia to England than to the United States. The shipping board secretary was also informed that such a scheme would be very unpopular with American farmers.

The Dairy Division of the United States Department of Agriculture has issued a chart showing the balance of trade in dairy products in terms of milk from 1914 up to June 30, 1920. This chart shows that in butter an import balance in 1914 was wiped out

early in the war, and in 1919 there was an export balance equivalent to over 600,000,000 pounds of milk. There was a large cheese import balance in 1914, which was wiped out during the war and the export balance grew to equal 500,000,000 pounds of milk in 1919. Condensed milk shows no exports up to 1916. Then a tremendous boost in exports took place, almost double that of butter and cheese. There has been a recession in exports since 1919, amounting to 400,000,000 pounds in condensed milk alone. The total shows an import balance in butter, cheese and condensed milk the equivalent of 700,000,000 pounds of milk in 1914. The exports grew constantly until 1919 when they reached a balance of over 2,600,000,000 pounds of milk, a large part of which was in condensed milk. Since 1919 there has been a falling off in exports of cheese, butter and condensed milk equal to 800,000,000 pounds of milk.

AS a result of a meeting at Brattleboro, Vt., at which the proposed personal credits systems legislation was discussed, the National Society of Record Associations has appointed a committee to urge the immediate consideration of rural credits legislation. The Rubey resolution in congress provides for the appointment of a special committee to consist of the chairman and two other members of the house and senate committees on agriculture and the house and senate committees on banking and currency, and that the committee should hold judicial hearings at an early date. This committee has not been appointed. A committee was also appointed at this meeting to make a careful study of the McFadden-Milligan rural credits bill, and attend the hearings before the congressional committees and present their arguments. Other farm organizations have been asked to cooperate in this movement for rural credits legislation.

Since the armistice was signed in November, 1918, the number of government employees in Washington has decreased from 117,760 to 90,360 on July 31, 1920, or approximately 27,000. The number of government employees here now, however, is 52,000 above that of April 1, 1917. The civil service commission predicts a gradual decrease in the force for some time. Examinations outside of those offices requiring special training, are open only to ex-service men.

Profiteers are taking advantage of the freight rate increase to boost the prices of the products they have for sale. This is leading railway officials to warn the public against these unnecessary extortions. Traffic Vice-President Dixon, of the Pennsylvania lines, has presented figures showing that in the case of nearly every commodity of daily consumption the increases in transportation charges are relatively so small as to be negligible. On packing house products shipped from Chicago to Washington in carload lots the increase will amount to only 1.7 mills on each pound, while in less than carload lots it will be not more than 2.4 mills. The freight rates on dressed meats will be naturally higher, but the additional charge will be but 2.7 mills per pound in carload lots. It will cost only four-tenths of a cent a pound more to send butter from Chicago to Washington in carload lots. The increase on a twenty-four-pound sack of flour from Minneapolis is a trifle less than four cents.

E. E. REYNOLDS.

If sunshine will keep milk pails clean and fresh, it won't hurt to let it into the barn.

Increased Rates Forbidden

SECRETARY of Agriculture Meredith has ordered licensed commission men at the principal stock yards of the country to discontinue the schedule of increased commission rates on the sale of live stock put into effect August 2, 1920. In his order, the secretary declared that the increases were unjust, and forbade the commission men to charge commissions in excess of those in effect July 1. The commission men are given until August 21 to comply with the secretary's order, which was made under authority of the food control act.

The orders went to commission men in Chicago, Kansas City, Omaha, and National Stock Yards at East St. Louis. Also, the secretary is calling upon the secretaries of live stock exchanges at stock yards, where the department of agriculture has no agent, for schedules of commission charges in effect at their respective places. Any increases found in rates at these stockyards will be ordered discontinued also.

The increases objected to by Secretary Meredith ranged as high as twenty-five per cent, and included commission on cattle, calves, hogs, sheep and

goats shipped in carlots by single owners. This action by the secretary is along the line of that taken recently when he fixed the commission rates to be charged at Chicago on carlot shipments of live stock having more than one owner.

"In 1918 and 1919 the Bureau of Markets of the Department of Agriculture investigated the live stock commission business with a view to ascertaining whether or not the income from rates being charged at that time would justify a conclusion that rates were in violation of the department's regulations," declared an official of the department recently, in discussing the order. "This information is the principal data on which we based an opinion at this time that the recent increase in rates is unjustified. Furthermore, at least one other increase has taken place since our information was secured, and with which the department did not attempt to interfere."

Under the food control act commission men are required to take out federal licenses for doing business. The department is empowered to prescribe regulations for their operation.

To Feed, or Not to Feed?

THE amount of meat produced during next winter and spring will be determined by the action of farmers during the next few months. At the present time the movement of feeder cattle and lambs to the country is comparatively small. With the range liquidating in order to decrease its loans rather than because of feed shortage it is not to be expected that another section of the country would be in a position to buy in spite of tight credits. However, some feeders are able to purchase now and more will be able to do so as the crop moving season passes, making funds more abundant.

The prospect now is that the price ratio between feeds and live stock will be very favorable to the feeder by next spring. Last year's bad experience is certain to keep many out of the cattle feeding game; tight money will restrain others and the shortage in the range will reduce the supply of raw material. Production is already on the decline, the inspected slaughter of beef during the last eleven months totaling 200,000,000 pounds less than in the same period a year ago, while consumption, including domestic and export, during the same time increased about 600,000,000 pounds. There is no big supply from abroad to be sent here, as is the case with lambs, Argentina is complaining now of drouth and considerable winter losses of cattle.

The corn crop prospect is excellent except that it is somewhat late. The bulk of it must be fed whether it matures safely or is caught by September frosts. The less of it that is fed and the more that is sold to central markets the lower the price. There are signs that transportation conditions which were partially responsible for the high price of corn last winter and spring and the very unfavorable feeding ratio, will gradually improve so that the movement to terminals will be more prompt and the corn price will average lower than last year.

The cattle feeder's prospect seems to be especially good as beef shortage is undoubtedly on the way. The fall run of hogs will begin to arrive in a couple of months and even though the crop may be short that fact will not exert its influence for some time. And furthermore, stocks of hog products are large. Foreign buying could easily take care of these, but real shortage of pork is farther away than is a shortage of beef. Lamb feeders had a prosperous experience last winter, which fact will attract more feeders into that line of endeavor, tending to restore the normal balance between the different forms of live stock production. The wool situation and imports of Australian and New Zealand frozen lambs are also unfavorable to this branch of the trade.

Solving a Real Problem

THE two pictures show white pine stumps near Gladwin, Michigan, that have been pulled with a steelyard puller without the use of explosives. An attempt was made to burn them by rolling two or three together as shown in the first picture. The small chunks which were piled over these stumps burned off but left the stumps as good as ever.

I suggested that Mr. Capling (the man shown in the pictures) bore a hole in the bottom of the stump lying on its side, at the crown, or center, of the root system. The auger shows the direction of the hole. In this hole we loaded three-quarters of a pound of twenty per cent dynamite.

The second picture shows the result. Mr. Capling is standing on the same

spot in both pictures. Any part of the stump after shooting was small enough to be easily and effectively piled, and will burn.

That the low-grade, cheap powder is the best for this work is shown by the fact that the owner of the land had tried forty per cent on a number of similar stumps and failed to get anything like as good results. In fact, the small stump to the right of the picture was later loaded with forty and neither as good or as economical results were obtained. The average stump of this class will not require over half a pound to break it up in good shape for handling and burning. Another use for this wood is after breaking it up, it is excellent material and in good shape to cut into firewood.—G. C. M.



The cut above shows an upturned pine stump that under ordinary circumstances is difficult to dispose of. Below the gentleman is standing where the stump had been, while it is now piled in pieces about another ready for the torch. A charge of dynamite did the work.



Michigan State Fair DETROIT

Sept. 3rd - Sept. 12th

EDUCATIONAL ENTERTAINING

Federal Government and Michigan Agricultural College will conduct a

GREAT TEN DAY EXHIBIT

of Farm Products and Educational Course in Agriculture.

Big Program of Free Exhibitions

will offer relaxation and amusement.

Fur Farming

Exhibit of all Michigan fur animals and practical instruction in fur farming.

\$100,000 in Premiums

Stock show will be greatest ever held in Middle West

Seventy-first Annual Exposition

TEN DAYS

TEN NIGHTS

Sept. 3rd

Sept. 12th

OUR SERVICE DEPARTMENT

DAIRY QUESTIONS.

I have Grade Durhams. I fed them the best I ever did the past season, grained them all summer while on pasture, also while in barn on silage. The herd averaged 259 pounds fat each. Can you tell me how that compares with other grades, say Jerseys, for instance? When we get good crops of clover, is that evidence enough that we do not need lime? In your writings you seem to favor silage without grain in it. Don't you think the grain is good after being in the silo? You spoke last spring of trying sunflowers. Did you do this? Don't you think that ensilage corn, or green pea vines, make a silage that is too acid?

Sanilac Co.

F. L. H.

Where you find one dairy cow that will produce 259 pounds of butter-fat in a year, you will find a large number that will not produce as much. Of course, many cows produce more, but if your herd of dairy Shorthorns average 259 pounds of fat, you can feel proud of them. They are good cows and they were well fed and you know how to take care of them.

Clover vs. Lime.

When we grow good crops of clover, it certainly is good evidence that you have a sufficient amount of lime to protect the soil from getting acid because clover will not grow luxuriantly in an acid soil but the question is, what is a good crop of clover? Do you raise two tons or two and a half tons to the acre? If so, you probably do not need lime. If you do not, lime might increase your crop. Why not find out? Go to your lumber dealer and buy a sack of hydrated lime, scatter it on an area of a field two rods square and note the effect that this produces on different crops as you grow them on this field. That will tell the story.

Well-Eared Ensilage Corn.

If you plant corn thick enough (not too thick so that you grow practically no ears, or only very small ears, you will get more tons of ensilage to the acre than you will by planting corn thin enough to get a good crop of ears. Now the corn plant, when it is properly matured, containing no ear is as rich in protein as the whole corn plant that produces an ear, consequently if you can produce more tons to the acre by planting it thicker it makes a more profitable crop. Besides, I am confident that a larger per cent of this corn is more digestible and that it possesses greater palatability.

Sunflower and Corn Silage.

Some little time ago I stated in the Michigan Farmer, my experience with this sunflower silage. Undoubtedly, the inquirer missed this. The sunflowers made a wonderful growth. Some of them were more than ten feet high, with stalks as large as your forearm, and it would bother to get some of the heads into a bushel basket. They stood away above the sweet corn and, of course, were very noticeable to passers-by. There were many inquiries as to the reasons for planting them, what we were to do with them, etc.

This combination of plants does not work very well in harvesting. The heads of the sunflowers were so heavy and the stalks were so long in comparison with the corn that they did not handle nicely when being bound into bundles. The men insisted that the corn harvester would not cut them, but it did without any difficulty. The great trouble was in loading them onto the wagon and unloading to the ensilage cutter. I anticipated that there would be some trouble in getting these large heads through the ensilage cutter, but fortunately we had a large size cutter and the feed rollers would crush

the heads and flatten them out so that no difficulty was experienced at all.

I am frank to say that I am in doubt about planting more sunflowers with the corn just because of the difficulty in handling them. However, they increase the bulk of the silage very materially and the cows eat the silage with an apparent relish. Everything is eaten up.

Acid Ensilage.

If you cut the corn too green it will produce ensilage containing too much acid. If the so-called ensilage corn properly develops, that is, beyond the roasting stage it will make fine quality ensilage. Pea vines do not make an ensilage containing too much acidity if they are cut when peas are ready for canning.

C. C. L.

BEST FORM OF LIME.

I have eighty acres of rolling sand and black loam mixed, and most always fail with clover on those sand spots, so I thought if I would lime this soil I could get clover. My farm is about all tiled and have quite a lot of barnyard manure. Now, what I would like to know is, which is the best kind of lime to use? How much shall I sow on this sandy land? How it is shipped, whether in sacks or in bulk? When is the proper time to sow, in spring or fall? I have twelve acres of this ground I would like to sow to fall crops, and intend to seed in spring to clover.

Monroe Co.

R. P.

For the effect on the soil it doesn't matter very much which form of lime is used. The question comes down to the cost. Hydrated lime or burnt lime can be used in small quantities to get the desired effect, but it costs more. Ground limestone will produce the same effect, only you must use it in larger quantities. If you use caustic lime you want to use at least one-half ton per acre, and if you use ground limestone one ton per acre will be none too much. Some use as high as two tons per acre. This ground limestone is not all used at once, but it will gradually become effective and keep the land sweet for a considerable length of time. A splendid time to apply the lime is after the ground is plowed and partially fitted, then sow the lime and finish fitting the land. This will work the lime in the soil where it must be in order to correct the soil acidity.

It would be advisable to put the most of your stable manure on the sandy place in your field, as undoubtedly these sandy knolls or ridges are deficient in organic matter which allows them to dry out more than the black soil during hot weather. If you can plow down stable manure and seed to clover and get a stand of clover, the clover roots will add much of the desired vegetable matter which will greatly improve this particular kind of land. The lime will be of great benefit in getting a stand of clover.

C. C. L.

NO RETURNS FROM FERTILIZER.

In the spring of 1912 I plowed a small piece for late potatoes, kept it harrowed till June, then applied fertilizer at the rate of 800 pounds per acre, or one-half the piece. After harrowing in I planted potatoes. I had a good potato crop but could see no difference where the fertilizer was applied. That fall I sowed to rye and the following spring seeded to clover but have never seen any results from the fertilizer. At that time it would cost about \$12 an acre to purchase and apply at that rate. If I lose \$12 an acre a part of the time, how long will it take to get the scales turned the other way?

Livingston Co.

D. H. D.

I have had considerable personal experience in the use of fertilizers on my

own farm and I have had an unusual opportunity to notice the effects of fertilizer over a wide area, and I never yet saw results like those indicated in your letter. I cannot explain why you did not get results. I would have to know more of the conditions, the kind of fertilizer used, etc. Once in a while there is no appreciable results from fertilizer on certain crops for a certain year, owing to the detrimental conditions, such as drought, etc. But my experience is that the fertilizer has not been wasted, that you will get results in other crops in the rotation. For instance, when you fertilize wheat and leave a strip to check results you not only get better wheat but you get better clover following. I have known this the last two or three years in the meadow where you could distinctly tell where fertilizer was applied.

On some soils fertilizer does not seem to make very much difference in the growth of straw, but by the threshing test it makes a good showing in the yield and plumpness of the berry. Crops on properly drained soils also make better use of commercial fertilizers than when on soils that are too wet.

C. C. L.

RIGHTS OF ADOPTED CHILDREN.

In 1907 my husband and I legally adopted a girl, brought her up and educated her. She married and left us in our old age to take care of ourselves. We have acquired a good farm and have some money in the bank. Can this girl hold any of our property, and what share? Also, what share of personal property would I hold in case of my husband's death?—Subscriber.

