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A Comprehensive Agricultural Policy

By James N. McBride, Father of the Farm Bureau Idea of Michigan

THERE has never been a comprehensive agricultural policy developed in the United States to secure maximum results and to place the farm on the same economic plane with other industries. Out of this necessity and the need observed most clearly during the war period the Farm Bureau was born to serve agriculture and to work with other industrial and commercial interests to establish proper relations and secure the fullest cooperation therewith.

When the Farm Bureau can coordinate the educational and official organizations of agriculture such as the United States Department of Agriculture and the state agriculture work to its service and not repel by aloofness and work on an equitable plane with other industries it will be performing its mission.

The Ishmaelite of Agriculture, labor and of industry whose hand is against everyone and who proposes to get the least and get it while the getting is good will not approve of the Farm Bureau and will doubtless feel the weight of its power. The Farm Bureau invites all the farmers and rejects none. No farmer is too humble; or circumstances too limited, to have his industrial problems receive attention.

For specific performances agriculture as an occupation must be as profitable and as safe as any other industrial service. With the present world's food shortage and scarcity of labor, sabotage must cease. Sabotage must be defined to include not only the worker who destroys or shirks production, but also the mercenary who interferes with food production.

The system that undervalues products at harvest time and secures their control at a price below reproduction must be changed because it prevents food supply just as surely if not less openly than labor sabotage. The low price paid for pork and the raid on the cattle market in 1919 mean lessened meat supply, and dislocation of industry, not so immediately but just as surely as the coal strike decreased the coal output.

There is also educational work to be done where the only conception of agricultural problems is that of direct marketing. The successful marketing of fruit and vegetables, and these only in part where the consumer has the product in the same form and without manufacture or change as produced, represents not over fifteen per cent of farm output.

The citation of the success of the citrus fruit growers to the grain growers or meat producers, whose products must be manufactured, is accounted for as mental laziness in logical analysis.

"The real problems of the farmer are to be met, and not passed by on

the other side," and include at least three main factors.

First. The Farm Bureau is to interpret supply and demand in terms of adequate price to secure continued and uninterrupted production.

Second. Warehousing to care for seasonable supplies and prevent market slumps as well as to protect the consumer from unnecessary advances in periods of apparent scarcity.

Third. Reservoirs of credit to assist in production and allow marketing to proceed as needed by the consumer without violent fluctuations.

The wide area of ^{W. F. Association in the} United States presents no special difficulty. When the United States planned the financial areas of reserve bank districts, reference was made to industrial needs and local productions. For example, the three bank districts included in the territory which Chicago, Kansas City and Minneapolis serve would embrace in the main the great cereal and meat states. The farm bureaus of each district should through their grain committee take up next year's wheat crop about the time when the Oklahoma or Texas crop is ready

to move. With one well-posted man from each state the Chicago district would meet and in session with government and their own statisticians, and a representative from the reserve bank interpret the crop in terms of price that would be adequate but not excessive. A joint meeting of representatives of the three or four reserve districts would coordinate and establish the minimum price for wheat. This joint committee would be the central body of price-making, with adjustments as crop conditions would warrant. A member of the federal trade or a similar official of the United States, should sit with the wheat committee. While, aside from the full power and duties of the bureau, here would be the place for a body like the Chamber of Commerce, with a federal representative to make adequate allowance for the miller and other legitimate distributors of product. This same method would apply to the other staple grains and establish equitable and stable markets.

Circumstances of crop maturity occasioned by seasonable conditions or world's demand, would probably compel the reassembling of this body from time to time to make readjustments. This body would interpret supply and demand in price with scientific accuracy "for and by the people" and not for mercenary gain by those who reap where they have not sown.

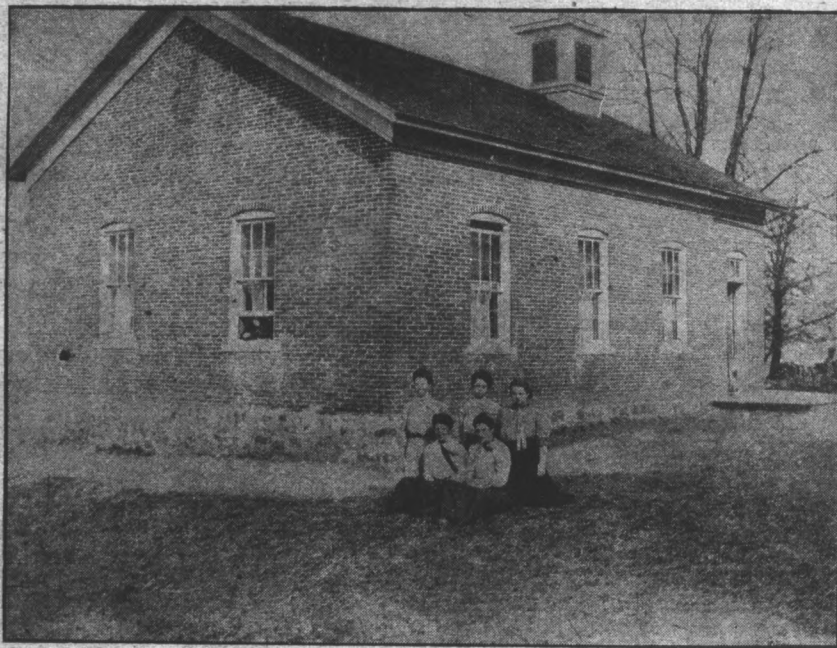
Heretofore supply and demand has been but two viewpoints of the same thing. The old legal maxim was, "when buying tell the seller beware," and when selling, "tell the buyer beware." The psychology of the decision of this grain body would be its fairness and public service to all, which would compel adherence. The grower would know, and collective bargaining be centered on a positive price.

The great success of labor organizations on wage adjustments has been a positive wage statement in terms of money. Agriculture has been deterred from this by phrases like "organization," and "cooperation," which prevented men's minds meeting except on abstractions.

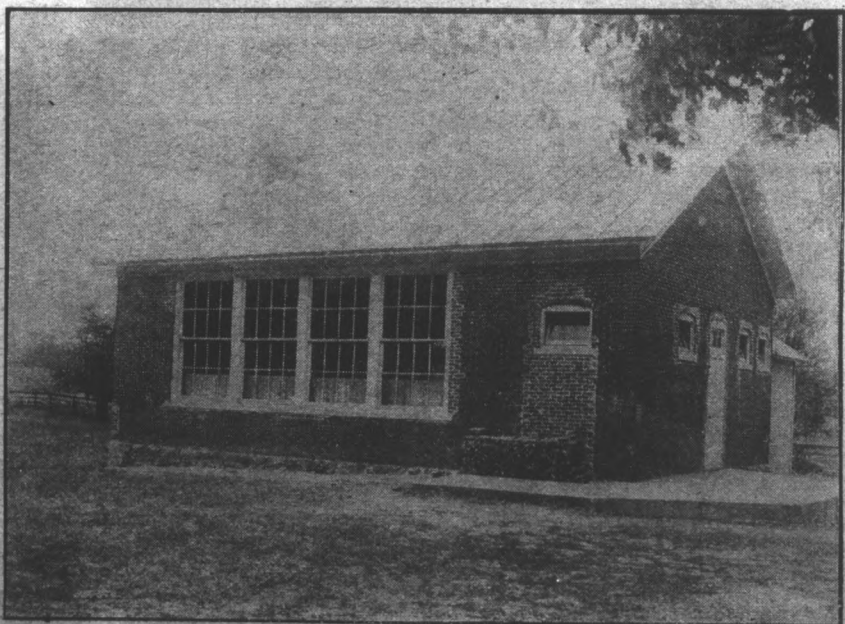
The spotlight centered on a positive price for wheat and pork by Herbert Hoover sounded an advance to the farmer from which he will never recede.

Under peace conditions a distinction must be made between price-fixing in advance of the crop and interpretation of supply and demand in terms of price when the crop and demand can be estimated. This adherence to price would make grain handling a merchandising proposition instead of a speculative one. At the present time much odium is attached to the elevator operator when the system under which
(Continued on page 282).

Better Rural Schools



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The Michigan Farmer

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DETROIT, FEBRUARY 21, 1920

CURRENT COMMENT

Cooperative Wool Marketing

THE new network of county and state sheep growers' organizations to control the marketing of wool, and protect and foster the sheep industry in general, assures the permanency of the farm flock as a complement to the other live stock equipment of our farms. As soon as the benefits of these new organizations are more clearly understood and fully appreciated, sheep will find new homes on many farms. It is plain to see that the new movement is the logical plan to follow in establishing farm flocks. When ten or twenty men in a community have a strong organization made up of men in adjoining townships they can get together and purchase a lot of good ewes, to be parceled out according to their special needs. Purebred rams can then be purchased on a cooperative basis. With so many farmers interested in sheep there is sure to develop a popular sentiment in each community favorable to the industry, and in a few years farmers in other communities will begin keeping sheep.

In a community where a large number of farmers are keeping sheep the local dog problem can easily be controlled, and adequate fences built without causing ill feeling on the part of adjoining land owners. Where one man keeps sheep, and his neighbors keep dogs, troubles are sure to come to the man who is keeping sheep. He not only has the worthless curs to contend with, but the attitude of his neighbors has a discouraging influence. Concerted cooperative effort will overcome these difficulties and place the individual in a much more favorable position.

