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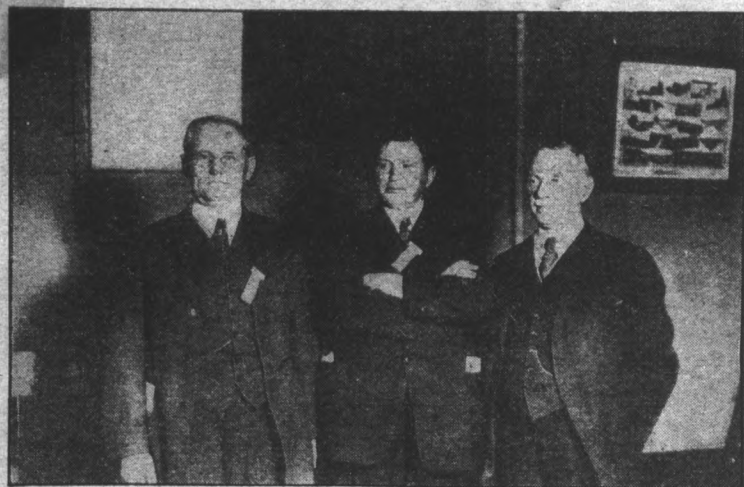
Michigan Grangers at Annual Meeting



Pomona, Flora and Ceres at Michigan State Grange.



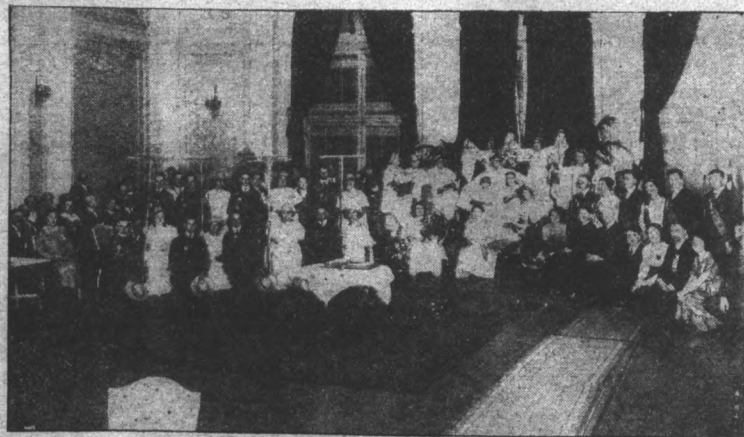
George B. Horton and Four Members Who Attended the First State Grange Forty-six Years Ago.



They Are Always Present at the Annual Sessions.



Officers of the State Grange for the Past Two Years.



Charlotte Degree Team Exemplifies Short Form Ritual Work for First Time in History of Order.



Retiring Master Ketcham in the Role of Farm Tractor Engineer.

The Michigan Farmer

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DETROIT, JANUARY 1, 1921

CURRENT COMMENT

Salesman- ship on the Farm

AFTER farmers have formed their organizations for the handling of the main products of the farm there still remains the problem of selling the small products, which in the aggregate amount to many dollars each year. The location of the farm, class of products produced and the demands of the trade must be constantly studied. The rapidly increasing fastidiousness of the consumers is making the marketing problem as regards vegetables, fruits, eggs, poultry and dairy products more complex every year. So exacting have many dealers and consumers become in their demands for better goods that the producers must study their fancies, analyze them and translate them, so that they can apply them to the marketing of what they have to sell. To further complicate the selling problem there are many consumers who buy food primarily upon the testimony of the eye, which is pleased with form and color, rather than odor and flavor.

One must produce such goods as the market demands, and have them for sale at such times as people want to buy. The more favorable the combination of these circumstances, the brighter are the chances of success. Take to market only the choicest goods and find a special market for the poorest stuff, thus making a name for your products. One can not change people's tastes. When a certain product is popular in the market it will sell quicker and higher than even a better product with which the consumers are not acquainted. One must familiarize and practicalize the teachings of art and psychology in the growing and preparing of these small products of the farm.

There should be a good salesman on every farm if the best prices are to be obtained for the products. If the owner is not a good salesman, the wife or one of the children should be encouraged to look after the selling end of the business. One scarcely realizes how many small things there are about the farm that can be turned into money, things which in themselves do not amount to so much, but which amount to a tidy sum in the aggregate. A young lady who had succeeded in paying off hundreds of dollars of debts left by her dead father told the writer that she had done it by having something to sell every week in the year, no matter how little it was.

The question of marketing the many small products of the farm is a serious one. Unless there is a good salesman it can hardly be profitable, and if the salesman is an able-bodied man, whose being away from the farm means neg-

lect of the larger work, it is decidedly an open question. But such products as fruit, vegetables, poultry, eggs and dairy products can be profitably marketed by women and children. As they gradually become accustomed to the business they will be able to find a profitable market for many things which could be profitably produced on the farm. Farming as a business is made up of little things, and those who have achieved the greatest financial success on the farm have devoted special attention to the selling end of the business. We believe that the farm would have greater attractions for women and children if they were encouraged to look after the marketing of the small products, and given a reasonable share of the proceeds to use as they see fit.

Public Industrial Interests

IN a great many industrial controversies the public acts the role of the innocent bystander, and often suffers out of all proportion to the importance of the controversy or the justice of the principle involved. In all cases where the American public suffers only inconvenience public opinion is tolerant, with the typical American spirit of fair play. But when inconvenience is merged into suffering, tolerance ceases to be a virtue and there arises an insistent demand for relief. Public opinion then becomes a court of final appeal and some means is found to remedy the situation, as was the case in Kansas during the period of coal shortage of last winter, where as a measure of public self-preservation patriotic citizens volunteered to work in the coal mines as the only available means of relieving an intolerable condition of not only inconvenience but of actual suffering.

Since that time general public interest has centered in the working of the Kansas Industrial Court, established through the efforts of Governor Allen as a vehicle for the settlement of industrial disputes and the avoidance of strikes where possible. So far this court seems to have functioned satisfactorily, having rendered such just and impartial verdicts as to prevent serious industrial troubles in that state. So long as its findings are backed up by public opinion its continued success seems assured. Attention is now being generally centered on its workings by the people of other states, not only as a means of settling labor disputes alone, but other industrial relations. It has been suggested that state bodies, such as our own public utilities commission, might profitably be broadened into general industrial courts, for the settlement of all industrial disputes by investigation and arbitration so far as possible within proper judicial limits. As an example of the possible scope of the work of such a body it has been pointed out that it might properly include the adjudication of such industrial difficulties as sugar beet contracts for example, as well as all other industrial matters in which the public has a vital interest, as well as merely public service questions as at present.

But while such a possible future development is interesting it is not the primary subject of this comment. As in most other difficulties encountered by the body politic, government aid in the settlement of industrial disputes, is probably secondary to first aid by the public itself. This was the case in Kansas and has been the case in some of the countries of central Europe, where these difficulties have naturally been much more acute since the close of the war than they have been in this country. As in other departments of public cooperation Denmark has been a leader in cooperation for the protection of the public from the threatened disastrous effects of indus-

trial contests. This little country is peculiarly dependent upon its commerce with other nations, and when serious consequences to all its people were threatened by a strike of sailors and dock workers in Copenhagen its people rose to the occasion by organizing what is known as The Community Aid. This organization of public spirited citizens quickly grew to large proportions and placed itself at the disposal of government authorities to relieve the situation which threatened serious hardships for all the people. These volunteer workers were utilized in unloading ships and in providing crews for vessels to move the country's products, with the result that public hardship was reduced to a minimum during the settlement of the controversy.

In like manner the public spirited element of the people of Germany banded together for public protection from similar industrial contests, with the result that during the Bolshevik demonstrations in 1919 public suffering of the most serious nature was avoided. Here the organization is known as The Technical Aid, and as in Denmark it takes no part in industrial disputes between capital and labor, except where the public interest is seriously threatened. In all such cases its activities are limited to the rendering of indispensable public service, mainly the maintenance of indispensable public utilities. In Germany, as in Denmark, the result has been most satisfactory, and the movement has not met with serious opposition from labor organizations, many members of which have joined the aid.

This plan has many advantages not the least of which is the acquaintance of many citizens in other callings with the conditions surrounding the employment of workers, thus making the findings of the final court of public opinion more uniformly just in such cases.

The people of this country may well profit from the experience of the people of these war-ridden countries who have been confronted with industrial difficulties in comparison with which our own are insignificant.

The Live Stock Meeting

MORE Michigan farmers than ever before should interest themselves in the meeting of the Michigan Improved Live Stock Breeders' and Feeders' Association, and the allied breed meetings, which will be held at the Michigan Agricultural College on January 12-13. As usual the meetings of the several breed associations will be held on Wednesday, followed in the evening by a banquet tendered to the members of the general association by the State Board of Agriculture. These breed meetings are a source of inspiration to every breeder of pure-bred live stock, and should be attended by every man who is interested in becoming a breeder as well as by every breeder in the state. The banquet is a feature of the meeting which adds much to its social enjoyment and unifies the interest of all breeders and feeders of live stock as nothing else could do. No Michigan farmer who is interested in improved live stock, as every Michigan farmer should be, should miss this even if he can possibly avoid it.

For the general meeting on Thursday, Secretary George A. Brown, with the aid and direction of the other officers and the executive committee, has prepared a most interesting program. This program includes a discussion of Live Stock Problems, by Dean Shaw, of M. A. C.; an address by President Herbert E. Powell, of the association; a discussion of The Eradication of Tuberculosis, by H. R. Smith, Live Stock Commissioner of the Chicago Live Stock Exchange; an address on The Breeder's Part in Furthering the Use of Pure-bred Sires, by President

W. L. Houser, of the Wisconsin Live Stock Breeders' Association; General Observations on the Michigan Agricultural College, by Pres. Frank S. Kedzie; a discussion of The Influence of Heredity on Production, by R. S. Graves, specialist in Dairy Cattle Breeding, United States Department of Agriculture, and a talk on Developing a Better Market for Michigan Live Stock, by L. Whitney Watkins, ex-president of the association and member of the State Board of Agriculture.

This program, which will be published in full in the next issue, together with a schedule of the breed meetings, will be of interest to every breeder and feeder in the state. We hope that every breeder and feeder of improved live stock in the state will be interested in making this, the thirtieth annual meeting to be held by this organization, the best attended and most profitable meeting in its history. Michigan needs more and better live stock today than ever before, and the progressive breeders and feeders of the state must take the lead in this necessary movement for the permanent betterment of our agriculture.

News of the Week

Wednesday, December 22.

LOYD GEORGE, of Great Britain, declares that the problem of unemployment can probably only be solved through emigration and an appeal will be made to the dominions to arrange to find work for England's present surplus of men.—Special tariff legislation will be given right of way in the house of representatives, and debate will be limited.—Charges are made that government officials joined in coal profiteering during the period of shortage last summer.—The Italian forces will blockade Fiume, following the refusal of D'Annunzio to surrender.

Thursday, December 23.

BY a vote of one hundred and ninety-six to eighty-six the tariff bill passes the house of representatives.—Chicago adopts a curfew law in order to aid in putting down the wave of crime that the city's police is now confronting.—The former empress of Germany is reported very low.—The Inter-state Commerce Commission orders an increase in intra-state passenger rates in the states of Arkansas and Minnesota.—The deficit of the war department for present fiscal year amounts to more than \$75,000,000.

Friday, December 24.

THE Franco-British pact regulating affairs in Syria and Palestine is signed.—Lloyd-George orders a cut in the British defense budget.—The United States Senate undertakes the consideration of the emergency tariff bill.—Mine operators deny an increased wage to anthracite coal miners.—Courts grant a temporary injunction restraining power companies from charging increased rates in the city of Saginaw.—According to the premier of China, that country is in need of a new parliament and a foreign loan.

Saturday, December 25.

THE first steps looking toward the withdrawal of American military occupation of Santo Domingo are made.—Fire caused half a million dollar loss in Halifax.—Over ten million dollars has been subscribed in America for the Central European Relief Fund.—A terrific earthquake in Kansu province of China results in casualties estimated at two thousand lives.—The newly formed Harriman-German steamer line begins operation.—The president of the American Farm Bureau urges the opening of the markets of Russia and Germany in his appeal before the senate agriculture and banking committees.

Sunday, December 26.

TRADE with Spain has increased 240 per cent since 1914.—Apparently the Spanish government has been victorious in the recent elections.—To promote the economic and political union of the five republics of central America, Guatemala has taken the initiative by abolishing trade relations between that country and the remainder of the group.—A manifesto has been prepared by the Austrian government asking that Austria be attached to Germany.

Monday, December 27.

THE soldiers' bonus bill now before congress would cost the government approximately \$2,300,000,000. (Continued on page 22).

When Will a Cattle Shortage Arrive?

Some Interesting Figures on Our Important Cattle Industry

THE past year has been replete with warnings that beef cattle shortage was on the way. Some of these warnings were couched in sensational terms such as "bankruptcy in beef supply will soon be here," "a lean year in prospect at the stockyards," "no time to waste in building up herds." We have previously stated on the market pages of the Michigan Farmer that the present shortage of beef cattle was of a mild sort. So long as prices are unprofitable to the producer because of over-supplied markets, it is absurd to talk of a cattle shortage.

It is true that receipts at leading markets during 1919 fell below those of 1918 and that 1920 is falling below 1919, but receipts during 1917, 1918 and 1919 were larger each year than any previous year in a long while.

Suppose we look at the figures. Receipts of cattle at the six leading markets, Chicago, Kansas City, Omaha, East St. Louis, St. Joseph and Sioux City by years were as follows:

1920 (eleven months)	8,857,725
1919	11,034,000
1918	11,950,000
1917	10,299,000
1916	8,598,000
1915	7,254,000
1914	6,723,000
1913	7,489,000
1912	7,717,000
1911	8,242,000
1910	8,681,000
1909	8,627,000
1908	8,328,000
1907	9,024,000
1906	8,803,000
1905	9,314,000
1904	8,628,000
1903	9,057,000

The total for 1920 will be fully 9,500,000 head, which is larger than any year shown above except the three

which immediately preceded it. The eastern half of the United States. In the receipts by years just given, 1917. The annual estimates of the Department of Agriculture upon the cattle population corroborate the stock yards indications that production had increased. Cattle other than milch cows on January 1, 1914, were estimated at 35,855,000, the smallest figure of any year since 1900, but on January 1, 1919, the number had grown to 45,085,000, an increase of 22.3 per cent.

During the first part of the period of increased marketing, consumptive demand was sufficient to absorb it. Our exports of beef increased from nearly nothing to over 800,000,000 pounds annually, an amount which would require about 1,600,000 average market cattle to produce. We had our own army abroad to provide for and European countries were unable to draw upon Argentina and Australia because of the long voyages and the shortage of shipping. They used instead the United States supply.

However, the American people were urged to eat less meat and we had meatless meals which reduced our home consumption to some extent. As a result when the war stopped and European countries could again get beef from the Antipodes, our home market had to absorb more beef than there was a demand for because of the reduction in average consumption. The post-war boom, therefore, advanced the price of beef cattle less than the majority of commodities and most of the time in the last twenty-one months prices of beef cattle have been unprofitable.

About a year ago, the Department of Agriculture summarized the estimate (Continued on page 17).

Protecting Farm Crops

IT is reported that the state of Massachusetts is suspending the license of every motorist convicted of stealing produce from orchards and gardens. This seems a very practical way of discouraging a form of thievery which has proven very obnoxious to farmers in many states where there are large industrial cities.

The automobile is the tool through which the produce thief carries on his work. He can reach distant points in the country in a few minutes' drive. After loading up with fruit or other farm produce he is soon back in the city and fairly safe from capture. If the dishonest owner of a car knew that a conviction for stealing from a farmer might cause the removal of his license, it would do much to discourage such methods.

Such a law might do more than a constabulary to protect farm property. Even with the state police, such a law might be very beneficial in helping them perform their work. Of course it is physically impossible to protect every roadside orchard and garden from thieves if the thieves make an industrious effort to obtain the goods. But the law would have strength to deter many city people from preying on farm gardens. It is unfortunate, but some city dwellers can see no relation between robbing a grocery store and a farm field. One seems to them like highway robbery. The other, a legitimate sport, like fishing or hunting rabbits.

that region. However, drouth conditions do not fully explain the big runs time, with the exception of several from 1917 to 1919. Cattle production months when foot-and-mouth quarantines had actually increased so that the number available for slaughter was the larger. This increased cattle population was found to be primarily in the

by the general scale of values at that time, with the exception of several months when foot-and-mouth quarantines placed producers at the mercy of the packers. Profitable prices led to expansion of production, particularly in the cornbelt and heavier marketing

Cutting Timber on Farm Woodlots

—By A. K. Chittenden,
Prof. of Forestry, M.A.C.

MANY farm woodlots could be put in better shape by judicious thinning or by planting up the openings with valuable species of trees or by both. In many woodlots the growth of timber is at a standstill, growth of the younger trees being offset by decay of the older ones. In many woodlots faster growing and more valuable species can be introduced to advantage. Whenever a woodlot is thinned or cut-over, unless the land is to be cleared for farm crops and unless a new growth of trees come up within a couple of years from seed already in the ground or cast by other trees, planting should be done in order to keep the woodlot productive. A good thrifty woodlot will produce about two standard cords of wood per acre per year, or nearly one thousand board feet of lumber.

In thinning a woodlot, the trees which should be cut are those which are stunted, diseased, injured by insects, badly fire-scarred or dead; also trees of inferior species, as large beech which are crowding more valuable ones, such as sugar maple, white ash, white oak, hickory, etc. Slow-growing trees which are crowding fast-growing ones should also be cut.

In some woodlots the beech are the largest trees present. They form heavy crowns beneath which other trees can grow only very slowly, if at all. The beech is a tolerant tree. It will stand much shade and its proper position in the forest is as an understory to light demanding trees, such as basswood, black walnut, elm, black cherry, etc. The reason it occupies such a dominant position in the woodlots today is because the timber has

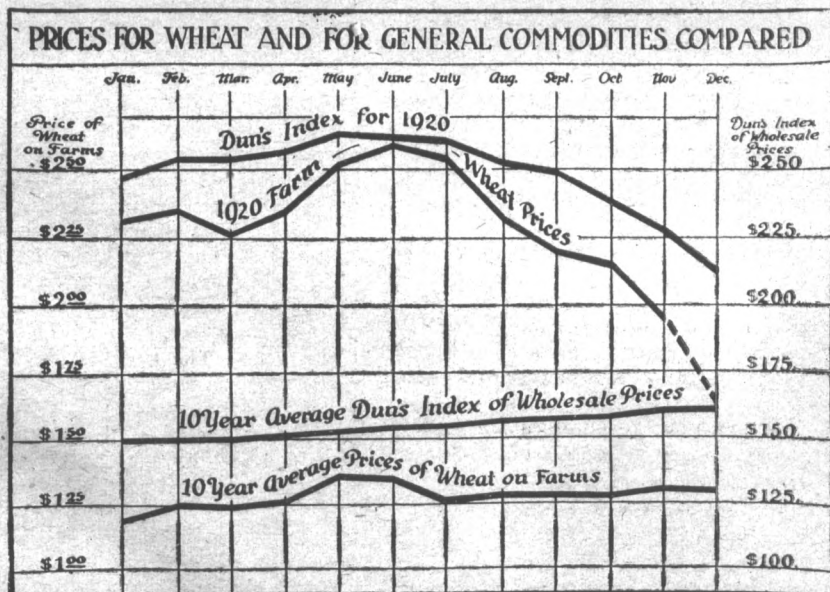
had little value in the past and when the other trees were cut the beech remained, thus becoming the largest trees and shading or stunting others.

If a large amount of timber is to be sold by contract, an estimate of the amount should be made and its value determined before selling. Bids should

be secured from several reliable parties if possible. It may be better to sell logs rather than the standing timber.

The forestry department of the Michigan Agricultural College at East Lansing, maintains a file of companies that occasionally buy standing timber or sawlogs of farmers and landowners in various parts of the state and it is often able to place a prospective seller in touch with a market for his timber, although it does not assume any responsibility in the matter.

After cutting, it is often desirable to plant up the openings with trees. Forest planting in itself is a good investment on poor soil and on areas not suited to other crops, as well as for windbreaks and to hold shifting sand. The species to plant depends on the soil, and the objects which the owner has in mind. For forest planting in general a spacing of six by six feet, requiring approximately twelve hundred trees to the acre is best. Small trees of many species can be obtained from the forestry department at the Michigan Agricultural College at practically cost. The college sells small trees for forest and windbreak planting only. It does not sell large or ornamental trees nor individual or specimen trees. The college is glad to advise landowners regarding choice of trees for various purposes and for different soils. The department has just completed a study of the rate of growth in diameter, height and volume of forest plantations which have been established in the past in different parts of the state. Data was collected at the same time on nut tree plantations, of which there are several in Michigan.



THIS diagram compares the trend of prices for wheat and the wholesale prices on general commodities. The wheat prices are average prices paid to producers in the United States while Dun's index is a weighted average of wholesale prices on a number of commodities. The ten-year period covered was 1910-1919. Wholesale prices vary but little from month to month in a ten-year average, while the wheat price line shows a pronounced hump in May and June. Wheat prices seem to have advanced quite as much as general commodity prices during the war, as shown by the relative position of the lines for each during the early part of 1920, but the price of wheat has declined in the last few weeks much more rapidly than the wholesale price index. The December, 1920, figure for wheat was not available when this was written, and the dotted portion of the line for wheat prices to farmers is an approximation based on prevailing prices in terminal markets during the early part of December.

Agricultural Interests Before Congress

Bills Looking Toward Financial Relief to Farmers are Favorably Acted Upon

AFTER having considered and discussed a large number of propositions designed to aid the farmers, congress has evidently decided upon a definite program which includes the revival of War Finance Corporation activities, an emergency tariff on certain farm products, and the conservative expansion of credit to farmers and stock raisers.

The joint resolution for the relief of agriculture, which was the development of a long series of hearings and conferences, having passed the senate, was referred to the house for concurrent action. It was passed by the house after the second section which had reference to farm loans, was eliminated. It directs the War Finance Corporation to revive its activities "with a view of assisting in the financing of the exportation of agricultural and other products to foreign nations."

It was predicted by members of congress that it would not take more than thirty days for the board to begin operations after the resolution received the President's signature, but the psychological effect will help the stock raiser and farmer immediately. Representative Strong, of Kansas, says that "during the war we inflated prices in this country; we went up in a balloon of price inflation, and the question now is how to get down. Some gentlemen want to tear open the balloon and let us fall hard. That is what has been done to the farmers of the west, to the cotton growers of the south and the wool growers and cattlemen. The reorganization of the War Finance Corporation or the resumption of its functions is to permit us to reach the ground gradually and safely to get back gradually to pre-war prices, as the other great industries are doing." Other representatives were insistent in asserting that the farmers will not get much aid from the measure. They say the loans under the act are made to exporters; that when the corporation was in operation, a few loans were made to stock dealers, but most of the aid went to such concerns as the Baldwin Locomotive Works and Bethlehem Steel Company, firms that do not need to lean on the government. It was their opinion that the farmers are deceived as to the benefits to be derived from the board.