The statutes (Comp. Laws (1915), Sec. 14142), provide that upon formal adoption according to the provisions of the statute the persons adopting shall stand in the relation of parents to the child adopted, and have all the rights and duties of parents, and that the child shall be an heir at law of such persons the same as if their child in fact. The result is that the child takes whatever property of the parent is left at death not required to pay debts, taxes, and expenses of administration, and not legally disposed of by will. There is nothing in the law to prevent the adopting parent disposing of property by will the same as any other person. If the husband dies without any will his widow would take his personal property, household property not exceeding two hundred dollars in value, such further sum as the probate judge deems necessary for her maintenance during administration, and one-third of the remainder, and the other two-thirds would go to the adopted child.

J. R. R.

LIABILITY OF COOPERATIVE SOCIETIES FOR PERSONAL INJURY.

Thirty farmers purchased a threshing outfit cooperatively. Are we liable for any injury to operators, whether one of our number or otherwise? If so, how should we proceed to protect ourselves through workmen's compensation law? Would such operators be considered domestic servants?—A. P.

The society not being incorporated, the members would each be liable to the full amount of the injury notwithstanding any negligence of the person injured of any fellow servant if the person injured was an employee unless the cooperators have complied with the employers' liability act. The employees in the crew would not be domestic servants within the exemption of the act.

If the injury was to a person not in the employ of the society and the so-

ciety is not incorporated each member is liable for the whole damage resulting from the negligence of the society or its employees unless the party injured was guilty of contributory negligence.

The proper method of protection is to comply with the requirements of the workmen's compensation law and the rules and regulations that will be furnished on application to the Industrial Accident Board at Lansing, Mich., and procuring proper policy or policies of insurance.

J. R. R.

SHEEP KILLED BY DOGS.

Dogs got after my sheep, killed one and wounded ten, seven of which had to be killed. Don't know whose dogs. The justice came and looked after them, didn't say what they would pay me. Please tell me what compensation I should get for these sheep. The sheep were on a farm I own in Montcalm county, while I live in Kent county a half mile from the farm. Also, can I claim anything for my time? I spent all day, from early in the morning, and a neighbor helped me half a day.—M. B.

The law provides (Comp. Laws (1915) Sec. 7278-7279), that the justice of the peace called, not being of kin to the complainant, nor a member of the town board, shall view the sheep and give a certificate to the owner of the sheep, stating the amount of the damages, which certificate the owner shall deliver to the town clerk, who shall file it in his office, and the town board, after examination shall direct an order for payment out of the dog taxes. No allowance is made for time lost.

J. R. R.

TAKING UP TRESPASSING ATTLE.

My neighbor's bull has been running over our fields for the past month. Have requested the owner to keep him at home, which did no good, then we threatened damages. Our line fences are in good condition, but this fellow breaks the wire to get through. If this continues, what action can I take?

C. G. C.

Anyone finding cattle trespassing on their property may take them into custody, notify a justice of the peace who will set a time for the sale, and advertise the stray for sale, according to Comp. Laws (1915) Sec. 7288. The owner may redeem the animals by paying the damage at any time before the sale; and in case of sale is entitled to the proceeds of the sale over the costs of sale and damages.

J. R. R.

LIABILITY OF HUSBAND FOR SUPPORT.

Has a man a right to post his wife so she cannot get credit at stores, as long as they are still living together?

E. L. L.

So long as the husband supplies the wife with what she needs to the extent of his ability he is not liable on contracts made by her without his express or implied authority of approval. But if he does not furnish such support contracts made by her for necessities are binding on him, if made on his credit, though without his consent, and may be enforced against him by the persons furnishing her the necessities, or she may by suit against him get a decree for support which will be enforced by execution against him.

J. R. R.

Most hens will lay if they are allowed to; many successes with chickens are made in spite of the owner rather than on account of him.

THE 1920 POTATO CROP.

The following gives the potato forecast as released by the Bureau of Crop Estimates:

State.	Bushels.
Michigan	32,851,000
Wisconsin	31,436,000
Ohio	12,944,000
Virginia	13,268,000
California	12,560,000
Oregon	6,020,000
Wyoming	4,276,000
Idaho	6,397,000
Minnesota	28,211,000
Pennsylvania	23,281,000
New Jersey	13,824,000
Maine	23,895,000
Colorado	12,913,000
Washington	7,663,000
New York	34,168,000
United States (including the states not listed above) ..	402,134,000

GAS IN SILO.

Gas may form in a silo at the time of filling and for a week or so afterwards. This gas is heavier than air and so will settle in the silo and make conditions uninhabitable for the workmen. As soon as filling the silo is started the falling stage and the air currents caused by the blower will stir up enough air currents to drive out the gas. A good way to determine if there is gas in a silo is to lower a lighted lantern. If it goes out, it will not be safe to go into the silo. Keep the doors open as long as possible when filling.

TREES NEAR THE LINE.

If a fruit tree is nearly on the line between property owners, and the branches of the tree extend over the line, can the owner of the land on which the tree is growing claim the fruit over the line on the adjoining property? Has the person across the line a right to trim branches which interfere with crops on his side?—G. C.

The fruit belongs to the person on whose land the trunk of the tree stands; but he has no right to go onto the land of his neighbor to get it. The neighbor over whose land the branches hang has a right to trim off all branches overhanging his land. J. R. R.

DO WE NEED A FORESTRY POLICY?

(Continued from page 231).

are fit only for the growing of timber, acres upon which farmers would starve if compelled to live and operate. Luckier than Michigan many other states have vast holdings of high-grade farm land but little that is fit only for the growing of timber.

If Michigan begins now to plant forests as she should (from 5,000 to 50,000 acres a year instead of 500 acres) she may hope to place herself beyond the danger of the timber famine that is surely and swiftly coming. She may be a timber selling and a lumbering state again instead of a board buying state as at present. She will be able to exchange lumber for food to support her millions of factory labor, as well as to maintain her wood growing and using industries and communities in the State.

She has the choice before her between economic independence due to intensive production and use of all her resources, on the one hand, and utter dependence and lack of balance of production and consumption, due to earlier indifference and shortsightedness on the other.

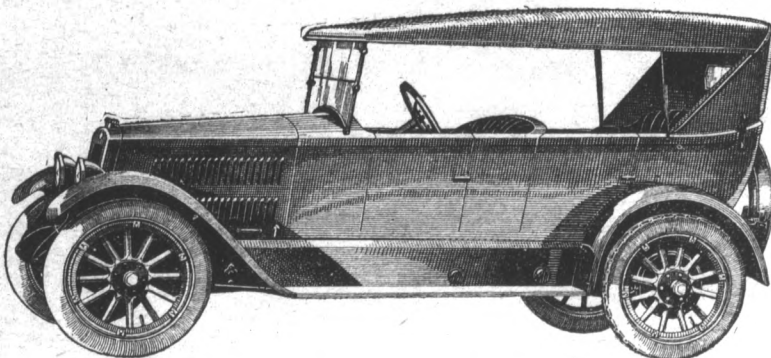
Productive land makes busy people. Idle land breeds poverty and discontent, like idle factories.

Busy people are happy people when they live on the land and work in the soil.

Michigan must heed the text and prepare for her people in years to come, as well as her own safety and economic security.

A Better Car at a Saving

Compare the New Mitchell with cars costing \$500 to \$1,000 more



Mitchell

Just compare price before you buy. Get the latest quotations. See if you can find a car to equal the New Mitchell at its price.

We believe it impossible. We know every car. And our policy has been to offer more than usual. We want to uphold the Mitchell reputation of giving the utmost for the money.

While the New Mitchell is being bought largely because of its style and performance, its comfort and lasting newness, there are thousands who buy it to make

the saving. It is noted the country over as under-priced.

The New Mitchell is the finest car we ever built. It brings mechanical perfections hitherto unknown in a like-price car.

It brings improvements and refinements found only on higher priced cars.

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Examine this new car carefully, then see if you agree that it is the best car for you.

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- 3-Passenger Roadster
- 5-Passenger Sedan
- 4-Passenger Coupe

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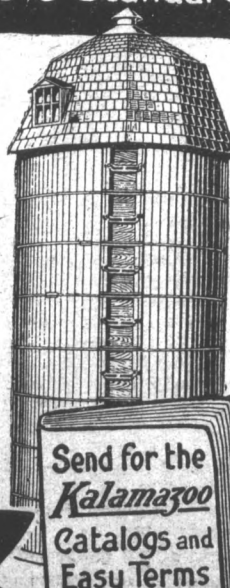
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Kalamazoo, Mich.



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Beet Sugar Mills

Many Factors Should Be Considered Before Investing in Sugar Plants.

KEEN interest is being evidenced by sugar-beet growers in various sections of the country in the possibility of producing their own sugar on the farm by some simple process or of establishing and operating their own sugar mills. Owing to the scarcity and high price of sugar numerous inquiries on the subject are being received.

Specialists of the Bureau of Plant Industry of the United States Department of Agriculture have made a close study of all phases of beet-sugar production, there are several fundamental features to be taken into consideration in the establishment and operation of sugar mills. In the first place, no simple or inexpensive method of making sugar from beets on a home or small scale has been devised. Therefore a fully equipped sugar mill is necessary in producing sugar from beets. The smallest beet-sugar mill, say the bureau specialists, to be successful should slice not less than five hundred tons of beets a day for a period of one hundred days each year. Since the average yield of beets in the United States is ten tons per acre, not less than five thousand acres of beets must be grown annually for each mill of this size. A smaller acreage would probably cause the mill to operate at a loss under normal conditions. There is almost always a larger or smaller loss of beet acreage during the season in every community where beets are grown, hence in order to bring five thousand acres of beets to maturity it would be wise to plant about five thousand five hundred acres. In order to insure the production of from five thousand to six thousand acres of beets annually in a given beet area there should be available in that area at least from fifteen to twenty thousand acres of good beet land, so that proper crop rotation can be practiced. This acreage should be so located that from twenty-five to fifty per cent of the beets grown can be delivered at the sugar mill by wagons, and the remainder of the beets should have a freight haul of less than one hundred miles, in order to avoid heavy freight charges.

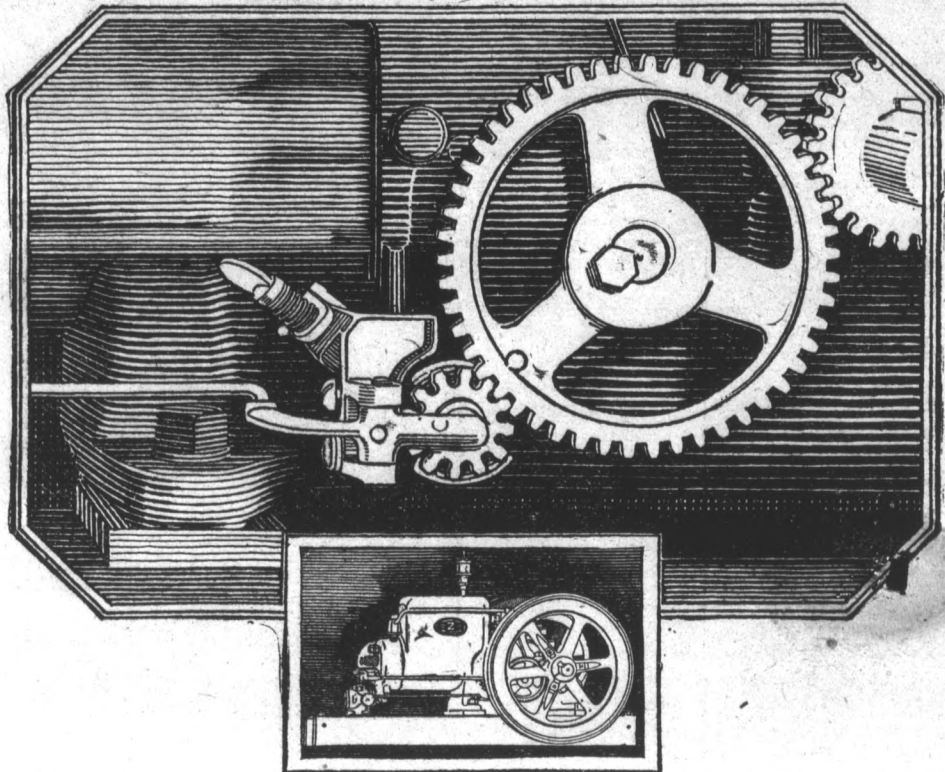
Initial Costs High.

The construction and equipment of a mill of five hundred tons' slicing capacity would cost under present conditions approximately \$750,000. This is about fifty per cent above prewar costs, owing to the increased price of materials and the higher scale of wages. In addition to the initial cost of the mill approximately \$500,000 of working capital would be required in cash for overhead charges and operating expenses until returns can be expected from the sale of the sugar.

Probably the most important of the other items to be taken into account in the operation of a beet-sugar mill is that of a supply of sugar-beet seed. A five-hundred-ton mill would require about 100,000 pounds of seed annually to insure the production of sufficient beets for a one-hundred-day run. Sugar-beet seed of good quality has been produced in the United States each year for several years, and those who are considering the erection of beet-sugar mills should look into the possibilities of producing their own seed. This minimum-sized mill would require in addition to its permanent employees about three hundred workmen for the operating period and a good supply of pure water, high-grade lime rock, and plenty of coal for fuel, besides numerous other supplies.

Besides making the house and yard attractive, flowers add actual money value to the place.

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Size Non-Skid	Price	Size Non-Skid	Price
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30x3 1-2	8.50	34x4 1-2	13.50
32x3 1-2	9.00	35x4 1-2	14.00
33x4	11.50	36x4 1-2	14.50

2 percent off for cash with order,
10 percent deposit required with all O. O. D. orders.