In respect to wool marketing, organization is especially advantageous. Farmers who keep sheep have for many years been at the mercy of the country dealers who practically dictate prices to the men who have only a few fleeces to sell. Western flock owners who had large clips of wool to sell received full government rewards, and express satisfaction over the war method of valuation, but in the eastern states the sentiment is radically different, not because the government plan was at fault, but because the farmers did not receive their just dues. In many instances unprincipled local buyers set a price below the government valuation and left no alternative but acceptance. With efficient county and state organizations carlots of wool could have been sent to concentration

points and dealers forced to pay equitable prices.

If the fleeces of each county in the state of Michigan could be assembled at one station, or warehouse, competition among buyers would be stimulated and an incredible sum annually put into the farmer's pocket. An example of the effectiveness of a county organization is furnished by the sheep growers of Berkshire county, Massachusetts, who during the past year formed the Berkshire County Sheep Growers' Exchange. The Exchange this year pooled the wool of the county, which amounted to approximately ten thousand pounds. A storeroom was hired, a professional grader engaged, and on a given day the wool was received and graded. The educational value to the farmers from the grading of the wool was most valuable. It was an eye-opener to many farmers to see the difference in wools and to know that care of the sheep and quality of the wool might mean a difference of as much as twenty cents a pound or more in some cases. Bids were received and opened on the seventh of July. The best bid received was that of a Boston company, and it was accepted. The amount received for all wool averaged better than sixty cents a pound. Many farmers whose wool graded in the better qualities of combing and clothing wools, received an average of sixty-five cents a pound. At the time wool was pledged to the association local buyers were generally offering forty-five cents per pound. The highest offer which the association learned of at the time was forty-eight cents a pound. It is a conservative estimate that the farmers consigning their wool to the Exchange realized ten cents a pound more for their fleeces than would have been the case had the Exchange not been in existence. At this rate the saving to the farmers in the county would amount to one thousand dollars. Letters have since been received by the Exchange from wool growers who consigned their wool expressing their appreciation of the work and pledging in advance their wool for another year.

Another problem which could be worked out by an efficient state or national sheep growers' organization is that of furnishing the press of the country with reliable market information. At the present time there are no reliable daily quotations on wool, like other commodities, and what we do get from time to time, in the vernacular of one of our leading comic supplement artists, do not mean anything. Reliable quotations on nearly everything used by mankind can be found in the papers of the country, with the exception of wool. The wool grower must guess at the worth of his fleeces, or depend on the coming buyer to tell him. How the local buyer knows is a matter of conjecture, and if he don't know you can imagine where the grower "gets off." Circumstantial evidence shows that there is a highly developed system to keep the grower in the dark and to manipulate buyers on their raids. There need be no fault found with the operatives of that system whose business duty is to get the wool as low as they can, or with the local buyers who do their bidding, but their concerted chasing shows they are under organization, and they must be met by the same forces. They have proved that they can take good care of themselves, and too long have the growers committed the care of their selling business to them.

Insurance on Farm Buildings.

THE high cost of building materials and labor would bring their present replacement cost up to a figure which would stagger any farmer who is so unfortunate as to suffer a serious fire loss. Only those who have had occasion to build

or make extensive repairs during recent months realize the extent of the increase in construction costs. But every farmer will do well to take this situation into account under present abnormal conditions and see that his fire risk is reduced to the minimum as well as his insurance adequate to the changed situation.

Farm insurance is generally given little attention except to pay the premiums and renew policies on expiration. But it is a factor of the farm business which is of more than ordinary importance under present conditions, and which consequently merits more attention than is ordinarily given it.

Two Views on Farm Production

FROM current discussions of agricultural topics it is apparent that two schools of thought on the policy of stabilizing prices of farm products are securing a following from the ranks of our farmers. The school with which we are most familiar is the one which believes in the so-called law of supply and demand. This school holds that the method of securing adequate returns from the sale of farm products is to diminish supplies to a point where compensatory returns can be had. The other school was championed in one of the outstanding addresses at the Agricultural College during Farmers' Week, on a constructive plan of agriculture to stabilize prices and to realize the economic ideal of the farmer for cost of production plus a fair profit.

The speaker held that it is up to the farm bureau movement plainly to choose between allowing the Chicago and Minneapolis wheat pits to name the price for the 1920 wheat crop by the manipulation of prices and call it the law of supply and demand when it was merely concealing price-fixing for the profit of the members of these institutions under a phrase which seemed to explain, but did not satisfy, or by the farm bureaus of certain districts interpreting supply and demand based on cost and real facts and establishing a minimum price below which the crop would not be sold. This address by Former State Market Director James N. McBride, may be found on another page of this issue and should be read by every farmer. Aside from the gain to the farmer he holds that this plan would become the basis of price making for manufactured goods derived from farm products, such as the flour from wheat, sugar from beets, the meat from live stock, etc.

The plan, if workable, would seem to have the advantage of insuring ample supplies and at the same time of giving the producer a profit over the cost of production. Since the stabilization of prices is bound to be one of the leading issues to be considered and settled, if possible, during these reconstruction days, we commend the careful reading of Mr. McBride's article to the end that every reader may have a general understanding of the premises in the argument of this more recent school of agricultural thought.

News of the Week

Wednesday, February 11.

THE former crown prince of Germany cables President Wilson offering himself to the allies instead of the nine hundred Germans wanted for committing alleged war crimes.—Premier of Italy declares that his country must pursue a policy of retrenchment to recover from its present handicapped position.—New volcanic fields are discovered by aviators in Southern Africa.—Kansas is about to test the constitutionality of her anti-strike law.—Peace has been restored in Lexington, Kentucky, following the arrival of state troops.—Disturbances in northern Korea are being fomented by bolshevik leaders.—Secretary Daniels declares that pay advances to naval men

allowed by congress are not sufficient.

Thursday, February 12.

A REDRAFT of Article X of the peace pact is stated to be acceptable to the mild reservists of both parties.—Final decision of the wage demands of more than two million railroad workers is put up squarely to President Wilson.—Wholesale and retail merchants declare that food prices are declining.—Admiral Kolchak, leader of the anti-Reds in Siberia, is reported to have been slain by his own men.—Hungary's peace delegation arrives in Paris.—Seventeen governors of Mexico assure the people that the forthcoming elections will be honestly conducted.—The demand for steel continues to maintain a wide gap between the amount wanted and the supply.

Friday, February 13.

THE new secretary of the treasury, Houston, feels confident that Europe will recover from her present financial depression and that nothing extremely grave can be seen in the present situation.—Under the proposed terms of the allied settlement of the Turkish question practically all of the Sultan's domains will be accessible to bombardment from foreign war ships.—The supreme council of the allies show a united front on the question of insisting on the extradition of German war criminals.—Hungary is asking for a plebiscite in disputed provinces to determine the type of government wanted.—Both Holland and Denmark are seeking admittance to the League of Nations.—The Church of England declines to grant women the right to preach.

Saturday, February 14.

REPRESENTATIVES of the railroad brotherhoods are still in session considering the proposals of President Wilson on the question of wages.—Secretary of State, Robert Lansing, resigns from President Wilson's cabinet because the latter declared Mr. Lansing assumed the prerogatives of the chief executive in calling and presiding over meetings of the cabinet.—Twenty-eight senators pledged themselves to support a proposed modification of Article X of the Peace Treaty.

Sunday, February 15.

PRESIDENT WILSON notifies the allies that the United States would find it impossible to continue in conference if the allied settled the Adriatic question without consulting this country.—Bolshevik troops are massing at three points along the Polish frontier.—It is reported that the allied chiefs are demanding the surrender of what remains of the German mercantile marine.—A cold wave and heavy snow storm sweeps over the eastern states.—The German government advances forty million francs to the city of Paris in part payment for damage done during the war by airplane bombs and shells.

Monday, February 16.

HOLLAND decides to intern former German Emperor William at Doorn and accept the full responsibility of preventing William from endangering the peace of the world, by establishing a guard and a strict censorship.—The strike order issued by the chiefs of the United Brotherhood of railway maintenance employees and shop laborers has been indefinitely postponed.—Fully ten thousand visitors call at the Detroit Motor Car exhibit.—Confirmation is given to the reports of a heavy concentration of bolshevik troops on the Polish frontier.—Street car fares in 460 cities throughout the country have been increased.

SUGAR BEET GROWERS HOLD ROUND-UP MEETINGS.

The dates of sugar beet growers round-up meetings have been set as follows: Mt. Pleasant, February 18; Owosso, February 24; Caro, February 25, and the big round-up meeting at Saginaw, March 8. Every beet grower is urged to attend any or all of these meetings, for we believe they are bound to aid in saving the great sugar beet industry in this state.

MID-WINTER MEETING OF HORTICULTURISTS.

The regular mid-winter meeting of Michigan fruit growers will be held at Benton Harbor, March 4-5. Among other good things on the program will be the report of Alfred R. Urion on his investigation of freight rates and refrigeration. There will also be a discussion and an interpretation of the fruit grading laws of the state. No fruit grower can afford to stay away from this meeting. Write George Low, Secretary, Bangor, Michigan, for a copy of the program.

"Coops" Take Short Course

Cooperative Managers Study Problems at Detroit Stock Yards

ABOUT seventy live stock shipping association managers from various parts of the state attended the two-day course of marketing held at the Hotel Garvey, Detroit, on Tuesday and Wednesday, February 10-11. A large part of the success of the meetings was due to the efforts of E. E. Compson, manager of the Michigan Live Stock Exchange, and S. W. Doty, Live Stock Supervisor of the United States Bureau of Markets, who were on hand doing everything possible to enliven the occasion and make the visiting managers familiar with the business and acquainted with the leading dealers on the Detroit Live Stock Market. E. J. Trosper, Organizing Secretary for the National Federation of Live Stock Shippers, was one of the busiest men in the co-op crowd, hustling around in the attempt to make the acquaintance of the Michigan contingent.