Washington representatives of the American Farm Bureau Federation say the revival of the War Finance Corporation will be of some help to farmers, but they do not consider it of great value unless further legislation is enacted which will enable foreign countries to purchase larger quantities of American farm products.

TO satisfy the demands of the wool growers whose representatives have been in Washington asking for an embargo on wool and live stock, congress has decided upon an emergency tariff. A tariff bill was introduced by Congressman William R. Green, of Iowa. It included only six farm products, wheat, corn, beans, cattle, sheep and wool. The tariff bill finally reported out by the house ways and means committee contains several additions to the Green bill. A strong effort was made to include dairy products, eggs and a number of manufactured products in the measure. Representatives from the manufacturing districts strongly opposed a tariff on frozen and refrigerator meats on the ground that it would tend to increase food prices at a time when labor is demanding cheaper food, and they were not included in the bill.

There are substantial evidences developing at the hearings to indicate

that when tariff revision is undertaken as a permanent policy, representatives from the manufacturing centers will oppose a tariff on farm products which may have a tendency to increase the cost of food. The demand will be for cheap food for the wage earners, so that wages may be reduced to a limit which will enable American manufacturers to compete with European nations in the world markets. This opposition will necessitate the presentation of a carefully studied constructive agricultural tariff program by the farmer organizations and leaders, when tariff revision is under way next month.

The present emergency tariff bill prescribes the following rates of duty on farm products: Wheat thirty cents per bushel; wheat flour twenty per cent ad valorem; corn fifteen cents per bushel; beans two cents per pound; peanuts three cents a pound; potatoes twenty-five cents per bushel; onions forty cents per bushel; rice two cents per pound; lemons one and a quarter cents per pound; peanut oil twenty-six cents per gallon; cottonseed, coconut and soya bean oil twenty cents per gallon; cattle thirty per cent ad valorem; sheep \$2 per head; lambs \$1 per head; fresh mutton and lamb two and a half cents per pound; cotton seven cents per pound; manufactures of cotton seven cents per pound in addition to the present rates; wool, unwashed fifteen cents per pound, washed thirty

cents per pound, scoured forty-five cents per pound; manufactures of wool forty-five cents per pound in addition to the rates of duty now prevailing. This tariff is to remain in force for a period of ten months.

It is predicted by some of the farmer organization representatives here that the tariff bill will pass the senate early in January; but there is considerable doubt as to its fate when it reaches the White House.

In the house conferences a California congressman, asking for a tariff on eggs and frozen meats, said the California poultrymen were being driven out of business by importations of cheap eggs from China, and that meat producers were being crowded out by heavy importations of frozen and refrigerator meats from Australia and New Zealand.

The Young-Tincher bill to use \$100,000,000 of the profits of the Federal Reserve Board system in loans to live stock owners, is one of the leading propositions by which farmer leaders in congress are attempting to relieve the farm credit situation in the west.

THE Washington representative of the farmer organizations feel that the Capper-Volstead bill designed to establish the legality of farmers' cooperative marketing associations, as passed by the senate, leaves much to be desired. The opinion is freely expressed that it will hinder instead of

promote cooperative marketing. One man, who is the head of a large California cooperative marketing association, says this measure will put out of business every market milk producers' association, and several of the cooperative marketing organizations in California.

The amendment to the bill which says that "nothing herein contained shall be deemed to authorize the creation of, or attempt to create, a monopoly, or to exempt any association organized hereunder from any proceedings instituted under the act entitled, 'An act to supplement existing laws against unlawful restraints and monopolies, and for other purposes, approved October 15, 1914, on account of unfair methods of competition in commerce,'" is very objectionable, nullifying the other provisions in the bill exempting farmers from the anti-trust law. The farm organization men would prefer to have the cooperative marketing associations brought under the jurisdiction of the Federal Department of Agriculture than under the Federal Trade Commission as provided in the senate bill. Some of them, however, are willing to let this clause remain, but will make an attempt to have the conferees of the senate and house strike out the "monopoly" section.

The American Farm Bureau Federation Washington office is directing its attention to the three things necessary to relieve the situation—a tariff to keep foreign-grown products out, extension of credit to farmers until there is a readjustment of prices and market conditions, and a buying campaign. The country is now up against a buyers' strike. Anything that can be done to encourage more extensive buying will afford a degree of relief. In the case of wheat, millers and bakers are down to the bottom of the bins. A "buy a barrel of flour" movement would soon create a demand for wheat. If the farmers throughout the country would each buy a barrel of flour, it would greatly help the market situation.

The Department of Agriculture is asking for \$300,000 to control gypsy moth infestations in New Jersey, Pennsylvania and New York. Until recently it was believed that this pest was being held under control in a restricted area in New England. About six months ago, however, the department was notified that a colony of gypsy moths had been found on a large estate near Somerville, N. J.

This New Jersey information proved to be one of long standing. It was brought in from Europe on an importation of conifers before the quarantine law went into effect back in 1912. The situation was found to be complicated by the fact that many shipments of trees had been made from the moth-infested nursery, going to fourteen different states besides New Jersey. Already two infestations in New Jersey, one in Pennsylvania and one in New York have been located, coming from these shipments.

Dr. L. O. Howard, chief of the Bureau of Entomology, says it is not strange that the infestation was not reported before, as the infestation was not discovered in New England until twenty years after the moths made their appearance there. The pest has cost the New England states millions of dollars, and is held under control by constant fighting. Dr. Howard says the gypsy moth situation in New England and elsewhere is extremely serious. Sufficient funds are not available to carry on the work effectively, and unless more very thorough work is done the insect is sure to spread rapidly.

E. E. REYNOLDS.

Agricultural News

FARMERS FOR RURAL POLICE.

THE movement for creation of a state constabulary when the fifty-second general assembly convenes on January 5, is reported to be making headway rapidly in Illinois.

Farmers throughout the state are aligning in support of the movement, taking the ground that good roads and fast automobiles make more protection essential in the rural districts.

KANSAS TO SEND CORN TO FAMISHED CHINA.

SHIPMENTS of Kansas corn in large quantities to China will begin soon according to Dr. Charles M. Sheldon, editor of the Christian Herald, who has already raised more than \$100,000 to aid the famine-stricken Chinese.

Farmers are being asked to contribute surplus corn, merchants are asked to buy what the farmers have to sell and volunteer workers are seeking corn donations.

By sending corn to the Chinese it is pointed out that Kansas not only will be aiding the famine sufferers, but also will be diverting the surplus and thus making a better market at home.

EXPORTS EXCEED IMPORTS.

THAT Canada is rapidly cutting down the adverse balance of trade that has, until recent months, been piling up against her, is evident from the November trade returns which show an excess of exports over imports amounting approximately to \$50,000,000. This is due chiefly to movement of the huge grain crops, the domestic exports of agricultural products chiefly foods being \$78,316,187 or \$37,500,000 in excess of this class of exports during November, 1919.

The total imports for the month were valued at \$98,662,997, or approximately \$6,000,000 more than for November, 1919, as compared with recent

months. Imports generally now show a tendency to decline, due undoubtedly to the rate of exchange. While the details are not yet available, the nature of the imports indicates that those from the United States have been well maintained, those of non-metallic minerals and their products, which includes coal, being \$21,260,000 or over double those for November last.

TRADE COMMISSION PROPOSES A CURB ON TRADING IN GRAIN.

FUTURE trading on grain exchanges is criticized in a report from the Federal Trade Commission to President Wilson. The report contains the result of the investigation asked by the President following charges by Governor Allen, of Kansas, and others that manipulations on the Chicago Board of Trade and excessive importations of wheat from Canada had caused the decline in wheat prices.

While refraining from a sweeping condemnation of all future trading on grain exchanges, the report declares that "there is a large volume of future trading that is more gambling and involves a great economic waste." It is suggested that the remedy for this lies in congressional action "to prevent trading which is essentially gambling."

The report declares that the commission has not had the opportunity to obtain directly the figures which would determine conclusively whether large transactions in futures of a manipulative nature have occurred.

TEXTILE WORKERS ACCEPT CUT.

OF the ten unions of textile workers at New Bedford, Mass., only one voted in favor of a strike rather than accept the twenty-two and a half per cent wage cut.

The new scale is now effective. A two-thirds vote of the unions was required, and a nine-tenths vote to accept the reduction was recorded.

A Sales and Expense Record

By H. M. Eliot

ONE who does not keep a record of what he owes other people is at a great disadvantage when the time for settlement comes. And anyone who pays an account and who does not require a receipt, or does not keep the cancelled check, is often required to pay the account twice. In several instances known to the writer people who have been careful in taking receipts or in keeping their cancelled checks, have saved themselves from paying a second time amounts of a hundred dollars or more.

Mr. Gun runs an account at a grocery store which he expects to pay at harvest time. He keeps no record of what he buys and the storekeeper by mistake charges someone's else bill to Mr. Gun's account. Or Mr. Gun steps into the store and hands the proprietor ten dollars to apply on the account. Before the proprietor gets to his books to record the payment some other customer stops him to buy something and, by the time the purchase is made, the storekeeper has forgotten to make the entry on his book. In either case Mr. Gun loses money. In the first instance he would have saved by keeping an account of what he bought at the store, and in the second instance he would have saved money by taking a receipt or by paying by check. And whether the storekeeper makes a mistake at all or not, Mr. Gun by following careful

a farmer for all his trouble. And often friendships will be preserved, and good friends are more valuable than money after all. Such record may be kept by any one of several methods or by a combination of several methods.

There are three ways of filing cancelled checks and receipts. The first is in the order of their dates, the second is alphabetically or by subjects, and the third is a combination of the first two. As most checks and receipts will never be wanted again after being filed they may be filed in the easiest possible way, which is in the order they are received. This will be roughly according to their dates. Later if a particular one is wanted it can be easily found by remembering its date. On the other hand, checks that for any reason one wishes to keep together for quick reference may be sorted out and filed together.

A Record of Purchases.

A record of purchases may be kept with almost no book-keeping by paying bills through a checking account at a bank. It is a good practice to pay by check all bills of one dollar or over, and to write in the lower left hand corner of each check what bill or bills it is drawn to pay. When the check comes back through the bank it should be kept both as evidence that the account has been paid, and as a record of what the money was spent for.

	Sales.	Farm.	Personal.
June 6	129 bu. wheat at \$2.00.....	\$258.00	.....
June 7	203 bu. oats at 60c.....	121.80	.....
June 7	960 lbs. potatoes.....	28.20	.....
June 7	140 bu. wheat at \$2.00.....	280.00	.....
June 15	Interest on Liberty Bond.....	.....	5.25

	Purchases.	Farm.	Personal.
June 6	Dry goods.....	\$.....	\$ 5.00
June 6	Labor threshing.....	7.25	.....
June 6	Gas threshing.....	6.70	.....
June 7	Labor on wheat.....	15.00	.....
June 7	Repairs on binder.....	14.50	.....
June 7	Oats for horses.....	12.50	.....
June 7	Medical fee, family.....	.....	9.00
June 8	American Sheep Breeder, two years..	2.00	.....
June 9	Blacksmithing for binder.....	2.00	\$.....
June 9	Life insurance.....	.....	51.04
June 9	Labor on oats, Frank Brown.....	3.15	.....
June 11	Dentist, Dr. A. B. Case.....	.....	25.00

business methods, has the satisfaction of knowing that he is caring for his business in a business-like manner.

By keeping careful records furthermore, ill feelings will often be saved between neighbor and friends. The matter of personal friendship is a matter of great importance. A farmer has at most only a few neighbors and a great deal of his enjoyment in life comes from friendly relations with them. Very often neighbors fall out over a small money affair. The amount of money involved is of minor importance to either one, but the question of honesty comes up. Undoubtedly the reader knows of instances where farmers have had misunderstandings over money matters, and where these misunderstandings have had an unhappy ending. When, if either farmer had kept systematic accounts, or better, if both had kept systematic accounts, the misunderstanding would never have occurred.

A farmer who has always kept accounts says: "When I pay money to a man who does not keep accounts, I always write along with the entry in my account book the place where I paid him and any characteristic remark or occurrence that might help to recall to his memory the time and the place I paid him. By this method I have saved a great many misunderstandings."

A record of things bought or sold on credit will in most cases amply repay

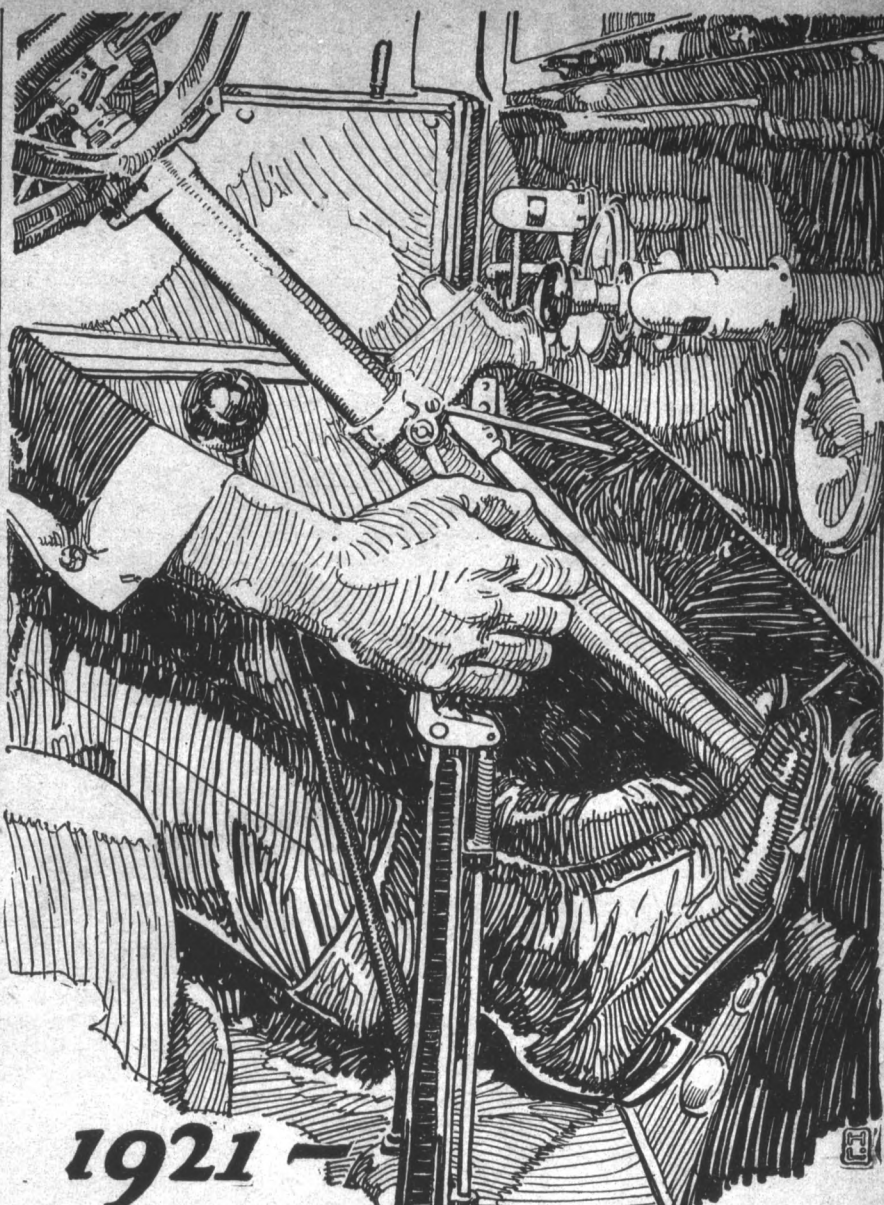
The checking method, moreover, lends itself to the practices of the business world. Business men consider a sale to be a cash sale if it is settled within thirty days, and in carrying out this policy they mail to each of their customers on the first of each month a statement of the balance due on his account. Upon receiving such a statement, one should check it with the memorandum the merchant gave him at the time of purchase, and if it is correct, mail a check in settlement.

If he has not the money in the bank he should go to his banker and arrange for a loan. By thus borrowing of a banker instead of requiring the merchant to carry the account, a farmer will increase his total borrowing capacity, as well as his credit rating in the community. He will save money also by being able to buy at cash instead of at credit prices.

There is still another reason for carrying a checking account with a bank and depositing all cash there. A banker makes up and maintains a good part of his cash reserve from the bank balance of his customers. He, therefore, appreciates a farmer's balance, and thus becomes a financial friend.

A Record of Sales.

While it is possible to keep a complete and accurate record of all expense by the simple device of paying all bills by check, it is quite impossible to use the same method in case of sales. However, as the number of sales



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on the ordinary farm is not large it will not be a serious task to record each sale. It goes without question that a record should be kept of all sales made on credit. To do otherwise would be careless. And if we add to the necessity of keeping a record of sales made on credit, the desirability of a record of all sales for reference in

making an income tax report, and then to this add the value of knowing how total sales compare with total expenses, we have sufficient reason for a complete record of all sales, as well as all purchases. Illustrations showing a convenient method for keeping a record of purchases and sales accompany this article.

This makes a very simple record of sales and purchases for the month of June. Farm expenses are listed in the left hand column and personal expenses in the right hand column.

Farmers wanting a convenient book for keeping their accounts may get one at the cost of printing by writing to the Farm Management Department, It can be used for both purposes.

Extension Service, Agricultural College, East Lansing, Michigan. This book is so arranged that farmers who wish to keep only an inventory will find it convenient for their use. While those who wish to keep a record of their expenses and receipts only, will also find it adapted to their purpose.

Patrons of Husbandry at Grand Rapids

Hold an Unusually Large and Interesting Session—By J. H. Brown

THE Michigan State Grange met in Grand Rapids December 14-17. There were about six hundred delegates and visitors present. The sessions were held in the Pantlind Hotel. Tuesday forenoon committees were appointed.

Tuesday afternoon Master John C. Ketcham read his final address before the body, this being the eighth address in as many years. He recommends the correction of the imperfections in the state primary law, careful consideration of the future possibilities of the state constabulary; reorganization of the state administration on a cabinet basis, a state income tax, revision downward of taxes, and making it illegal to trade in grain futures.

"It is high time to strike a blow at trading in farm futures. It is widely reported that the 1920 wheat crop has been sold and resold not less than six times with but an insignificant amount actually delivered.

"Laying aside entirely the moral aspects of the case, it is intolerable to permit men who have put neither time, money nor brains into the task of producing the crop or to earn the money to purchase the finished product, to have the power to put down the price to the producer, and then to immediately crowd it up again to the high point to the consumer. Our position in this matter should be sharply stated, and immediately communicated to our delegation in congress.

"Scarcely less important is legislation to prevent dumping foreign products on our markets. If the American farmer is to feed the nation he must be protected against the importation of food products from other countries where labor conditions are so much below our own."

The master urged the Grange to go on record as in favor of the retention of the primary election law which he asserted is threatened by some legislators. He touched only lightly on the subject of the state constabulary, urging the delegates to give the matter serious consideration before voting.

In discussing the question of high state taxes, he said: "I offer two suggestions to solve this problem. The first is the reorganization of the state administration machinery on the cabinet or departmental plan, such as is used and is now working in several of our states with marked success. The second suggestion would be the adoption of a state constitutional amendment making possible a Michigan state income tax.

"Farmers have been astounded at the attitude of the federal reserve board in refusing a credit extension to carry them over the price slump in wheat. In refusing credit to farmers and extending it to grain dealers prices have been fixed, but not to the advantage of the farmer."

The master urged that the Grange exert itself to stabilize prices of farm crops. They must be steadied and credits based on such a safe and fluid security as farm crops would make this possible. "Farmers will vigorously oppose any tax on land, such as has been proposed. Our opinions on federal taxation should be vigorously stated. Obligations have been incurred and they

must be met. Pure fabrics, immigration, the lakes-to-ocean highway, a national budget, the appointment of a sympathetic secretary of agriculture, and our international relations, are likewise all present and vital problems in which the farmer has great interest."

Four fine Grange halls have been built or rebuilt and dedicated during the year, two of them being in Calhoun county. One is Community Grange near Athens, the other at Partello, Johnstown, Barry county, recently dedicated a remodeled building.

Of great interest was the Tuesday evening session when the exemplification for the first time in Grange history of all four degrees as a consecutive whole was given in one session. It was in response to a wide and general demand for a short form of the ritual for conferring these first four degrees that caused Mrs. Bernice M. Curtis, of Charlotte, to work on the problem. The result is an ideal short form that gave general satisfaction to those who witnessed the exemplification. The work was put on by the Charlotte team, nearly all young people, and required forty-one men and women to handle all details of the combined form of initiating candidates through the first, second, third and fourth degrees.

The master of the New York Grange was present to note the details of the short form ritual, having been appointed by the National Grange at the recent annual convention in Boston. He was well pleased and will report back to the National Grange at the next meeting.

The "Patrons' Mutual Fire Insurance Company and the Patrons' Mutual Cyclone Insurance Company met Tuesday at the Pantlind Hotel to elect officers and directors. Both organizations meet with the State Grange each year. Only Grange members may hold policies in the two companies. The fire insurance organization is reported to have \$22,088,181 worth of policies in Michigan.

Secretary Lee H. Bierce, of the Grand Rapids Association of Commerce, gave the welcome address to the Grange. The response was by the state chaplain, Mrs. Olivia J. C. Woodman, of Paw Paw. She is over three-quarters of the way along in this life and one of the most active and effi-

cient officials of the state organization. She is on hand every day and hour and acts her part so well she has endeared herself to the thousands who belong to the Order in Michigan.

The officers elected for the next two years are as follows: Master, A. B. Cook, of Owosso; overseer, C. H. Bramble, Lansing; lecturer, Mrs. Dora H. Stockman, Lansing; steward, T. E. Niles, Mancelona; assistant steward, W. H. Lovejoy, Perry; chaplain, Mrs. O. J. C. Woodman, Paw Paw; treasurer, Frank Coward, Bronson; secretary, Miss Jennie Buell, Ann Arbor; gatekeeper, Peter Klees, Crystal; Pomona, Mrs. E. E. Salisbury, Mendon; Flora, Mrs. Maud Spaulding; Ceres, Mrs. I. E. Corles, Coldwater.

John C. Ketcham was elected chairman of the new executive committee. The other new members are: Gorge B. Horton, Fruit Ridge; Mrs. Allen S. Bennett, Lowell, and W. F. Taylor, Shelby.