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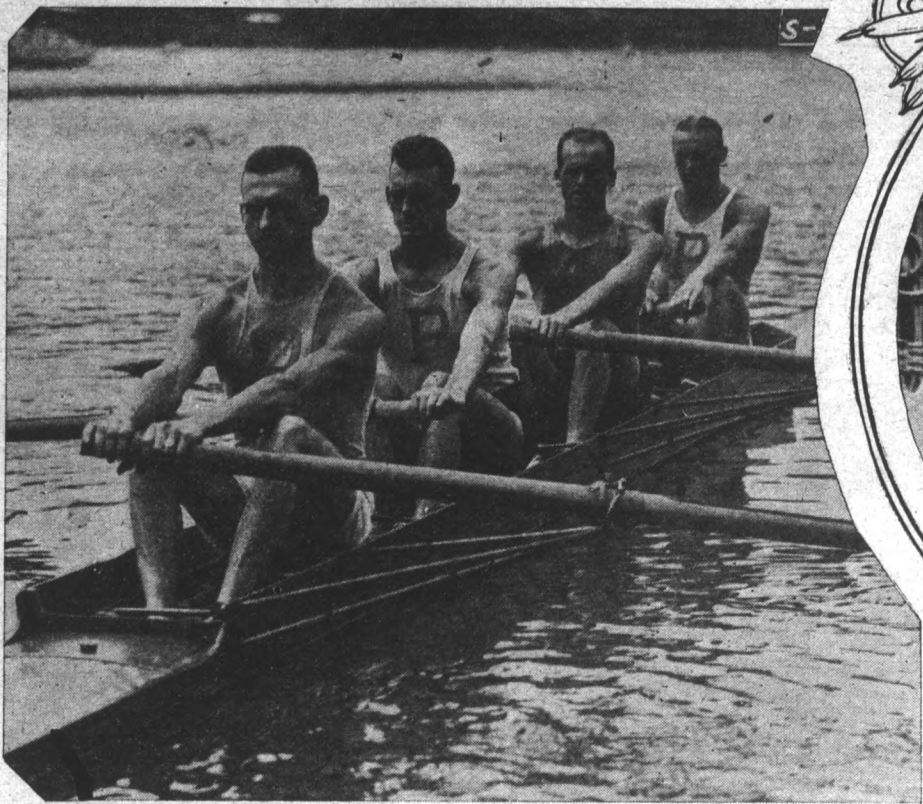
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Attached to any Ford in 3 minutes. Thousands
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Pedigreed Red Rock Seed for sale one bu.
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WORLD EVENTS IN PICTURES



This team wins finals in the four-oared match for this country, and so represents us in the Olympic games.



When these ladies adopted the raccoon as a pet they started the raccoon fad in California society.



These Polish troops seen here on one of the main streets of Warsaw, are now driving the Bolshevik forces back toward the Bug River.



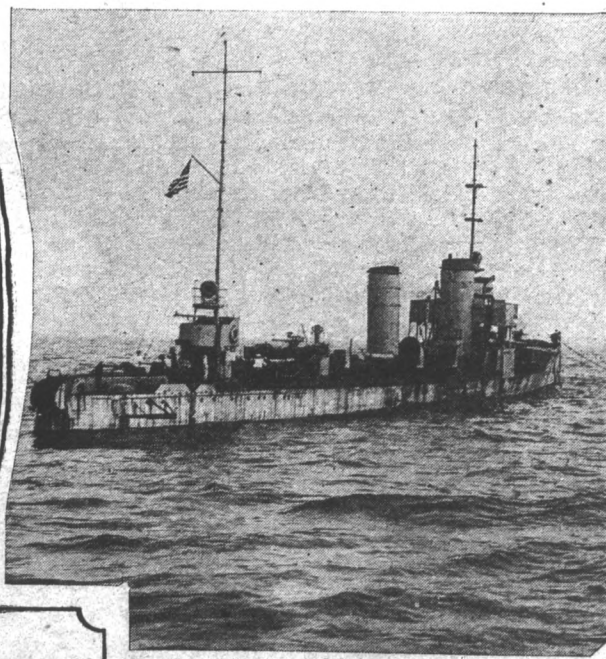
A new York shoe clerk up against a real situation, but he found the shoes.



Franklin D. Roosevelt making his speech of acceptance at his Hyde Parke home, following his formal notification of nomination to the office of vice-president.



Galli-Curci, famous Italian soprano, returns to this country and declares that she is to become an American citizen, having lost interest in the old world.



One of the five German warships allocated to the United States is being towed into the New York harbor. This vessel is one of those scuttled by the Germans at Scapa-Flow.

THE VALLEY OF THE GIANTS

A ROMANCE OF THE REDWOODS

By Peter B. Kyne



"You like Moira's eyes, eh?"

"I've never seen anything like them. Zounds, I'm afire. I have little prickly sensations, like ants running over me. How can you be insensate enough to descend to labor with an houri like that around? Oh, man! To think of an angel like that working—to think of a brute like you making her work!"

"Love at first sight, eh, Buck?"

"I don't know what it is, but it's nice. Who is she?"

"She's Moira McTavish, and you're not to make love to her. Understand? I can't have you snooping around this office after today."

Mr. Ogilvy's eyes popped with interest. "Oh," he breathed. "You have an eye to the main chance yourself have you? Have you proposed to the lady as yet?"

"No, you idiot."

"Then I'll match you for her—or rather for the chance to propose first." Buck produced a dollar and spun it in the air.

"Nothing doing, Buck. Spare yourself these agonizing suspicions. The fact of the matter is that you give me a wonderful inspiration. I've always been afraid Moira would fall in love with some ordinary fellow around Sequoia—propinquity, you know—"

"You bet. Propinquity's the stuff. I'll stick around."

"—and I've been on the lookout for a fine man to marry her off to. She's too wonderful for you, Buck, but in time you might learn to live up to her."

"Duck! I'm liable to kiss you."

"Don't be too precipitate. Her father used to be our woods-boss. I fired him for boozing."

"I wouldn't care two hoots if her dad was old Nick himself. I'm going to marry her—if she'll have me. Ah, the glorious creature!" He waved his long arms despairingly. "O Lord, send me a cure for freckles. Bryce, you'll speak a kind word for me, won't you—sort of boom my stock, eh? Be a good fellow."

"Certainly. Now come down to earth and render a report on your stewardship."

"I'll try. To begin, I've secured rights of way, at a total cost of twelve thousand, one hundred and three dollars and nine cents, from the city limits, of Sequoia to the southern boundary of your timber in Township Nine. I've got my line surveyed, and so far as the building of the road is concerned, I know exactly what I'm going to do, and how and when I'm going to do it, once I get my material on the ground."

"What steps have you taken toward securing your material?"

"Well, I can close a favorable contract for steel rails with the Colorado Steel Products Company. Their schedule of deliveries is O. K. as far as San Francisco, but it's up to you to provide water transportation from there to Sequoia."

"We can handle the rails on our steam schooners. Next?"

"I have an option of a rattling good second-hand locomotive down at the Santa Fe shops, and the Hawkins & Barnes Construction Company have offered me a steam shovel, half a dozen flat-cars, and a lot of fresnos and scrapers at ruinous prices. This equipment is pretty well worn, and they want to get rid of it before buying new stuff for their contract to build the Arizona and Sonora Central. However, it is first-rate equipment for us, because it will last until we're through with it; then we can scrap it for junk. We can buy or rent teams from local citizens and get half of our labor locally. San Francisco employment bureaus will readily supply the remainder, and I have half a dozen fine boys on tap to boss the steam shovel, pile-driver, bridge-building gang, track-layer and construction gang. And as soon as you tell me how I'm to get my material ashore and out on the job, I'll order it and get busy."

"That's exactly where the shoe begins to pinch, Pennington's main-line tracks enter the city along Water Street, with one spur into his log-dump and another out on his mill-dock. From the main-line tracks we also have built a spur through our drying-yard out to our log-dump and a switch-line out on to our milldock. We can unload our locomotive, steam shovel, and flat-cars on our own wharf, but unless Pennington gives us permission to use his main-line tracks out to a point beyond the city limits—where a Y will lead off to the point where our construction begins—we're up a stump."

"Suppose he refuses, Bryce. What then?"

"Why, we'll simply have to enter the city down Front Street, paralleling Pennington's tracks on Water Street, turning down B Street, make a jump-crossing of Pennington's line on Water Street, and connecting with the spur into our yard."

"Can't have an elbow turn at Front and B streets?"

"Don't have to. We own a square block on that corner, and we'll build across it, making a gradual turn."

"See here, my son," Buck said solemnly, "is this your first adventure in railroad building?"

Bryce nodded.

"I thought so; otherwise you would not talk so confidently of running your line over city streets and making jump-crossings on your competitor's road. If your competitor regards you as a menace to his pocketbook, he can give you a nice little run for your money and delay you indefinitely."

"I realize that, Buck. That's why I'm not appearing in this railroad deal at all. If Pennington suspected I was back of it, he'd fight me before the city council; and move heaven and earth to keep me out of a franchise to use the city streets and cross his line. Of course, since his main line runs on city property, under a franchise granted by the city, the city has a perfect right to grant me the privilege of making a jump-crossing of his line—"

"Will they do it? That's the problem. If they will not, you're licked my son, and I'm out of a job."

"We can sue and condemn a right of way."

"Yes, but if the city council puts up a plea that it is against the best interests of the city to grant the franchise, you'll find that except in most extraordinary cases, the courts regard it as against public policy to give judgment against a municipality, the state or the government of the United States. At any rate, they'll hang you up in the courts till you die of old age; and as I understand the matter, you have to have this line running in less than a year, or go out of business."

Bryce hung his head thoughtfully. "I've been too cocksure," he muttered presently. "I shouldn't have spent that twelve thousand for rights of way until I had settled the matter of the franchise."

"Oh, I didn't buy any rights of way—yet," Ogilvy hastened to assure him.

"I've only signed the landowners up on an agreement to give or sell me a right of way at the stipulated figures any time within one year from date. The cost of the surveying gang and my salary and expenses are all that you are out to date."

"Buck, you're a wonder."

"Not at all. I've merely been through all this before and have profited by my experience. Now, then, to get back to our muttons. Will the city council grant you a franchise to enter the city and jump Pennington's tracks?"

"I'm sure I don't know, Buck. You'll have to ask them—sound them out."

The city council meets on Saturday morning."

"They'll meet this evening—in the private dining-room of the Hotel Sequoia, if I can arrange it," Buck Ogilvy declared emphatically. "I'm going to have them all up for dinner and talk the matter over. I'm not exactly aged, Bryce, but I've handled about fifteen city councils and county boards of supervisors, not to mention Mexican and Central American governors and presidents, in my day, and I know the breed from cover to cover. Following a preliminary conference, I'll let you know whether you're going to get that franchise without difficulty or whether somebody's itchy palm will have to be crossed with silver first. Honest men never temporize. You know where they stand, but a grafter temporizes and plays a waiting game, hoping to wear your patience down to the point where you'll ask him bluntly to name his figure. By the way, what do you know about your blighted old city council, anyway?"

"Two of the five councilmen are for sale; two are honest men—and one is an uncertain quantity. The mayor is a politician. I've known them all since boyhood, and if I dared come out in the open, I think that even the crooks have sentiment enough for what the Cardigans stand for in this county to decline to hold me up."

"Then why not come out in the open and save trouble and expense?"

"I am not ready to have a lot of notes called on me," Bryce replied. "Neither am I desirous of having the Laguna Grande Lumber Company start a riot in the redwood lumber market by cutting prices to a point where I would have to sell my lumber at a loss in order to get hold of a little ready money. Neither do I desire to have trees felled across the right of way of Pennington's road after his trainloads of logs have gone through and before mine have started from the woods. I don't want my log-landings jammed until I can't move, and I don't want Pennington's engineer to take a curve in such a hurry that he'll whip my loaded logging-trucks off into a canon and leave me hung up for lack of rolling-stock. I tell you, the man has me under his thumb, and the only way I can escape is to slip out when he isn't looking. He can do too many things to block the delivery of my logs and then dub them acts of God, in order to avoid a judgment against him on suit for non-performance of his hauling contract with this company."

"Hum-m! Slimy old beggar, isn't he? I dare say he wouldn't hesitate to buy the city council to block you, would he?"

(Continued on page 242).

AL ACRES—The Stump in Melons Was Followed by an Advance in Lumber Prices.

—By Frank R. Leet



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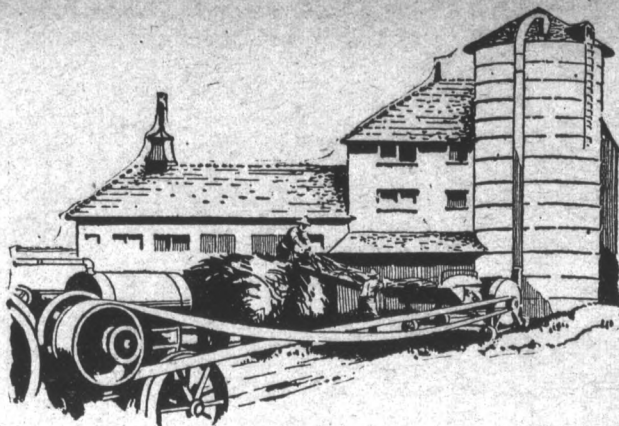
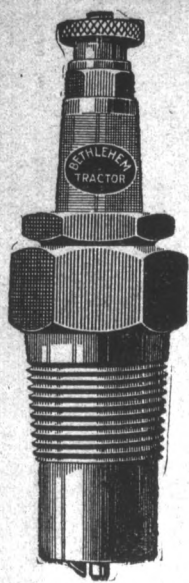
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Buried from the Town Hall

Our Weekly Sermon—By N. A. McCune

THE other day a woman who had been for years a member of one of two churches in a village died. The church building where she was wont to worship was undergoing repair, and has not been used this summer. In the other church there were many converts to a peculiar line of religious teaching. When the use of this church was asked for the funeral, it was declined, on the ground that the deceased had been a member of a church that believes in dining-room and game parlor in the church, which are "wicked" institutions. So the good woman was buried from the town hall.

"What narrowness," says one. "Well, if that isn't bigotry with a big B," says another. And a third adds, "Deliver me from the church forevermore." And we cannot criticize these critics overmuch. It is not the brand of religion that wins the allegiance of strong men very fast. But at the same time let us not pass judgment too quickly. Before offering to remove the speck from our brother's eye, let us pry the plank out of our own. It is better to have convictions on matters of religion than to have no convictions at all. It is very easy to say we are liberal, that all the churches are good, and one religion is as good as another, and all that. Down at the bottom of things we know that is not so. When a man has become so liberal he believes anything, he does not believe anything. Such people have never done much to advance the world to higher standards. Better to be bigoted and stand by it, than to be a milk sop and stand for nothing. Better to have a narrow creed and be willing to sacrifice for it, than to have no creed worth sacrificing for.

THE Pilgrim Fathers were great folk. The world is celebrating the three hundredth anniversary of their coming to America, this year. England, Holland, America are joining in tributes to these hardy yeomen who came in the Mayflower. All America has felt the influence of the descendants of these colonists. They have touched every state. A widely traveled man says he asked the president of Argentina why South America was not as advanced in commercial lines as North America, and the President of Argentina replied he thought it was because the Spaniards who settled South America came for gold, while the Pilgrim Fathers came for God. Nevertheless, these same Pilgrim Fathers were what we should call narrow men. They believed they were right and everyone else was wrong. When people came to the colonies who did not believe as the Pilgrims, they were told to move on. But while these stern and solemn-faced men were what the

moderns would style narrow, they believed what they did believe with all their souls, and they were ready to do anything, go anywhere, meet any foe, in defense of what they believed. They believed in God. They believed in Providence, and that Providence guided them to the bleak shores of New England. Their numbers were reduced by almost half, within a year after they came, but they did not give up. They were men of faith in God. They were not saints, only saints in the making. They were not perfect, but they were taking lessons in how to become perfect. And their religious convictions were what made them mighty, though those convictions were sometimes narrow.