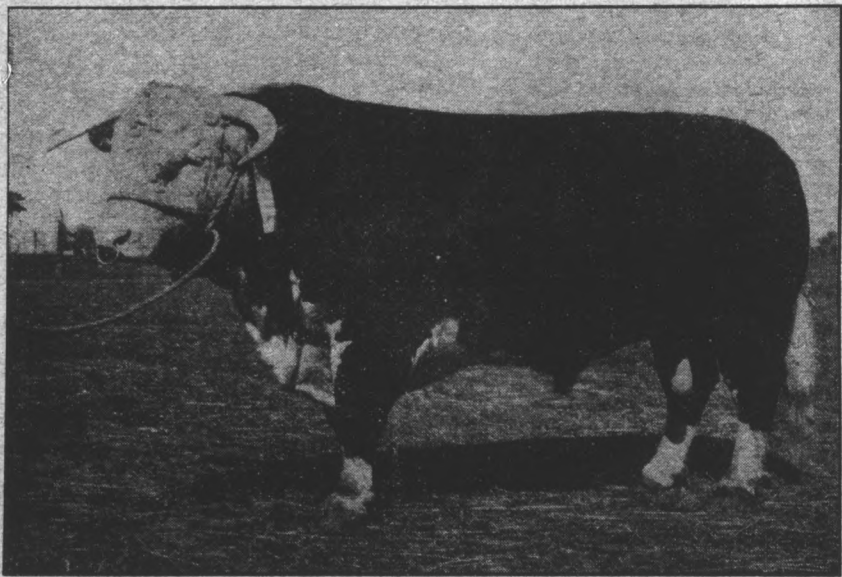
George W. Revilier, of the Michigan Agricultural College and the United States Bureau of Markets, was a prominent figure at Tuesday's gathering. Mr. Revilier is regarded as an authority as to the legal status of farmers' organizations and he is frequently called upon to give advice when the organization of new associations is contemplated.

At the Wednesday morning session the stock yards were visited and the

bear in mind that mixed shipments take the highest rates. Always plan to load the cars so as to secure minimum rates by having the animals grouped properly to take the minimum rate.

Bear in mind that overloading is dangerous and has a tendency to cause the stock to arrive in bad condition. Also mark the animals plainly and be sure that the car is of the type ordered. Give full instructions as to how and when the stock is to be fed while on the way and do not allow the agent to bill the car by any other route than you order. Send only experienced caretakers with the cars.

F. S. Welch, general manager of the Detroit and Buffalo Stock Yards, discussed some of the problems of the Stock Yard Companies in connection with Cooperative Live Stock Shippers. Mr. Welch said that more than ninety per cent of the losses of stock shipped to Detroit consisted of cooperative shipments. That overcrowding and insecure partitions were the two principal causes, and that they should be corrected. The strength and kind of partitions is an important factor in loading stock. More careful loading is having a good effect in decreasing losses as the records of losses during the past few months indicate. Another source of loss is excessive handling of the shipments that are sold to so many



Keep On, 508019, at the head of the herd of Jay Harwood & Son. Bulls of this type would prove a big factor in building up the live stock industry of Michigan. Cooperative Shipping Associations could do a great work by placing purebred bulls in every community

market experts discussed the various grades and classes of stock. These demonstrations and discussions proved of considerable benefit to many of the cooperative managers who were unfamiliar with these phases of the work after their stock reaches the market.

At the Wednesday afternoon meeting C. B. Heinemann, of Chicago, secretary of the Chicago Live Stock Exchange, gave a few pointers for Cooperative Live Stock Shippers to observe in the prevention of claims. Mr. Heinemann advised the shippers to meet the railroads half way by ordering cars far enough in advance to insure getting them in time. To give the stock in the cars plenty of bedding to insure their comfort so that they would arrive on the market in good condition. To get the lowest rates possible should be the aim of every manager, and to do this he must plan to load straight carload lots, or make a careful study of rates, so that he may get the lowest rates possible. A careful study of the rules and regulations governing classifications would aid in loading the cars to secure the minimum rates. Always

different buyers. This causes shrinkage which comes out of the pockets of the shippers. When a number of grades and classes are made the break of the weight on the scales is always against the shipper.

H. H. Mack, representing the Detroit Live Stock Association, a band of men organized to advance the interests of the live stock industry in Michigan, gave a few pointers regarding the handling of stock on the Detroit market. Mr. Mack said that the organization of cooperative selling associations had been a great help to the industry. If the railroads would do their part in the prompt handling of the stock there would be little argument over shrinks and fills. First solve all of these traffic problems before blaming the boys in the yards. The real test of selling efficiency comes at a time when the supply exceeds the demand. If the old-time drover is to be replaced his place must be filled by an equally skilled manager of the cooperative association. The cooperative associations should work out a plan of securing feeders so that there will be minimum freight charges to pay.

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planters have a special attachment for mixing the fertilizer with the soil. If you have one, be sure to attach it. If fertilizer is applied broadcast, sow it evenly. Fertilizer should not be applied to grass or grain that is moist. Apply around, and not on, other plants.

Agricultural News from Washington

By E. E. Reynolds

THERE is one bill pending in congress which, while providing for the national defense in a military way, means much to the farmers in the states east of the Mississippi river. This bill aims to establish a self-sustaining federal agency for the manufacture, production, and development of the products of atmospheric nitrogen. In plain English, it authorizes the secretary of war to organize a corporation to be known as the United States Fixed Nitrogen Corporation. This corporation is to purchase, develop and operate for the United States the nitrate fixation plants at Muscle Shoals, Alabama. The corporation is obliged to sell to the government such nitrogen products as may be manufactured for military or other purposes, and shall sell any of its products not required by the government to producers or users of fertilizers.

It is estimated that \$185,000,000 was expended for commercial fertilizers in the United States during the year 1914. Of this amount, \$86,000,000 was paid for nitrogen. Figures made public by the Department of Commerce show that we imported during the years from 1915 to 1918 inclusive, 4,517,529 tons of Chilean nitrate, paying thereon to Chile an export tax of \$50,506,000.

Chile is the present principal source of our nitrogen supply, with cottonseed meal used to some extent. The first will always be expensive and gives a foreign country a practical monopoly of nitrogen required to fertilize our farms. Cottonseed meal is also expensive. Experiments show that it is not as valuable ton for ton as cyanamid mixture, the product of the nitrogen fixation plants; but it is coming to be held that the use of so valuable a stock feed as cottonseed meal as a fertilizer is a wasteful practice. Cyanamid is not only rich in nitrogen but contains over sixty per cent of lime, which is needed on most soils.

It is claimed by the experts who have investigated the matter that the proper and legitimate government cooperation in the development of the nitrogen industry will give the farmer his nitrogen fertilizer for one-half of

what he would otherwise pay for it, and save one million tons of cottonseed meal for stock feeding purposes.

At the annual session in Syracuse in 1918, of the National Grange, the special committee on agricultural reconstruction reported favorably on a proposition recommending to the government that "munition plants should be converted to the manufacture of fertilizers freeing the nation from depending on foreign supplies."

The National Farmers' Union and the National Board of Farm Organizations have also adopted resolutions in favor of the development of the nitrate plants at Muscle Shoals for the purpose of providing the farmers with fertilizers.

There are some objections to the bill. All government undertakings during the hurry-on period of the war preparations were accompanied with more or less needless waste and misuse of funds, and judging from reports that get into the Congressional Record and the proceedings of the various hearings, the Muscle Shoals project is not an exception to the rule.

The government spent \$70,000,000 on the Muscle Shoals plant, much of which was wasted under the cost-plus system of paying contractors. "Reckless extravagance" are the words used by Colonel Fred H. Wagner in describing conditions at Muscle Shoals in his report to the house committee investigating war expenditures. In the construction of this plant, Colonel Wagner says: "The accounting system was so bad no business, however efficient, could tolerate it and exist."

Mark H. Evans, formerly of the military intelligence service, testifying before the War Expenditures Investigation Committee, the other day, said that during the time when we were vigorously striving to speed up war preparations and there was an urgent need for cars to move munitions and food supplies, 7,823 cars stood idle at the Muscle Shoals plant from ten to twenty days with nobody seeming to care whether they were unloaded or not. The records showed that failure to unload material cost the government \$81,000 in demurrage charges

during the first half of 1918 at this plant. He also testified that more than one-half of the monthly pay roll of \$3,500,000 was virtually thrown away, so far as results obtained were concerned, and he presented affidavits by men he had employed, stating that not more than two per cent of the big gangs of workmen were actually at work, the others being found loafing in the shade. In one instance more than one hundred brick layers earning the top scale of wages, took a day and a half to unload a carload of brick at a cost to the government of about one thousand dollars.

Testimony given before the War Expenditures Investigating Committee shows, however, that conditions at Muscle Shoals were no worse than at other places where munition plants and training camps were constructed on the cost-plus basis, a war-time expediency which proved to be an unqualified success as a promoter of extravagance, waste and graft, and caused the government to lose hundreds of millions of dollars.