Wednesday afternoon, Mrs. Stockman, lecturer of the State Grange, had charge of the program. She spoke on the activities of the Grange during the past year, giving a resume of the different committee reports. Professor Eliot, of M. A. C., addressed the session on the cost of production of farm crops and used charts to illustrate the subject matter. The delegates paid close attention to the explanation of the charts and the summarized book-keeping accounts submitted by farmers to the college. Professor McCool gave an interesting lecture on maintaining soil fertility. Miss Isabel Becker, of the state department of public instruction at Lansing, appealed for saner recreation in the rural schools.

The big social evening and banquet was held in the new Knights of Columbus auditorium on Wednesday evening. About eight hundred sat down to the tables. Master Ketcham was called on by the lecturer, Mrs. Stockman, to officiate as toastmaster. Speakers were Roland Morrill, of the State Farm Bureau; state senator T. H. McNaughton, of Kent county; James N. McBride; President Frank S. Kedzie, of Michigan Agricultural College; Jason Woodman; Miss Mary Sweeney, dean of home economics at M. A. C.; W. F. Taylor, of New Era, and others. Mark D. Cutler, of DeWitt, called the champion vocalist of the State Grange

dressed in costume and sang Scotch songs so well that he was called back repeatedly by the delighted banqueters.

The lecture program continued over to Thursday morning, and was devoted to lectures and demonstrations by Miss Edna Smith, Mrs. Campbell, Miss Havens and Miss Blanche Carr, of the extension department of M. A. C. The demonstrations were of household devices, a milk exhibit and better feeding for children. At the Friday morning lecture Miss Harriet Leck, of the state board of health, talked about infant welfare.

Officers of the Patrons Mutual Fire Insurance Company are as follows: President, N. I. Moore, of Plymouth; vice-president, Albert Christie, Sterling; secretary, E. A. Holden, Lansing; directors, Charles G. Swanson, Stephenson; R. R. Reynolds, Mendon; E. W. Remington, Bloomingdale; B. S. Alley, Lake; J. A. Newville, Boyne City; J. Henry Smart, Sault Ste. Marie; W. A. Hall, Lachine; Marvin Young, Scottville; W. S. Ewing, Marquette, and Melvin E. Smith, Marne.

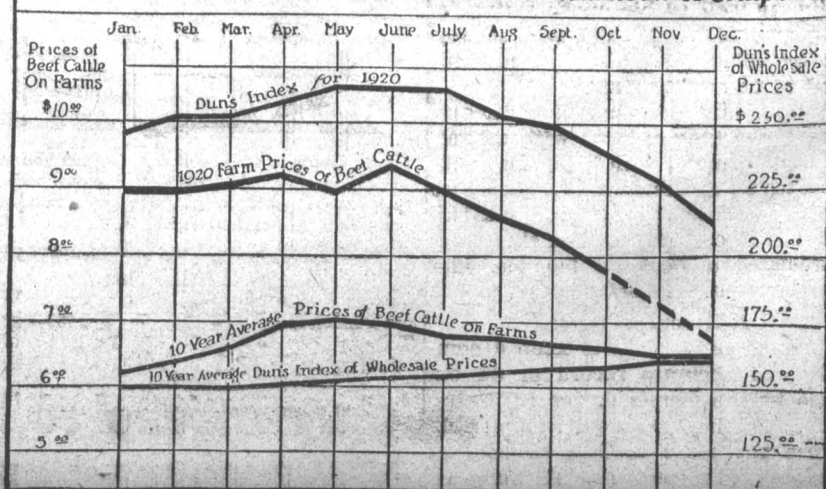
James N. McBride, chairman of the National Farm Bureau Economic Commission, among other pertinent points made, stated that the farmer's chief salvation lies in his ability to aid himself. "I have no sympathy with the plea of many farmers until they do something for themselves. When agriculturists meet the problem of over-supply by warehouses of their own they can claim federal reserve or other types of aid, but not until then. The farmer will never go into a concerted production strike, but the time is coming when agriculturists will interpret supply and demand from the standpoint of production and ability to move the crop. The farmers must be prepared to take care of their own surplus."

Mrs. Dora H. Stockman also summed up the problem by stating that, "We farmers insist that the time has come when food products must have the same protection, whatever that may be, as any other industry, and if any favoritism is shown it should be on the side of agriculture. While the automobile manufacturer in Michigan enjoyed a thirty per cent tariff, the dairyman has been competing in the market with less than a three per cent tariff. Mrs. Stockman urged strong opposition against the importation of foreign labor, particularly Japanese and Chinese, into this country. She warned that the adoption of such a program would produce another race problem equal to that in the south.

"The American farmer can grow an ample supply of food for the needs of the country if he is assured prices for his products that will give him a living commensurate with his brains. Cheaper distribution will lessen the cost to the ultimate consumer."

Mrs. Stockman urged support of the proposed construction of a new laboratory of home economics at the Michigan Agricultural College. "This year the State Board of Agriculture will ask the legislature for \$400,000 for such a building. I am counting on the men and women of the Grange to back me up in securing this building in order that we may do all possible to save the babies of Michigan."

Prices for Beef Cattle and for General Commodities Compared



Upper Peninsula News

By L. A. Chase

FROM figures furnished by the census bureau, the Upper Peninsula Development Bureau elicits the encouraging fact that, while the lower peninsula shows a decrease of 10,313 farms during the past ten years, the northern peninsula of the state has gained 3,234 farms in this same period. This indicates that the large land-holdings characteristic of the region are beginning to break up into smaller units. Of the fifteen counties of the peninsula, three—Luce, Mackinac and Schoolcraft—disclose a loss in the number of their farms of one, eleven and sixty respectively. Of the upper peninsula counties, Menominee has the largest number of farms—2,106, while Houghton county ranks second with 1,741, and Chippewa comes third with 1,569. Of the other counties, Alger has 386; Baraga 653; Delta 1,395; Dickinson 429; Gogebic 528; Iron 621; Keweenaw 72; Luce 194; Mackinac 479; Marquette 846; Ontonagon 917; Schoolcraft 381. The total number of farms in the upper peninsula is thus, 12,318.

A well-known forest expert, who has recently gone over the ground at the Higgins Lake State Forest, writes us enthusiastically regarding the achievement there manifest in relation to reforestation of our cut-over lands. The improvement in the situation there during the past fifteen years, as he has personally seen it, is obvious, even to the least observing. Poplars have become large enough for pulpwood, oaks for fenceposts, and white and Norway pines are doing well on the poorest sandy soils, he writes. Game is abundant, with a covey of partridge to every forty acres, and plenty of deer. This is what keeping out the fires, with such planting as the limited resources permit, has done for a small section of our cut-overs. Very favorable mention is made of the work of State Forester Marcus Schaaf. But this is only a beginning—a drop in the bucket of Michigan's greatest conservation problem.

The Ironwood Daily Globe of December 17, publishes the list of prize-winners in the garden and tidy premises contest put on by the Oliver Iron Mining Company. There are seventy-five names on the list, the prizes ranging from \$10 to \$1.00. Three years ago this company proposed to pay cash prizes to lessees of company lands for the best garden and tidest premises as an encouragement to better home conditions among its working people.

Gogebic county had a very heavy fall of snow on December 16, but as illustrating how conditions vary in the upper peninsula, Marquette was getting about on wheels as late as December 18, and seemed likely to continue so for some time.

A Chicago company has taken over the extensive land holdings consisting of some 18,000 acres, lying between Marquette and Munising. This is a limestone area, and the soil is of excellent quality. It is the purpose of the purchasers, I learn, to sell the land in small holdings to settlers. Their success elsewhere indicates that the rural population of western Alger county should be substantially increased in the next few years.

The Upper Peninsula Development Bureau was recently called upon to furnish a statement regarding settlement possibilities in the upper peninsula to the Netherlands Emigration League and is hopeful that numbers of these desirable immigrants will be induced to locate here. We have very few, if any, Dutch farmers in the district as yet.

The secretary of the public domain

commission, Mr. Lusk, informs me that no specific order against the cutting of Christmas trees on the state lands was issued by the commission, although the state game, fish and forest fire commissioner directed his deputies and trespass agents to vigilantly enforce trespass regulations. It is the opinion of Mr. Lusk and the trespass agent at Marquette that little cutting of Christmas trees has taken place on state lands in the past, as these lands are commonly not very accessible. It is, of course, impossible for the commission to prevent cutting on private lands under existing statutes.

In a recent newspaper interview, the manager of the Triangle Ranch near Amasa, Dickinson county, is quoted as expressing very favorable views regarding the opportunities for cattle-raising in this region, but he thinks that brushing and clearing the land, and artificial seeding are required for the best results. He also stresses the importance of shelter, but with ample facilities for ventilation and outdoor exercise for the stock. The Triangle began with 1,050 head on an unfenced tract, but its experiences this season enforce the necessity of fencing as a prime requisite, as it was found difficult to locate strays in this land of brush and hollows. Real western cowboys were employed for this work. The Triangle has 9,000 acres and another ranch of double this size is projected by its Appleton, Wisconsin, owners. The breed to be adopted is the Hereford.

The November reports of the various home demonstration agents at work in five upper peninsula counties have just been received from the Marquette central office. They indicate much local activity in learning improved methods of dress-making and home-made millinery dietetics, especially in the increased use of milk for growing children, under expert guidance.

The Escanaba Mining Press rejoices in the standing of the Escanaba High School in relation to the Smith-Hughes law. It reports that the high school has qualified for federal money in all the seven departments of work recognized by the law as entitled to receive federal aid. The seven branches are: Night printing classes, night commercial classes, agriculture, day industrial classes, night industrial classes, day home economics, and night home economics. It is conceded that Calumet has also carried out the complete vocational program. There is stated to have been less than one dozen such schools in the state. Escanaba received \$822 on account of its work in agriculture. Escanaba high school's rating in agriculture is given as one hundred per cent.

The annual report of County Agricultural Agent C. E. Gunderson, of Gogebic county, is very optimistic on the live stock situation in his county. Numerous pure-bred sires have replaced scrubs formerly in use there, and pure-bred milch cows have been introduced in considerable numbers. Ten modernly equipped dairy barns have been erected during the year, and at least six milking machines are in use. Twelve silos have been built. Ninety per cent of Gogebic's farmers, the report indicates, are Finnish, and this readily explains the exceptional interest manifested in dairy stock there. Finland is a dairy country par excellence, and habits learned overseas persist here. Fifteen pure-bred registered Duroc Jersey hogs have also been shipped into the county during the year. A similar good showing is made regarding poultry, but culling is called for and is to be promoted by culling schools during the winter and spring.

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	150	200	250	\$142
	200	250	300	176
	250	300	350	213
	300	350	400	251
	350	400	450	290
For Hard Coal	No. 1-A Size IDEAL-Arcola with 135 sq. ft. of Radiation			Price
	No. 2-A	No. 3-A	No. 4-A	
	200	250	300	\$163
	250	300	350	206
	300	350	400	251
	350	400	450	299
	400	450	500	349

Prices include Expansion Tank and Drain Valve. Prices do not include labor, pipe and fittings used in installation and which are supplied by the local dealer at extra charge. Radiation is of regular 38-in. height 3-column AMERICAN Peerless, in sizes as needed to suit your rooms. Outfits shipped complete f. o. b. our nearest warehouse, at Boston, Providence, Worcester, Springfield (Mass.), Albany, New York, Philadelphia, Harrisburg, Pittsburgh, Baltimore, Washington, Richmond, Buffalo, Cincinnati, Indianapolis, Birmingham, Detroit, Chicago, Milwaukee, Minneapolis, St. Paul, Des Moines, or St. Louis.

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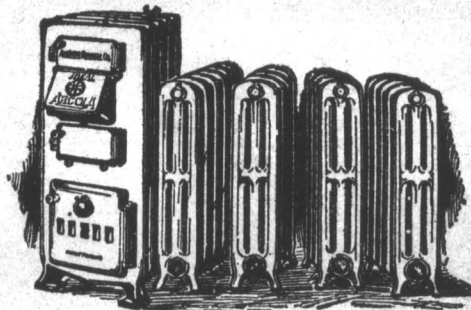
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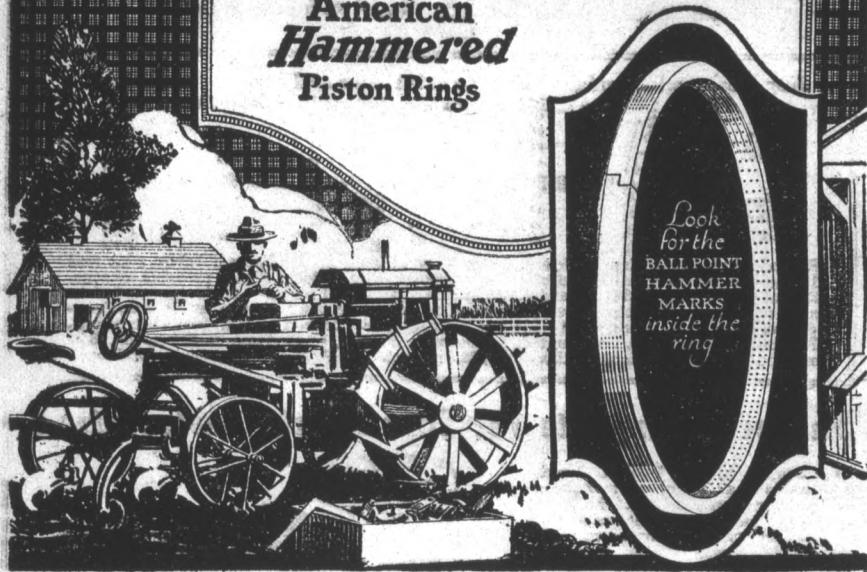
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Our Service Department

CAPACITY OF SILO.—CASH VALUE OF SILAGE.

Will you please answer the following questions: A silo ten by thirty feet was filled at three different times and is now full to the top. How many tons does it contain? Half of the corn was ripe, the other half contained no corn at all. What will this be worth per ton? In renting a farm for one-third should the renter furnish one-third of the feed?

C. A. B.

The capacity of a silo is determined by getting the cubical contents in cubic feet and multiplying by forty. In a circular silo, of course, you would have to get the area of the circular surface of the silo in square feet and multiply by the depth. Experiments show that silage will average about forty pounds per cubic foot and multiplying the cubic feet by forty pounds will give you the number of pounds of silage in silo.

About the only way you can estimate the value of silage is to compare it with other foods that have a market value, as silage is not bought and sold to any considerable extent. If you would take the moisture out of silage it compares very closely in food value to timothy hay for feeding. Experiments go to show that ordinarily silage as it comes from the silo is about one-third of the value of timothy hay, therefore if timothy hay is worth \$21 per ton, then your silage would be worth \$7.00 per ton.

If a man rents his farm on shares, getting one-third of the crops, it is the usual practice that the live stock is fed out of the undivided product of the farm and the balance is divided one-third and two-thirds. Sometimes a special arrangement is made about the horses that do the work, but cattle and sheep are almost invariably fed out of the undivided product.

C. C. L.

TRESPASSING STOCK.—LINE FENCE.

My cows broke through my neighbor's fence at a place formerly an open ditch, which is not tiled but not covered. The upper part of the fence is of woven wire, but the ditch was filled out with barbed wire not sufficiently stretched. The cows did some damage to the renter's crops, and besides this they were badly torn on the barbed wire. Will I have to be responsible for damage to the renter's crops? Also how about injuries to my cows?

W. G. E.

If the fence never was divided by agreement or otherwise to make it a line fence under the law as to line fences, each owner must keep all his stock home at his peril and is liable for any damage they did. If the fence had been divided the case presents a question of law and fact. The question of fact is whether the fence was in sound condition as a legal fence. If not, the person whose fence it was, or his tenant, would have to bear the loss to his crops. If the fence was in good, or sufficient repair, and the stock broke through, the owner of the stock would have to bear the loss. A barbed wire fence is made a lawful fence by statute, and if not constructed in an unnecessarily dangerous way, there would be no liability for the injury of the stock.

J. R. R.

LINE FENCE.

A short time ago you advised me in regard to a line fence. I had it surveyed and found the fence off the line. Now I have built my end of the fence on the surveyed line, and want to know how I can make my neighbor move his

fence and build a new one. His fence is old rotten boards so that stock goes through it. I notified him a month ago that I wouldn't stand any damage done by my stock. He is one of the fence viewers. I would like to know what to do, and whether I am liable for damage under these circumstances. Is he obliged to build a new line fence on the surveyed line? My field at this place is my pasture and will be for some time. I have patched the old fence for years, and think I have been patient for a long time.—C. K.

If the fence has been properly divided and C. K. has built his half he is not liable for damage done by his stock in going through the other half unless it also was a legal fence. If the other half is not built after proper demand C. K. may also build that half and have the cost of it assessed and collected as part of the taxes on the adjoining land.

J. R. R.

HEN DIES SUDDENLY.

Do you think a hen can "lay herself to death?" One of our pure-bred Wyandottes began to lay when seven months old and laid nearly every day for seven months, then suddenly died. She seemed to be in the best of condition, had no lice. The food consisted of coarse thick feed, with pure water and on free range. Can you tell me what was the matter with her?

Calhoun Co.

C. A. T.

When hens are laying heavily a bird may occasionally be lost because of a rupture to the heart or liver, due to excessive straining on the nest. We do not believe that a hen can lay "herself to death," as most hens are healthy with a fair amount of vigor when they are producing eggs. They will usually cease laying as soon as any illness is present, although they may live for a long time. However, heavy laying is a very serious drain on the strength of the bird and some hens do break down when they have been heavily fed for egg production for a long time. Cases of this kind do not occur often in the farm flock but hens are subject to a certain loss the same as all animals, and there will be an occasional death among hens that are laying heavily and appear to be in the best of condition. It occurs most often among old hens that are overfat. A post-mortem examination of the internal organs may locate the trouble in such cases.—K.

TURKEYS WITH WORMS.

I would like to know the cause and remedy for worms in the droppings of my turkeys. We have lost some turkeys and have only recently noticed the small white worms. The birds are not sick very long, but get mopy and then die.

N. R.

For removing worms from fowls a teaspoonful of oil of turpentine can be given to each bird an hour before feeding. About three hours later give a teaspoonful of castor oil. The turpentine causes the worms to lose their hold and the castor oil later removes them.

Tobacco stems can be finely chopped and steeped in water for a couple of hours. Place the mixture in the mash eaten by the birds. About two doses will often eradicate round worms from a flock. Turkeys are often afflicted with tape worms. It causes the birds to become unthrifty and stupid and thus more subject to all other diseases. A few drops of two per cent solution of zenoleum can be given to each bird with a medicine dropper. Spraying the roosting place with such a coal-tar disinfectant destroys the eggs of the parasites and helps to keep the trouble from spreading.—K.



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"The use of a truck on Goodyear Cord Tires has enabled me to release three teams and three drivers from threshing work and is shortening the length of my harvesting season three to four weeks, thus helping the thresher to finish the job while good weather lasts. The pneumatics roll easily over plowed fields, through stubble, barnyard mud, snow and so on. At 12,000 miles, they look good for 12,000 more."—
Carl J. Gustafson, Owner of Willow Grove Farm, near Aberdeen, South Dakota

MORE and more farmers constantly are reporting, as above, marked benefits obtained from motorization and particularly from motor trucks on Goodyear Cord Tires.

They have found that quick field hauling assists power-machines by prompt supply and removal of loads, and that the pneumatics make such hauling possible.

A sturdy truck on Goodyear Cord Tires, therefore, is of vital aid to year 'round motor-farming; to motorized pumping, spraying, threshing, silo-filling, feed-grinding and other work.

Pneumatic traction overcomes soggy, slippery going; pneumatic cushioning prevents severe shaking and loss of load; pneumatic activity saves much time.

By the development of the rugged Goodyear Cord construction, all these advantages of the big pneumatics have been made most intensely practical for farm service.

Farmers' accounts of how motorization and pneumatics have saved labor, crops, time and money, can be obtained from The Goodyear Tire & Rubber Company, Akron, Ohio, or Los Angeles, California.

GOODYEAR
CORD TIRES

RABBITS INJURE BRAMBLES.

WE have found that it pays to watch the blackberry canes during the winter and note if rabbits begin visiting the patch and eating them off during the night just about at the snow line. Of course, the fruit is borne on the wood produced during the previous year and if canes are cut down the quantity of berries produced is correspondingly reduced.

If the rabbit visits are noticed early in the winter they can be trapped before much injury is done. It is difficult to protect blackberries in the way trees are protected because of the large number of canes. A poultry fence around the patch is one of the best protections. By keeping down brush piles, stone heaps and scrap piles, the rabbits have few places to hide near the berry patch and there will be less danger from the pests.

We have noticed that the rabbits do not eat red raspberry canes on our farm, while they will attack blackberry canes but a few feet away. This seems to prove that the wild animals have considerable sense of taste and like to select their food from among the best-liked plants.

Field mice do not seem to injure any of our berry canes although they have injured young trees in the near vicinity. If there is danger of the canes being injured by pests it pays to remove all of the old wood after the berry harvest and leave the new wood until the next spring. Then the canes can be thinned out and enough left to produce a profitable crop.—K.

WASHTENAW FARM BUREAU BANQUET.

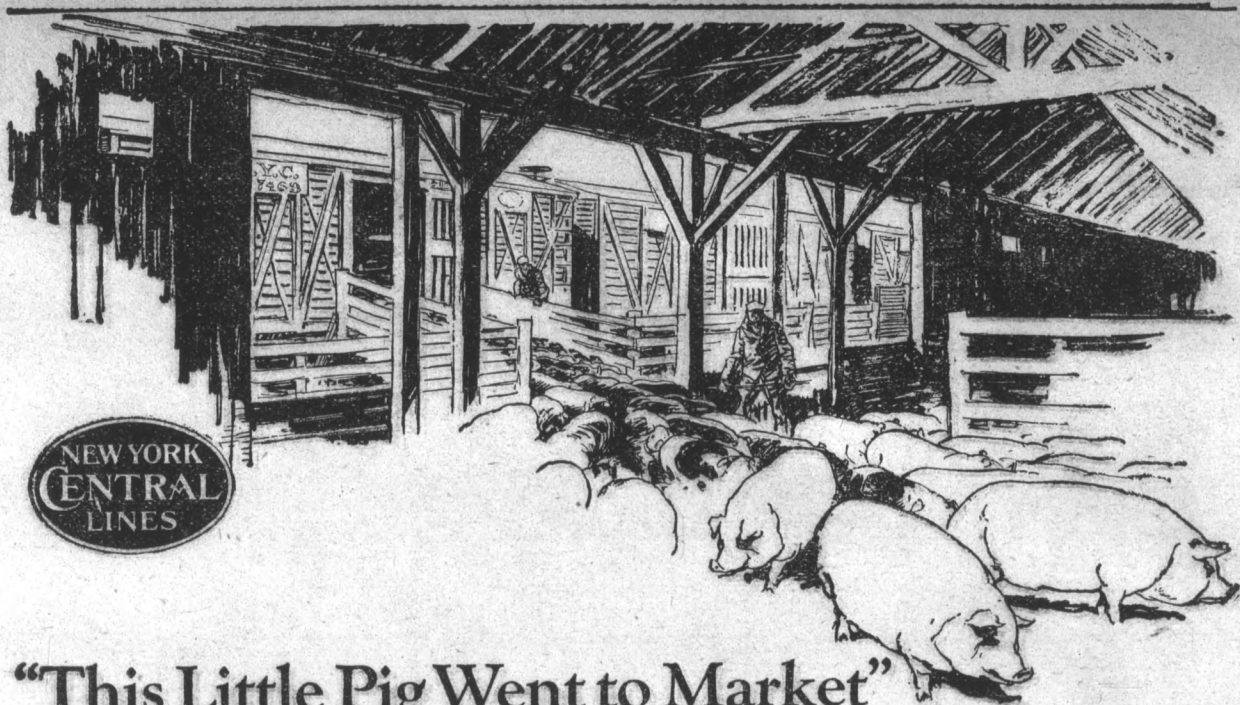
IN spite of unfavorable weather and bad roads, the fourth annual banquet of the Washtenaw County Farm Bureau, held at the City Armory at Ann Arbor, Wednesday, December 22, was attended by a large and enthusiastic crowd of representative farmers and business men of the county.