IN other words, it is possible to be so fearfully and wonderfully "liberal," that your belief is frittered away into nothingness. It does matter what a man or a woman believes. When the war came on, it mattered mightily what we believed. Some people did not believe in the United States government. They were told to keep still or go to jail. If you were not really loyal to America in your heart, you at least had to pretend to be, because the nation could not tolerate enemies and traitors in its midst. The issues at stake were too great. If it matters in patriotism whether or not a man is loyal, does it not matter in religion? "He that is not with me is against me," said the Master of men. Every age has its peculiar weaknesses to combat, and slackness in religious belief is one of the enemies to be fought now, by all earnest men. In the eleventh chapter of Hebrews, there is a list of those who stood for God. It is a line of battlescarred heroes of the faith. There is not a slacker among them. There is not one who thought that "any religion is good if a man only believes in it," or that one is as good as another. They are men of tremendous conviction, and for that conviction they are prepared to suffer anything. "And what more shall I say? For time would fail me to tell of Gideon, of Barak, of Jephtha, of David also, and the prophets." Ah, that is a great list. It is one of the honors of the ages to belong to a roll of honor like that. And yet we may all belong to it, if we will. The call today is to lay aside sloth and indifference and pride in our "advanced" views, and to get in step with the soldiers who have marched with God. A man who believes with all his soul is worth an army of men who do not believe much of anything, and all history proves it. One's own inner experience proves it. Observation of men and women about us proves it.

The Valley of the Giants

(Continued from page 240).

"I know he'll lie and steal. I dare say he'd corrupt a public official."

Buck Ogilvy rose and stretched himself. "I've got my work cut out for me haven't I?" he declared with a yawn. "However, it'll be a fight worth while, and that at least will make it interesting. Well?"

Bryce pressed the buzzer on his desk and a moment later Moira entered. "Permit me, Moira, to present Mr. Ogilvy, Miss McTavish." The introduction having been acknowledged by both parties, Bryce continued: "Mr. Ogilvy will have frequent need to interview me at this office, Moira, but it is our joint desire that his visits here shall remain a profound secret to everybody with the exception of ourselves. To that end he will hereafter call at night,

when this portion of the town is absolutely deserted. You have an extra key to the office, Moira. I wish you would give it to Mr. Ogilvy."

The girl nodded. "Mr. Ogilvy, will have to take pains to avoid our watchman," she suggested.

"That is a point well taken, Moira. Buck, when you call, make it a point to arrive here promptly on the hour. The watchman will be down in the mill then, punching the time-clock."

Again Moira inclined her dark head and withdrew. Mr. Buck Ogilvy groaned. "God speed the day when you can come out from under and I'll be permitted to call during office hours," he murmured. He picked up his hat and withdrew, via the general office. Half an hour later, Bryce looked out and saw him draped over the counter, en-

gaged in animated conversation with Moira McTavish. Before Ogilvy left, he had managed to impress Moira with a sense of the disadvantage under which he labored through being forced, because of circumstances Mr. Cardigan would doubtless relate to her in due course, to abandon all hope of seeing her at the office—at least for some time to come. Then he spoke feelingly of the unmitigated horror of being a stranger in a strange town, forced to sit around hotel lobbies with drummers and other lost souls, and drew from Moira the assurance that it wasn't more distressing than having to sit around a boarding-house night after night watching old women tat and tattle.

This was the opening Buck Ogilvy had sparred for. Fixing Moira with his bright blue eyes, he grinned boldly and said: "Suppose, Miss McTavish, we start a league for the dispersion of gloom. You be the president, and I'll be the financial secretary."

"How would the league operate?" Moira demanded cautiously.

"Well, it might begin by giving a dinner to all the members, followed by a little motor-trip into the country next Saturday afternoon," Buck suggested.

Moira's Madonna glance appraised him steadily. "I haven't known you very long, Mr. Ogilvy," she reminded him.

"Oh, I'm easy to get acquainted with," he retorted lightly. "Besides, don't I come well recommended?" He pondered for a moment. Then: "I'll tell you what, Miss McTavish. Suppose we put it up to Bryce Cardigan. If he says it's all right we'll pull off the party. If he says it's all wrong, I'll go out and drown myself—and fairer words than them has no man ever spoke."

"I'll think it over," said Moira.

"By all means. Never decide such an important matter in a hurry. Just tell me your home telephone number, and I'll ring up at seven this evening for your decision."

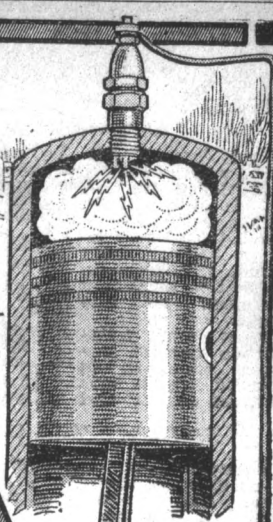
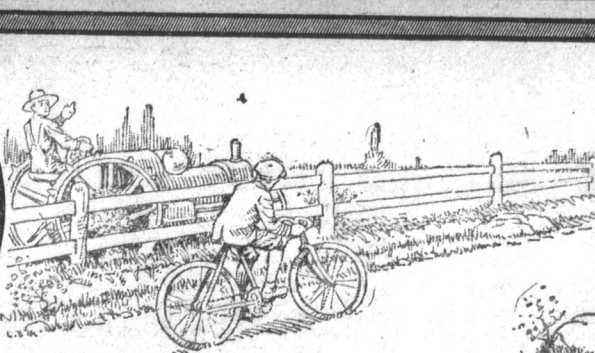
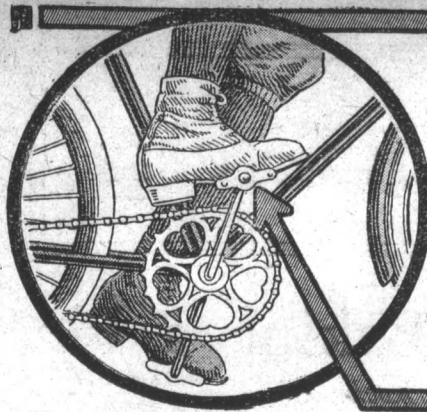
Reluctantly Moira gave him the number. She was not at all prejudiced against this carroty stranger—in fact, she had a vague suspicion that he was a sure cure for the blues, an ailment which she suffered from all too frequently; and, moreover, his voice, his respectful manner, his alert eyes, and his wonderful clothing were all rather alluring. Womanlike, she was flattered at being noticed—particularly by a man like Ogilvy, whom it was plain to be seen was vastly superior to any male even in Sequoia, with the sole exception of Bryce Cardigan. The flutter of a great adventure was in Moira's heart, and the flush of a thousand roses in her cheeks when, Buck Ogilvy having at length departed, she went into Bryce's private office to get his opinion as to the propriety of accepting the invitation.

Sunshine Hollow Items

By Rube Rubicon

Aunt Florabel Middleton has a son Felix, who is a broker in New York City. Felix has done very well and makes more money than most folks in Sunshine Hollow. But Mrs. Middleton has told them all about Felix until they don't like him as well as they did. Felix is a first-class man and good to Florabel but it is so tiresome to hear his praises chanted morning, night and noon.

Princess La Belle Chandra recently appeared in the circus which came to our vicinity. She proved to be Maud Goosen who used to live with her uncle over near the county line. Folks that used to know her said it didn't look very wonderful when Maud Goosen came in driving a gold chariot, dressed in pink tights. Folks that never knew Maud Goosen said that La Belle Chandra was fine, the best thing in the show.



Power At The Right Time

Did you ever ride a bicycle up a steep hill like this?

If you have, you know the absolute necessity of putting every ounce of power on that top pedal the instant it reaches center and starts downward.

The same is true of the piston of the tractor engine. The gas in that cylinder must be completely burned or exploded so that its full punch will come exactly at the instant when the piston starts on its power stroke.

If the gas takes even the thousandth part of a second too long in burning, the punch comes late and some of the power is lost. If it fires a thousandth part of a second early, it pushes backward on the crankshaft and works against the other cylinders.

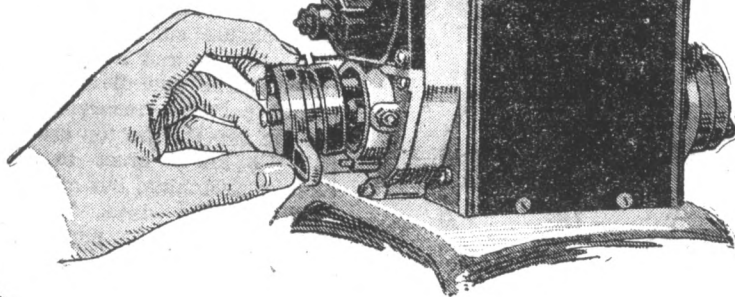
The generation of the power and the proper timing of it depend on the heat of the spark produced by the magneto.

The K-W Magneto on a tractor is assurance that you will get the full power out of every drop of fuel, and that you will get it at the time when it will do the most good.

The spark is intense and hot. It fires the entire mixture quickly and completely. It is the difference between a motor that "just runs" and a motor full of "pep".

Removable Timer

The "timer" or "circuit breaker" on the K-W Magneto can be taken off the magneto in one minute without tools. This saves hours of time when cleaning or adjusting the points.



THE K-W IGNITION CO.
2815 Chester Ave. CLEVELAND, OHIO, U.S.A.



Magneto

Fires Any Fuel—Gets Maximum Power Out of Every Drop.

FREDERICK C. MARTINDALE FOR GOVERNOR

OF THE STATE OF MICHIGAN



Primaries
August 31st

1. He was born on a farm and has lived on one most of his life.
2. He owns and operates under his personal supervision a large well-equipped farm in Oakland County and is a member of the Michigan Farm Bureau.
3. He advocates the providing of certain facilities by the State for the better handling and marketing of farm products.
4. He favors lake-to-ocean route as outlet to Michigan products and gateway for Michigan necessities.
5. He believes in generous treatment of service-men and their families.
6. He has had broad experience in State affairs as Representative, Senator and Secretary of State and as such took great interest in advancement of child welfare, pure food laws, health laws, laws relating to good roads and the betterment of farm conditions.
7. He has at heart the highest good of the State, the correlation of all its varied activities and the fullest development of its business, social and religious life.

—Advertisement.

POULTRY

PULLETS

We have a supply of Pullets that will interest you and that will give winter eggs to add to your profits.

8 Weeks Old Leghorns

There are 500 S. C. White Leghorns; also 75 8 weeks old Anconas.

1000 Yearling Pullets

White and Brown Leghorns, now laying; Anconas, Minorcas; Rocks, Reds and Wyandottes. Let us tell you what we have.

Cockerels—English White Leghorns only; no others.
STATE FARMS ASSOCIATION, Kalamazoo, Mich.

BARRED ROCKS

Cockerels, Pullets, April hatched, get Norman's superior strain direct. Catalogue 25c. Circular free. NORMAN POULTRY PLANT, Chatsworth, Ill.

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

Pullets and cockerels. From thorough-bred Baron White Leghorns the type that are bound to make good producers. Raised on free range. Every bird guaranteed and shipped on approval. Send for prices and catalog. A few Barred Rock Pullets. Brummers Poultry Farm, Holland, Mich.

BABY CHICKS of superior quality purebred stock. All varieties. 12 cents each up. Postpaid. Live arrival guaranteed. Guaranteed none better. We give quickest delivery. Catalog free. SUPERIOR O. K. HATCHERY, Clinton, Mo.

Whittaker's Red Cockerels

Both combs. Special discount on early orders. Write for Price List. INTERLAKES FARM, Box 39, Lawrence, Mich.

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

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

Additional Poultry Ads. on Page 251

SMOTHER FLIES AND MOSQUITOES

Harmless Method Brings Sure Death
to These Pests

Most insects can be smothered to death with Hofstra, a chemical powder that floats in the air. It closes their skin pores through which they breathe. It is "shot" from round, yellow guns and is perfectly harmless to humans.



Flies and mosquitoes cannot escape, once it is sprayed into a room. It floats to the farthest corner and kills them.

PROTECT THE BABY

Thousands of innocent babies die from disease brought them by filthy flies. Kill the winged murderers by spraying Hofstra in the room where baby sleeps. Also kills ants, roaches, bed bugs, chicken mites and lice, garden pests and many others.

Used in the big Ford plant at Detroit, U. S. Naval Hospital, Great Lakes, Ill., Tuberculosis Sanatorium, Mt. Vernon, Mo., and many other public institutions.

Get the 15 cent loaded gun from grocer or druggist. Cost little to refill it with package Hofstra in 15c, 50c and \$1 sizes. If dealer hasn't it we'll mail loaded gun on receipt of 15 cents.

HOFSTRA MFG. CO., 210 N. Cheyenne, Tulsa, Okla.



HOFSTRA
The Non-Poisonous Insecticide.

GENUINE ASPIRIN



Name "Bayer" identifies genuine Aspirin introduced to physicians in 1900. Insist on unbroken packages of

BAYER-TABLETS of ASPIRIN

Aspirin is the trade mark of Bayer Manufacture of Monoaceticacidester of Salicylicacid

URSULINE COLLEGE

"THE PINES"
CHATHAM, ONTARIO

An ideal school for young girls, combining the highest educational advantages with the most delightful home life, amid beautiful and healthful surroundings.

College, Preparatory, Commercial, Domestic Science, Music and Art Courses
Board and Tuition \$300 per year.

Apply for Prospectus to the
REV. MOTHER SUPERIOR

Sale Of

U. S. Army & Navy Goods
For Camp and Summer Outfits
Ask for big catalog 110 today

Army Khaki Shirts \$2.00
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for camp or outdoor use
Send 10c for Army & Navy
Catalog-110-and buy at
Auction Bargain Prices.

ARMY & NAVY STORE CO.
245 West 42d St., New York
Largest Camp & Military Outfitters



Woman's Interests

Making and Baking a Pie

By Ella E. Rockwood



AMERICANS are said to be a nation of pie-eaters. However this may be, the fact remains that a pie well made and well baked would be selected by the average American man in preference to the salad which we are told, if made by a certain rule would "tempt a dying anchorite to eat."

A housewife famed for the delicious quality of her pies, was once interviewed by a bride, zealous to emulate her friend's skill and provide her husband with his favorite dessert in all its perfection. So here is the formula, if it may be dignified by the expression, and why not? It is taken from an old cook-book dated 1879:

"For each double-crust pie take one-and-one-half cups of pastry flour, sift in a bowl with one-fourth teaspoon of salt. With a silver fork or tips of the fingers work into the flour one-half cup of lard until the two are thoroughly blended. Add a very little cold water, only sufficient to bind the mass so that it may be rolled out without adding any more flour. About four tablespoonfuls should suffice. Turn the dough out on a floured board, give it a few quick turns and divide in two nearly equal portions, reserving the smaller of the two for the top crust. Roll and fit the lower crust to the pie-pan. Avoid stretching, but allow it to come well over the edges. There should be just enough for the purpose."