These disclosures are being used very effectively in opposition to further efforts to develop the Muscle Shoals project and convert it into a great plant for the production of fertilizers. Friends of the bill, on the other hand, do not think that it is fair to charge up the mistakes of the war preparation period, with its profligate cost-plus contract system, against the present measure. They argue that the proposition should be discussed and acted upon wholly on its merits. If the government was justified in undertaking such improvements as the building of the Roosevelt dam, at a cost of \$15,000,000, for the purpose of enlarging the area of crop production and providing cheap water power for the people of Arizona, it is fully justified, they say, in developing the Muscle Shoals plant, not only as a matter of military preparedness and economy, but for the production of fertilizers for our eastern farmers.

The union labor leaders, aided by a few radicals claiming to represent the farmers, are persistent in their efforts to convince congress that the farmers

are backing the American Federation of Labor in its non-partisan campaign to elect only friends of the trades union movement to congress.

T. C. Atkeson, Washington representative of the National Grange, is just as outspoken in declaring that the organized farmers are not lining up with labor in its fight to compel congress to continue government operation of railroads and enact the Plumb bill and other so-called labor legislation. In an interview in which he referred to the recent conference of farm organization leaders, Dr. Atkeson says: "We decided that the interests of the farmers and of organized labor were not identical—in fact, were diametrically opposed on some questions. The union man wants shorter hours and higher pay, which means higher prices to the consumer. A similar attitude on the part of the farmers would mean curtailment of production of food until the people were so hungry they would pay exorbitant prices rather than starve. Instead it is our policy to encourage as much work as possible to stimulate production, so that normal conditions may be restored."

The railroad bill up-to-date is a compromise measure, with the anti-strike clause eliminated. The Interstate Commerce Commission is given the right of prescribing dividend returns, and also the power to investigate strikes, and its authority over the issuing of securities and rate fixing is considerably enlarged. Competition is restored under a plan which aims to promote economy of operation, and provisions have been made for protecting the public against extortionate freight and passenger charges.

True to its ancient custom, the house by a vote of one hundred and thirty seven has retained in the agricultural appropriation bill an appropriation of \$239,000 for the distribution of garden seeds by congressmen. One representative very truthfully spoke of the appropriation as a "cheap political graft," but this had little effect upon a congress which is demanding economy in the conduct of other departments of government but fails to be economical in its own affairs.

Annual Meeting of Potato Producers

THE Michigan Potato Producers' Association, which until recently was usually called the Michigan Potato Growers' Association, the change in wording having been made to avoid any danger of confusion with the Michigan Potato Growers' Exchange, held its annual meeting at the M. A. C., February 4. The attendance was small.

It was a decided contrast to the meeting which was held at the college two years ago when so much interest was manifest in this potato association. As most potato growers know, the association at that time was reorganized. There was a special need which every potato grower felt for a representative potato growers' organization at that time. Since then the formation of other organizations have practically taken over the work which the association was supposed to do.

It was quite natural, therefore, that the proposition should arise at the annual meeting this year as to whether or not it is advisable to continue the Potato Producers' Association as such.

The writer, having been placed on the program by the president, A. M. Smith, purposely brought up a discussion along this line, with a view of hearing just what the wishes of the potato growers of the state may be

relative to a continuation of the Potato Producers' Association. Opinions were expressed by practically all present, some favoring one thing and some another. It seemed to be impossible to decide the question definitely at that time. A committee was appointed, therefore, consisting of the officers, the writer, and Mr. Redpath, of Kalamazoo county. This committee is given power to either call another meeting or to discontinue the association, as may seem best.

The former officers were re-elected with the exception of the secretary. Mr. L. A. Siple has been holding the office of secretary for the last two years but declined to serve longer because of the fact that he is so busily engaged in managing the Gleaners' Clearing House work at Greenville that he can give no time to the secretaryship. Mr. H. C. Moore, who is extension specialist with potatoes, and works with the writer, was elected secretary.

In view of the fact that the writer was elected president of the Potato Association of America at its last annual meeting, we are concerned with this proposition, not only from the standpoint of the state but of the United States as well. The problem which confronts us at the present time is as

to whether or not there is need of a national and state organization which is representative of the potato industry of the state and nation. In this connection it is well to ask the question: "Will the State Farm Bureau and the National Federation of Farm Bureaus take over this work and handle it in a manner which will be satisfactory to the potato growers?" In talking with a number of the men who were recently assembled at East Lansing, and who are closely in touch with the Farm Bureau movement, there appeared to be a considerable difference of opinion as to what the Farm Bureau will be able to do. However, some of the men who are in a good position to know, were very emphatic in their statements that all existing organizations which can perform a service should be continued until such a time as it has been demonstrated that the Farm Bureau can do the work they are doing as well or better.

The purpose in writing this article in the manner in which it is presented is to get the people of this state thinking along this line and I am sure that the writer would be very glad to receive communications from those who have opinions to offer as to the solution of this somewhat perplexing problem. The committee which has been

given power to act will not take any definite action until such a time as everyone who cares to do so will be given an opportunity to be heard.

There are some who believe that the other potato organizations can continue to do more efficient work. On the other hand, some argue that these associations do not reach the growers who market their potatoes direct. In the course of time, no doubt, Farm Bureaus will be organized on the ten-dollar membership basis in practically all of the counties. If the County Farm Bureaus are organized with a view of taking care of the needs of the potato growers in the respective counties it will, of course, either do away with, or lessen the need of anything like a state association. The question naturally arises in this connection: "Will the other interests overshadow the interests of the potato growers in these bureaus to such an extent that the potato growers will not receive their share of attention?" This same thing could be applied to other lines of production of less importance than the potato crop of Michigan.

Other states are organized for certifying seed potatoes. While Michigan has done some work in the way of inspecting fields and recommending (Continued on page 311).

HERE'S "ACTION, NOT TALK."

SINCE the membership campaign began to make material progress in the state, there has been a growing demand from members of the State Farm Bureau for immediate assistance in some of their commercial problems. Efforts have been begun to decide the best methods of lending this assistance and the scope of it. A concrete policy was definitely decided upon at the annual meeting in February. Coincident with its promulgation, which already has clearly illustrated several ways in which cold, hard dollars may be saved members this coming year, there have come to the state office many specific requests from individuals for aid. Most of these cases have been handled at a financial saving for the applicant. For example:

An Oakland farmer wanted help in obtaining a carload of salvage corn and another of salvage oats. The carloads were obtained for him at a figure that represented a saving of approximately \$140 for him. Another farmer seeking Grimm alfalfa, was placed in a position to get guaranteed Grimm at \$5.00 a bushel less than he had been quoted personally. Arrangement also has been made for a Barry cooperative association to obtain coal in immediate carload lots and at wholesale prices. Another farmer was supplied with one ton and one-half of acid phosphate from a wholesale house at a price less than that of the current market. Incidentally, it has heretofore been possible to obtain this fertilizer only in carload lots from wholesalers.

This commercial activity of the Michigan State Farm Bureau at present is only in infant state, and naturally until a definite policy to govern this feature of the association is worked out, the scope of the work must be limited to handling only specific requests for assistance.

Introducing Mr. Shepherd.

Mr. John L. Shepherd, of Allenton, has been representing the Michigan State Farm Bureau on the committee of sugar beet growers that has been trying to negotiate a more favorable contract with the manufacturers and at the present time the Farm Bureau with Mr. Shepard continuing as its representative, is assisting in the organization of beet growers.

Keep Your Eye on Tuscola.

The membership campaigns now are under way in Ottawa, Tuscola and Washtenaw counties. Tuscola is setting a record for the state. In twelve of its twenty-three townships, 1,225 members were obtained. One township produced 195. Bad weather hampered the work in Kent, which finished with about 1,400 members and in Macomb with about 1,200. Follow-up work, as soon as the roads are free, is expected to add 200 or 300 to each county's total. The state membership has gone beyond the 20,000 mark.

A Uniform Constitution.

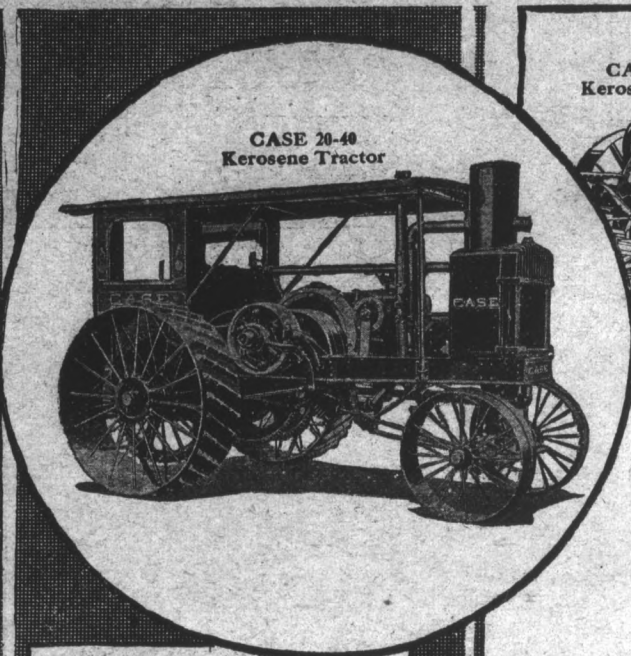
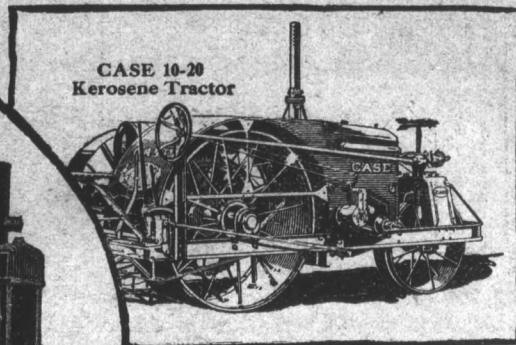
Within a week, it is expected that a draft of a suggested uniform constitution for counties organized in conformity with the Michigan State Farm Bureau will be sent out.