From the time the crowd gathered in the large dining-hall until the close of the program there was not a dull moment. President George W. McCalla, of the Washtenaw County Farm Bureau, acted as toastmaster. After the invocation by Rev. C. E. Edwards, Ray K. Immel, Professor of Oratory at the University of Michigan, gave "Twenty Minutes of Sunshine," which put the diners in good humor for the address of the day by Howard Leonard, president of the Illinois Agricultural Association.

Mr. Leonard explained the relationship of the farm bureau to other industries and pointed out the importance of the individual member's support to the national organization which is looking after their problems at Washington. Among the other points discussed by Mr. Leonard was the methods practiced by the Illinois County and State Farm Bureaus in helping to organize farmers' cooperative associations. The Illinois way is to help the farmers put their different organizations on their feet, but not to conduct any buying and selling business directly through the county and state organizations. In this way farmers having some particular commodity to market are encouraged to form local and state organizations which are in charge of men selected especially for their ability to market such commodities successfully. The business of handling farm supplies is conducted along the same lines.

One of the real treats of the program was the recitation of an original poem by Mrs. Maude Seamans.

Dr. W. W. Diehl, Professor of Rural Sociology of Albion College, discussed "Ethics of Distribution" and brought out many points of interest to both producers and consumers of farm products.



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The serving of these large and independent markets has carried with it an obligation. It has meant a special livestock study. A system known as the "livestock pick-up service" was designed to dispense with feeding in transit, and save excess shrinkage and extra feeding charges. Shipments made under this service are closely checked by agents of the Agricultural Department of the Lines, who use every effort to remove causes of delay or unsatisfactory

handling in transit. Suggestions made regarding livestock shipments are reducing the shippers' losses.

The object of raising livestock and food crops is to deliver them to consuming centers and the seaboard for shipment abroad.

The world is still looking to us for its food. There must be no crops unshipped and undelivered.

The New York Central Lines have set themselves to this task. To do so, they have adopted as their guiding principle, "With, and not for, the farmer."

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The Agricultural Department will help you to ship "the little pig to market."

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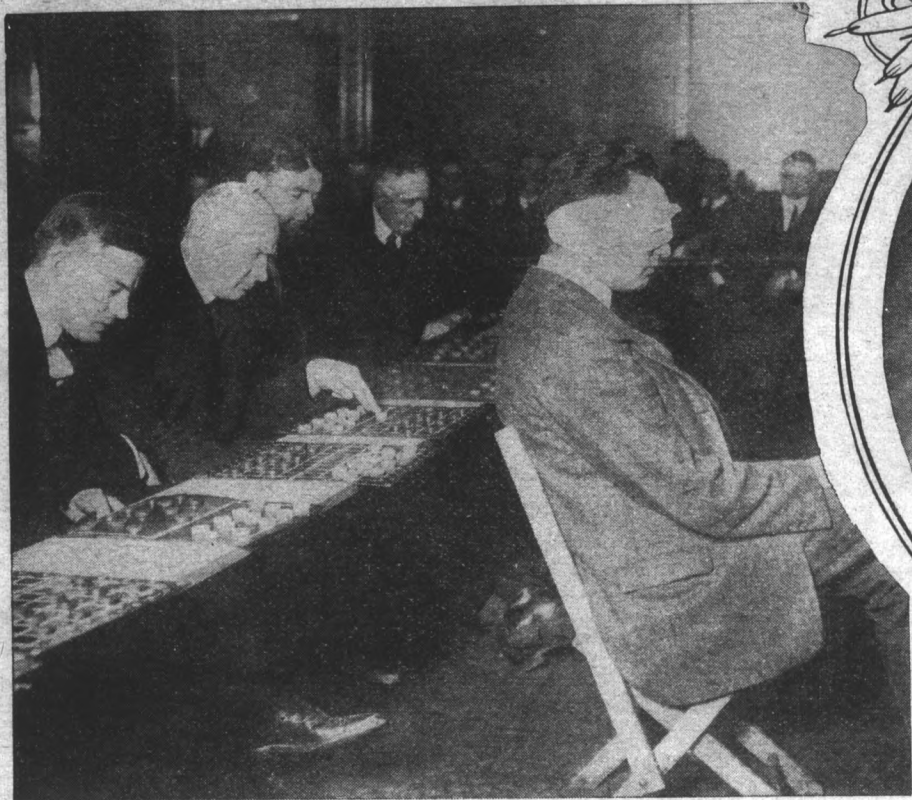
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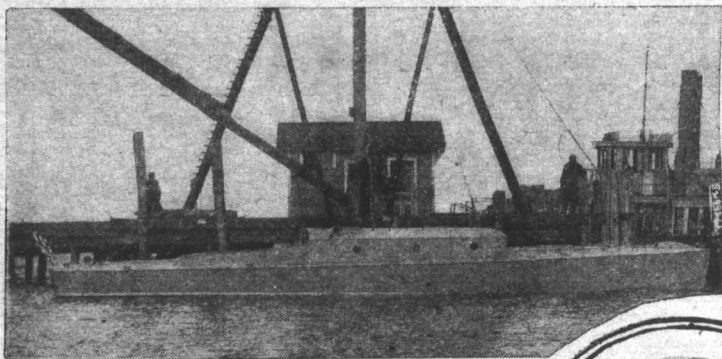
WORLD EVENTS IN PICTURES



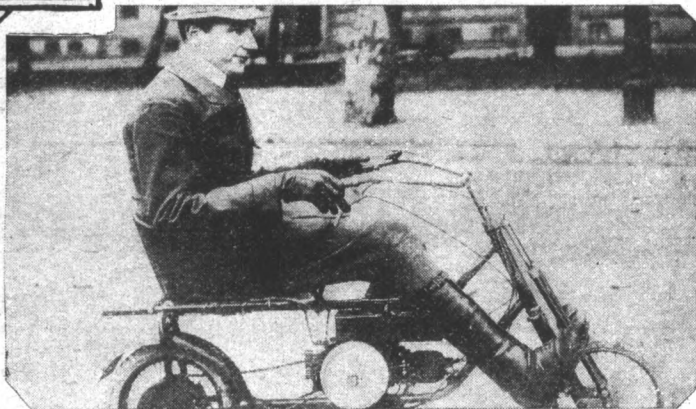
Mr. Banks, Michigan boy and U. S. checker champion, blind-folded, won 86 and tied 14 games out of 100 played at one time.



Mary Roberts Rhinehart, famous authoress, and her grand-daughter.



The new one-man torpedo boat built with great secrecy by the United States Navy, here shown just as launched. It was designed for coast defense and has a speed of twenty-two knots.



This "pocket-edition" of the motorcycle is proving very popular in Switzerland.



At the recent election the thirteenth Michigan district selected Mr. McLeod, who enjoys the distinction of being the youngest man ever elected to congress.



Master John Carter, three years old, travels alone from Liverpool to Philadelphia.



After a snow flurry in Nome, Alaska, this resident was obliged to tunnel to get his horse out of the barn, of which the peak just shows.

THE VOICE OF THE PACK

By EDISON MARSHALL

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There was no breath of wind. The great pines, tall and dark past belief, stood absolutely motionless, like strange pillars of ebony. The whole ridge was splotted with patches of moonlight, and the trail, dimming as the eyes followed it, wound away into the utter darkness. Bert Cranston knelt in a brush covert, his rifle loaded and ready in his lean, dark hands.

No wolf that ran the ridges, no cougar that waited on the deer trails knew a wilder passion, a more terrible blood-lust than he. It showed in his eyes, narrow and never resting from their watch of the trail; it was in his posture; and it revealed itself unmistakably in the curl of his lips. Something like hot steam was in his brain, blurring his sight and heating his blood.

The pine needles hung wholly motionless above his head, but yet the dead leaves on which he knelt crinkled and rustled under him. Only the keenest ear could have heard the sound; and possibly in his madness, Cranston himself was not aware of it. And one would have wondered a long time as to what caused it. It was simply that he was shivering all over with hate and fury.

A twig cracked, far on the ridge above him. He leaned forward, peering, and the moonlight showed his face in unsparing detail. It revealed the deep lines, the terrible, drawn lips, the ugly hair long over the dark ears. His strong hands tightened upon the breech of the rifle. His wiry figure grew tense.

Of course, it wouldn't do to let his prey come too close. Landy Hildreth was a good shot too, young as Cranston, and of equal strength; and no sporting chance could be taken in this hunting. Cranston had no intention of giving his enemy even the slightest chance to defend himself. If Hildreth got down into the valley, his testimony would make short work of the arson ring. He had the goods; he had been a member of the disreputable crowd himself.

The man's steps were quite distinct by now. Cranston heard him fighting his way through the brush thickets, and once a flock of grouse, frightened from their perches by the approaching figure, flew down the trail in front. Cranston pressed back the hammer of his rifle. The click sounded loud in the silence. He had grown tense and still, and the leaves no longer rustled.

His eyes were intent on a little clearing, possibly one hundred yards up the trail. The trail itself went

straight through it. And in an instant more, Hildreth pushed through the buckbrush and stood revealed in the moonlight.

If there is one quality that means success in the mountains it is constant, unceasing self-control. Cranston thought that he had it. He had known the hard schools of the hills; and he thought no circumstance could break the rigid discipline in which his mind and nerves held his muscles. But perhaps he had waited too long for Hildreth to come; and the strain had told on him. He had sworn to take no false steps; that every motion he made should be cool and sure. He didn't want to attract Hildreth's attention by any sudden movement. All must be cautious and stealthy. But in spite of all these good resolutions, Cranston's gun simply leaped to his shoulder in one convulsive motion at the first glimpse of his enemy as he emerged into the moonlight.

The end of the barrel struck a branch of the shrubbery as it went up. It was only a soft sound; but in the utter silence it traveled far. But a noise in the brush might not have been enough in itself to alarm Hildreth. A deer springing up in the trail, or even a lesser creature, might make as pronounced a sound. It was true that even unaccompanied by any other suspicious circumstances, the man would have become instantly alert and watchful; but it was extremely doubtful that his muscular reaction would have been the same. But the gun barrel caught the moonlight as it leaped, and Hildreth saw its glint in the darkness.

It was only a flash. But yet there is no other object in the material world that glints exactly like a gun barrel in the light. It has a look all its own. It is even more distinctive in the sunlight, and now and again men have owed their lives to a momentary glitter across a half-mile of forest. Of course, the ordinary, peaceful, God-fearing man, walking down a trail at night, likely would not have given the gleam more than an instant's thought, a momentary breathlessness in which the throat closes and the muscles set; and it is more than probable that the sleeping senses would not have interpreted it at all. But Hildreth was looking for trouble. He had dreaded this long walk to the settlements more than any experience of his life. He didn't know why the letter he had written, asking for an armed escort down to the courts, had not brought results. But it was wholly possible that Cranston would have answered

this question for him. This same letter had fallen into a certain soiled, deadly pair of hands which was the last place in the world that Hildreth would have chosen, and it had been all the evidence that was needed, at the meeting of the ring the night before, to adjudge Hildreth a merciless and immediate end. Hildreth would have preferred to wait in the hills and possibly to write another letter, but a chill that kept growing at his finger tips forbade it. And all these things combined to stretch his nerves almost to the breaking point as he stole along the moonlit trail under the pines.

A moment before the rush and whirl of the grouse flock had dried the roof of his mouth with terror. The tall trees appalled him, the shadows fell upon his spirit. And when he heard this final sound, when he saw the glint that might so easily have been a gun-barrel, his nerves and muscles reacted at once. Not even a fraction of a second intervened. His gun flashed up, just as a small-game shooter hurls his weapon when a mallard glints above the decoys, and a little, angry cylinder of flame darted, as a snake's head darts, from the muzzle.

Hildreth didn't take aim. There wasn't time. The report roared in the darkness; the bullet sang harmlessly and thudded into the earth; and both of them were the last things in the world that Cranston had expected. And they were not a moment too soon. Even at that instant, his finger was closing down upon the trigger, Hildreth standing clear and revealed through the sights. The nervous response that few men in the world would be self-disciplined enough to prevent occurred at the same instant that he pressed the trigger. His own fire answered, so near to the other that both of them sounded as one report.

Most hunters can usually tell, even if they cannot see their game fall, whether they have hit or missed. This was one of the few times in his life that Cranston could not have told. He knew that as his finger pressed he had held as accurate a "bead" as at any time in his life. He did not know till another circumstance—that in the moonlight he had overestimated the distance to the clearing, and instead of one hundred yards it was scarcely fifty. He had held rather high. And he looked up, unknowing whether he had succeeded or whether he was face to face with the prospect of a duel to the death in the darkness.

And all he saw was Hildreth, rocking back and forth in the moonlight—

a strange picture that he was never entirely to forget. It was a motion that no man could pretend. And he knew he had not missed.

He waited till he saw the form of his enemy rock down, face half-buried in the pine needles. It never even occurred to him to approach to see if he had made a clean kill. He had held on the breast and he had a world of confidence in the great, shocking, big-game rifle. Besides, the rifle fire might attract some hunter in the hills; and there would be time in the morning to return to the body and make certain little investigations that he had in mind. And running back down the trail, he missed the sight of Hildreth dragging his wounded body, like an injured hare, into the shelter of the thickets.

CHAPTER III.

WHISPERFOOT, that great coward, came out of his brush-covert when the moon rose. It was not his usual rising time. Ordinarily he found his best hunting in the eerie light of the twilight hour; but for certain reasons, his knowledge of which would be extremely difficult to explain, he let this time go by in slumber. The general verdict of mankind has decreed that animals cannot reason. Therefore it is somewhat awkward to explain how Whisperfoot knew that he needn't be in a hurry, that the moon would soon be up, and the deer would be feeding in their light. But know all these things he did, act upon them he also did, and it all came to the same end. Whether or not he could reason didn't affect the fact that a certain chipmunk, standing at the threshold of his house to glimpse the moonlit forest, saw him come slipping like a cloud of brown smoke from his lair a full hour after the little creature had every right to think he had gone to his hunting—and straightway tumbled back into his house with a near attack of heart failure.

But the truth was that the chipmunk was presuming upon his own desirability as food. His fear really wasn't justified. It would not be altogether true to say that Whisperfoot never ate chipmunks. Sometimes in winter, and sometimes in the dawns after an unsuccessful hunt, he ate things a great deal smaller and many times more disagreeable than chipmunks. But the great cat is always very proud when he first leaves his lair. He won't look at anything smaller than a horned buck. He is a great deal like a human hunter who will pass up a lone teal on

AL ACRES—Al Discovers More Uses for the Vacuum Cleaner Than He Thought.

—By Frank R. Leet



the way out and slay a pair of his own live-duck decoys on the way back.

Whisperfoot had slept almost since dawn. It is a significant quality in the felines that they simply cannot keep in condition without hours and hours of sleep. It is true that they are highly nervous creatures, sensualists of the worst, and living intensely from twilight to dawn; and they burn up more nervous energy in a night than Urson, the porcupine, does in a year. In this matter of sleeping, they are in a direct contrast to the wolves, who seemingly never sleep at all, unless it is with one eye open, and in still greater contrast to the king of all beasts, the elephant, who is said to slumber less per night than that great electrical wizard whom all men know and praise.

The great cat came out yawning, as graceful a thing as treads upon the earth. He was almost nine feet long from the tip of his nose to the end of his tail, and he weighed as much as many a full-grown man. And he fairly rippled when he walked, seemingly without effort, almost without resting his cushions on the ground. He stood and yawned insolently, for all the forest world to see. He rather hoped that the chipmunk, staring with beady eyes from his doorway, did see him. He would just as soon that Woof's little son, the bear cub, should see him too. But he wasn't so particular about Woof himself, or the wolf pack whose song had just wakened him. And above all things, he wanted to keep out of the sight of men.

For when all things are said and done, there were few bigger cowards in the whole wilderness world than Whisperfoot. A good many people think that Graycoat the coyote could take lessons from him in this respect. But others, knowing how a hunter is brought in occasionally with almost all human resemblance gone from him because a cougar charged in his death agony, think this is unfair to the larger animal. And it is true that a full-grown cougar will sometimes attack horned cattle, something that no American animal cares to do unless he wants a good fight on his paws and of which the very thought would throw Graycoat into a spasm; and there have been even stranger stories if one could quite believe them. A certain measure of respect must be extended to any animal that will hunt the great elk, for to miss the stroke and get caught beneath the churning, lashing, slashing, razor-edged front hoofs is simply death, painful and without delay. But the difficulty lies in the fact that these things are not done in the ordinary, rational blood of hunting. What an animal does in its death agony, or to protect its young, what great game it follows in the starving times of winter, can be put to neither its debit nor its credit. A coyote will charge when cornered. A hen will peck at the hand that robs her nest. When hunting was fairly good, Whisperfoot avoided the elk and steer almost as punctiliously as he avoided men, which is saying very much indeed; and any kind of terrier could usually drive him straight up a tree.

But he did like to pretend to be very great and terrible among the smaller creatures. And he was Fear itself to the deer. A human hunter who would kill two deer a week for fifty-two weeks would be called a much uglier name than poacher; but yet this had been Whisperfoot's record, on and off, ever since his second year. Many a great buck wore the scar of the full stroke—after which Whisperfoot had lost his hold. Many a fawn had crouched panting with terror in the thickets at just a tawny light on the gnarled limb of a pine. Many a doe would grow great-eyed and terrified at just his strange, pungent smell on the wind.

(Continued next week).

But never forget to keep cool.

Building Stamina Into Case Tractors

IN CASE shops, under the terrific impact of a constant stream of accelerated blows of huge steam hammers, white hot, high carbon steel is accurately formed into forged driving gears, front axles, crank shafts, cam shafts, connecting rods and numerous other important parts of Case tractors.

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These items are only a few indications of the high quality features that make Case tractors superior.

Each part that goes into the construction of Case tractors is made and put in place with the same conscientious, efficient thoroughness that marks the manufacture of every forged part.

Extra strength is built into Case tractors to protect Case users against delay and loss frequently experienced with tractors not made to the Case standard.

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NOW you can get the latest WITTE Arm Swing, Lever Controlled, Force Feed Log Saw for sawing up logs any size. Moves like a wheelbarrow—goes anywhere—saws up-hill, down-hill or on level. Cuts much faster than former rigs. Operated by a high power, frost-proof

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Sunday as a Day of Rest

Is it true that "there is no rest for farm women on Sunday," as Elizabeth Sears declares in her article "Who Feeds the Nation" in Harper's Monthly? Or has Miss Sears in mind conditions as they existed up to the last two or three years?

It is quite certain that the men rest on Sunday—and eat—and the women who cook the big Sunday dinners do not get much rest until they learn how to take the "short cuts" that save unnecessary work in hot kitchens. One of the most important of these "short cuts" is the new method of dessert making. In place of the heavy puddings and pies which have always accompanied the big Sunday dinners, fruity

JELL-O

desserts are served—desserts that are sparkling and beautiful and delicious beyond comparison.

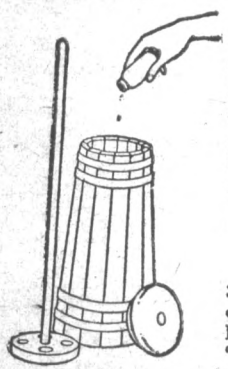
These Jell-O desserts which just fit the Sunday appetite are made by dissolving Jell-O in boiling water. It is done in a minute, and adds a good many minutes to woman's share of Sunday rest.

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Established 1879

Woman's Interests

Why That Home Economics Building?

THE Michigan Agricultural College is asking for \$400,000 for a new Home Economics building. Why a Home Economics building? Well, you see Michigan girls like M. A. C. so well that they've already filled that building and Howard Terrace and Abbott Hall, and the old president's house on faculty row, and overflowed the campus. The board is renting—at a cost of from seven thousand to eight thousand dollars yearly—three houses off the campus to take care of the girls who are attracted by the splendid four-year course in home economics. And by-the-way, M. A. C. is the only institution in the state which offers a four-year course in home economics.

The present woman's building would be large enough to room the girls if all the rooms could be used as dormitories. But so much space must be given up to class rooms, administrative offices and laboratories that it is impossible to house the students there. The home economics building is needed to give space for laboratories for research work; rooms for the extension workers in home economics, who are now given small quarters in the agricultural building, and for offices and class rooms.

We need the building for two reasons," says Mrs. Dora Stockman, woman member of the state board of agriculture who brought the need for the building before the board, "first for research work, and second, for nutritional work for babies.

"The science of correct feeding is only in its infancy, and the one place in Michigan where it should be carried on is in our home economics department at the agricultural college. We have the oldest agricultural college in the country; it is a leader in the science of agriculture, and should be the leader in home economics. Hindered as that department is at present by want of space and facilities, to do research work, it is impossible to do the work our experts want to do, and could do if they had the opportunity.

"Then there are the babies. If one-half of the cows of Michigan were not feeding their offspring, and if farmers were losing one calf out of every ten, do you think anyone would stop at a tax of one-eleventh of a mill to secure the money to stop this waste of animal life? Can't you just see federal and state treasuries open up and pour out the money to study cause and cure? "Yet fully one-half of all mothers can not nurse their babies; probably seventy-two per cent is nearer right than fifty per cent. One baby out of every ten dies in infancy. And what are we doing to find out why this fearful waste of human life, and how it can be stopped?