Any fruit pie requires a cup of sugar, speaking approximately, and juicy fruits, such as berries or cherries, will require a well-rounded tablespoonful of flour for thickening. Apples require neither flour nor water. The flour and sugar should be measured, not guessed at. Some cooks, but not all, are good guessers, and it is better to be safe than sorry. A standard half-pint measuring cup graduated into quarters, thirds, and halves should be in every kitchen cabinet.

The flour, sugar and fruit may be all stirred together, or placed in separately. With apples put sugar on top, and lots of butter, not forgetting a sprinkle of salt. Add the latter also to fruit pies.

Roll top crust, not too thin, and place loosely over the pie. If drawn tightly it will pull away from the edge somewhere in baking, since pastry shrinks under the action of heat. Press firmly at the edges but do not pull. Moistening the edges may assist in preventing boiling out of juices, but it also makes the crust hard. If carefully pressed together and not broken anywhere the juices will not trouble. Or a strip of clean white cloth may be bound around the edge. Another device is to place a small paper funnel in the top crust to allow the steam to escape, since the gashes made with a knife for this purpose often close in baking. Bake carefully in a moderate oven. It is extreme heat which causes the juices to burst through the crust. When the bottom of the tin hisses under the moistened finger the pie is done. Brushing the top crust with milk is sometimes considered an improvement. It gives it a delicate brown, flaky appearance when baked.

If you have long ago mastered the art of pie making and want to try your hand at some of the French pastries,

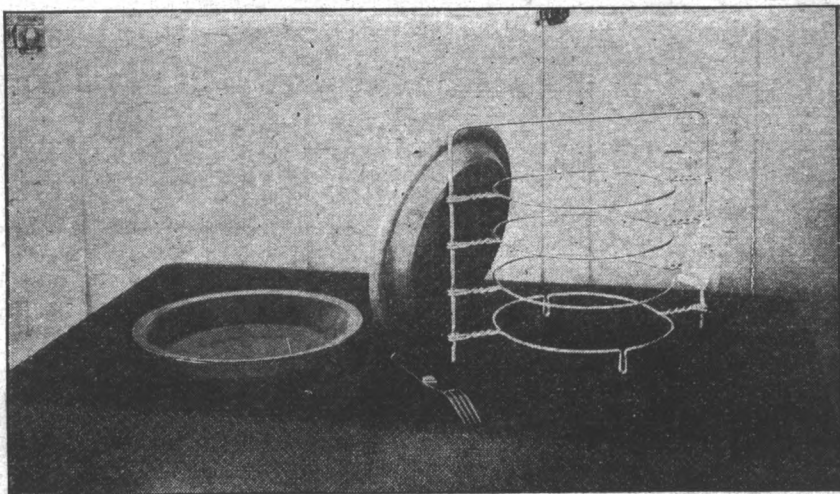
learn to make puff paste. This requires patience, time and care, but the woman who likes to bake finds it fascinating.

Wash the hands, mixing bowl and a wooden spatula, first in hot water then in cold. Fill the bowl with cold water, put a half pound of butter into the water and work with the spatula until the butter is soft and easy to mold, then remove, and pat it gently until it is perfectly free of water. Have the room, butter and flour as cool as possible. Sift two cups of flour and a fourth of a teaspoonful of salt together and mix with cold water to a soft dough. Remove to moulding board and knead until the dough is elastic. Cover it and let stand five minutes, then roll out into a rectangle a little longer than it is wide. Pat the butter into a similar shaped rectangle and place it exactly in the middle of the lower half of the paste. Fold the top of the paste down over the butter, creasing in the center, and press the edges closely together all around. Take care to exclude all air. You then have a long, narrow rectangle. Now fold one end of the paste up over the butter and the other end

the paste should be rolled about one-fourth of an inch thick and baked for twenty-five minutes.

The little rolls filled with whipped cream and covered with chocolate frosting which you see in bakers' windows are also made from puff paste. They are made by rolling the paste into strips four inches wide and baking around cylinders of tin or hardwood. Butter the cylinders and brush the side of the paste which is to go on the cylinder with water or egg white. Cut the paste in lengths to fit the cylinder, press carefully around the form, and bake on a cookie tin. When done remove carefully from the cylinders, cool, and frost. Do not fill the center until ready to serve. They may be filled with whipped cream or a cream pie filling.

For the woman who makes many pies the pie rack for cooling them, shown in the illustration, will be a welcome kitchen help. The tin with the thick rolled edge, leaning against the rack, is claimed to give you a pie without a scored or too-brown edge. The domestic science workers at the Michigan Agricultural College, who have



A Convenient Pie Rack.

under the butter and press the edges together. Cover it and let stand five minutes.

Turn the paste half way round, pat carefully with the rolling pin, making ridges on the paste, and then roll into a long strip, keeping the paste as near a rectangle as possible. This will need an even stroke, with equal pressure all over the paste. Then fold one end of the paste back to the middle, and the other end over the first end, so as to have three layers of paste with even edges. Turn half way round again, so as to roll in the opposite direction. Repeat this process six times, then cut paste in desired shapes and chill on ice a half hour before baking in a very hot oven. If the butter begins to soften while you are rolling, wrap the paste in cheesecloth and chill on ice.

This process gives a pastry with distinct layers which may be used in many ways. One of the most common is in tarts, which may be cut in any desired shape, rounds, squares or diamonds, and filled with any desired filling. Perhaps nothing is nicer than strawberry or raspberry tarts.

Patty shells to be filled with cream-ed chicken or other meat or fish may be made of this paste. For these shells

tested it, say that it does all it claims. The glass plate is nice if you wish to bring the pie to the table, as it is always clean and keeps its color. A four-tined fork is almost a necessity in pie-making, and if you buy a steel one for this purpose you are sure your silver forks are not taken for kitchen use.

HOUSEKEEPER'S CALENDAR.

Can corn, succotash and beans, Lima, and string.

Corn.—Corn must be canned as soon as pulled from the stalk. It loses half its sugar by allowing it to stand over night. Husk, remove silk, blanch five minutes, plunge at once into cold water, remove instantly and cut from cob. Pack into jars to within an inch from top. Add one teaspoon of sugar and one of salt, adjust rubber and top, and set at once in the boiler. When the boiler is full, cover and boil four hours. Water must cover the cans, and be kept constantly boiling.

Many prefer corn dried. This is a good time to dry in the sun. Have a wire mesh frame built outside and set up on four posts far enough from the ground so that the dew cannot touch the product drying, about three

feet is right. The tops of the posts should also come above the frame so that at night an oilcloth may be thrown over the top and not touch the food. Spread a cheesecloth over the wire, and on this spread the corn in a thin layer. Unless a heavy storm is coming up it will not be necessary to bring in the vegetable, as an oilcloth cover will protect it from ordinary dampness.

Corn may be canned on the cob, but wide-mouthed jars are needed for this. Follow the same directions as for canning the kernel.

Beans.—Experiments have shown that beans are not improved by blanching. Wash, string, cut in pieces for serving and pack jars to within an inch of top. Cover with boiling water, add one teaspoon of salt, adjust rubbers and caps, and boil, process, three hours.

Lima Beans.—Pick before pods become dry. Shell, pack lightly in jars to within an inch of top, add a teaspoon of salt, and hot water to cover, adjust rubbers and tops and process three hours.

Succotash.—This is a mixture of equal parts of corn cut from the cob, and Lima beans. The corn must be blanched and plunged. Mix the corn and beans, fill jars to within an inch of top, add a teaspoon of salt to each quart jar, hot water to cover, and process three hours.

Look through closets carefully for signs of moths or other pests. Woolens should have been carefully stored in tight containers in the spring. If any were missed, bring them out into the sunshine and look for traces of moths. Then seal up in old newspapers with paste, and store.

Secure list of school supplies needed and buy them on next trip to town.

WOMEN AND THE NEW DEMOCRACY.

BY MARY M. ALLEN.

THE greatest enemy of democracy is the ignorant voter. Educational leaders recognizing this are putting into the hands of every teacher a little publication entitled "School Service." School Service informs us what democracy is doing for its people and what people may do for democracy; for the new vision of citizenship in democracy belittles rights and emphasizes duties. Michigan educational leaders have placed books on government in the teachers' reading circle for the past three years. Among these are, "Government as a Business," by Frank Sparks, and "Americanism—What Is It?" by David Jayne Hill. No better work has been brought out recently than "Democracy and the Great War," by George N. Fuller, Ltd., Secretary of the Michigan Historical Commission. To one who has already attained a familiarity with European history, it comes to refresh one's memory. To those who have not studied the background of American history, it states clearly and simply the growths and concepts of democracy.

The public information committee organized during the war issued some valuable pamphlets in the Red, White and Blue series. These may be had at any library. The World Peace Foundation of Boston have compiled a fine collection of speeches, magazine articles and historical essays which may be obtained at a nominal price. Among them are articles by Lord Grey, Lawrence Lowell, Douglas Adams, William Howard Taft and other national authorities on international affairs.

Women's clubs throughout the country are arranging for lectures and studies in local civics, which should interest every woman voter. Business methods and efficiency must enter into the administration of government if over-taxation be avoided. Any woman who possibly can should avail herself of the wealth of material at her disposal.

THE SIGN OF



QUALITY

Results in Baking Test the Quality of Flour

There is all the difference in the world in the quality of flour. Everything depends upon the kind of wheat used and the methods used in converting the raw materials into the finished article.

Lily White

"The Flour the Best Cooks Use"

Look for the
ROWENA
trade-mark
on the sack

has maintained a reputation for unsurpassed quality for generations. It is made from the choicest selection of wheat grown in this country. The grain is thoroughly cleaned, scoured and washed before being milled. The part of each grain of wheat that finally is milled is only the heart of the kernel. The result is a flour of incomparable quality—perfect uniformity of granulation, color and volume. It is perfectly balanced to bake well and to give the highest values in nutrition.

Bread and rolls baked from LILY WHITE are of splendid color and have a flavor that is appetizingly palatable. Biscuits are light, tender and delicious—never flat, thin or soggy. Pie-crust is flaky—just like French Pastry.

No food is as healthy and nourishing as breadstuffs made from high-grade flour. LILY WHITE is guaranteed to give satisfaction.

Ask for LILY WHITE at your dealer's.

VALLEY CITY MILLING CO.

GRAND RAPIDS, MICHIGAN

"Millers for Sixty Years"

The High Price of Sugar

makes one welcome foods which
are rich in natural sweetness.

Grape-Nuts

—the ready-cooked cereal

requires no added sweetening, for it contains
its own pure grain sugar, developed from wheat
and barley by twenty hours' baking.

Sprinkle Grape-Nuts over ripe fruit or berries
and you'll save sugar.

*We Made It
We Can Repair It
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UNDERWOOD

For service in connection with the Underwood
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Farms and Farm Lands For Sale

Farm With All Crops, 4 Horses, 47 Cattle, Tools,

385 acres splendid land, fine buildings, complete equipment; good American neighborhood, near village; fields have cut 140 tons hay; 75-cow brook-watered pasture, valuable wood, variety fruit, 2 12-room houses, 4 barns; owner throws in horses, cows, all machinery, tools, growing crops; everything for \$15,000 only \$8,000 balance easy terms. Details page 30 Strout's Big Illustrated Catalog Farm Bargains 33 States. Copy free. **STROUT FARM AGENCY,** 814 BC Ford Bldg., Detroit, Mich.

For Sale Modern 43 acre farm. Located 4 miles from Whitehall, Mich. Now in operation. Fully equipped with modern machinery fully stocked buildings electric lighted. All but 5 acres in crops now. Will sacrifice to interested party. Anxious to retire reason for wanting to sell. **A. E. Dimet, owner, Whitehall, Mich., R. 2.**

MUST BE SOLD

at once 122 acres best soil. Good buildings, 40 rods to school, 3 miles to Lansing, Mich. Buy of owner.

S. HEMPHY, R. 7, Lansing, Mich.

Wanted Modern Equipped Dairy Farm

To rent on shares for term of years by three industrious enterprising, and worthy young men with some financial backing and best of references. Fourteen years experience producing high grade milk. Address **G. E. EMSTROM, 50 Sheridan Ave., Pontiac, Mich.**

156 Acres of the Best Alfalfa soil, 20 acres timber, 30 Holsteins. Excellent line machinery. Mammoth modern buildings. Everything for \$22,000. Terms. Send for our lists. **Coughlin's Farm Clearing House, 121 S. Warren St., Syracuse, New York State.**

FOR SALE —120 acres. Good buildings, 80 acres improved; flowing well, water in house and barn. Also stream through pasture. Will sell part or all. Price \$80 per acre. For further information write **Wm. VANDEPOL, R. No. 4, Marion, Mich.**

FOR SALE improved farms 40-60-80 acres or in any desired quantity including 640 acres, on terms or trade at low prices. **D. H. RENNIE, 323 1/2 Genesee Ave., Saginaw.** Bell 3531; Valley 630B.

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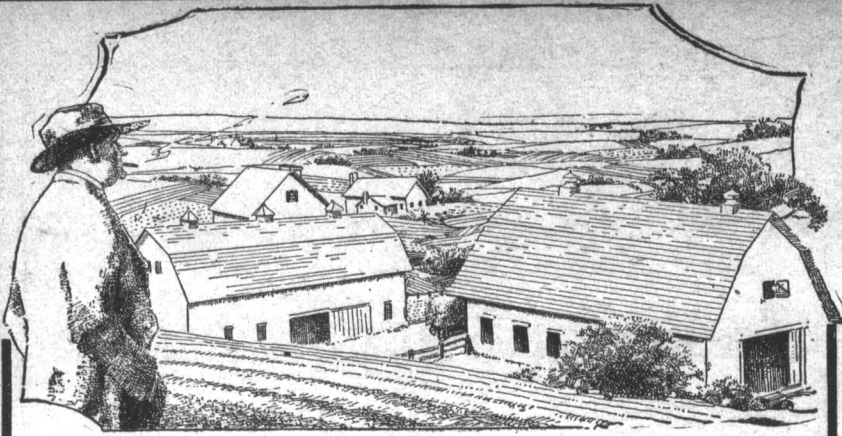
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Our Boys' and Girls' Page

"Uncle Ed" Wants To Hear From You!

WE ARE anxious boys and girls, that those responsible for your department get in close touch with you. It is impossible to go to your homes and meet you, but you can write, telling us of your problems, ambitions and experiences. Through these letters "Uncle Ed" will be in a position to know just the subjects to write about in order to make this page of the most interest and greatest help to you. You address your letter to "Uncle Ed" in care of the Michigan Farmer, Detroit, and he will do the rest.—Eds.

Young Folks' Round Table

By Uncle Ed.

IT is fine of the editor of The Michigan Farmer to set apart for the boys and girls a good big corner where we may meet, talk over the things which interest us, and have a good time generally. Not that I do not expect that more than one of the older boys and girls of this big farm family will peek over here, when they have feasted on the good things they find in other columns of the paper; for I have many times thought that when the young folks are interested, the older ones are, too. So if we can make this department so bright and so homey that boys and girls will turn to it the first thing, we may be quite sure that our fathers and mothers will be interested, too. One thing we sure do want to do: and that is to have our corner so good and clean and helpful that it will be the finest of all the many fine departments of our paper.