SHEEPMEN PLAN TO POOL WOOL.

SHALL collective marketing of Wisconsin's wools replace the old method of individual marketing, which has threatened to check progress in sheep production in the state?

Wool growers of the state have agreed on the necessity of this program.

Realizing the handicap under which they have worked in the past, due to a serious lack of the proper marketing machinery, and a lack of information in regard to markets, Badger sheepmen are determined to get more nearly the real value of their wools hereafter.

CASE 20-40
Kerosene TractorCASE 10-20
Kerosene TractorCASE 22-40
Kerosene TractorCASE 15-27
Kerosene TractorCASE 10-18
Kerosene TractorLook for the
EAGLE
Our Trade Mark

NOTE:
We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

To avoid confusion, the J. I. CASE THRESHING MACHINE COMPANY desires to have it known that it is not now and never has been interested in, or in any way connected or affiliated with the J. I. Case Plow Works, or the Wallis Tractor Company, or the J. I. Case Plow Works Co.

The Case Line Offers Choice of Required Power and Capacity

KEROSENE TRACTORS

The Case 10-18 Tractor drives 20 x 28 Thresher with Windstacker, Feeder and Grain Handler; No. 12 Case Silo Filler with 40-ft. blower pipe; 17 x 22 Hay Baler; will pull 2-bottom plow, 6 to 8 inches deep, depending on soil and field conditions; 8 ft. double-action Disc Harrow; 22 shoe Grain Drill; two 6 ft. Binders.

The Case 10-20 Tractor drives 22 x 36 Thresher and full equipment; pulls 3-bottom plow, under favorable conditions; other machinery requiring similar power.

The Case 15-27 Tractor drives 26 x 46 Thresher with Feeder and Windstacker; three 14 in. plows in hard plowing, or four under favorable conditions; 10 ft. double-action Disc Harrow; two 7 ft. Binders, etc.

The Case 22-40 Tractor drives 32 x 54 Thresher with Windstacker, Feeder and Grain Handler; No. 20 Case Silo Filler with 40 ft. blower pipe; four 14 in. plows in hard ground, or five under favorable conditions; battery of Grain Drills or Harrows.

The Case 20-40 Tractor will handle belt and drawbar jobs similar to 22-40.

The J. I. Case Threshing Machine Company also builds:

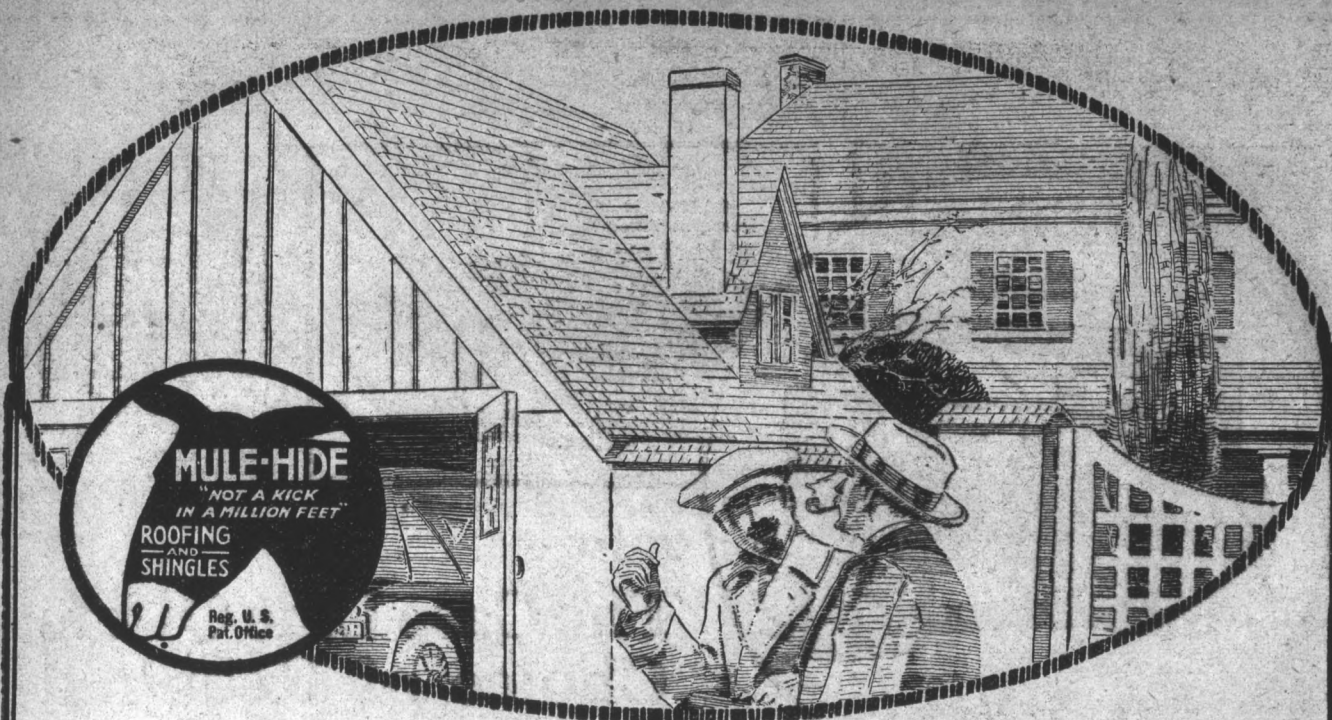
Grand Detour Plows, all sizes and for all soils and conditions.
Double Disc Harrows for use with tractors.
Threshing Machines,—six sizes
Hay Balers,—two sizes
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Road Graders,—three sizes
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Booklets, describing and illustrating any products above mentioned, furnished on request.

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Making Superior Farm Machinery Since 1842

CASE
TRADE MARKS REG. U. S. PAT. OFF. / AND IN FOREIGN COUNTRIES
POWER FARMING MACHINERY



Why Doctor Brown Bought MULE-HIDE ROOFING

I'M a business man as well as a physician, so when I bought my new high-powered car I figured that it would be 'poor business' to keep such a good machine in the old garage I'd been using for my 'flivver.'

My lumber dealer's a square fellow, and when I told him about my leaky garage, he asked to see it. After looking it over he said, 'you don't need a new garage, you need some MULE-HIDE'. 'What's MULE-HIDE,' I asked. He replied that it was the Roofing with the service record of—

'Not a Kick in a Million Feet'

Well, it made a *dandy* garage, and just as soon as the weather permits I'm going to have another new roof. It'll be on my house, this time, and you can be sure I'll insist on MULE-HIDE."

Your lumber dealer will tell you I'm right. Just ask him

MULE-HIDE Roofing comes in smooth finish and red or gray-green slate-kote.

MULE-HIDE red or green shingles may be had individually or four-in-one style (often termed "slab" or "strip" shingles).

THE LEHON COMPANY *Manufacturers*
44th to 45th Street on Oakley Avenue • Chicago

GROWING RHUBARB.

BY AGNES HILCO.

RHUBARB is a vegetable that should not be neglected in any garden for it takes the place of fresh fruit when we do not have that. It will come early in the spring, and by forcing it some either in the garden or by taking up and planting in a warm room or cellar we can have it long before we can have anything else in the garden line.

The soil for rhubarb must be very rich for best results, and it is hardly possible to get it too rich. Feeding is in order every year. While the roots will come quickly into producing from seeds sown in May, sometimes being strong enough to permit cutting a stalk or two from each plant the first summer, better crops can be had from setting roots. As only a few roots are needed for the family supply most people will not care to plant the seeds, though they come up quickly and are easy to grow right from the start.

I have known them to be forced some in spring by setting a sugar barrel with both ends out over each hill and then packing in between the barrels with fresh manure from the stable. This manure will heat some and will raise the temperature of the soil under it, and the sun shining down into the barrels will help to start the roots into growth. As they will send up the leaves to the top of the barrels to get the light, it gives long stems of excellent flavor. This is a good way to hurry a crop but it is tough on the plants and will leave them in bad condition to stand the summer and gather strength for next year. If we wish to set a square of a dozen plants with this method of forcing in mind, it will give good results and we can destroy the bed when we have cut it fully for the season. The sugar barrels will keep on making the stems long and tender throughout the growing season.

Where we want to use the plants in a warm room or cellar we must let them freeze once or twice good and hard before digging them. Two or three-year-old plants are best. Set as close as possible and pack soil around the roots and then water. It is not necessary to give any light, but a very moderate light will not hurt. The less light the less foliage, and the longer and more tender will be the stalks. Such rhubarb is very finely flavored.

Rhubarb in the garden should be given good culture during the summer or else be mulched deeply, for it is quickly injured by extreme drouths. I have seen a whole patch killed out by dry weather, but when it is cultivated or mulched there is not so much danger of this, though the foliage will be killed back pretty badly even then if the summer and fall is dry and hot.

GROWING ONIONS AT HOME IN MID-WINTER.