"That's what we want to find out in our home economics building. We want to find out the best possible standard formula for feeding babies, and then give it out through our home extension work. At present, pure, raw, modified cow's milk is the best thing known, but mothers who have gone through weeks of nervous strain trying to get just the right formula, know that there must be something better than our present method. We want to find out the most scientific, the best thing that can be found for feeding

babies. And we want Michigan to be the state to do this thing for the world. "In connection with the nutritional research work in the laboratory we plan to have a cottage filled with babies where the girls can learn by actual experience how to take proper care of infants. Similar work is being carried on in other states. A trained nurse will be in charge, but the girls will be required to spend a certain number of hours per week in the actual care of babies, just as they do other laboratory work.

"America loses 250,000 babies every year; a greater loss of life yearly than our entire losses in the world war. We must have greater nutritional knowledge to stop it. The home economics building will help us do this.

"Incidentally, the building will save us money. Eight thousand dollars a year now in outside rentals, a figure which must increase as the attendance increases, will quickly mount up into more than the cost of a new building."

HOME DEMONSTRATION ACTIVITIES.

HOME-MAKING in general for the benefit of the housewife will take up much of the time of the home dem-

onstration agents this winter. One of the first projects to be undertaken in Wayne county was the demonstration of making dress forms. Miss Rogers was assisted in this by Miss Helen Arms, Clothing Specialist for the Michigan Agricultural College, who presided at the meetings which were held at three different centers from the fifteenth to the seventeenth of December. It was planned to have two women represent the various localities at one of these three centers who were instructed in the making of these forms. Then later, with the assistance of Miss Rogers, these women will instruct other women in their respective communities. In this way every woman can receive individual attention which is impossible for Miss Arms and Miss Rogers to give in two days.

"These dress forms can be made at a very small cost and will be found to be just as practical as any they might purchase for many times the cost of a home-made one," says Miss Rogers.

Other work will consist of the food study classes, the milk campaign to see that more milk is consumed by the producer, lessons in the feeding of children, care of the home and other economic phases of life in the home.

T. W. G.

The Unknown Road

Our Weekly Sermon—By N. A. McCune

THERE is a very suggestive incident in the third chapter of Joshua. It is the crossing of the Jordan by the Israelites, as they enter the land of Canaan. Their commander, Joshua, is particular to carry out to the letter all the directions he had received, as to the manner of crossing the river. First, the ark of the covenant was to be carried over, by picked men. This was to be done slowly and reverently, and when the priests bearing the ark waded into the water, they were to stand still for a few minutes, while the river bed began to dry up. It was an unknown road before them. They were determined to be certain that God was with them.

Looking out on another year, we will have to admit, if we are honest, that it is an unknown road. It may be very like the roads we have traveled before. But it may not. There are people reading this issue of the Michigan Farmer, who, a year hence, will be in their graves. That will be an unknown road. There are people in health and strength who during the coming year will suffer ill health, accident, or be visited with fatal disease. There are others on whose door unexpected success will knock with feverish vigor. And sometimes success is more fatal to the soul than failure. There are some who will shoulder heavy responsibility, and will carry it manfully. There are those who will take advantage of fat opportunity for the glory of self. All these are unknown roads. Wise the soul, happy the pilgrim, who has God with him. One day I was wandering through the British Museum, in London, and I noticed an eager crowd gathered about some object in a glass case. Waiting my turn, I found that it was the diary of Captain Scott,

who perished at the South Pole. The page at which the diary was open, had been hastily scrawled with a pencil, by a man whose fingers were apparently stiff with the cold of the polar night. "For God's sake," it ran, "Take care of our people." That surely was an unknown road for the explorer. And it was another traveler in the antarctic regions, more successful than Scott, who said, as he lived one season through the driving cold, the raging wind and the groaning ice, "There are just two things that matter, in life: God and Bread." Bread—the necessities for comfortable existence. God—to guide, to make the road safe.

BEFORE the people crossed the Jordan, they also cleansed themselves. The Promised Land was to be entered by a purified people. Cleanliness is one of the needful factors, if we are to make progress over next year's road. Entering the operating room in a hospital, the visitor finds it as free from dirt or stain as science can make it. Walking through any of the modern food factories, the stranger sees well-lighted and airy rooms, where the operatives work, in cleanly garb and amid cleanly surroundings. And the soul is infinitely more sensitive than the palate or the open wound. There is an instrument that will detect the heat of a candle a mile distant. But the soul is more responsive to good or evil, than that. A recent book of essays tells two incidents that illustrate this. They are taken from the battle area, of France. "I cannot do that thing," said a serious looking lad. "My father did that thing, and it broke my mother's heart." A small boy had lost both parents in the war. He was put in charge of a rough soldier. One day

the small boy got angry at another boy and swore, and then looked at the soldier fearfully, to see what he would say. "That's all right," said his guardian. "Say all of that stuff you want to." But the little fellow began to cry. "If you were my father," said he, "You would not say that." After all, it is the Sir Galahad type of man that we all prefer, unless we have been depraved with evil habit.

"My good blade carves the casques of men,

My tough lance thrusteth sure.
My strength is as the strength of ten,
Because my heart is pure."

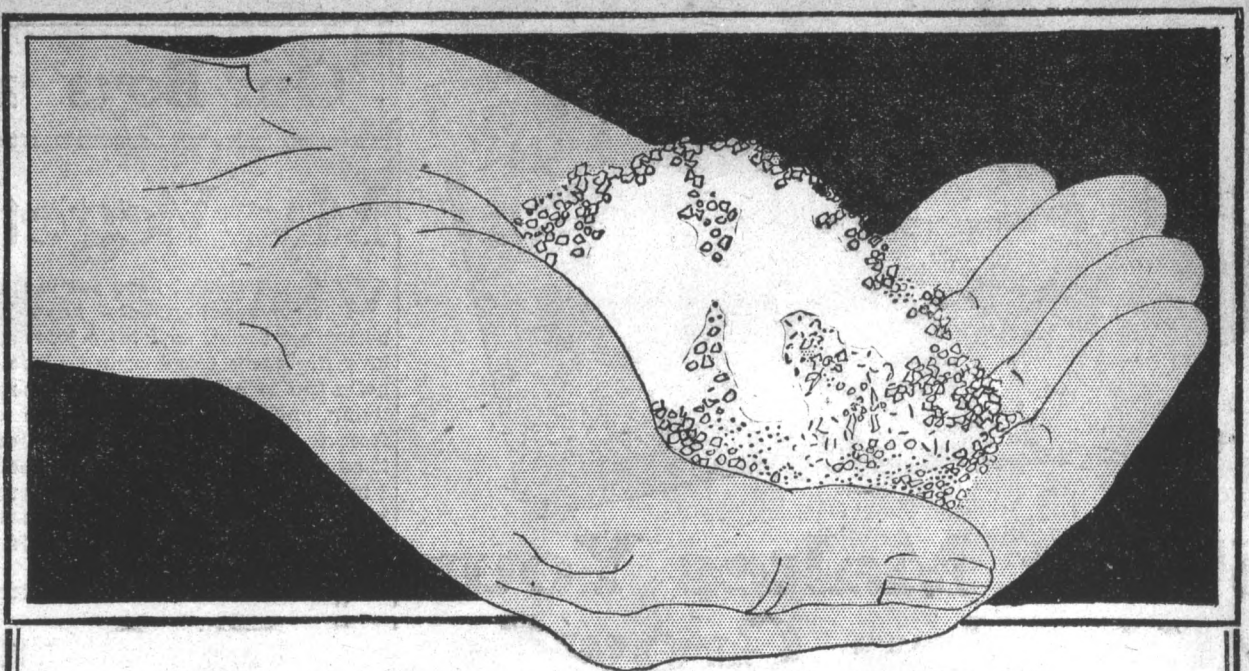
There were twelve good men and true, chosen by the Israelites, to represent them in making the cairn, which marked the place of crossing. The twelve men did as they were bidden, and undoubtedly that pile of stones remained there for many a year. The men who were thus distinguished are not named, however. Whoever they were, they remain to us unknown. The idea that these men would be remembered down the years was thus prevented. They were to do their work for the good of the whole group to which they belonged, not for personal advantage. Ambition was thus excluded. And as one travels along the unknown road, he sees many a wreck, wrought by some ill-guided soul, who was determined to get ahead, no matter whom he walked over, in order to get there.

AND these hardy folk who crossed the Jordan long ago, were reminded that they must have courage. It was an unknown land to which they were going. There dwelt the giants, the sons of Anak, and who could tell what might befall any invaders? But that is one of the romances of life. We are continually asked to go forward into the unknown. That is where we get an occasional thrill. Life is an adventure. Christian faith is the biggest adventure of all. We are banking on the faithfulness of a God we never saw, and our guide is a book written by men we never saw. As Donald Hankey author of the much read "Student in Arms," said, "Faith is just betting your life that there is a god." We must fear not. We must go ahead, at any cost. God has traveled the way before. He knows all crooks and turns. In Hawthorne's story, "The Gray Champion," he represents a military procession down the streets of Boston. It was a procession of the governor, his staff and soldiers. There had been oppression, and the people were almost ready for violence. The governor determined to cow the people with a show of force. Suddenly out of the muttering crowd there appeared the figure of an ancient man. His beard was long, his dress was antique. He went straight up to the advancing column and called upon it to halt. The drum ceased, the advancing line stood still. "How dare you stay the march of King James' Governor?" "I have stayed the march of the king himself ere now," replied the ancient figure. "The cry of an oppressed people has disturbed me in my secret place. Back! thou that wast a governor, back! With this night thy power is ended." And tradition says that the military line actually turned back, and before another sunset the governor and all his followers were prisoners. The unknown road always implies courage. And there is an ocean of courage, there are mountains of courage, if we follow the lead of the Deity who conducted the pilgrim Israelites into the land of milk and honey, long ago.

REGARDING THE TRUTH.

"De truth ain't allus easy to git at," said Uncle Eben. "A man kin sometimes say sumpin' in half a minute dat he can't explain in five years."

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to members of the Michigan Mutual Windstorm Insurance Company, home office Hastings, Michigan, you are hereby notified that the amendment of Article 3 of the Charter of the above company as adopted by the Board of Directors Sept. 3, will be voted on by the membership at the annual meeting to be held on Jan. 19, 1921. MICHIGAN MUTUAL WINDSTORM INS. CO. M. F. Andrus, Sec.-Treas.

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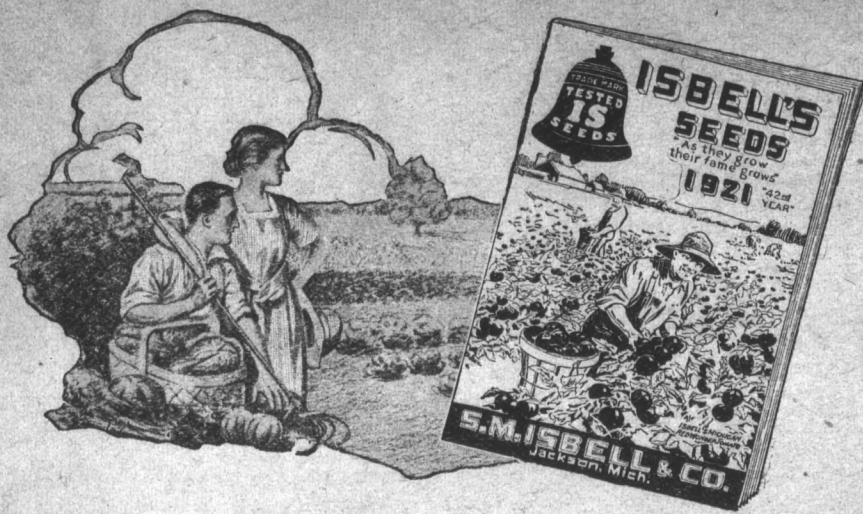
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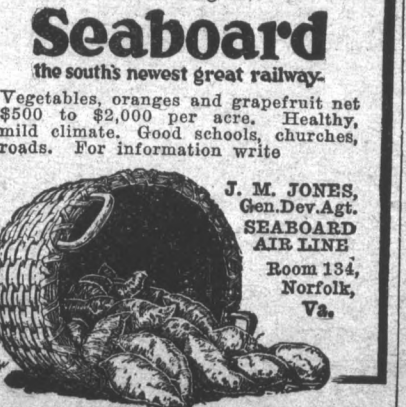
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Our Boys' and Girls' Page

My Vegetable Garden

WELL, I think I have put in a very all the nourishment. I thinned my busy summer, but I know I am plants when they were too many, better off for it, as I have learned to cause they grow larger. I had to sow love the garden and canning, too. It a great many of my seeds the second helps me to cut down the high cost of time, as they did not come up, so I living, and everything is so fresh right think it is a good plan to raise our own from the garden, and I know we enjoy seeds if we can, because we can see it so much when we raise it ourselves. to it that they are well ripened. I had some difficulties, as last spring's I had some garden helpers, especial-heavy rains flooded my garden spot ly one that was interesting, and that and as it was getting late I did not was a large toad in the center of a

The Country Boy's Creed

By Edwin Osgood Grover

I BELIEVE that the Country which God made is more beautiful than the City which man made; that life out of doors and in touch with the earth is the natural life of man. I believe that work is work wherever I find it, but that work with Nature is more inspiring than work with the most intricate machinery. I believe that the dignity of labor depends not on what you do, but on how you do it; that opportunity comes to a boy on the farm as often as to a boy in the city; that life is larger and freer and happier on the farm than in town; that my success depends not upon my location, but upon myself—not upon my dreams, but upon what I actually do—not upon luck, but upon pluck. I believe in working when you work, and in playing when you play, and in giving and demanding a square deal in every act of life.

wait for the soil to dry out enough for coxcombs and kept my garden free the horses to plow it, so picked out from weeds, because I weeded them patches where it dried out a little. I out when they first appeared and gave spaded the whole garden myself. I them no chance to grow, as weeds take had no fertilizer for it, so when this squash hill. He kept the bugs away. dry spell did come on it burned up I was always very careful not to bother badly and was hard to work. I had to him when I was working around it. carry water in pails one hundred and Then we have so many nice song birds forty feet so as to water my garden. too; they help to keep the worms off I raised many of my young plants, trees and bushes.
 such as tomatoes, cabbage, peppers,

HAROLD ARTHUR.

Junior Club Activities

THAT the high places taken by prizes for the best descriptions of Michigan lads in the judging blooded animals, Don Shepard of Charcontest at the International Live lotte, took fourth place with an account of the good points of a Hereford bull which placed high at the International show. Members of the beef calf club and the pig club in Lenawee county recently shipped animals to Buffalo for the annual contests held at the yards there. They have just received word that Miles Beamer, of Blissfield, took first and second places and grand show at Baton Rouge, La., won first Lenawee county took first place with a pen of five pigs. Simultaneously with the news of



County Club Agent Stewart Giving Demonstration in Dusting to the Members of the French Landing Poultry Club, Wayne County.

these achievements comes the announcement of the resignation of W. A. Anderson, who for the last two years has had charge of the live stock and crop club work as a member of the state staff. He will leave the department January 1 to go on his farm in Berrien county. A great deal of the credit for the good work done by Michigan boys is attributed to Mr. Anderson and the recent honors have come as a fitting climax to his efforts.

In this connection also, it is of interest to note the attitude taken by breeding associations toward live stock club work. The Lenawee Holstein-Friesian association is awarding memberships to all dairy calf club members in the county who successfully complete the club work, while the Michigan Duroc-Jersey Breeders' Association has offered a gilt of that breed to the winner of the pig club championship in each county.

In their own line the girl club members are rivaling the progress of the boys. Last winter Michigan was acknowledged as foremost in the entire United States in handicraft and garment making club work and indications are that the record set a year ago will be surpassed this season.

The first of a series of club leaders' conferences will be held at the college during farmers' week, when three days will be spent in discussing problems.

Two recent additions to the staff of county club agents in the state are Harold Canfield, M. A. C. graduate in 1917, who took up his duties in Macomb county December 1, and C. E. Ackley, who will begin work on January 1, in Calhoun county.—HENSCHAW.

WHEN WILL A CATTLE SHORTAGE ARRIVE?

(Continued from page 3).
on the cattle population in various countries with the following result:
The cattle population of the United Kingdom, France, Italy, Switzerland, Belgium, Netherlands, Denmark, Sweden and Germany showed a reduction of 10.8 per cent. These are importing countries. In the United States, Canada, Argentina, Australia and New Zealand, the cattle population had increased 15.7 per cent. Combining all these countries, there was an actual increase of 5.4 per cent in cattle.

In brief, cattle shortage is on the way but it is not yet here, although the liquidation of the present year, due to financial conditions, will hasten it to some extent. In the past, the periods of very profitable prices for beef cattle were 1884-1886, 1898-1900 and 1914-1916. When will the next one be? Cattle production cannot be expanded or contracted as rapidly from year to year as can the production of crops, such as cotton or wheat, so that the swings of relatively high or low prices cover a longer period of time. About fifteen years from high point to high point has been the past history of the market. The farmers who will get the most benefit from high cattle prices when the next shortage arrives will be those who begin breeding an increased number of cattle from two to four years before the shortage is expected to culminate. In a year or two may be the proper time to begin. Just at present, it does not appear advisable to make big attempts at expanding cattle production although that may be a very good thing for some individual farmers or some whole communities which need cattle to balance up their agriculture.

Periods of profit for cattle feeders are slightly different. They move in shorter swings and are controlled very largely by the numbers of thin cattle taken out during a given period and the price of corn. The coming winter offers a fair prospect for those feeders who have grown their own corn and who have produced or purchased feeders at reasonable cost.



Her Milk Record Is
13,227 Pounds

LAST YEAR this splendid 5-year-old GUERNSEY, besides this notable mark in milk production, had a butter-fat total of 653.4 lbs.

Such profitable producers are only found in the dairies where cow health is carefully guarded.

NOTE: The trade-mark name has been changed from KOW-KURE to KOW-KARE—a name more expressive of both the PREVENTIVE and CURATIVE qualities of the remedy. There is not the slightest change in formula or manufacture.

How many cows in your dairy are in A-1 health?

PREVENTION of disease is the first chapter in the gospel of profitable dairying.

Not every cow in your dairy can make a conspicuous production record, but not one of them should be allowed to limp along as "poor milkers" when their yearly yield could be decidedly raised by keeping the organs of production in a top-notch health condition.

This health program does not mean an expensive veterinary service; in most cases an adequate home treatment is simple and easy. The most prevalent cow diseases, such as Retained

Afterbirth, Abortion, Barrenness, Scouring, Bunches and Milk Fever, are directly due to a weakening of the digestive or genital organs. Proper treatment will make them function normally.

KOW-KARE is distinctly a cow medicine; it acts directly on these organs, with prompt and noticeable results. The KOW-KARE treatment is so simple and inexpensive, no wonder it is so widely used.

Feed dealers, general stores and druggists sell KOW-KARE; 70c and \$1.40 packages. Let us send you our free book, "The Home Cow Doctor."

DAIRY ASSOCIATION CO., Lyndonville, Vt.
Manufacturers of KOW-KARE and BAG BALM



TREAT YOUR OWN LIVE STOCK PROMPT FIRST AID IS VERY IMPORTANT

You never know when an animal is going to be sick, or some accident occur, requiring quick action to prevent loss or permanent injury. If you know what to do and have the necessary medicines on hand you can save a valuable animal that otherwise may be lost.



There is a Dr. David Roberts Prescription for Every Animal Ailment

Study the *Practical Home Veterinarian*. Get our medicines of your local druggist. You can successfully treat Calf Cholera, Constipation, Abortion, Udder Troubles, Colic and dozens of other ailments common to livestock. If no dealer near you, write us direct. Veterinary advice free. Ask for free copy of the "Cattle Specialist" with full information pertaining to abortion in cows. Tells how to treat your own herd at small expense.

Dr. DAVID ROBERTS VETERINARY CO., Inc. 640 Grand Ave., Waukesha, Wis.

BREEDERS' DIRECTORY

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Ten Days before date of publication

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Imported Herd Bulls
ELCHO OF HARVIESTOWN (45547)
by Jason of Ballindalloch (38048)
EDGARDO OF DALMENY (45501)
by Escort of Harviestown (38006)
Woodcote Stock Farm, Tonia, Mich.

The 2nd Annual

Mich. Aberdeen Angus Breeder's Ass'n Sale will be held at M. A. C. East Lansing, on Jan. 14, 1920. This space is contributed by Geo. Hathaway & Son, Gvid, Mich. A few females and an aged bull to spare at private sale.

Reg. Aberdeen Angus bulls and heifers from 6 to 18 mos. old of the very best of breeding, also Berkshire Swine, boars ready for service and pigs both sex singles, pairs or trios, will accept Liberty Bonds.
RUSSELL BROTHERS, Merrill, Mich.

Head your herd with a son of May Rose Noble of Jean De Luth 33133 and get type and production combined. We offer a few sons out of superior A R. dams. Some old enough for service. Write or come and see, together with several near relatives of each. We also offer at this time a few high class A. R. cows.
PAUL LOVE, St. Austell Farm, Jackson, Mich.

GUERNSEYS

Bull calves for sale. Sired by Anton's May King that sold for \$7.00. Farmers prices and guaranteed to please.
GILMORE BROTHERS, Camden, Mich.

Village Farms Guernseys

for sale. High grade milking cows, heifers and heifer calves. Also registered bulls from 1 month to serviceable age whose dams are on test and making good records. Write or come and see the herd. Her Griffin Herdsman, O.J. Winter Prop. Sebawaing, Mich.

Wildwood Farms Angus

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

Our herd is under State and Federal Supervision.

WILDWOOD FARMS ORION, MICHIGAN

W. E. SCRIPPS, Prop., Sidney Smith, Supt.
For Sale Having decided to sell part of my herd of pure bred Aberdeen Angus cattle, consisting of males and females of different ages.
ANDREW P. EITEL, Vermontville, Mich.

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

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

For Sale Six registered Guernsey bulls May Rose breeding ready for service. Cheap if taken soon.
John Ebels, R. 2, Holland, Mich.

Additional Stock Ads on Page 19

POULTRY

DAY OLD CHICKS
HOMESTEAD FARMS

It will pay you in selecting Chickens for the coming season to consider the quality of our Pure Breed Practical Poultry.

We will send you our new spring Catalog, which explains this breeding. Also the catalog tells how to brood your Chickens successfully; it describes our

High Class Egg Leghorns And All Standard Breeds

Both Chicks and Hatching Eggs from all breeds guaranteed, and delivered post paid.

Pullets—We have 600 White Leghorn Pullets 7 months old, now ready to lay. Also 25 White Rock Pullets. We will send you description and price.

Yearling Hens—A few White Wyandottes, Anconas, and White Leghorns; the last of the season.

Cockerels—Barred and White Rocks; Brown Leghorns.