She Wants to Know.

This morning a letter came to our house from a girl who has lately become a wife, and she asks: "A friend of ours has given us some tomatoes and I don't know how to can them. Won't you tell me how to do it?" Of course, right straight back will go the letter telling just how mother does that work, and it will be a help to this wife who has never learned how to do such things. And the thing I would like to say just now is: that there is no better time to master the art of canning garden vegetables and putting up fruits of all kinds than right now, while you are still at home. It is so much easier to learn in the dear old home kitchen, with mother as the teacher, than it is to pick it out from a letter written ever so plainly by one a long way off. There are many good things just now to be put up, so why not begin this very day? The time will come when you will be glad you did this.

Can You Do It?

At a barn raising I attended one

time, the boss carpenter had a lot of trouble getting some of the tenons on the ends of beams to go to place in the mortises where they belonged. He often had to take a big chisel, a "slick," he called it, and cut the end of the tenon down so it would slip into the mortise. Do you know what was the trouble? The mortise was "standing." That is, it was not chiseled out so the sides would be perpendicular. The trouble in the first place was that the holes were not bored right in the timbers. They were not straight up and down, so when the wood was cut, it left a "standing" mortise. If you were to bore holes of that kind, could you bore a hole that would be perfectly straight up and down? Try it and see. It is worth practicing on. At the same time try sawing a board off true. You will need to hold your saw pretty carefully or it will "run" and the end of your board will not be squarely cut across.

What Made Her Do It?

We had a fine mare on our farm, but what a thundering noise she would make at night, kicking the sides of her stall and often getting with her front feet right up into the manger! We were not very well pleased with this habit on the part of Old Kit; but when we talked with a man that knows more about such things than we do, he said, "Maybe there are rats in the stable." We knew Kit was a nervous sort of an animal, so we said, "Bet that's just it." And we set some traps, and before we were through with it we caught more than twenty big rats. No wonder Old Kit thrashed round in the stall at night, with all those rats scampering about, perhaps under her very feet, and making things lively for her when she wanted to rest. Anyway, after that Old Kit was much more quiet at night than she ever had been during the rat crusade. Most always when horses get such tricks, it is possible to trace them back to some very commonplace thing.

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Thinks You Boys and Girls Are Doing a Big Work

IN the presence of two hundred farm boy and girl prize winners, Secretary of Agriculture Edwin T. Meredith last week made the following address:

"You, of course, know of the work that you have done, so that it is not necessary for me to recite your record here. You are to be congratulated, however, in having an agricultural college and other agencies which are intensely interested in the work that you are doing as members of the Boys' and Girls' Clubs. I say this sincerely and honestly, not because you are here, but because I believe that there is no work along agricultural lines, that is more far-reaching or will bring greater results in the long run than that which you are doing in the study of agriculture. There are two thoughts I would like to leave with you.

"One Thousand Years' Experience."

"On other occasions I have talked about 'one thousand years' experience.' There is no one of us, of course, who can hope by his own efforts to secure one thousand years of actual, personal experience in a lifetime, but if we will profit by the experience of others, of some farmer, some member of the agricultural college, some expert in the department of agriculture, or if we will read a bulletin prepared by someone who has devoted his life to a certain subject, it may take you only one hour or an hour and a half, in this way, to secure information which it has taken another ten years to learn. By taking in the same way the experience of another man or woman, you may secure twenty years' experience on that particular subject. In other words, you are taking advantage of the life work of many men and women and you can thus have, in effect, so far as your own work and your own knowledge is concerned, a 'thousand years' experience'; and it is the man with the largest experience who is the most successful. That man is best educated, as someone has said, who knows the most of the experiences of others. One thought I wish to leave with you, therefore, is that you get all the experience you can in this work of agriculture by profiting by the experience of others.

"I wish also to imbue you, if I can, with the value of knowledge. A young man with whom I came in contact recently was anxious to get into business to get 'started,' as he said, in his life work, but he did not have the equipment, education, or experience of other men. He decided later to take a year's course in a school where men experienced in the line he expected to take up told their experiences. At the end of the year he said, 'The one big thing that I value, the one thing that is worth more to me than all the other things I have learned, is the value of learning.'

"In other words, he found out how little he knew, how little of other men's experience he actually had, and all through his life now he will appreciate the value of knowing what other men have learned. That is what I would like to have you girls and boys understand, that if you will take advantage of another man's experience you do not need to make his mistakes. It is essential that this group of prize winners—and you are entitled to be proud, and I know that you are proud of your rec-

ord—should set the example for others. You are going to be the leaders in agriculture in your several communities. It is highly important, therefore, that you should profit by the experience of others and should appreciate the value of learning and the value of knowing the right thing to do in order that you may set a proper example. You have made a record. You have won this year and certainly you must work, and study, and profit by experience, in order that you may maintain that record and go on and on in this work which is so well worth while.

Experience of Others Helpful.

"Those, then, are the two thoughts that I want to leave with you. Get a thousand years' experience, if you can, by taking advantage of the experience of others because it will certainly help you. If you were going to build a house, you

would engage an architect. If you were ill, you would call a doctor. If you were going into the mining business, you would employ an engineer. The same principle applies to agriculture. You men, you boys and girls, must be the engineers, the architects, the directors of agriculture in your communities, because you have demonstrated by your prize winning your ability to do this thing. By having wide knowledge, you will be better able to accomplish success for yourselves and to be helpful to others by example and direction."

HOME-TANNING OF WOODCHUCKS.

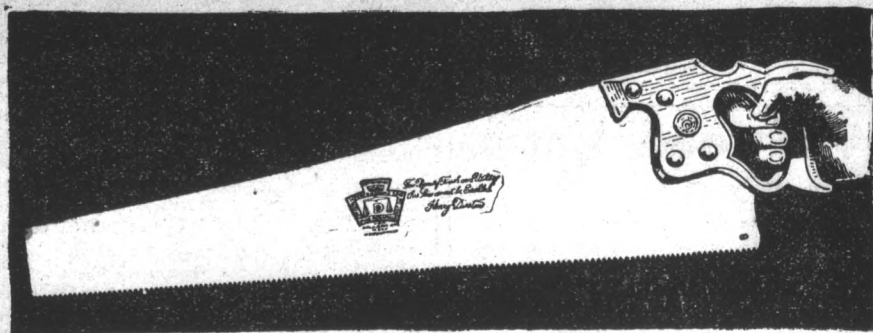
BY S. THOMAS.

IN order to tan woodchucks for leather, the first thing to do is to carefully flesh the skin—a dull knife may be used for this purpose. The fleshing should be done soon after the animal is killed while the skin is green or wet. Then the hair is removed. This is done by soaking the skin in a bucket of ashes and water and letting it remain in this fluid until the hair becomes loosened, when the hair is all taken off. Next prepare the tanning solution by shaving a bar of common laundry soap into a pail of hot water and stirring until the soap is completely dissolved. Put the skin in this solution and let it remain about four days, or until no dense spots are to be seen on the skin.

Then take it out, wring it as dry as possible and hang it in the sun to dry. Stretch, rub and twist the skin repeatedly while drying so that it will dry soft. If parts of it are still hard and stiff, it must be put in the soap solution again and the succeeding operations gone through once more.

POULTRY GROWERS TO DO NATIONAL ADVERTISING.

AT the national poultry convention at St. Louis the question of ways and means to undertake a national advertising campaign to give publicity to the food value of eggs and poultry meat, similar to what has been done by the orange growers, raisin growers, National Apple Association, the National Dairy Association and for many other agricultural products, which are being advertised, is one of the important matters being considered.



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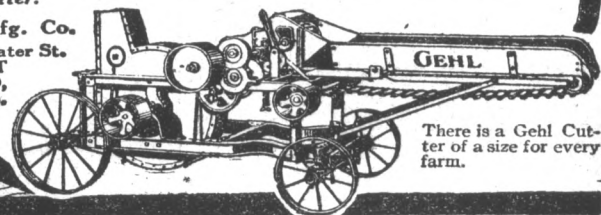
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Registered Guernseys a very fine show calf, this bull calf is out of a cow milking 40 lbs. a day, the price will surprise you, better get his pedigree. J. M. WILLIAMS, North Adams, Mich.

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1	"	"	over 1000 lbs. milk in 100 days
1	"	"	105 lbs. milk in 1 day
1	"	"	696 lbs. milk in 7 days
1	"	"	2669 lbs. milk in 30 days
1	"	"	100 lbs. milk in 1 day
1	"	"	2084 lbs. milk in 1 year
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CARR BROS., & CO., Bad Axe, Mich.

Richland Stock Farms Home of the Michigan Champions. Shorthorn Sires in Service:

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

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

Shorthorns New list 39 bulls, 49 females. Central Mich. Shorthorn Asso. write OSCAR SKINNER, Sec., Gowen, Mich.

Shorthorns Scotch and Scotch Topped bulls and heifers priced right. Sultan Champion heads herd, one scotch two yr. old herd bull by Red Cumberland priced right.
H. J. FLOWER & SON, Milo, Mich.

St. Joseph Valley Shorthorn Ass'n has for sale males and females of all ages and best breeding.
AARON HAGENBUCH, Sec-treas. Three Rivers, Mich

Milking SHORTHORNS. Clay bred bull calves Herds under Federal Supervision.
Davidson & Hall, Beand & Beland, Tecumseh, Mich.

Shorthorns Good Scotch bred bulls, cows and heifers priced right.
W. B. McQUILLAN, R. 7, Howell, Mich.

MEADOW HILLS Shorthorns. Herd headed by Silver King, full brother of Lavender Sultan Purdue University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

Milking Shorthorns of best Bates breeding, bulls 6 to 8 mo. old for sale.
E. H. KURTZ, Mason, Mich.

Shorthorns of Merit Both males and females for sale.
ARTHUR DODDS, Lapeer, Michigan

Shorthorn Bulls Eight to ten months old of Scotch and Scotch Topped breeding. Lawrence F. Otto, Charlotte, Mich.

For Sale 19 Shorthorn registered good breeding will sell cheap to close out. Apply
The JENNINGS FARMS, Bailey, Mich.

For Sale Shorthorn Scotch bred bull, papers furnished. Price right.
ANTHONY TROLLMAN, R. 3, Box 99, Fenton, Mich.

SHORTHORNS—Imp. Mysie Prince in service bred by J. Durno, sire bred by Wm. Duthie. Stock for sale.
J. A. BARNUM, Union City, Mich.

Red Polled cattle for sale bulls from 4 to 18 mos. also cows with calves by side and heifer's.
G. A. CALHOON, Bronson, Mich.

Reg. Red Polled cattle choice young bulls from 6 to 18 mo. old for sale.
FRANK KEBLER, R. 1, Grand Ledge, Mich.

Steers For Sale Several bunches of good stock—650 to 1050 lbs. Each bunch even in size and color write at once stating your wants.
W. W. DYER, Ottumwa, Iowa

HOGS

Berkshires size with quality is our specialty. Write your wants to
M. G. MOSHER & SONS, Osseo, Mich.

Registered Berkshires, Glts, and Sows bred for April May and June farrow. A yearling Boar and a few younger. Spring pigs. Chase Stock Farm, Marlette, Mich.

Brookwater Duroc Jerseys

FOR SALE

Bred Glts of Choice Breeding
A few good ones left. This is your opportunity to buy at
ROCK BOTTOM PRICES

—also—
READY FOR SERVICE BOAR
Brookwater Durocs are the real pork producers and the best bred hogs in Michigan.
COME TO FARM OR WRITE—MAIL ORDERS A SPECIALTY

BROOKWATER FARM
ANN ARBOR, MICH.
H. W. Mumford, Owner, J. B. Andrews, Mgr.



Spring pigs by Walt's
Orion, First Sr. Yearling
Detroit, Jackson, Cd. Rapids and Saginaw 1919
Phillips Bros, Riga, Mich.

DUROC JERSEY SWINE

for sale 2 yr. old herd boars, yearling boars and boar pigs, also bred sows and glts. Write for pedigrees and prices. Come and see them.
THEOS. UNDERHILL & SON, Salem, Mich.

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

OAKWOOD FARM DUROCS

We can furnish you with anything from a weanling pig to a boar of herd heading caliber at reasonable prices. Your inspection and correspondence is solicited.
RUSH BROS., Romeo, Mich.

12 Choice Duroc glts bred to farrow July and August. Daughters of Michigan Cherry Col. bred to Jacks Cherry Oak King Number 18928. Son of the \$10,000.00 champion Jacks Orion King 2nd. All large type, heavy bone glts, 250 to 300 lbs.
THE JENNINGS FARMS, R. 1, Bailey, Mich

SAGINAW WELL ORGANIZED.

I think the visit I made to Saginaw county last week might be a worthwhile story for the Michigan Farmer. While I was there I worked with the county agent, Mr. A. E. Bovay, and was successful in lining up associations at Freeland, Breckenridge, Chesaning and Merrill, with the Michigan Live Stock Exchange. These associations are live ones and I think in a mighty short time will be doing a good business.

Mr. Bovay's work in Saginaw county has been mighty thorough and I think it safe to say that Saginaw county in a few months' time will be one of the most thoroughly organized counties in the state from a standpoint of cooperative marketing, and several other towns in which we have started a sentiment in favor of cooperative live stock shipping associations.—E. E. COMPTON, Manager Michigan Live Stock Exchange.

PRESENT WOOL MARKET SITUATION.

(Continued from page 232).

they are practicable. The requests for the sets have been more than the wool division has been able to handle. They are sent free to those who are interested in wool grading and marketing. They remain the property of the government, and any person making a request for a set of sample grades is required to say what use he is planning to make of it. The object in sending out the sample grades to wool growers, dealers and manufacturers is to get their suggestions and criticisms. The bureau wants the cooperation of all these interests to the end that it may bring about a better understanding between them so that they will be able to speak in the same terms when referring to wool classifications. It is the ultimate aim of the bureau of markets to develop a system of standard wool grades, under which all the wool produced in this country can be sold, to the advantage of all engaged in the production, handling and manufacture of wool. It is a very important matter to wool growers, and the wool division officials promise to report some very interesting developments in their wool standardization work at an early date.