IT happened that one winter some onions which were beginning to grow were carelessly thrown upon an ash heap in the corner of the cellar. These took root, seeing which, we watered them, and soon there were an abundance of delicious tender onions several inches in length stretching toward the light of the window above. Thus the table was furnished with fresh, young onions the rest of the winter, and proved so acceptable that since that time we have regularly planted onions each winter in ash boxes in the cellar, occasionally watering them, and with uniform good results. As a crisp table garnishing, for "thy good stomach's sake," and to reduce the H. C. L. we heartily recommend the plan to others. A. MILLER.



50% Higher Prices Paid

by the buyers of big hotels for quality vegetables, which cost the same to grow as poorer kinds. You cannot afford to waste expensive land and costly labor on any but the best seed of varieties known for the highest quality.

Vaughan's Seeds

are used by market gardeners in Chicago and New York who supply the big hotels. You can have vegetables of equal quality for your table and for canning. Our 1920 book, "GARDENING ILLUSTRATED," tells the whole story, mailed FREE on request.

Send 25 Cents for a large package of seed of our new cucumber; grows 18 inches long—(catalog included.)

Vaughan's Seed Store
31-33 W. Randolph Street (Dept. M) CHICAGO
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Dogs Wanted Write me if you have any Scotch Collie or Shepherd puppies for sale, stating price in first letter. I buy either males or females. Dr. W. A. EWALT'S COLLIE FARMS, Mount Clemens, Michigan.

OFFER No. 109.

The Michigan Farmer, one year...\$1.00
People's Popular Monthly25
Home Life, one year25
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Household Journal, one year..... .35

Total value\$2.20
All for \$1.70.



Learn Auto and Tractor Business

in 6 to 8 Weeks—Earn \$150 to \$400 a Month
Enter any time. Quickest and best training by the Rahe Practical Method. 12 Years of leadership. Our graduates in demand everywhere.

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Any man 16 years and older can learn here. Largest, best equipped and best arranged school in America. Work on real autos, trucks and tractors—all kinds and sizes. Plenty of room for individual training under Master Mechanic instructors.

Low Tuition Rate Now Rahe Auto & Tractor School
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Good Clubbing Offers

OFFER No. 118.

The Michigan Farmer, one year...\$1.00
Power Farming, one year 1.00
Chester White Journal, one year .50

Total value\$2.50
All for \$1.75.

OFFER No. 123.

The Michigan Farmer, one year...\$1.00
McCall's Magazine, one year..... 1.00
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The Michigan Farmer, Detroit, Mich.

Cheap Power NOVELTY Quick Power Auto-Pulley

DO ALL YOUR POWER FREE WORK TEN DAYS

Novelty Belt Power Attachment Makes Your Car a 10 to 15 Horse Portable Farm Engine

Grind Your Feed Simple, practical, economical. Attach in 3 minutes. Nothing to get out of order—cannot injure car or cause tire wear.

Run Grain Elevator Easy to operate—will last a lifetime—worth several times its price in emergencies.

Run Wood Saw

SEND NO MONEY

We will send pulley to fit your car. Use it 10 days—put it to every test.

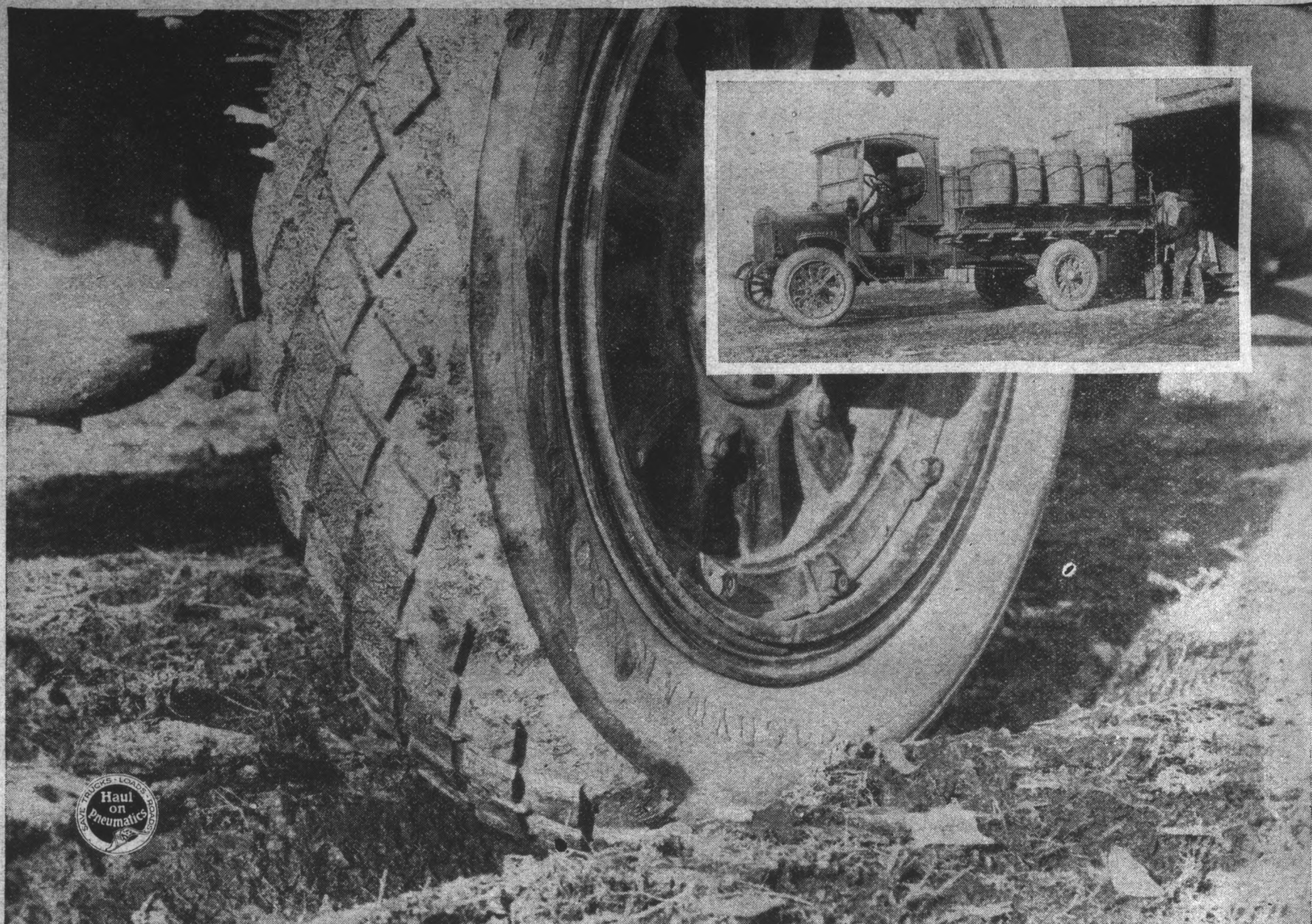
After trial if you are entirely satisfied, send us \$5.00; otherwise return at our expense. Hundreds of users—no red tape. Simply send us name of car or send for free circulars.

We can supply special pulley to change your present hand machine into power machine.

Novelty Mfg. Co., Dept. M, Abingdon, Ill.

Agents Wanted

Novelty Mfg. Co., Dept. M, Abingdon, Ill.



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"Because I use a truck on Goodyear Cord Tires I load potatoes, onions, etc., in the fields and haul to Louisville, 12 miles, in 50 minutes. Horses take 2 hours. The pneumatic-tired truck saves much labor and expense on my two farms totaling 180 acres."—Jacob Rupp, Farmer, R. F. D. No. 1, Louisville, Kentucky

THERE are farmers everywhere throughout this country today who have practically duplicated the experience related above by this Kentuckian.

They have proved that Goodyear Cord Tires free them from slow hauling, either by horses or solid-tired trucks, and thus free them from one of the worst handicaps ever placed on farming effort.

The use of the spry Goodyear Cords has the effect of moving a farm closer to town, of speeding up the other power-driven machinery on it, and so of getting each day's work done most easily and quickly.

Thus the perfected pneumatic truck tire is a powerful factor in that progress which not only is increasing decisively the income of the farmer but also is making his activities far more pleasant.

Its traction, cushioning and nimbleness have been made thoroughly practical for farm trucking by Goodyear Cord construction which adds a tremendous toughness well known to rural users of Goodyear Cord Tires.

Accurate information detailing the results attained by farmers, ranchers and country motor express lines with pneumatic-tired trucks can be secured by writing to The Goodyear Tire & Rubber Company, at Akron, Ohio.

GOODYEAR
CORD TIRES

SAVAGE

The Side Partner You Can Trust—
THE SAVAGE AUTOMATIC

It's small, light, unobtrusive. You don't notice it in the pocket or on the belt.

But when the diamond-back rattler buzzes or the copper-head squirms—when there's a bear in the trap or a bob-cat in the tree—when the rare chance of human violence threatens in the wilderness—or when the stinging wind on the North shore of Superior brings the blood-chilling yell of the man-hunting wolf-pack nearer and nearer—the little Savage proves the closest, truest friend.

Its barrel length and locked breech gives more power and accuracy than other pistols of the calibre—its ten shots and one-hand reloading permit faster and more continuous fire—and the lines of its celebrated grip make you point it and shoot it straight in an emergency—as straight and as instinctively as you point your finger. Its monkey-wrench simplicity makes it always ready and always sure-fire, because, like the best military pistols, you can cock and uncock it with your thumb.

Your dealer will show you—can supply you. For complete description, write us.

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.32 calibre, 5 1/4" barrel,
19 ounces, 11 shots

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Your father probably bought APEX Seeds from this house

For 35 years APEX field seeds have been bought by the farm owners in Michigan whose desire has been to obtain the highest, purest quality seeds produced.