STATE FARMS ASSOCIATION,

Kalamazoo, Michigan

Chicks Baby Chicks

Sing'e Comb White Leghorns a Specialty

We are not running a hatchery but have the largest most up-to-date poultry plant in Michigan. All the eggs that go into our incubators are produced on our own farm from our high producing winter layers.

We cull our flocks 3 times, 1st in early fall, 2nd just before winter sets in and again before the breeding season.

The regular hatchery man can not do this as he does not own the flocks but buys the eggs.

Our supply is limited therefore place your orders early. Prices quoted on application.

Macatawa White Leghorn Co., Inc.
R. 7, Holland, Mich.



Baby Chicks

LOOK! 1,000,000 for 1921.

Postage PAID, 95% live arrival guaranteed. 40 breeds chicks, 4 breeds ducklings, select and exhibition grades. A hatch every week all year. Book your order NOW for early spring delivery. Catalogue free, stamps appreciated.

NABOB HATCHERIES, Gambier, Ohio

Whittaker's R.I. Reds Cockerels We are offering big bargains R. and S. Combs. Write for price list. Day Old Chicks, Reds only. Breeding stock carefully selected for egg production and color. Eggs for hatching by the sitting or hundred. Our stock is bred in 79 Mich. counties and in nearly 450 Mich. towns. The most popular strain of Reds in the state. Write for free catalog.

INTERLAKES FARM, Box 39, Lawrence, Mich.

BARRED ROCKS

Cockerels, Pullets, April hatched, get Norman's superior strain direct. Catalogue 25c. Circular free.

NORMAN POULTRY PLANT, Chatsworth, Ill.

Barred Plymouth Rock cockerels large birds from a prize-winning laying strain \$5.00 each. J. A. BARNUM, Union City, Mich.

BABY CHICKS R.I. Red, Barred Rocks, White Wyandottes, White Leghorns, Selected healthy chicks. Order early, have winter layers. First hatch Feb. 28th. Write for price list and circular.

DEER & ADAMS, Litchfield, 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.

BARRED PLYMOUTH ROCK cockerels for sale, some Bred thrifty birds from prize-winning stock \$4 and \$5. George H. Campbell, R. 5, Box 70, Ypsilanti, Mich.

BEST BREDS. Chickens, Ducks, Geese, Turkeys, Guinea Hares, Dogs. Stock for sale. Write your wants. Catalog free. H. A. Souder, Box 94, Sellersville, Pa.

CHICKS

for 1921 Bred-to-Lay S. C. W. Leghorns. Booking orders now for early hatches. \$10.50 per 50, \$20 per 100, \$35 per 500. Safe delivery postage paid.

SUNNYBROOK POULTRY FARMS, Hillsdale, Mich.

CHICKS! Standard bred White Leghorns and Brown Leghorns. Bred to lay, large white eggs. 50 chicks \$7.50; 100, \$15.00 and 500, \$72.50. Safe arrival guaranteed. Parcel post brings them to your door. Catalog free.

Wolverine Hatchery, R. 2, Zeeland, Mich.

CHICKS Pure-bred S. C. White and Brown Leghorns, from heavy laying strains. Parcel-post brings them up to your door. Safe arrival guaranteed. \$15.25 per 100 post-paid. Catalogue free. Royal Hatchery, R. 2, Zeeland, Mich.

Cockerels and Hens: Leghorns, Minorcas, Reds, Rocks, Orpingtons, Wyandottes, Houdans. Tyrona Poultry Farm, Fenton, Mich.

Fowler's Buff Rocks Cockerels, hens and pullets. Write for prices. R. B. FOWLER, Hartford, Mich.

FOR SALE Rose Comb Brown Leghorn cockerels \$2 each. White China Geese, Both sexes. D. E. SPOTTS, Hillsdale, Mich., 228 Lewis St.

JOHN'S Big Beautiful Barred Rocks are hen hatched quick growers, good layers, sold on approval \$4 to \$8. Circulars photos. John Northon, Clare, Mich.

Rhode Island Whites If you have ever said there is no money in raising poultry try the R. I. White, stock for sale, order ahead.

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Rhode Island Reds R. O. Standard bred cock- and cockerels \$3 to \$5 each. Address BURT Sisson, Imlay City, Mich.

S. C. Black Minorca Cockerels, from pen headed by S. C. our \$50, 1 lb. cock bird. These cockerels will be very large with quality. R. W. Mills, Saline, Mich.

S. C. R. I. Reds Carver and Whittaker's strain Cocks and Cockerels. Price from \$3 to \$5 each. Alfred Deichmann, Pigeon, Mich.

White Wyandottes 15 pullets at \$2.50 each. 1 pen \$15.00. Cockerels from flock with 207 egg average \$5.00 and \$8.00 each. Eggs for hatching \$2.00 per 15.

FRANK DeLONG, R. 3, Three Rivers, Mich.

White Chinese Geese, White Pekin Ducks, R. O. Br. Leghorns. Order early. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

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Michigan's best Giant Bronze breeding stock. Very large, excellent color, health and vigor guaranteed.

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Freight Prepaid East of Rockies and allowed on Express. Guaranteed. Order now. Share in my \$1,000 in prizes, or write for Free Book, "Hatching Facts." It tells everything. Jim Roban, Pres. Belle City Incubator Co., Box 14 Racine, Wis.

130 Egg Incubator \$18.25 and Brooder \$16.25 If Ordered Together, Freight Paid. East of Rockies, Hot water copper tank, double walls, dead air space, double glass doors, all set up complete, or 160 Egg Incubator and Brooder \$22.50

FREE Catalogue describing them. Send for it TODAY or order direct. Wisconsin Incubator Co., Box 82 Racine, Wis.

150 EGG CHICK Incubator & Brooder both are made of California Redwood. Incubator covered with asbestos and galvanized iron; triple walls, copper tank, nursery egg tester, thermometer. 30 day trial—money back if not O.K. Write for FREE catalog. Ironclad Incubator Co., Box 85 Racine, Wis.

64 BREEDS Most Profitable chickens, ducks, turkeys and geese. Choice pure-bred, hardy northern raised. Fowls, eggs, incubators at low prices. America's great poultry farm. 28th year. Send for free valuable book and catalog. R. F. NEUBERT Co., Box 314 Menasha, Wis.

January Poultry Hints

IN a village of two or three hundred people it is naturally expected that someone will occasionally be sick.

The same is true in a flock of two or three hundred hens. A certain per cent of mortality must be expected and that loss must be controlled by sanitary precaution to the lowest possible level.

The value of one hen is not often high enough to hire a veterinarian to drive several miles and give the bird expert attention. And usually not more than one hen will be ailing at any one time, unless some specific disease begins to make inroads on the flock. It means that the poultryman must be his own doctor and make a study of the business so that he can handle the cases and rapidly eliminate disease from the flock.

Information concerning poultry diseases can be obtained from farm journals, bulletins and books. When you read of a poultry disease and a treatment it pays to clip out the article and retain it in an envelope for future use. Then if such a case should occur in the home flock it will often be possible to give the sick bird prompt treatment and make a cure. Sick hens, as is the case with all animals, are more easily cured before the condition becomes chronic.

The poultryman should not forget that success with poultry does not consist in skill in curing diseases but in skill in preventing them. Many sick birds can be treated most effectively with the hatchet which at one blow permanently cures the patient and reduces the chances of the disease spreading to healthy members of the flock.

The Coming Campaign.

It is none too early to study literature concerning hatching and brooding equipment if new incubators or brooders are needed for the coming spring. Much of the success with the spring poultry work depends on having everything ready on time. Some of the most unpleasant weather of the year often comes in the early spring when the best chicks are arriving. This means that proper brooding equipment must be ready and its operation understood. Otherwise discouraging things may happen to the chicks. Unfortunately a bad beginning with a large flock of chicks does not often mean a good ending. A bad start more often means a season filled with discouragement and a poor flock of young stock.

Egg Laying Contest.

Here are some interesting figures from the Storrs, Conn., fourth annual laying contest. In the contest were one thousand birds and their total weight was two and a quarter tons. They consumed twenty tons of dry mash and over twenty-one tons of grain, ten tons of mangels, one and a quarter tons of grit and shell. The litter consisted of twelve tons of straw. Between nine and a half and ten tons of eggs were produced and eighteen tons of manure. The one thousand birds were of both the light and heavy breeds and undoubtedly the pick of the flocks from which they came. They produced an average of 151.8 eggs per hen.

The profit side of the ledger is interesting. These Storrs birds produced eggs worth \$4,019.57 at a feed cost of \$1,779.20. Of course, this does not include labor, etc., and the birds were not kept under farm conditions, which usually means all in one large free range flock. They received an average of thirty-six cents per dozen for the eggs. The above figures are interesting as a proof of how much hens can eat when properly fed. They also prove that a farmer need not be discouraged

if all his hens do not lay two hundred eggs each per year.

Introducing Cockerels.

When new cockerels are brought into a flock there is often considerable fighting. This can be avoided by purchasing all of the cockerels from the same flock and disposing of the old birds. Or hatching eggs can be purchased and the cockerels of the new blood raised with the home stock. The toe punch or leg bands will enable the owner to distinguish them. On free range the poorest fighters have a good chance to escape from the victors. But in a small laying-house the losers may be seriously injured by being driven about and frightened from the feed hoppers.

Nest eggs are not necessary to make hens lay, but sometimes they are of value in teaching the pullets to lay in the proper place. This is especially true when trappening is done and it is important to have nearly all the eggs laid in the nests and very few on the floor. Pullets are encouraged to lay in the nests and not on the floor if they always see a china egg in the nests. Eggs laid in the litter are often covered with straw and lost. They may be broken and eaten and help start the egg-eating habit.

A Word of Encouragement.

Last year eggs were lower than now and feed was higher. Some poultrymen say that egg prices will surely be profitable for the next three or four years as it will take that long for egg production to catch up because of the great reduction in flocks during the war. This does not mean that they could not be built quicker but that it will not be done because the old breeders will not come back at once but return slowly as the business picks up. Owners of good flocks now seem to have as good a chance to make them pay as they will ever have.—K.

GOOD SPEAKERS AT FARMERS' WEEK.

WHILE plans are not yet complete the program for farmers' week, to be held at M. A. C. from January 31 to February 4, gives promise of affording many a treat to those among the agriculturists of Michigan who attend. Among the speakers already arranged for are Marion L. Burton, president of the University of Michigan, who has attracted much attention by his activities in the short time since he came to the state from the University of Minnesota; Gov. W. L. Harding, of Iowa, known as an executive well versed in farm problems; A. F. Lever, member of the farm loan board and father of several widely known agricultural acts passed by congress in recent years, and S. S. McClure, famous journalist and publisher.

As was the case last winter most of the agricultural associations of the state will hold their annual meetings in connection with farmers' week. Among those so far assured are the Michigan Farm Bureau, the Michigan Crop Improvement Association, the Michigan Potato Producers' Association, the Michigan Horticultural Society and others.

The exhibit of Michigan crops which attracted universal admiration at the hay and grain show at Chicago will be a feature. Ashley M. Berridge, director of short courses, is chairman of the farmers' week committee and information may be secured by addressing him at M. A. C.—HENSCHAW.

Nebraska Farm Bureau Federation reports that ninety per cent of the farmers visited are joining in that state. They are just beginning a statewide campaign.

BALANCED RATION FOR COWS.

I am writing in regards to balanced ration for dairy cows. Will you please tell me the amount of each of the following feeds to feed in order to get a balanced ration: Ground corn and oats, cottonseed meal, mangels, timothy hay and shredded cornstalks with ears removed.

Genesee Co.

W. E. R.

I would recommend that you feed two pounds of cottonseed meal to each cow per day. This is all the cottonseed meal that one can feed for any length of time with real safety, then add a sufficient amount of corn and oats ground together with the two pounds of cottonseed meal to make a pound of grain per day for every four pounds of milk which the cows produce. The roughage ought to be fed liberally, but without waste. With proper care, which includes a warm stable, I believe you will get good results with this ration.

C. C. L.

CORNCOB MEAL.

I would like to know, when the cob is ground with the corn and fed to horses and cattle, if it would have any bad effect on them?

Ionia Co.

B. M. H.

Corn-and-cob meal is a pretty bulky food for horses. I prefer to have the corn alone, but if you do not feed too much of it and feed some other grain in connection with it, I don't think it will be a detriment to horses. For cows corn-and-cob meal is all right, but of course you ought to have ground oats or bran and then some cottonseed or linseed meal to furnish the cows more protein. I would not feed over one-half of the corn-and-cob meal by weight in the ration for cows, and the other one-half of the ration ought to be ground oats or bran and oil meal.

C. C. L.

COW NOT DOING WELL.

My young cow freshened the second week in July and gave eleven quarts when first freshened, and about six or eight weeks ago the flow decreased to about four quarts and it continues to decline. She eats and drinks well and appears to be well. I am feeding clover hay, cornstalks chopped fine, sugar beets cut up fine and mixed with commercial dairy feed. She also urinates every time I milk. I give her bran mash every week.

Wayne Co.

H. O. S.

Not knowing more about the conditions of the cow I would suspect that you were not giving her a sufficient amount of grain, and as it is cold and she gets nothing from the pasture, this often happens. Cows will do well on the ration you mention, which is a good one, providing you add enough grain, but you have got to be pretty liberal with the grain in order to keep the flow of milk where a cow freshens in July. If you are feeding her liberally and she does not respond, I think it would be best to consult your local veterinarian. She may need a tonic of some sort.

C. C. L.

QUART WEIGHTS OF FEEDS.

We find it inconvenient to weigh feeds for stock while feeding. Would you kindly give us the weight of a quart measure of the various feeds?

Hillsdale Co.

D. G.

The quart weights of various feeds are as follows: Cottonseed meal, 1.5 lbs.; linseed meal, old process, 1.1 lbs.; gluten meal, 1.7 lbs.; gluten feed, 1.2 lbs.; coarse wheat bran, 0.5 lbs.; coarse wheat middlings, 0.8 lbs.; fine wheat middlings, 1.1 lbs.; corn meal, 1.5 lbs.; oats, 1.2 lbs.; rye bran, 0.6 lbs. per quart.—W.

It is not expensive barns that make good milk and healthy cows, but well fed and healthy cows, though their stables be plain ones, just as we find the healthiest people living in plain cottages homes.

They're starting right with a De Laval



DAIRYING with a De Laval Cream Separator has brought prosperity to many thousands of users. No branch of farming is so surely profitable as good dairying, with its steady cash income every month in the year and no waiting for crops to mature.

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The De Laval saves cream twice a day, 365 days a year. It skims cleaner; produces smoother, better cream; lasts longer, and is easier to clean. It pays for itself the first year, and may be bought on such liberal terms as to save its first cost while being paid for. There is a size for every need.

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CATTLE

GUERNSEYS—Federal Inspected. Headed by only 1 son of Carrie of Hillhurst, exchampion of A. A. class. 3 bulls under 10 mos. 1 a dandy whose dam in class D has given over 50 lbs. milk. No females to spare. G. W. & H. G. RAY, 4 mi. east of Albion, Mich.

GUERNSEY BULL CALVES whose sire's dam made 19,460.20 milk, 909.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat. T. V. HICKS, Battle Creek, Mich.

Registered Guernseys

a 6 months old bull (100%) satisfaction for \$100. A nice heifer calf \$150. J. M. WILLIAMS, North Adams, Mich.



Fred H. Lee, Plymouth, Michigan, Writes:

"I have 26 head of Purebred Holsteins, all descendants of my two original cows. I have become owner of a large farm, near Detroit, which otherwise would have been impossible. I have not been able to back Holsteins but Holsteins have had to back me."

Send for Free Booklets

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

Holsteins of Quality

for sale. Heifers from 8 to 24 months old. All registered and sold subject to tuberculin test. E. A. HARDY, Rochester, Mich.

Reg. Holstein Bull for sale. Good individual, 3 1/2 lb. daughter and two in herd just tested 27.75 lb. and 28.39 lb. each gave over 90 lb. milk at day. Sired by a splendid 30 lb. bull. Better hurry on this one at \$300. Farm 2 miles west of Hadley, Lapeer, Co. H. G. CRAMTON & SON, Elba, Mich.

MR. DAIRYMAN!

Are you using a first class herd sire? You can't afford to use a poor one. We have good ones of all ages listed at reasonable prices. Let us know your needs.

The Michigan Holstein-Friesian Association

H. W. NORTON, Jr., Field Secretary,
Old State Block, Lansing, Michigan

Two Grandsons of King Of The Pontiacs Ready for Service

From 31.18 and 28.39 lb. dams

Sire:—King of the Pontiacs Segis No. 169124, who is by King of the Pontiacs and from Hillsdale Segis (a 35 lb. daughter of King Segis) "Nuf Ced."
Dams:—Topsy Clothilde Forbes No. 172906 made 31.18 lbs. butter and 229.8 lb. milk in 7 days.
Sunny Brook Nina Segis No. 43727 at 4 years produced 28.39 lbs. butter and 587.6 lbs. milk in 7 days and 105.94 lbs. butter and 2319.6 lbs. milk in 30 days.
These bulls are nicely marked and Good Individuals. Herd under federal supervision. Come and see them. For pedigree and information write Mr. Fred Alt, Mgr.

James B. Jones Farms,
Romeo, Mich.

Superior Holsteins

Bulls all sold but are now booking orders for our expected fall crop of

Bull Calves

sired by my new herd bull, a grandson of
May Echo Sylvia

My sire's two nearest dams average over 35 lbs. butter and 800 pounds milk in seven days.

A. W. COPLAND

Birmingham, Mich.
Herd under state and federal supervision

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

NOTICE

The Winwood Herd

on Nov. 1st will move their Herd of Pure Blood Holsteins to their new home, 1 1/2 miles south of Rochester, Mich. and for the next 30 days we will sell what bull calves we have cheap as we will be unable to get our buildings complete before winter. So get busy if you want a son of Flint Maplecrest Boy at your own price.

JOHN H. WINN, (Inc.)

Roscommon, Michigan

The Traverse Herd

We have what you want in BULL CALVES, the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dam's records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

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

"Top Notch" Holsteins

Buy a "milk" Bull of Quality from the Breeders of the world's only cow to produce 800 lbs. milk in 7 days, having an 800 lb. daughter. Our advertised bulls are selling fast. Here are two good ones:

No. 1. King Vale Colantha De Kol, No. 307701. Born Oct. 11, 1919.

A "TOP NOTCH" individual, backed by fifteen dams who average 30.73 lbs. butter in 7 days. Price \$175.00 f. o. b. Howell.

No. 2. Cornucopia Wayne Segis King, No. 318409. Born Dec. 6, 1919.

His 4 nearest dams average 25.39 lbs. butter in 7 days. Dams, a 22 lb. cow with a daughter who produced 33, 744 lbs. milk and 1543 lbs. butter in two consecutive years. Price \$125.00 f. o. b. Howell.

No. 1 Bull about one quarter white.

No. 2 Bull about half and half.

McPherson Farms Co. Howell, Mich.

Our herds under U. S. Supervision.

Foundation Holsteins

NEW YORK—recognized as the cradle of the Holstein industry, has furnished the foundation animals for many herds whose fame is known throughout the Holstein world. She has diversified popular blood lines, that are noted for short and long time production. Type that wins in the show ring. Recognizing the importance of the public sale as an advertising medium, the New York Holstein Friesian Association has selected through a nationally known judge, a consignment of the state's best Holsteins from over sixty herds for their

First State Sale Rochester, N. Y. January 12-13, '21

In this sale will be no less than TEN 30-lb. COWS and more than a QUARTER OF A HUNDRED FROM 30 lb. DAMS: Several from long distance dams: three cows above 35-lb., two over 700 lb. milk and a very select bunch of young service bulls all from 30 lb. dams. It is doubtful if any sale ever before held has contained so many high record show ring individuals.

Follow the men who have made a success of the Holstein business and buy NEW YORK HOLSTEINS. The men selling in this sale have subjected the animals going into it to the intradernal and subcutaneous test and will guarantee them without reserve for sixty days to any purchaser. This work has been done with the co-operation of the state and Federal departments.

Send to E. R. Zimmer, Wieting Block, for a catalog and plan to attend this event.

New York Holstein Association
Syracuse, New York



507.5 lb. milk 22.8 lb. butter aver. of 5 nearest dams of granddaughter of De Kol 2nd Butter Boy 3rd Due in Mar. to 27 lb. bull. Price \$300. M. L. McLAULIN, Redford, Mich.

For Sale Holstein-Friesians

A bull calf ready for service. Combines show type and production. Herdsire, Model King Segis Glista, whose granddam is Glista Ernestine, the only cow of the breed that has six times made better than 30 lbs. butter.

Grand River Stock Farms

Corey J. Spencer, Owner
315 N. East Ave. Jackson, Mich.

Cluny Stock Farm

Offers the best selection of young bulls from 8 to 12 months we ever raised; out of dams up to 29.76 for aged cows and over 26 lbs. for 2 yr. olds. Yearly records up to 24000 lbs. milk and 1000 lbs. butter. Sired by our Senior Herd Sire, Maplecrest Application Pontiac, whose dam made 35 lbs. butter in 7 days and 1344 lbs. butter and 23421 lbs. milk in a year, or by Dutchland Konigen Sir Rag Apple, our Junior Herd sire, whose dam is a 30 lb. 10 yr. old maternal sister of Dutchland Colantha Denver who made 36 lbs. in 7 days and 1315 lbs. butter and 2431 lbs. milk in 1 year. Several carry the blood of both these sires.

They are extra well grown, straight and right. One of these at the head of your herd is bound to increase production.

Send for pedigrees and prices.

R. Bruce McPherson, Howell, Mich.

Here Is A Good One.

A yearling son of Maplecrest De Kol Hengerveld. The sire having three sisters, each with records of over 1200 pounds of butter in a year, two of them former world champions. Calf's dam sister to three each with records of over 1200 pounds of butter in a year. This combination of breeding has produced more 1000 to 1200 pound cows than any other of the breed. If prepotency counts, where can you equal it? Price \$150.00 for quick sale. Hillcrest Farm, Mgr. F. B. Lay, Kalamazoo, Mich.

Reg. Holstein-Friesian cows and heifers, priced to sell. Good individuals. Choice breeding. Some freshen soon. B. B. Reavey, Akron, Mich.

Federal Accredited Herd Bull For Sale Old enough for service. Dams records, 7 da. milk 467.80, butter 20.85, 305 da. milk 16,135.3, butter 648. She has 2 A. R. O. daughters. His sire a 24 lb. grandson of Colantha Johanna Lad, and three heifer calves 7 mos. old not related to bull. All for \$500. Vernon Clough, Parma, Mich.

AUCTION SALE

Purebred

Aberdeen-Angus Cattle

By the

Michigan Aberdeen-Angus Breeders' Association

At

MICHIGAN AGRICULTURAL COLLEGE, EAST LANSING, MICH.