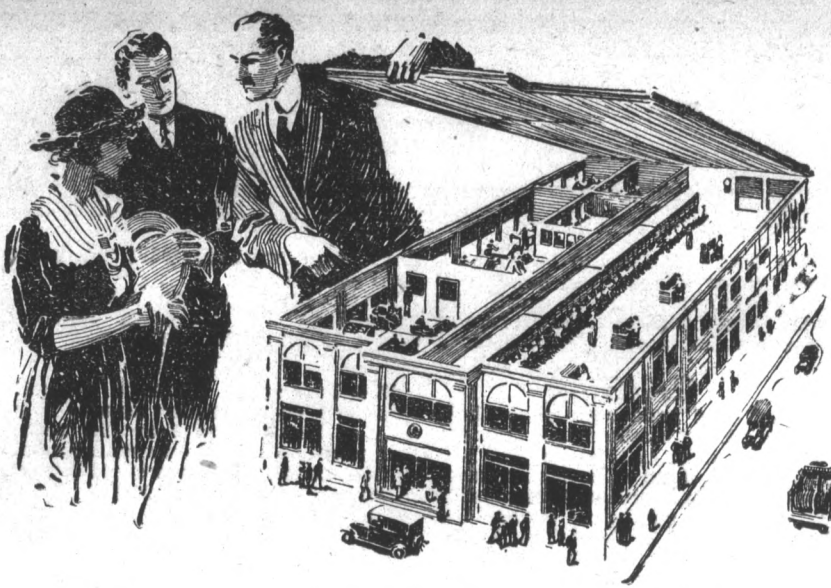
E. E. R.

VETERINARY.

Roarer—Heaves.—We have a mare that has commenced to roar and show symptoms of heaves. For some time she seemingly suffered from a cold or distemper. Can she be cured? S. B., Williamston, Mich.—Apply equal parts of tincture of iodine and camphorated oil to throat daily, give dessertspoonful of Fowler's solution at a dose three times a day. Grain and grass is the best feed for her. Feed no clover or musty, dusty dry fodder, wet her feed and avoid feeding her much bulky fodder.

Shy Breeder.—I purchased a Jersey heifer supposing her to be with calf, but she was not. She came in heat regularly for three months then ceased to come in heat. She ran with the bull and I decided she must be with calf. She is not pregnant and does not come in heat. Her bowels are too loose, she is thin and has a bad cough. She is fed oats twice a day and has good pasture to run on. A. B., Milligan, Mich.—If she has not already been tested with tuberculin and failed to show a reaction of two or more degrees F., better have it done. It is possible that she was with calf and aborted.

Black Teeth.—I have a bunch of twelve pigs twelve weeks old and most of them are troubled with black teeth. Some of them are troubled with swollen throat, gradually quit eating, grow thin and die. A. H., Saginaw, W. S., Mich.—Many healthy young pigs have one or more black teeth; however, it is possible that your pigs may suffer from Necrotic Stomatitis, a disease of frequent occurrence in suckling pigs. In the early stages the treatment of the cases may be successful, but in the advanced stages the disease usually proves fatal, regardless of treatment. Wash mouth with salt and water five times daily.



The Public Confidence

An important part of the management of the Bell System is to keep the public informed concerning all matters relating to the telephone.

We consider this an essential part of our stewardship in the operation of this public utility. It is due not only the 130,000 shareholders, but it is due the whole citizenship of the country.

We have told you of new inventions to improve service, of the growth of service, of problems involved in securing materials, employing and training workers, of financing new developments, and of rates necessary to maintain service.

You have been taken into our confidence as to what we are doing, how we do it, why we do it.

You have been told of our efforts to meet unusual conditions; of how we have bent every energy to provide service in the face of storms, floods, fires.

It is an enormous task today to provide adequate service in the face of shortage of workers, raw materials, manufacturing production and transportation.

Nevertheless the service of the Bell System has been improved and extended this year. Over 350,000 new stations have been put into operation. And the loyal workers of the Bell System are establishing new records for efficiency and will establish new records for service.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy One System Universal Service

45 Years on the Line
Come to Headquarters for
Cotton Seed Meal
OWL Brand DOVE Brand JAY Brand
F. W. Brode & Co.
Established 1875.
Incorporated 1915.
MEMPHIS, TENN.
Our Brand on the Tag Means Quality in the Bag

HOGS
Duroc Boars and Gilts
for sale at \$25 to \$50 each, crated and registered in buyer's name. Satisfaction guaranteed. These are some of the best pigs in the state. Visitors welcome.
MICHIGANA FARM LTD., Pavilion, Mich.

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

Duroc Jerseys of the right type, good blood lines and in good condition at a price you can afford to pay. Guaranteed to suit you. W. E. Bartley, Alma, Mich.

DUROC JERSEYS
E. D. HEYDENBERG, Wayland, Mich.

DUROCS spring boars. A few gilts bred for Sept. farrow at bargain prices.
W. O. TAYLOR, Milan, Mich.

Big Type Chester Whites, Choice, stretchy spring boars, also tried sows and fall gilts bred for Sept. litters. These hogs are big and will fatten at any age. Grand champion blood lines of the breed, Wildwood Prince Jr., Rajah, and Champion X. Cholera immune. Satisfaction guaranteed.
N. L. HILL JR., Mackinaw, Tazewell Co. Ill.

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

O. I. C. BOARS I two year old, weight 500, Apr. prices. We ship C. O. D. and reg. free.
GEO. M. WELTON & SON, Alto, Mich.

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

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

The World's Champion

big type O.I.C.'s. Stock of all ages for sale. Herd headed by Calloway Edd, the World's Champion O. I. C. boar assisted by C. C. Schoolmaster. Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. C. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Crandell's prize hogs, Cass City, Mich.

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

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

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

O. I. C. Gilts bred for July and Aug. farrow. Also spring farrowed pigs.
G. F. ANDREWS, Dansville, Mich.

O. I. C. Gilts bred for Sept. farrow and spring pigs.
F. C. BURGESS, R. 3, Mason, Mich.

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

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

O. I. C.'s 51st fall boars and 15 last fall gilts bred for fall farrow. Weight 230 to 325 lbs. extra good stock. Also this spring's pigs not skin. 1/4 mile west of depot. Citizens phone 124. Otto B. Schulze, Nashville, Mich.

Poland China Special

Boar pigs sired by Monster Big Bob and from our best sows, priced right for immediate shipment. Big-boned, strong-backed, smooth fellows from popular blood lines. Write for information or visit the farm.
BOONE-HILL CO., Blanchard, Mich.

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

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

L. S. P. C.

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

Big Type Poland Chinas

Our herd is representative of the best in Big Types. Choice boars for sale now. Wesley Hile, R. 6, Ionia, Mich.

Bred Sow Sale at Fairgrounds

August 5th. Carey U. Edmonds, Hastings, Mich.

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

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

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

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

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

Lindhurst Poland Chinas

Stock for sale at all times. Public Sale Oct. 23. WM. H. LIND, Alto, Mich.

POLAND CHINAS

W. J. HAGELSHAW, Augusta, Mich.

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

Leonards B. T. P. C. See exhibit at Mich. State Fair, get your name on mailing list for public sale Oct. 23. Double immune. E. R. Leonard, St. Louis, Mich. R.3.

Poland China pigs ready for shipment sired by Orange Buster, White Points Club. Joseph L. Hickey, sales mgr., R.3, Vermontville, Mich.

Large Type Poland Chinas nothing for sale at present. Spring pigs doing fine.
A. A. FELDKAMP, R. 2, Manchester, Mich.

HAMPSHIRE

1914 - - - - - 1920

Choice Spring boars, popular breeding. Booking orders for fall pigs. All stock Cholera Immuned and guaranteed Breeders. Satisfaction guaranteed.

STEUBEN'S HAMPSHIRE FARM

R. 3, Angola, Ind.

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

Hampshires get your boar pigs, now a few bred gilts left new blood lines of quality.
JOHN W. SYNDER, R. 4, St. Johns, Mich.

YORKSHIRES BRED GILTS

WATERMAN & WATERMAN
Packard Rd. Ann Arbor, Mich.

HORSES

For Sale or Trade

We are closing out our registered Percherons, and offer for sale or trade for anything I can use one registered stud colt three year old also a yearling from ton sire and 1900 lb. dams.
J. C. BUTLER, Portland, Mich.

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

SHEEP.

Put Your Faith

in better breeding stock. For the best in Shropshire and Hampshire Rams write or visit KOPEKON FARMS, S. L. Wing, Propr. Coldwater, Mich. See our exhibit at the Ohio and Mich. State Fairs.

Hillcrest Shropshires

A nice lot of Ewes and Rams of all ages our flock is headed by McKerrow 3164 a son of Senator Bibby write or call on
R. J. & C. A. WILLIAMS, Middleville, Mich.

SHROPSHIRE Yearling and Lamb rams sired by Imp. Berry No. 163 for sale. Also a few ewes.
ARTHUR DODDS, Lapeer, Michigan

Shropshires Am offering one choice two year ram and a few good yearlings.
C. J. THOMPSON, Rockford, Mich.

Shropshires sire imported Minton Ram Lambs \$20, some ewes, 2 yearling rams.
DAN BOOHER, R. 4, Ewart, Mich.

Want a Sheep? Let American Hampshire Sheep Association send you handy booklet with list of breeders. Write COLEBORT A. TYLER, 22 Woodland Ave., Detroit, Mich.

Wool-Mutton Shropshire Rams. Good strong in-bred, priced right. A. H. FOSTER, Allegan, Mich.

Cotswolds yearling rams, ram lambs, Cotswolds ewes all ages sired by Canada. A. M. BORTEL, Britton, Mich.

Reg. Oxford Rams ready to ship at \$30, delivered. J. Robert Hicks, St. Johns, Mich.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

August 25, 1920.

Wheat.

Detroit.—Cash No. 1 red \$2.58; December \$2.35; March \$2.34; No. 1 white and No. 1 mixed \$2.56.

Chicago.—No. 2 red \$2.46@2.47½; No. 2 hard \$2.44@2.49½ December \$2.32¾; March \$2.31.

Corn.

Detroit.—Cash No. 2 mixed \$1.65; No. 2 yellow \$1.70.

Chicago.—No. 2 mixed \$1.59½@1.67; No. 2 yellow \$1.64½.

Oats.

Detroit.—Cash No. 2 white old 90c; No. 3 white old 89c; No. 4 white old 88c; No. 2 white new 75c.

Chicago.—No. 2 white 69½@70½c; No. 3 white 67@70c.

Beans.

Detroit.—Immediate and prompt at \$6.10 per cwt.

Chicago.—Hand-picked choice to fancy \$6.50@7.

New York.—Choice pea \$7.75.

Rye.

Detroit.—Cash No. 2 \$2.02.

Chicago.—Cash No. 2 \$1.99.

Seeds.

Detroit.—Prime red clover, spot, October \$18; December \$18.25; alsike at \$17.50; timothy \$4.25.

Toledo.—Prime cash \$18.50; October \$19; December \$18.80; alsike \$18.25; timothy \$4.

WHEAT

Foreign demand for cash wheat has not been active, but exporters are taking liberal quantities to apply on old sales and the market has become more steady. The big rush of winter wheat is over apparently. In parts of Texas and Oklahoma the competition between mills and exporters has resulted in the former being able to secure very limited stocks, hence the past week brought reports that mills had suddenly advanced their prices three to five cents over those bid by exporters. There is plenty of wheat this season, but there is a scarcity of actual grain to fill export sales, the car situation being a factor. The visible supply is only about 20,000,000 bushels yet exports are about 30,000,000 bushels of wheat and flour per month. There is no reason why a producer cannot sell his wheat at \$2 or better at any loading point in the west or southwest. Spring wheat from the new crop is commencing to move in fair volume, and the new has gone to a big discount under the old. Flour prices have dropped in sympathy with spring wheat.

CORN

Highly beneficial rains have fallen in parts of Kansas, Nebraska, Iowa, Illinois and Missouri and Ohio and talk of drought from these states is less noticeable. Some sections now have sufficient moisture to carry the crop to maturity. A little damage has been done in all sections as the result of the recent dry weather, but it is hard to see how the final yield will be reduced below 3,000,000,000 bushels. Losses suffered in Illinois will be more than made up by big crops in Iowa and Nebraska to say nothing of South Dakota and Minnesota. Owing to the lateness of the crop safety first dictates that sufficient seed be saved from the 1919 crop to provide strong seed for 1921 planting. Official reports indicate that there will be much soft grain this season regardless of future weather conditions. The average date of killing frost is about October 15 to 25 through the center of the corn belt, but about once in five years it comes much earlier.

Harvesting is progressing rapidly northwest and is now general in Canada. Threshing is practically finished in many sections in the central west, and much new wheat and oats have already been moved. Receipts of wheat so far this season have been decidedly below expectations. How much this is due to the transportation situation and how much to the holding tendency on the part of producers cannot be determined, but undoubtedly the general belief among farmers that prices will ultimately be higher has induced those who can hold their grain to do so. The crest of the demand for money to move the crops has been reached apparently, and while money may not draw a lower interest rate it will be slightly easier to secure. In some sections banks will not loan freely to country elevators,

but this does not seem to be general. In those cases where home banks will not loan pressure should be exerted by farmers' organizations. Cars promise to be somewhat more plentiful for a time.

OATS

A belief that producers would hold for higher prices resulted in a stronger undertone in oats. A little export business has been done with the continent and with Cuba, although Argentine oats have been selling at around 85c c. i. f. Liverpool or about 20 to 25c under those from the United States. Our oats exports have averaged 85,000,000 bushels during the last six years, but during the 1920-1921 season these may drop to 20,000,000 or 25,000,000 bushels.

RYE

If a liberal amount of cash rye could be secured there would be considerable export business in rye flour. Rye exports the past year at 37,000,000 bushels are a record. Germany and Sweden have taken considerable wheat and rye of late. Financial conditions in Europe as well as the political reports must be closely watched. It can be stated authoritatively that there is no surplus of wheat or rye in Germany this season, and liberal imports will be necessary. When it is considered that a German mark is worth only two cents against a normal value of 23.5 cents the amounts of grain taken recently are surprisingly large.

FEEDS

Prices of mill feeds have rebounded from the low levels reached two weeks ago. Purchases by consumers are not brisk but a heavier demand is expected right along. Mills are increasing their output and it is possible that supplies will increase more rapidly than the demand. Still lower levels are considered probable by well informed men in the trade, but most of the price reduction has taken place already. Quotations per ton in carlots in 100-lb. bags for August 20 were as follows:

Milwaukee.—Bran \$44.50@45.50 per ton; standard middlings \$54.50@55.50; flour middlings \$61@62; red dog \$73;

linseed oil meal \$64@65; cottonseed meal \$63@66.

Detroit prices per ton in 100-lb. bags are:—Bran \$53; standard middlings \$60; white middlings \$62.

SEEDS

The bureau of markets estimates timothy seed production as only 80 per cent of that of last year and reports that retail sales and exports were larger than usual. Farmers seem disposed to hold for higher prices and the fall demand should help the market. Dry weather is needed in some sections to mature red clover seed. It is believed that a larger acreage than usual will be cut for seed because of the tempting price last year. The market was lower the past week. Toledo quoting cash prime red clover at \$17.70 and timothy at \$4.20 per bushel.

HAY

The coming freight rate increase has been especially stimulating to buyers of hay and prices have advanced. Reduction of buying as this influence passes may cause a setback although the shortage of cars will check any decided slump from the present level. The government's report indicates a crop, both wild and tame, well above the five-year average. With a decrease in numbers of live stock on farms the supply for the year looks ample. Detroit prices per ton in carlots are: No. 1 timothy \$35@36; standard \$34@35; light mixed \$34@35; mixed \$31@32; No. 1 clover \$30@31; rye straw \$13.50@14; wheat and oat straw \$13.50@14.