APEX seeds are strictly Northern grown—vigorous, rugged, sound—especially suited to Michigan soils and climate.

All APEX seeds must be perfectly clean and tested by analysts to comply with Michigan Seed Laws before they can carry the name APEX. A solid, 35 year record of honest satisfaction stands behind them.

Ask your dealer for them—or write

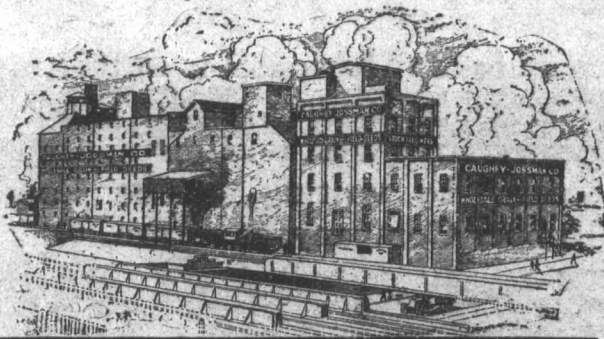
CAUGHEY-JOSSMAN COMPANY

MICHIGAN SEED SPECIALISTS

DETROIT

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Re-cleaned and Tested

FIELD SEEDS

Future Outlook of Farming

Notes from Recent Address of J. R. Howard,
at East Lansing

TO set in motion a constructive agricultural program will, among other things, require that our metropolitan press more accurately sense present agricultural conditions and problems. The problems of the country are the problems of the city, and vice versa, the problems of the city are the problems of the country. This was the point of embarkation in the excellent address of J. R. Howard, president of the American Farm Bureau Federation before the annual meeting of the Michigan Farm Bureau at East Lansing.

All students of social and economic questions agree that the outlook for agriculture is not as promising as for urban enterprises. This is not only the conclusion of leading students, but practical men of affairs concur. In our cities it is difficult to find rooms in hotels, and houses or flats for rent, but in the rural sections no such handicap exists, Mr. Howard declared. This is but a result of the unbalanced conditions existing between the country and the city.

At present, too, the speaker held, the farmer is dependent upon city conditions for his labor supply. He must meet city prices and give the men similar conditions as to hours and privileges. When a farmer hires a city man to work with other men, and the former quits at the end of eight hours, his action has a disorganizing effect upon the remainder of the help. At present Iowa is short fifty thousand farm laborers. Other agricultural states are in a similar situation. If we are therefore to produce a normal food supply it will be necessary for the employers in other industries to cut down on the amount of labor they are using to let the men go out and do necessary farm work.

Mr. Howard had just returned from a conference in Washington where the question of clothing prices was under consideration. There were representatives of the growers of cotton and wool, manufacturers, jobbers, wholesalers and retailers of clothing, present to interpret their respective positions on the question in hand, and if possible to place the blame for the high prices obtaining. Before the producers of wool and cotton had arrived at the conference the dealers and manufacturers had already reached the conclusion that the high prices being paid farmers for raw materials were responsible for the high retail prices asked for clothing. But after the farmer delegates had gone over the situation with the other representatives it was readily apparent that this was impossible. Cotton bought at forty cents was turned over in ten days at seventy cents and the increased price paid the farmer for the wool contained in a suit of clothes could add but a very few dollars to the cost. It was fully apparent that the farmers should have representatives at such conferences unless they wish to be blamed for things for which they are not responsible.

Emphasis was laid on the policy of the Farm Bureau which encourages the promotion and work of any other farm organization. Instead of becoming an obstacle to the extension of the work and influence of sister associations of farmers, the Farm Bureau is out to aid such movements wherever possible. Naturally there will be places where duplications occur and in some cases the new organization may do some things more efficiently than the old, in which instances it is hoped that farmers will not take the stand that the old New Englanders did in opposing the erection of a lighthouse on a dangerous shore to prevent wrecks,

because that would put an end to their business of salvaging wrecked ships. The existing needs of agriculture require that to be serviceable, a farm organization must be thoroughly democratic. This means the necessary machinery to take a referendum on important questions. Such machinery will reach its maximum of efficiency when every agricultural community in the country is organized, when these communities are united in county organizations, the counties into state associations, and these state associations federated into a strong national body. Mr. Howard felt confident that the Farm Bureau idea gives more promise of becoming a full fledged organization of such a type than any movement yet started. The campaigns in New York and New England have resulted in building memberships far beyond the most sanguine expectations. In Georgia fifty per cent of the farmers of that state have joined since last November. Over 110,000 have signed up in Iowa. Illinois and Michigan will have 100,000 each. The movement is sweeping Minnesota, Missouri and California, and has started in Ohio.

There are some well settled policies which Mr. Howard contends should be strictly adhered to by the state and national Farm Bureau Associations. They must be self-supporting; public moneys should not be called out to aid an organization devoted to the interests of any class. These associations should keep out of politics. The interests involved reach into the ranks of all parties and any suggestion of favoritism will tend to weaken the bonds which hold the members together. To get and retain the highest confidence of the farming class it is expedient and wise to select only farmers as officers. Finally, there should be means provided for the development of a broad agricultural statesmanship.

The work of building such an organization as is needed will require years of hard, patient effort, for not only will it be necessary to plan and develop the various departments of a new institution, but men must be trained to handle the different classes of new work which will come with the unfolding of the great Farm Bureau idea.

AMERICAN FRUIT IN YORKSHIRE.

THERE is an extensive demand in Yorkshire for American fruit, and especially for apples and pears," according to a report of the American vice-consul in charge at Leeds, England, dated December 4, 1919. "The period of the year when sales of American apples are the largest is from November to May.

"The eating apple is most in demand and although nearly all American varieties are on sale there, the Oregon Newtons, Spitzbergen, and Jonathans are the most popular brands. As compared with the English apple, a large Leeds fruit merchant has stated that the American fruit is superior in quality. It is understood also that the American shippers are more careful in their packing and grading of their apples. American pears are also in large demand and plums to a lesser degree.

"As regards canned fruits, there is a good demand for all kinds, and this demand prevails the year round. During September and October however, while the English apple is on the market, the demand for canned fruit is light.

"There are numerous large wholesale merchants in Leeds dealing in fruits. Buying is generally not done direct with American shippers but through agents and importers located in the distributing centers such as London and Liverpool."



THE MOST BEAUTIFUL CAR IN AMERICA

The Ideal Five-Passenger Car

It required only thirty days for our new five-passenger "Glenbrook" to establish itself as one of the most popular cars on the American market.

Now, its reputation has become International and the demand from Great Britain alone is far in excess of our export allotment.

The "Glenbrook" is a tremendous success—there can be no doubt about that. It has won its way into the hearts and minds of the Motoring World almost over night.

It has made more real friends, in a shorter space of time, than any other model ever produced by this Company. If you are at all familiar with Paige history, you will appreciate the significance of this statement.

There is, of course, a very definite reason for such universal endorsement of our new car. You will find it in the single word, *Performance*, as expressed through a strictly modern power plant and chassis.

The "Glenbrook" is not a racing car though it is easily capable of sixty miles per hour. What is vastly more important, it is an utterly dependable car—one of the most thoroughly

satisfactory motor vehicles that has ever been developed for the road.

By "Satisfactory," we mean that it possesses all the power and speed that a sane man could possibly desire. We mean that it offers the true luxuries of exquisite design, ample room, soft upholstering and velvety spring suspension—all these without the burden of excessive upkeep.

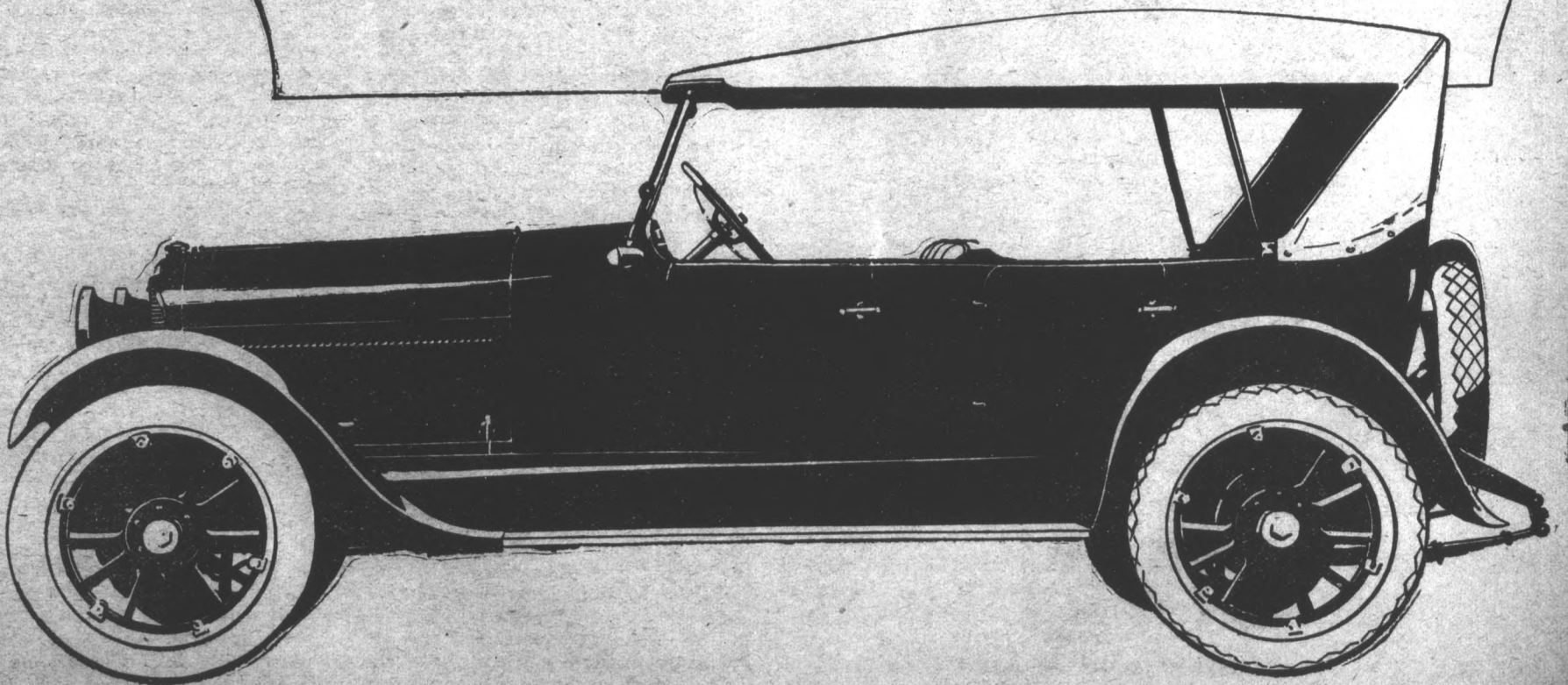
It is, in a phrase, the Ideal five-passenger motor car—an incomparable investment in six-cylinder transportation. The logical recognition of this fact has resulted in a permanent demand that is World Wide.