January 14th, 1921



45 head exceptionally good cattle from the leading herds in the state. Cows that will make wonderful foundation material, and bulls of herd heading quality, sired by some of the most noted bulls of the breed.



In the sale are Blackcaps, Blackbirds, Ericas, Prides, Heather Blooms and Georginas.

The animals in the sale are sired by and bred to such noted bulls as:

Imp. Edgar of Dalmeny
Imp. Elcho of Harvestown
Idler of Rosemere
Duke of Woodcote
Black Rosegay
Blackbird Brandon 2nd
Bunker Bean

Black Watch of Woodcote
Ames Plantation Beaumont
Proud Monarch 5th
Afton Jam
Enos of Woodcote
Bright Monarch
Blackcap Modeler

Michigan Aberdeen-Angus Breeders' Meeting and banquet at the Wentworth Hotel on the evening of the 13th. All are invited.

For catalogs and further information write Ward Hathaway, Sec. Mich. Aberdeen-Angus Association, Ovid, Mich. or Dr. K. J. Seulke, Eastern Representative, American Aberdeen-Angus Association, Ithaca, N. Y.

Reg. Holstein bull calf born Nov. 1920 extra choice breeding and individuality, \$80 reg. and del. J. R. Hicks, St. Johns, Mich.

HEREFORDS

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

Allen Bros. Paw Paw, Mich.
Address Until June 1st. 1921.

907 Osborne St., Kalamazoo, Mich.

Herefords For Sale Fairfax and Disturber blood, 150 Reg. head in herds, \$35 reduction on all sires, choice females for sale. Write me your needs. Earl C. McCarty, Bad Axe, Mich.

The Sun Always Shines on GREAT JERSEYS

Great yearly records everywhere.

In Canada	960	lb.	85%	butter
In Maine	1223.5	"	"	"
In California	1105.8	"	"	"
In Mass.	1175.2	"	"	"
In New Mexico	1097.6	"	"	"
In Ohio	1010.5	"	"	"
In Oregon	1212.8	"	"	"
In So. Carolina	1020	"	"	"
In Illinois	1120	"	"	"
In Washington	1102.3	"	"	"
In Iowa	1010.2	"	"	"
In Mich.	1124.6	"	"	"

No! not 80%, but 85%, good honest butter. Sec'y. Henrickson of Shelby, knows of a lot more.

The Wildwood Farm

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

For Sa'e Tuberculin tested Jersey herd consisting of 10 cows and herd sire. Having heifers coming fresh to take their place, I will make a very attractive proposition on these. E. A. LIVINGSTON, R. 10, St. Johns, Mich.

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

For Sale Jersey bull calves of Majesty breeding from good producing stock. Herd on Government "Accredited List." Write for price and pedigree to C. A. TAGGETT, R. 2, Fairgrove, Mich.

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

Jersey Bulls from R. of M. dams \$75 to \$150 each. NOTTEN FARM, Grass Lake, Mich.

Jersey bulls for sale: From Marguerite's Premier a grandson of Pegasus 99th and R. of M. dams. SMITH & PARKER, R. 4, Howell, Mich.

Meridale Interested Owl No. 111311 heads my herd bull calves from this great sire and out of R. of M. dams for sale. Leon E. Laws, R. 6, Allegan, Mich.

BIDWELL SHORTHORNS

that will put weight on your dairy calves—the difference will soon pay for the bull. Now selling good Scotch and Scotch-topped yearlings, reasonably priced. We guarantee every animal to be a breeder. Federal Test. One hour from Toledo, Ohio, N. Y. C. R. R.

BIDWELL STOCK FARM,
Box D, Tecumseh, Michigan

Bloomdale Shorthorns

See our cattle get our prices and breeding before buying. Both bulls and females for sale. CARR BROS. & CO., Bad Axe, Mich.

The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford Welfare. In service, bulls for sale. J. V. WISE, Gobleville, Mich.

Richland Shorthorns

Imp. Lorne, Imp. Newton champion and Sterling Supreme in Service. We offer for quick sale: Five Scotch Bulls, best of breeding. Three whites at \$1000 each. One roan at \$500, one red at \$400. No females for sale. Public sale Chicago Oct. 28th. C. H. PRESCOTT & SONS, Tawas, City, Mich.

BRANCH COUNTY FARM

Breeders of American Polled Shorthorn Cattle

For Sale two splendid bulls now ready for service, and two younger ones that will be ready for light service Jan. 15th. We also are offering at this time a few bred cows and heifers. Herd headed by Victor Sultan and Sultan's Gift. Prices very reasonable, write your wants. Geo. E. Burdick, Mgr., Coldwater, Mich.

FOR SALE Three registered roan bulls, age 7 and 8 mos. grandsons of Village Archer, also one roan head bull 4 yrs old from Village Archer. Henry J. Lynch, Mayville, Tuscola Co., Mich.

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

Milking Shorthorns Breeding the best bulls from high producing cows. O. M. YORK, Millington, 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.

Scotch-Topped Shorthorns Two cows, 2 year old and bull calf. Write for pedigrees and price. SHOESMITH & BRICKER, East Lansing, Mich.

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

Milking Shorthorns. Bull calves \$100.00 each. Federal accredited Herds. Davidson and Hall, Beland and Beland, Tecumseh, Mich.

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

Reg. Red Polled Bull calves for sale, from 3 mos. to 1 year old, sired by Famous Charming grand son of Charming 1819 International Grand Champion. WESTBROOK BROS., Ionia, Mich.

HOGS

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.

Registered Berkshires for sale. Two young boars, ready for service, two young glts. a sow and younger ones of either sex. Let me know your wants. JOHN YOUNG, R. 2, Breckenridge, Mich.

Bred Berkshire glts for April farrow \$50. One Short-horn bull \$125. One Hampshire ram lamb \$35. Berkshire pigs \$10 & \$15. M. G. Mosher & Sons, Osseo, Mich.

Brookwater Duroc Jerseys

BOARS—Ready for Service

Big type, large bone and rugged with plenty of quality. This is your chance to buy high class individuals at reasonable prices.

Open Glts

of choice breeding and right type. Panama Special, The Principal 4th, Orion Cherry King, and Great Orion families. Now is the time to buy before the demand takes all of the good ones.

Write us for Prices and Pedigrees. Mail orders a Specialty. Satisfaction guaranteed.

BROOKWATER FARM

ANN ARBOR, MICHIGAN
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. THOS. UNDERHILL & SON, Salem, Mich.

Special Offer For December we will take orders for 1920 spring glts bred for Mar. and Apr. farrow 1921 at \$50 each excellent breeding. Glts to be shipped when safe in pig. Write or come and make your own selection at once. RUSH BROS., Romeo, Mich.

For Sale Duroc Jerseys of the big heavy boned type. CHAS. BRAY, Okemos, 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 buyer. Cat. and price list. NEWTON BARNHART, St. Johns, Mich.

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

Duroc Boars ready for service. Sired King number 169259 son of the \$10,000.00 Champion Jacks Orion King 2nd all large type and heavy bone out of good sows. THE JENNINGS FARMS, Bailey, Mich.

Duroc Jerseys Boars Boars of the large heavy boned type at reasonable prices. Write or better come and see. F. J. DRODT, Monroe, 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 Jersey boars from 6 mo. to 1 yr. old. Young sows old enough to breed for spring litters all in good condition and at fair prices. Safe delivery guaranteed. W. E. BARTLEY, Alma, Mich.

DUROC JERSEYS

Carey U. Edmonds, Hastings, Mich.

DUROC JERSEYS Boars and glts by Mich. Pathfinder. E. D. HEYDENBERG, Wayland, Mich.

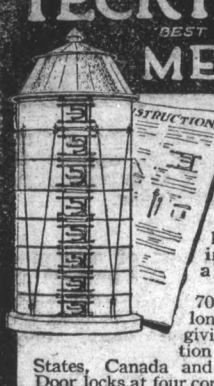
Michigan Durocs. We can fill your wants. Several lines of breeding represented including the Sensations. Satisfaction guaranteed. O. F. Foster, Pavilion, Mich.

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.

Build a Perfect Wood Silo
By the
TECKTONIUS
BEST SILO ON EARTH
METHOD



The TECKTONIUS method builds a rigid, air-tight, permanent silo that makes perfect silage. Just buy your materials and follow our simple working plan. Backed by a five-year guarantee. A 5-Year Success 7000 in Wisconsin alone. Thousands more giving perfect satisfaction in the United States, Canada and foreign countries. Door locks at four corners, automatic adjusting hoop fasteners and super cable and base stave anchorage system. Don't buy any silo until you investigate the Tecktonius.

FREE To farm owners. Our illustrated booklet "Perfect Silage." Gives the real facts about silos. Send for it at once. Also send your lumber dealer's name.

E. C. TECKTONIUS MFG. CO.
1207 Racine Avenue. Racine, Wisconsin

MOLINE



Burns KEROSENE
cheapest fuel, 36 hours one filling; handy valve controls heat for small tanks or mild weather; flame can't blow out; no ashes, smoke, sparks; heavy rust proof boiler iron insures steady heat; no rivets under water; dependable; lasts years; fits any tank; pays for itself quickly.

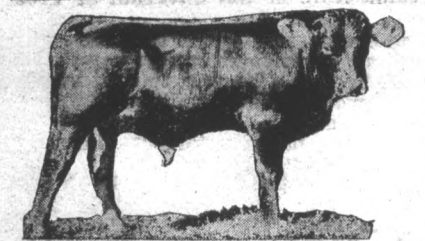
Farmers who owned ordinary tank heaters are the men who buy and stick by the "MOLINE." Costs no more than the inefficient kind.

MOLINE HOG WATERERS
Guaranteed heavy galvanized steel; non-freezing; sanitary; cool in summer; long burning lamp, three styles. Write for prices.

Farmer Agents
ask for spare hour money making plan. Get literature, price today! Immediate shipment direct from factory. Write.

MOLINE MFG. CO.
525 Main St., Moline, Illinois

CATTLE



FOR SALE: A few choice registered
BROWN SWISS
yearlings and calves.

SAMUEL WILLIS, Owosso, Mich.

HOGS

Big Type Chester Whites Spring boars sired by Wildwood Jr. 2nd. Hill's Big Bone, Col. Wykoff, Smith's Giant and Champion X Jr. and out of good big dams. Cholera immune and satisfaction guaranteed. Also fall pigs, either sex, not related.

N. L. HILL, Jr., Mackinaw, Ill., Tazewell, Co.

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.

Down With Prices on last fall and this spring's fall pigs. We register free and ship O. O. D.

O. I. C.'s choice spring pigs either sex. Booking orders for fall pigs. We register free and ship O. O. D.

O. I. C.'s One last fall boar wgt. 425, two last fall gilts, bred lots of spring pigs and this fall pigs either sex, good growthy stock 1/2 mile west of Depot. City's Phone 124. Otto B. Schulze, Nashville, Mich.

O. I. C.'s June and July boars and open gilts. Recorded and express paid for next 30 days each one a guaranteed feeder. E. C. Burgess, R. 3, Mason, Mich.

O. I. C. Serviceable boar's. A few extra good boars at farmers' prices.

H. W. MANN, Dansville, Mich.

BUY MICHIGAN-BRED BULLS.

THE Central Michigan Shorthorn Breeders' Association, organized and working for the best interests of the Shorthorn breed of cattle, and aiding in every way possible the new breeder who takes up the breeding of Shorthorn cattle in this vicinity. We are proud of the fact that while there were but few breeders of these cattle here eight years ago, and only nine members in our association, today we have over seventy-five members and more Shorthorn cattle than in any other section of the state. We laid up the hammer at the outset and do not knock any other breed. We are strong supporters of the farm bureau and claim credit for our initiative in forming the farm bureau of Montcalm county. We approve the methods of our county agent in forming Boys' and Girls' Calf Clubs and neighborhood bull associations.

But, whereas, certain speculators or dealers have taken advantage of the interest that has thus been created in good stock and bull associations and have and are organizing such bull associations on the old "stud horse plan," often selling inferior animals, and animals of doubtful breeding and breeding ability to groups of farmers at several times their true value—the cost of organizing the association being added to the price of the animal, and,

Whereas, we believe such methods to be a detriment to the best interests of the farmers and breeders of this vicinity and at large in the state, and only beneficial to the few such speculators or dealers.

Therefore, be it resolved by the Central Michigan Shorthorn Breeders' Association in annual meeting assembled, that we do not approve of and do not and will not lend our support to the formation of any bull association by such speculators or dealers on such "stud horse plan;" nor where any contract is entered into to buy a certain animal or an animal of any certain person or persons before the association is organized.

And be it further resolved, that a copy of these resolutions be spread upon the minutes of this meeting and a copy furnished to the leading farm and live stock journals.

Above resolutions adopted by unanimous vote at the annual meeting December 14, 1920.

C. W. Crum, president; Oscar Skinner, secretary; M. E. Miller, Roy Potter, directors.

VETERINARY.

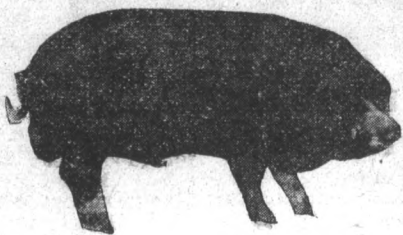
Incipient Heaves.—Recently I purchased a mare that shows symptoms of heaves. Will you tell me what to do for her. F. T. K., Kent county.—Feed no clover or dusty, badly-cured fodder, very little bulky food; grain and roots is the best winter feed for a broken-winded horse. Give three drams of Fowler's solution at a dose in feed two or three times a day for ten days, then repeat treatment. His stable should be well supplied with fresh air.

Lice.—I have a hog that is troubled with lice. The remedies I have applied fail to kill the lice and destroy the nits. Also tell me what will kill cattle lice. G. W. M., Eau Claire, Mich.—One part creolin and fifty parts water will kill lice. A favorite remedy is kerosene emulsion, made by dissolving soft soap, two pints, in the same quantity of boiling water, adding one pint of kerosene. This mixture should be churned or stirred violently and three quarts of water added before it is used. Stavesacre seeds, two ounces, boiled in two pints of water, is an efficient agent to destroy all kinds of lice.

Abscess.—Have a calf four months old with soft bunch on flank. I opened it, blood and yellow fluid ran out. Bunch is not painful and is movable. J. A. B., Fife Lake, Mich.—Split bunch open, swab out sack with tincture of iodine daily and the animal will soon get well.

Sale BRED SOW Sale

40 Head
Large Type
Poland
China Gilts



Wednesday
Jan. 5, 1921
at farm near
Manchester
Mich.

BRED TO { F's Clansman Grand Champion at Michigan State Fair 1920
Smooth Buster first Jr. yearling boar Michigan State Fair 1920

Sale takes place under cover. All trains will be met A. M. of sale day. Get a sow bred to one of these boars. Send for catalogue. Everything immuned.

Col. Ed. Bowers
Auctioneer

A. A. Feldkamp
Prop.

40
HEAD

40
HEAD

Hillcrest Farm Will Sell
Big Type Poland Chinas
THURSDAY, JANUARY 6, 1921

AT THE

Fair Grounds, Allegan, Michigan

The offering consists of bred gilts, tried sows fall yearlings, choice boars, a few fall gilts, and subject to prior sale, some young EXTRA CHOICE HOLSTEIN 35 LB. BULLS.

As special attractions, we are listing FASHION NELL, a great sow by GRAND MASTER, the first boar shown actually weighing over 1100 pounds, and the grandsire of the \$50,000.00 boar and the \$17,000.00 sow.

Some great sows by HILLCREST WONDER the 1915 grand champion, and by the MASTADON WONDER, the sire of the 1917 Grand Champion, and by HILLCREST BOB, by BIG BOB, the greatest progenitor of the big type breed. All sows bred to either BIG SMOOTH JONES or BOB'S RIVAL.

PUT DOWN THE DATE AND BE SURE TO BE AT THE SALE.

Write Hillcrest Farm, Kalamazoo, Michigan, for catalog.

Den Blyker Bros., Allegan, Mich.
F. B. Lay, Kalamazoo, Mich.

O. I. C. BOARS

Choice individuals; shipped to you c. o. d. express paid and guaranteed right or your money refunded. All stock registered in buyer's name.

J. CARL JEWETT, Mason, Mich.

O. I. C. HOGS

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

CRANDELL'S PRIZE HOGS, Cass City, Mich.

O. I. C.'s Fall pigs by C. C. Big Callaway have size and quality and are priced right.
C. J. THOMPSON, Rockford, Mich.

O. I. C. Bred Gilts for Mar. and Apr farrow also a few choice service boars.
CLOVER LEAF STOCK FARM, Monroe, Mich.

Closing out sale of big type Poland China hogs, which represents the work of 25 years of constructive breeding. Everything goes; including our three great herd boars, "Mich. Buster," by "Giant Buster," "A Giant," "Butler's Big Bob." Two of the best yearling prospects in Michigan great length, big bone, come get your pick. Jno. C. Butler, Portland, Mich.

Large type Poland China's spring boars ready to ship. Everything immune from Cholera.
A. A. FELDKAMP, R. No. 2, Manchester, Mich.

L. S. P. C. a few choice boars at farmers prices, gilts bred to Black Giant one of the best pigs out of Ill. this fall. Also a grandson of The Clansman and Harrison Big Bob. H. O. SWARTZ, Schoolcraft, Mich.

Big Bob Mastodon Spring gilts bred for March and April and some sows bred to Big Bob his sire was champion of the world, his dam's sire was Grand Champion of Iowa State Fair.
C. E. GARNANT, Eaton Rapids, Mich.

For Sale O. I. C. Swine. Strictly Big Type with quality. Have a few good boars and gilts left of same type and blood lines, that won for us at Ohio and Michigan State Fairs. Priced very cheap. Write us before you buy.
NEWMAN'S STOCK FARM,
R. 1, MARLETTE, MICH.

L. T. P. C.
70 head of Poland Chinas at private sale. Am offering spring boars from \$40 to \$50 and gilts the same price. Summer and fall pigs \$25 each. The first check will bring you the first choice. HART, FULCHER & OLIVE, Address F. T. Hart, St. Louis, Mich.

Big Type P. O. a few first class, 200 lb. boars left also some fall boar pigs good enough to head any herd. Come and see or write.
E. E. LEONARD, R. 3, St. Louis, Mich.

L. T. P. C. Spring boars and gilts now ready to ship. Something good at a right price.
W. J. HAGEMSHAW, Augusta, Mich.

Big Type Poland Chinas spring gilts bred to grand son of the Clansman for April farrow also fall pigs registered and delivered to your town for \$20.
DORUS HOVER, Akron, Mich.

Big Type Poland China boars Long, heavy boned spring boars. Sired by Brewbaker & Son's great heard boar Gertsdale Tamm. Stock all double immuned.
H. C. OVEN, Ovid, Mich.

Big Type P. O. some very choice boars double immuned, out 1100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

Poland China Bred sows and gilts at bargain prices, also spring boars and fall pigs, either sex.
CLYDE FISHER, R. 3, St. Louis, Mich.

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

HAMPSHIRE spring boars and fall pigs at a bargain price book your order now for bred gilts.
JOHN W. SNYDER, R. 4, St. Johns, Mich.

YORKSHIRES Boars ready for service. Yorkshires cross makes an excellent market hog. Waterman & Waterman, Packard Rd. Ann Arbor, Mich.

SHEEP.

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

Registered Shropshire Rams and ewes all ages for sale. Well-wooled with size and quality. Priced to sell. H. F. Mouser, R. 6, Ithaca, Mich.

Registered Shropshire Ewes and rams. Jno. Grieve, R. 3, Fowlerville, Mich.

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

HORSES

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

LATEST MARKET REPORTS

GRAIN QUOTATIONS

December 28, 1920.

Wheat.

Detroit.—Cash No. 2 red \$1.95; March \$1.90; No. 2 white and No. 2 mixed \$1.93.

Chicago.—No. 2 hard \$1.72; No. 1 mixed \$1.75@1.82½.

Corn.

Detroit.—Cash No. 3 yellow, new 79c; No. 4 yellow, new 74c.

Chicago.—No. 2 mixed 73c; No. 2 yellow 76½c.

Oats.

Detroit.—Cash No. 2 white 50c; No. 3 white 48½c; No. 4 white 45½c.

Chicago.—No. 2 white 47½c; No. 3 white 46@47¼c.

Beans.

Detroit.—Immediate and prompt are steady at \$4 per cwt.

Chicago.—White beans steady. Hand-picked beans choice to fancy \$4.25@4.50; red kidney beans \$9@9.50 per cwt.

New York.—Market is dull. Choice pea, new \$5; do medium \$5.50@5.75; red kidney \$9.75.

Rye.

Detroit.—Cash No. 2 rye \$1.62.

Seeds.

Detroit.—Prime red clover \$12.50; February \$12.65; alsike \$17; timothy \$3.55.

Toledo.—Prime red clover, cash and December \$12.55; alsike \$17.50; timothy \$3.55.

Hay.

No. 1 timothy \$26@27; standard \$25@26; light mixed \$25@26; No. 2 timothy \$24@25; No. 1 clover mixed \$23@24; No. 1 clover \$22@23; rye straw \$14.50@16; wheat and oat straw \$13.50@14 per ton in carlots at Detroit.

WHEAT

Purchases of wheat by European countries are as persistent as ever. Greece, North Africa, France, Belgium, and England were buyers during the past week. This is contrary to trade expectancy as it was thought that with the close of lake navigation and the harvest of the crop in the southern hemisphere this buying power would be shifted to Argentina and Australia. Explanations suggested are that European requirements are larger than estimated or that the southern wheat crops are less abundant than has been generally reported. The flour trade continues dull as usual at this season, yet prices were advanced slightly at northwestern milling points during the past week. Since purchases made by impoverished foreign countries have been sufficient to maintain the present level of prices it is hard to see why domestic demand, presently compelled by shortage of stocks of flour, should not support prices upon an even higher level during the late winter and spring months.

CORN

The corn movement is gradually expanding but is not yet up to maximum volume. The big factor in setting the midwinter price is the demand which usually widens out when heavy marketing begins. Industrial demand is slow at present. Hedging sales will tend to depress the market when the movement is heavy. Export demand for corn is in evidence but amounts taken are small.

OATS

Oat prices have become relatively stable, the slight fluctuations occurring being mostly in sympathy with corn. Stocks at terminals are gradually reducing but supplies are liberal in all sections and there is no anxiety over filling future requirements.

SEEDS

Seed markets have been comparatively stable during the past week. Demand is slight and producers are not selling freely. Liquidation has probably run its course. Occasional sharp declines may be recorded but the spring demand seems quite certain to carry prices above the present level.