BUTTER

Butter markets have been steady the past week with a slight upward trend due to shortage and continued good demand, especially for fine butter. The close was firm. Only grades above 90 are actually short and lower grades have gone to storage. The total receipts for the season are under last year but at present the arrivals and movement into storage are at a higher rate than last year. Market observers noted an improvement in quality late in the week which was thought to be the beginning of a general improvement in the entire make, due to the

passing of hot weather and the rush of harvest, allowing more time for dairy work. Two cargoes of Danish arrived and another left Copenhagen, the total of the three cargoes being 1,050,888 pounds. Prices on August 21 as quoted by the U. S. Bureau of Markets on 92 score butter were: Chicago 55c; New York 56c; Boston 57c; Philadelphia 57½c.

EGGS

Slight advances were made in egg prices the past week with live poultry prices showing little change. Receipts of both at principal markets are running well below those of last year, but cold storage holdings of eggs are as large as at this time a year ago. Cold storage holdings of frozen poultry are only about half as large as a year ago. Quotations upon eggs were as follows: Chicago—Extras 55@56c; firsts 46@47c; miscellaneous firsts 44@46c. Detroit—No. 1 fresh rehandled 47½c; storage packed extras 48½@49c.

CHEESE

Wisconsin cheese created more interest than usual last week as compared with New York state goods and considerable quantities moved in a jobbing way. Undergrades and skin cheese found some outlet at Chicago and Boston, especially good No. 2 cheese. No special criticism on quality was reported from any of the markets. Receipts at the four markets were a trifle heavier than last week, but with the storing of the lots showing exceptional quality, dealers at all points have no large surplus and therefore are not pushing sales. Quotations are as follows: Philadelphia—Flats 27@28c; twins 26¾@27½c; single daisies 26½@27½c; Longhorns 27@27½c per pound.

POTATOES

The big slump in potato prices has checked the movement to some extent and resulted in firmer prices toward the close of last week, especially at eastern points, but the new movement is still nearly up to normal. Recent rains are expected to increase yield. Operators complain bitterly of the unsatisfactory car service. Prices were as follows: Chicago—Virginia barrel cobbles \$4@4.50 per bbl; Minnesota Early Ohio \$2.35@2.50 per cwt. Detroit—Virginia No. 1 \$5@5.50 per barrel.

PEACHES.

The market is holding generally steady on Midwestern Elbertas. A few are coming from Michigan but the Elberta season is not expected to start for about two weeks.

WOOL

The awakening of the wool market is still postponed, the only news of consequence being that more mills have closed. The reopening of some of them during September is still forecasted. The financing of western growers is a sore point, the federal aid plan being less generous in the amount of the advance and time to run than private banks, according to some growers. However, the government's willingness to give aid probably reassured bankers. Consignees to the National Wool Warehouse, Chicago, will receive warehouse receipts good for collateral for loans at banks. Not enough business is being done anywhere to establish quotations. It is reported from the offices of the Michigan State Farm Bureau that bids for wool aggregating 500,000 pounds at prices ranging from 35@67½c have been made. Loans made by farmers on wool warehouse receipts aggregate only \$17,000 and the number of farmers availing themselves of this privilege is 273.

DETROIT CITY MARKET

Supplies ample in most lines and prices easy. Apples \$1.75@2 for fancy; others from \$1.50 down; cabbage 40@50c per bushel; corn around 20c per dozen; peaches \$3.50@4.50 per bushel; plums \$3.50@4.50; potatoes \$1.75@2; tomatoes \$2@4.

COMING LIVE STOCK SALES.

Holsteins—September 8, George H. Landenburger, Williamston, Mich. Poland-Chinas, Oct. 26, Wesley Hile, Ionia, Mich. Big Type Poland-China Sale Circuit in Central Michigan, October 26-30.

Live Stock Market Service

DETROIT

Cattle.

Receipts 737. Canners and bulls are steady; all others a dollar higher on account of light receipts.

Best heavy steers	.....	\$12.00@13.50
Best handy wt bu steers	.....	10.50@11.75
Mixed steers and heifers	.....	8.75@ 9.75
Handy light butchers	....	7.75@ 8.50
Light butchers	.....	6.00@ 7.25
Best cows	.....	8.50@ 9.50
Butcher cows	.....	7.25@ 8.25
Cutters	.....	5.00@ 5.25
Canners	.....	4.00@ 4.50
Choice bulls	.....	7.50@ 8.00
Bologna bulls	.....	6.00@ 7.00
Stock bulls	.....	5.50@ 5.75
Feeders	.....	9.00@10.00
Stockers	.....	8.00@ 9.00
Milkers and springers	.....	75@ 140

Veal Calves.

Receipts 563. Market strong.

Best	.....	\$18.00@19.00
Others	.....	8.00@15.00

Hogs.

Receipts 2289. Pigs steady; mixed hogs 10@15c lower.

Mixed	.....	\$15.00@15.35
Heavy	.....	13.00
Pigs	.....	15.50
Rough	.....	12.50@12.75
Stags	.....	8.00@10.00

Sheep and Lambs.

Receipts 2631. Good lambs \$1 higher; sheep and common lambs steady.

Best lambs	.....	\$ 14.00
Fair lambs	.....	8.50@11.50
Light to common	.....	5.00@ 7.00
Fair to good sheep	.....	6.00@ 6.50
Culs and common	.....	2.00@ 4.00

CHICAGO

Hogs.

Estimated receipts today are 18,000; holdover 12,097. Market 10@25c lower; light off least; packing sows and heavies mixed off most. Bulk of sales at \$13.50@15.25; tops \$15.35; heavy 250 lbs up medium, good and choice \$13.90@15; medium 200 to 250 lbs medium,

good and choice \$14.25@15.30; light 150 to 200 lbs common, medium, good and choice \$14.50@15.35; light lights 130 to 150 lbs common, medium, good and choice \$14@15.25; heavy packing sows 250 lbs up smooth \$13.50@13.80; packing sows 200 lbs up rough \$13@13.50; pigs 130 lbs down medium, good and choice \$12.75@14.50.

Cattle.

Estimated receipts today are 9,000. Good beef and butcher cattle 10@25c higher; others and veal calves steady to strong. Beef steers medium and heavy weight 1100 lbs up choice and prime \$16.50@17.60; do medium and good \$12.50@16.50; do common \$10@12; light weight 1100 lbs down good and choice \$14.75@17.25; do common and medium \$9@14.50; butcher cattle heifers, common, medium, good and choice \$6@15; cows, common, medium, good and choice \$5.75@12.75; bulls, bologna and beef \$5@11.50; canners and cutters, cows and heifers \$4@6; do canner steers \$4.50@7.50; veal calves light and handyweight, medium, good and choice \$14.50@16; feeder steers common, medium, good and choice at \$7.50@12.25; stocker steers common, medium, good and choice \$5.50@10.75; stocker cows and heifers, common, medium, good and choice \$5@9.

Sheep and Lambs.

Estimated receipts today are 24,000. Market firm to higher. Lambs 84 lbs down, medium, good, choice and prime \$11.70@14; do culls and common \$7.50@11.25; spring lambs, medium, good, choice and prime \$8.75@10.25; ewes, medium, good and choice at \$6@7.50; ewes, cull and common \$3@5.50; breeding ewes full mouths to yearlings \$6@11; yearling wethers medium, good and choice \$11.75@13.

BUFFALO

Medium and heavy hogs sold here today at \$15@16; yorkers, mixed and pigs at \$16.25@16.50; lambs at \$15.50; calves \$20.50.

FARMERS!

Remember you have this year an opportunity for the first time in many years to vote for a real farmer for the nomination for Governor. Lieutenant Governor Luren D. Dickinson, as is well known, is the only farmer candidate living on a farm among all the candidates on all the tickets. As Representative, Senator or Lieutenant Governor, no farmer has criticised his loyalty to your interests.

AMERICAN LEGION

Remember Lieutenant Governor Dickinson was the official who started the move to give the veterans decent pay for their services.

TEMPERANCE VOTERS

Remember Mr. Dickinson has for years been Michigan's dry leader and four years ago he turned down the governorship to make Michigan dry. The wets have started the fight to again legalize the liquor traffic and Mr. Dickinson, is the man needed now to guard the temperance interests.

MEN AND WOMEN

who want clean politics remember that Mr. Dickinson, at the risk of his political future, alone and single handed, in the interest of purer politics, condemned the sale of nominations for office and demanded a fair deal for the poor but capable candidate.

VOTERS

When you go to the primary, remember you have not seen a criticism by the farmer, the laborer, the business man or any good citizen of Mr. Dickinson's loyalty, sincerity, honesty, ability or courage in conducting the affairs of the offices he has held. You take no risk in voting for him at the primary for Governor.

CHARLES HOFFNER,

Master of Eaton County Pomona Grange,

Chairman Dickinson Farmer Committee

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Fowler's Buff Rocks. We are now booking orders for eggs. A few choice cockerels left. R. B. FOWLER, Hartford, Mich.

LOOK! BABY CHICKS \$14 A 100 UP!

By insured parcel post, postage paid. 40 breeds chicks, 4 breeds ducks. Aug. and Sept. chicks for February and March layers. Catalog free, stamps appreciated. NABOB HATCHERIES, GAMBIER, OHIO

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\$1.00 each. White Pekin ducks \$2.00 each.

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Silver Laced Golden and White Wyandotte eggs from S best quality only \$1.75 per 15, \$3.25 per 30 by prepaid parcels post. C. W. Browning, R.2, Portland, Mich.

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Cockerels from our exhibition matings April hatched \$3.50 each. Four fine cock birds \$5.00 each. SUNNYBROOK POULTRY FARM, Hillsdale, Mich.

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Order now for fall delivery. Anconas, Leghorns, Minorcas, Reds, Rocks, Wyandottes. CRESCENT EGG COMPANY, Allegan, Michigan.

Rhode Island Whites

Are the best all purpose Birds being year round layers, Egg and chicks and a few good males. H. H. JUMP, Jackson, Michigan.

CHECK ON THE HOG MARKET.

THE hog market continues to billow along without getting far up or down. Packers assert that hog slaughter is losing them money but are ready to purchase on all breaks. They are equally averse to bullish tactics. This was a week of short supplies although eastern points had more than usual, some of them registering sharp declines. Absence of orders at Chicago for eastern shipment prevented the market from going higher and also was responsible for bringing the bacon and packing grades closer together. Average weight is running higher than last year and old sows are coming fat, denoting that the country is willing to feed corn. The demand for feeder hogs is liberal, many buying along with feeder cattle. The downward trend which is certain to show itself in the hog market inside of six or eight weeks when the new crop of big pigs begins to show up will work against such purchasers. An early frost damaging the corn crop, would vindicate them.

HAVE LIVE MUTTONS REACHED BOTTOM?

FROM an average Chicago price of above \$20 in the latter part of February to below \$13 in August, about \$5 of the loss occurring since the middle of May, is recent lamb market history. The decline has been so extreme that a reaction is in order and toward the close of last week the market steadied, inciting inquiry as to whether the slump had been arrested. The wool market has not yet revived, the frozen lamb imports are not yet consumed and more may come at any time but wholesale lamb prices are now in line with other meats although they declined still further last week.

DEMAND FOR GOOD HORSES.

HORSE market operators emit their usual claims that the market is rotten, but good ones are selling well. Rugged drafters are going to logging camps, the south is after high-class light weights and cities are buying necky wagon horses. Industrial conditions, the inactivity in lumber operations and the break in cotton prices are factors in the market but there are buyers for all the good ones. Inferior sorts are not wanted at any price. The quotations are: Chicago—Choice heavy drafters \$250@300; common to good drafters \$150@250; expressers \$150@200; farm mares \$125@165.

FREIGHT RATES DEFLATED.

DURING the war and for a year and a half thereafter ocean freight rates were higher than the proverbial cat's back. Recently these rates have been on the toboggan and are now said to be only thirty per cent as large as they were in early spring.

Such changes cut both ways so far as farmers are concerned, as they make it easier to sell wheat and pork products abroad but their benefits in this way are overshadowed by the increase in competition they bring to growers of other products. Producers of corn, beef, wool and hides in South America, and frozen lamb and wool in Australia will find it easier henceforth to compete in our markets. Since such rates are internationalized other countries exporting wheat are helped the same as the American wheat grower. The net result to American farmers, particularly those who produce corn, beef and mutton, is a big loss of advantage. The ocean freight on corn from Argentina to our seaboard last spring was about fifty cents a bushel; now it is about fourteen cents, or still practically twice as large as pre-war times. Argentina has a big crop just harvested. Just now little of it is coming to the United States, but the drop in freight rates is opening the way. Some of it sold at \$1.35 delivered at New York City last week and more was offered at the same figure. Our crop is big this year, but if the crop were small Argentine competition would be a big factor in holding down the price.

STOCKER DEMAND GROWS.

AN advance of about one dollar in stocker and feeder values was the result of a sudden spurt in stocker and feeder buying which manifested itself at all the principal markets. Easier money was said to have something to do with it, although that is doubtful. The prospect of a bumper tonnage of corn, a goodly fraction of which is almost certain to be soft, and a desire to avoid paying the freight rate increase were probably more potent factors. Kansas City reports about as many cows as steers going out.

Do You Know How Much Your Milk Will Bring Per 100 Pounds of Grain Ration?

If you receive only \$2.50 a hundred for your milk and the good BUFFALO CORN GLUTEN FEED grain mixture you feed costs you four dollars or less a hundred pounds—you are getting \$7.50 to \$10 worth of milk per 100 lbs. of the Buffalo Corn Gluten Feed mixture fed to good milkers.

In some sections, June milk ranged as high as \$3.83 per hundred. At this price, a seventy-five-dollar ton of good BUFFALO CORN GLUTEN FEED grain mixture, properly fed with good roughage to good cows, produces \$225 to \$300 worth of milk—6,000 to 8,000 lbs.

Good feeding of good cows always pays. The better the feeding, the better the pay.

But good feeding cannot be done without good feed. BUFFALO CORN GLUTEN FEED is the feed—the high-protein concentrate—that makes the profitable milk yield.

Your dealer should have BUFFALO CORN GLUTEN FEED. If he does not, write us, giving his name.

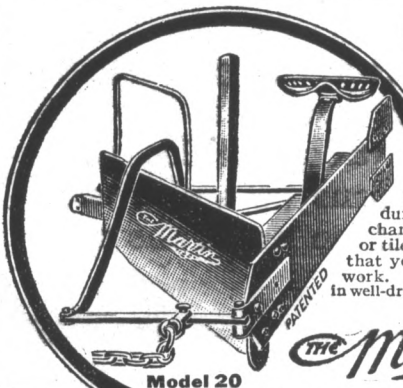
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We prepay the freight on 100 lb. kegs only. Other sizes may be sent C. O. D. by parcel post or express.

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