FEEDS

Weakness in the feed markets continues, due to the same lack of demand prevailing recently, and due to large supplies of cheap feed on farms, open weather, reduced feeding operations, and necessity for economy in

farm outlay. Latest quotations per ton (100-lb bags) in carlots are: Chicago.—Bran \$31; standard middlings \$30; flour middlings \$37; cottonseed meal, 41 per cent \$38; cottonseed meal 36 per cent \$34; gluten feed \$45; hominy feed \$33; old process oil meal \$45; tankage \$65@75. Detroit.—Bran \$36; standard middlings \$36; flour middlings \$44; coarse corn meal \$34; cracked corn \$41; chop \$34.

HAY

Local demand around distributing markets for immediate use continues to be the chief support of the hay market and only light receipts prevent the market from shipping further. The reduction in freight rate on hay from the northwest has affected alfalfa especially.

POTATOES

Northern round, white potatoes are quoted practically steady at shipping points, the price being \$1.20@1.25 per 100 lbs. Carlots sacked at Chicago are quoted at \$1.35@1.45. Jobbing prices in other middle western markets range from \$1.50@1.85. Western New York shipping points are quoted at \$1.50 sacked. Shipments during the past week have declined about 20 per cent. Chicago.—Northern whites, sacked at \$1.35@1.45. Cleveland.—New York and Michigan round whites \$2.50@2.75 per 150 lbs. Detroit.—Michigan at \$2.25@2.50 per 150-lb. sack.

BUTTER

Fresh butter appears to be in an uncertain position with the coming of January when a drop in prices usually occurs. General business conditions may have seen their worst. Money promises to be a little easier and there is not likely to be forced selling. It is reported on good authority that Great Britain will contract to take the entire output from Denmark after the first of the year, and this may serve to strengthen the market. All New Zealand butter that is expected to arrive has already been marketed. On the other hand, about a thousand casks

of Danish butter arrived the past week and considerable more will be delivered after January 1. The Pacific Coast is also approaching their flush season. The closing prices on 92 score butter December 24, according to the United States Bureau of Markets, were as follows: Chicago 54c; New York 56c; Boston 54c; Philadelphia 56½c.

EGGS AND POULTRY

After several slumpy days egg prices have again advanced slightly. The supply situation is strong but the price remains high and is likely to be unsteady. Poultry prices have been somewhat irregular, the holiday demand not bringing strength uniformly in all markets as supplies were rather liberal. Receipts of dressed poultry at the four leading cities were 11,429,241 pounds, compared with 5,861,137 pounds during the preceding week. Latest quotations were as follows: Chicago.—Eggs, fresh firsts 65@66c; ordinary firsts 56@61c. Poultry, spring chickens 23½c; hens 23@23½c; roosters 17c; ducks 28c; geese 26c; turkeys 40c.

Detroit.—Eggs, fresh candled 64@67c. Live poultry, spring chickens 26@27c; leghorns 20c; heavy hens 25@26c; small hens 18@20c; roosters 18c; geese 25@27c; ducks 34@35c; turkeys 45c per pound.

WOOL

Boston reports moderate activity in the wool market with low combing wools advanced slightly while medium and fine wools sag lower. Chicago also reports the movement of medium and low-grade wools upon which prices are supposed to be scratching bottom. Australian growers are resisting further declines by refusing to sell. The leading interest in the wool manufacturing industry has announced that a cut in wages is inevitable. Should this cut become effective it will mean that proportionately less of the burden of the decline in prices for woolen goods need be assessed against the wool which goes into its manufacture, although the clash with labor may

keep the trade unsettled for a time. Manufacturing interests oppose the tariff on raw wool and it is not certain that the measure will pass.

APPLES

Cold storage holdings of apples on December 1 were 4,540,906 barrels and 6,622,368 boxes compared with 3,325,568 barrels last year and 7,792,532 boxes on the same date last year. These totals clearly reflect the abundance of the barreled apple crop and the comparative shortage in the boxed apple states. Prices during the past week have been on the easy side most of the time, but recovered toward the close. Shipments of both barreled and boxed apples declined sharply.

HOLSTEIN-FRIESIAN BANQUET.

The annual banquet of the Michigan Holstein-Friesian Association will be held at the Plymouth Congregational Church at Lansing at 6:30 p. m., Tuesday, January 11, 1921. A special feature program is being arranged and all Holstein breeders are invited to come and bring their families.

NEWS OF THE WEEK.

(Continued from page 2).

cording to Secretary Houston's estimate.—Italian troops reach the factory districts of Fiume and are gradually closing on the positions held by General D'Annunzio's forces.—United States senators argue the issues growing out of the present proposed emergency tariff bill.—The German army has been reduced to 100,000 men.

Tuesday, December 28.

THE Soviet government of Russia has ordered its representative in this country to cancel all orders made in America and return to Russia at once. This decision is stated to be the result of the American government toward Soviet Russia.—Certain districts in China are short on food and much suffering is already reported.

FEDERAL TRADE ON WHEAT PRICES.

THE report of the investigation into the cause for the fall in wheat prices made by the Federal Trade Commission at the direction of President Wilson has been made public. The commission states that the recent decline in price of wheat appears to have been due "in part to country-wide and world-wide conditions." Seven specific causes are listed:

1. The outlook for an increased world supply;
2. Concentrated buying by foreign governments last spring and slack purchases later;
3. "Unprecedented" importations from Canada, following "an unprecedented yield and a discount in rate of exchange."
4. The record-breaking yield of corn and large yield of oats in this country;
5. The slackening of domestic demand for flour;
6. The general tendency towards commodity declines;
7. The change in credit conditions "with resulting disposition of distributors to refrain from accumulating usual stocks."

The report also states that speculation in grain for future delivery is not an unmixed good and that a large share of these transactions are of a gambling character, although a complete treatment of this feature of the grain business is reserved for a later report to be made public after submitting it to congress.

The report states that the President has no power to embargo Canadian wheat.

COMING LIVE STOCK SALES.

Bred Sows—January 5, A. A. Feldkamp, Manchester, Michigan.
Poland-China—Holsteins.—Thursday, January 6, Hillcrest Farm, Allegan, Fair Grounds, Allegan, Michigan.
Holstein-Friesian.—January 12-13, New York Holstein Association, Rochester, New York.
Aberdeen Angus—Michigan Aberdeen Angus Breeders' Association at M. A. C. East Lansing, Michigan, January 14, 1921.

Live Stock Market Service

Markets for December 29.

DETROIT

Cattle.

Receipts for week 640. Market is strong.
Best heavy steers\$ 10.00
Mixed steers and heifers 8.50@ 9.75
Best cows 7.00@ 7.50
Handy light butchers 6.25@ 6.75
Light butchers 5.00@ 6.00
Best cows 6.50@ 8.00
Butcher cows 5.00@ 6.50
Common cows 3.00@ 3.50
Canners 2.50@ 3.00
Choice bulls 7.00
Bologna bulls 5.50@ 6.25
Stock bulls 4.50@ 5.50
Feeders 7.50@ 8.00
Stockers 5.50@ 7.00
Milkers and springers...\$ 45@ 70

Veal Calves.

Receipts for week 666. Market is strong.
Best\$17.00@18.00
Others 6.00@15.00

Hogs.

Receipts for week 2,505. Pigs are steady; mixed hogs 10@25c lower.
Mixed hogs\$10.25
Pigs 11.00
Roughs 9.25
Stags 7.00

Sheep and Lambs.

Receipts for week 3,240. Good lambs strong; sheep and common lambs dull.
Best lambs\$11.50@12.00
Fair lambs 9.00@10.00
Light to common 5.00@ 8.00
Fair to good sheep 4.00@ 4.50
Culls and common 1.75@ 2.75
Yearlings 8.00@ 8.50

CHICAGO

Hogs.

Estimated receipts today are 26,000; holdover 10,697. Market 15@25c lower. Bulk of sales \$9.80@10.10; tops \$10.40; heavy 250 lbs up medium, good and choice \$9.70@10; medium 200 to 250 lbs medium, good and choice \$9.80@10.10; light 150 to 200 lbs common, medium, good and choice \$9.90@10.20; light lights 130 to 150 lbs common, medium, good and choice at \$10.10@10.35; heavy packing sows 250 lbs up smooth \$9.35@9.65; packing sows 200 lbs up rough \$9.15@9.35; pigs 130 lbs down medium, good and choice at \$10@10.50.

Cattle.

Estimated receipts today are 9,000. Market steady. Beef steers, medium and heavy weight 1100 lbs up choice and prime \$11.75@13; do medium and good \$8.50@11.75; do common at \$7@8.50; light weight 1100 lbs down, good and choice \$10@12.25; do common and medium \$6.75@10; butcher cattle, heifers, common, medium, good and choice \$5.25@10.50; cows, common, medium, good and choice \$4.75@9.25; bulls, bologna and beef \$4.75@8; canners and cutters cows and heifers \$3.25@4.75; do canner steers \$4@5.50; veal calves light and handyweight medium, good and choice \$10@12.50; feeder steers, common, medium, good and choice at \$6.25@9; stocker steers, common, medium, good and choice \$4.25@8; stocker cows and heifers, common, medium, good and choice \$4.25@6.25; western range cattle beef steers, medium, good and choice \$6.50@9; do cows and heifers medium, good and choice \$4.75@7.75.

Sheep and Lambs.

Estimated receipts today are 13,000. Lambs steady to 25c lower; sheep are firm. Lambs 84 lbs down medium, good, choice and prime at \$11@12.60; do culls and common at \$8.75@10.50; spring lambs, medium, good, choice and prime \$8.25@10.50; ewes, medium, good and choice \$4.25@5.50; ewes, cull and common \$2@3.50; breeding ewes, full mouths to yearlings at \$4@5.50; yearling wethers medium, good and choice \$9@10.25.

BUFFALO

Hog prices are slightly higher, good hogs selling at \$11.25@12, and yorkers and pigs at \$12@12.50. Lambs bring \$13.50; best calves \$19.

BANKER-FARMER DIES.

THE death of B. F. Harris, of Illinois, removes from a sphere of activity, in which he had acquired usefulness and prominence, a man who had been identified with the agricultural, political and financial affairs of the country for many years. He was actively identified with educational progress, taking a prominent part in the work of the Illinois Agricultural College and experiment station, being himself a farmer and live stock producer on a large scale.

Mr. Harris founded and edited the Banker-Farmer and was known as the "father" of the county agent movement, which brought agricultural advisers to every county.

He inaugurated the good roads campaign in Illinois and gave this movement his active support until his death.

He was also largely instrumental in the passage of the Smith-Lever act. But it was his work to improve country conditions that won him national renown. In 1913 Mr. Harris was made chairman of the agricultural commission of the American Bankers' Association and served three years.

GETTING PRODUCTION COSTS.

THE Wisconsin Farm Bureau has projected a plan for carrying on a state-wide survey of the cost of production. Wisconsin Agricultural College will act as umpire and referee and will help in assembling and analyzing the data provided by the members of the bureau. The general plan is for each man to keep a financial record, including inventories. These financial accounts will be classified into ten or a dozen main accounts for balancing purposes and from this number one or two accounts will be agreed upon for intensive study by a group of farmers who will be held responsible to the other members of the bureau for the essential accuracy and good faith of the records. The amount of work required of any farmer is estimated to not exceed five or ten minutes a day scoring up his day's work and financial transactions, an hour or so a month to make out his monthly statement, and probably a day at the end of the year summarizing his inventories. The plan is expected to get results with no additional expense to the farm bureau members. The ultimate purpose of all this cost work is to obtain a basis of facts upon which to study the state's financial problems, rather than to rely upon the present lack of system which consists of memory and guess work. Valuable cost of production records are being kept by Michigan Agricultural College through the cooperation of farmers which will serve much the same purpose in Michigan as the proposed plan is expected to do in Wisconsin.

THE CONDENSED MILK MARKET.

THERE has been no marked revival of interest in condensed and evaporated milk during the past month. In fact, at the present time, there is a minimum amount of buying as demand is entirely domestic and for small lots. There is some inquiry for three to four hundred-case lots of evaporated milk but the buyers wish to purchase the milk at a price of \$4.50, which is not satisfactory to sellers. One sale of five thousand cases of evaporated milk at \$4.75@5 is reported.

Prices of condensed and evaporated milk have changed very little of late, although the trend at present seems to be downward. There would be a marked tendency in that direction if the law of supply and demand were allowed to operate unimpeded. Manufacturers, wishing to avoid heavier losses than they must meet on present prices, are unwilling to sell at lower prices, which is the one great factor that is preventing a marked decline in quotations. Manufacturers of well-advertised brands of case condensed

goods persistently keep quotations at the high level of \$10.50, while there have been some offerings of unadvertised brands as low as \$6.00.

There is a great accumulation of powdered skim-milk and prices have reached rock bottom. Large quantities have been offered as low as ten and three-quarters of a cent a pound, but there have been no sales. The condition of the market for that product is, indeed, very unsatisfactory.

STATE FARM BUREAU NOTES.

A FORESTRY department was established by the executive committee of the Michigan State Farm Bureau on December 22, 1920. Professor Sanford, of the Forestry Department of M. A. C., was placed in charge to begin work January 1. Only after exhaustive study of the forestry situation in Michigan was the department decided upon. Professor Sanford gave two months of his time last summer to a tour of the state in which he made a broad survey of the possibilities of forestry work through the State Farm Bureau.

The seed department announces that farmers who bought Grimm and common alfalfa this year are getting the cream of the crop. In Idaho the seed is now selling for more than Michigan farmers paid for it and the best of seed has already left that country. One-third of the total Grimm production of the world was purchased by Michigan farmers through the Michigan State Farm Bureau. The department advises members to be careful in buying common alfalfa this year since the crop was nearly a failure in Dakota and Montana. The large crop in Kansas is a poor quality.

Two hundred and fifty cars of various commodities were handled through the purchasing department November 24 to December 18. This does not include orders for one hundred and fifty cars held for future delivery. Carload orders are being received by the department every day from all parts of the state.

The executive committee has gone on record as favoring the establishment of a State Farm Bureau branch office in the upper peninsula. A committee composed of Secretary Bingham, A. J. Hankins, director of marketing, and Robert Blehmhuber of the executive committee, is studying the matter.

A member of the traffic department staff will hereafter be located permanently at the Lansing office to furnish the marketing department with immediate information on rates and traffic problems generally. Service to individual members, cooperative associations and farm bureaus will still be offered through the Grand Rapids office, where the presence of numerous railroad divisional offices have served to make the department most efficient.

Two hundred and thirty-seven cars of hay and grain were handled by the Elevator Exchange during November and December. The business of the Elevator Exchange to date has been an amount sufficient to pay back to the State Farm Bureau the money received during its organization period.

Organization of a dairy department has been authorized by the executive committee. A committee consisting of Ray Potts, of the executive committee; H. D. Wendt, of the Dairy Division of the Food and Drug Department of the state; Mr. Waldron, of the Extension Department of M. A. C., and a representative of the secretary's office, was instructed to call a meeting January 10, of one representative from every dairy county to formulate plans, and elect an advisory board for the new department. This board will take over the duties of the above committee. N. P. Hull, president of the Michigan Milk Producers' Association, and Mr. Wendt, addressed the executive committee. The new department is being formed after a careful investigation into the many phases of the dairy problem. Cooperation with all existing organizations and agencies familiar with dairy work will be the policy. The executive committee provided that the farm bureau apply for membership in the Michigan Allied Dairy Association and specifically stated that the Farm Bureau would continue a policy of cooperation with the United States Department of Agriculture, the Dairy Division of the Food and Drug Department of the state and the dairy division of the Food and Drug Division of Extension Department of M. A. C.

NEW YORK HORTICULTURE MEETING.

The annual meeting of the fruit growers of New York state will be held at Exposition Park, Rochester, January 12-14, 1921.

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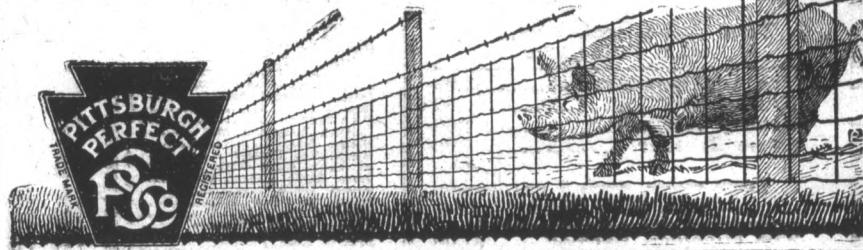
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Market Growers' Journal..1.50
Corn Belt Farmer..... .50

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Review of Reviews.....4.00
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Total value, each 1 yr....\$7.00
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The Michigan Farmer.....\$1.00
Pathfinder1.00

Total value, each 1 yr....\$2.00
ALL FOR \$1.65.

The Michigan Farmer.....\$1.00
Today's Housewife1.00
Woman's World50

Total value, each 1 yr....\$2.50
ALL FOR \$1.80.

The Michigan Farmer.....\$1.00
McCall's Magazine1.50
Boys' World60
Girls' Companion60

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The Michigan Farmer.....\$1.00
Peoples Popular Monthly... .35
Woman's World50
American Woman50
Gentlewoman20

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Figures in the second column give our price for subscriptions to the Michigan Farmer and other publications for one year.
Figures in the third column give the price at which other publications can be added if more than one is wanted in combination with the Michigan Farmer.
EXAMPLE:—We will send the Michigan Farmer and Detroit Journal each for one year for \$4.50. If the same party wishes the McCall's Magazine, it costs 80c extra, or \$5.30 for this combination.
ABOUT DAILY PAPERS:—Our rates on daily papers are made for subscribers living on R. F. D. routes, or in towns where the daily does not maintain regular newsboy or carrier service. If in doubt, send us your order and we will have it filled if possible. Our rates on Michigan papers apply for the state of Michigan only.

DAILY (6 a week)	1	2	3
Detroit Free Press.....	\$5.00	\$5.50	\$4.75
Detroit Times.....	5.00	5.50	4.75
Detroit Journal.....	4.00	4.50	3.75
Grand Rapids Press.....	5.00	5.50	4.75
Grand Rapids Herald.....	5.00	5.50	4.75
Grand Rapids News.....	4.00	4.50	3.75
Saginaw News-Courier.....	5.00	5.50	4.75
Lansing State Journal.....	5.00	5.50	4.75
Port Huron Times-Herald.....	5.00	5.50	4.75
Kalamazoo Gazette.....	5.00	5.50	4.75
Battle Creek Enquirer.....	4.00	4.50	3.75
Battle Creek Moon-Journal.....	4.00	4.50	3.75
Jackson Citizens Patriot.....	5.00	5.50	4.75
Jackson News.....	5.00	5.50	4.75
Flint Journal.....	5.00	5.50	4.75
Madison Indiana Courier.....	5.00	5.50	4.75
Monroe News.....	3.00	3.50	3.00
Big Rapids Pioneer.....	4.00	4.50	3.75
St. Louis (Mo.) Globe Democrat.....	7.50	7.50	7.00
Terre Haute Indiana Star.....	4.00	4.00	3.25
Toledo Blade.....	4.00	4.50	3.75
Toledo News-Bee.....	4.00	4.50	3.75
Toledo Times.....	4.00	4.50	3.75
Chicago Herald Examiner.....	5.00	5.25	4.50
Chicago Daily Drivers Journal.....	5.00	5.00	5.00
Chicago Tribune.....	7.50	7.50	7.00

NEW YORK, N. Y. WORLD.....1.00 1.75 1.75

SEMI-WEEKLY (2 a week)

1	2	3
Cheslea Tribune.....	2.00	2.50 2.00
Mason County Enterprise.....	2.00	2.50 2.00

WEEKLY

1	2	3
Almont Herald.....	\$1.50	\$2.25 \$1.50
Bellvue Gazette.....	1.50	2.25 1.50
Bloomfield Advance.....	1.50	2.25 1.50
Cincinnati Enquirer.....	75	1.40 50
Courier Tribune.....	1.00	2.00 1.00
Cheaning Argus.....	1.75	2.50 1.75
Charlotte Leader.....	1.50	2.25 1.50
Cedar Springs Liberal.....	1.50	2.25 1.50
Clare Courier.....	1.50	2.00 1.50
Elk Rapids Progress.....	2.00	2.50 2.00
Galesburg Argus.....	1.50	2.25 1.50
Lenox Standard.....	1.50	2.00 1.50
Lowell Ledger and Alto Solo.....	2.00	2.75 2.00
Millington Herald.....	2.00	2.50 2.00
Missaukee Republican.....	1.50	2.00 1.50
Munising News.....	2.50	3.00 2.50
Manitoulin Record.....	2.00	2.50 2.00
Schoolcraft Express.....	2.00	2.50 1.75
St. Louis Leader.....	2.00	2.75 2.00
Toledo Blade.....	75	1.40 50
Urbis Courier.....	1.50	2.25 1.50
Wayne Times.....	2.00	3.00 2.00
Woodland News.....	1.50	2.25 1.50

CATTLE, SHEEP, SWINE, POULTRY, ETC.

1	2	3
American Bee Journal.....	\$1.50	\$2.25 \$1.40
American Fruit Grower.....	1.00	1.50 75
American Swineherd.....	1.00	1.75 85
American Sheep Breeder.....	1.50	2.00 1.10
American Thoroughbred & Farm.....	1.00	1.50 60
Power.....	1.00	1.50 60
American Herford Journal.....	1.00	2.00 1.00
American Poultry Advocate.....	1.00	1.50 55
Breeder's Gazette.....	1.50	2.00 1.15
Chester White Journal.....	1.00	1.50 75
Cloverland Magazine.....	1.00	1.50 75
Corn Belt Farmer.....	1.00	1.50 75
Domestic Bee Keeper.....	1.00	1.75 85
Everybody's Poultry Magazine.....	60	1.30 55
Farm Mechanic.....	2.00	2.00 1.50
Fruit Belt.....	50	1.25 20
Game Breeder.....	2.00	2.00 1.00
Garden Magazine.....	3.00	3.50 2.75
Gas Engine Magazine.....	2.00	2.20 1.30
Gleanings in Bee Culture.....	1.00	1.85 1.00
Guernsey Breeder's Journal.....	2.00	2.00 1.75
Hoard's Dairyman.....	1.00	1.75 80
Holstein Friesian Register.....	1.00	1.85 90
International Poultry Rock.....	50	1.25 30
Jersey Bulletin & Jersey World.....	2.00	2.00 1.75
Market Growers' Journal.....	1.50	2.00 1.10
O. I. C. Swine Breeder's Guide.....	50	1.25 35
Potato Magazine.....	2.00	2.00 1.35
Poultry Breeder.....	50	1.25 30
Poultry Item.....	1.00	1.50 65
Poultry Keeper.....	1.00	1.50 65
Poultry Success.....	1.00	1.50 65
Poultry Tribune.....	1.00	1.50 75
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