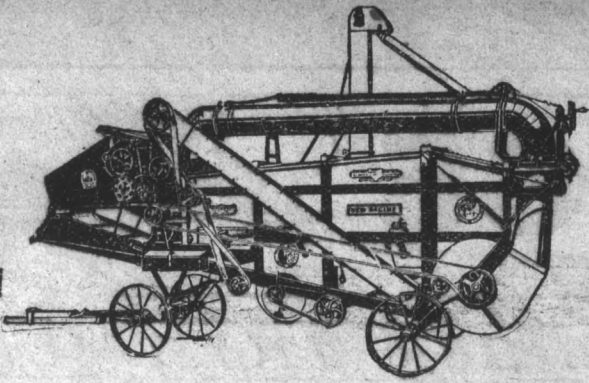
We predict that you are going to hear the "Glenbrook" referred to as the greatest dollar-for-dollar value on the American market. It possesses such obvious advantages over the usual type of five-passenger car that this conclusion would seem to be inevitable.

However, you alone must be the judge of comparative values. We merely ask you to take one ride in the "Glenbrook" and form your own opinion. On this basis we are content to rest our case because we know that our three years of experimental work and testing have, indeed, produced the finest of all light sixes.

PAIGE-DETROIT MOTOR CAR COMPANY, DETROIT, Michigan

Manufacturers of Paige Motor Cars and Motor Trucks





Every Farmer His Own Thresherman

Thousands of farmers are using the *New Racine* to do their threshing just when grain is in proper condition—many have paid for their machines out of profits doing neighborhood work. They are doing cleaner work with less waste and less help than the big machines. Simple to operate—no experting. Driven by the average farm power.

The New Racine

is backed by twenty-five years of success in building individual and neighborhood threshers. Handles all kinds of grain, seeds, peas and beans.

CAPACITY:

20x32 Thresher—Wheat 30-60; Oats 70-140 bu. per hour
24x40 Thresher—Wheat 40-80; Oats 90-180 bu. per hour

BELLE CITY MANUFACTURING CO.

SOLE MAKERS

RACINE, WISCONSIN, U. S. A.

Distributed in the United States since 1906 by THE INTERNATIONAL HARVESTER CO. OF AMERICA

NEW RACINE

Why a "B-V-T" Silo

is the Best Investment

Because it has been on the market NINE YEARS, without a SINGLE FAILURE.

Made of famous Brazil Vitreous Fire Clay—ONE ton costs as much as FIVE tons of shale.

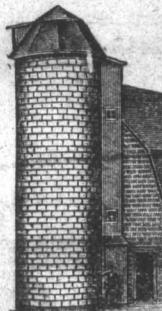
THE "B-V-T" WILL LAST FOREVER

Will not freeze or crack. Keeps silage in perfect condition. You never have to rebuild a "B-V-T".

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Brazil Hollow Brick and Tile Company

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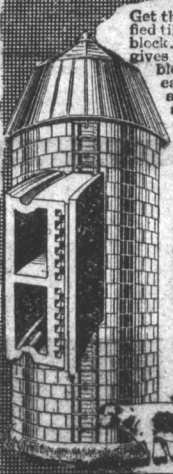
The Silo Beautiful That Lasts for Ages

Get the beauty and durability of vitreous tile in the Preston-Lansing patented block. Our method of construction gives enormous strength—block braces block in ship-lap formation. Between each tier is a thick layer of cement and twisted steel reinforcing. Only a thin line of mortar shows inside and out, giving a smooth, beautiful finish. Silage settles better—less chance for frost to penetrate. The dead-air spaces protect against extremes of temperature.

Fire Proof—Weather Proof

The beautiful, even color of the blocks lasts indefinitely. The steel hip roof gives extra silage space. Steel or tile chute—continuous doorway. The first cost is the only cost. Write for Catalogue and Prices.

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Dept. 309, Lansing, Mich.
Factories at Uhrichsville, Ohio
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Preston
Lansing
Vitreous Tile Silo

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Write for new Paint Book showing Larkin Paints, Enamels and Varnishes in actual colors, also valuable painting information. Money-saving offers of Roofing, Tools, etc., for the farm and home.

You Get Factory Prices

Larkin Paints, Enamels and Varnishes are made exclusively in our own factories. Sold to you at Factory Prices. Quality, durability and satisfaction guaranteed.

Think now about your Spring painting. Write for FREE PAINT BOOK No. 52

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BARN PAINT \$1.22 PER GALLON

Get factory prices on all paints. We guarantee quality. We pay the freight. Franklin Color Works, Dept. 14, Franklin, Ind.

Seed Oats Choice Swedish Select and Big Four Seed Oats testing 40 to 43 pounds. Price \$1.50 per bu., bags extra at 20c each. THE HORN BROS. CO. MONROEVILLE, OHIO.

Cherry, Pear, Plum and Apple Trees, 20 cents each, postpaid. Write for special prices of Strawberry and Raspberry plants. Send for 1920 catalog. ALLENS NURSERIES, GENEVA, OHIO

MUSKRATS

We want 200,000 muskrats, mink, skunk, racoon, opossum and fox. Write for new price list. All furs are higher and weighed the furs. Also large buyers of beef, horse and sheep hides.

JASPER POTTS

538 Charles Street Wellsburg, W. Va.

Wanted two married men for milking, and general farm work. State wages wanted. EARL HURD, Gagetown, Mich

A Comprehensive Agricultural Policy

(Continued from first page).

he works* compels him to be a speculator. This same action in a similar manner for the great feed grains of this district would not only establish equitable, but reproductive prices and also be a base to reckon meat production costs. This same district could function in a similar way on live stock but would first have adjudications from the stock-growers in the western range district of stockers and feeders, and sheep, for initiatory conditions would be first with the primary producer.

It may be repetition, but the association of government officials in a supervisory capacity, together with broad visioned men of other lines who can see industry from its base to the top, is deemed essential to these plans. These men will protect from aspersions from without and from abuses from within. Such tables of violent fluctuations of prices in farm products as has been graphically shown by a western farm paper, would startle alert-minded businessmen. Economic greed or exploitation of one group, or of one section by another, returns to plague those who perpetrate it and is the cause of national disaster and civilization's downfall. The Farm Bureau can perform no greater service than to establish and maintain agriculture upon an equitable basis for and with other industries.

Credit.

Production and adequate return to secure a continuous supply compels a bulk viewpoint. It is this difficulty heretofore that has worked ill to the farmers. He could only see his own and had no national association to obtain for him the knowledge of supply and demand or if so he had little power to conserve the supply as demanded.

The work of the bureau in interpreting supply and demand has been a mental concept which he must grasp and he now has his physical concrete part to do with portions which make up the whole.

Grains are held in storage until needed, more cheaply on the farm than in elevators. This involves oftentimes credit. The Farm Bureau should aid in establishing bank deposits and lines of credit relation for practically every farmer. This service should be at mutual expense between the local bank and County Farm Bureau, additional collateral credit and not note signing, for grains are held in storage more cheaply on the farm than in elevators and this will be greater with stabilized prices. This is not true of meats.

Farm storage, however, involves credit. The Farm Bureau should aid in establishing and educate its members as well as bankers to establish credit lines. The credit service expense should be a mutual one between the county bureau and the local bank. Additional collateral credit beyond the established line should be well understood. When farmers assume business duties they must accept business methods. The use of this credit would be a factor in price maintenance and prevent undue market congestion as well as seasonable buying for cash stocks of feed, fuel, fertilizer, seeds, etc.

Warehousing.

For the mutual benefit of producer and consumer there should be warehouse stocks. While a disputed point as to the ownership there is not much difference in principle to state or city owned warehouses from other public utilities for food is of equal value or greater importance than fuel, light or water to the city consumers. Probably city-owned warehouses with proper charges would avoid inherent difficulties and care for secondary farm products like canned goods, flour, etc., as well as direct-from-the-farm articles.

As a rule there is more unused credit in the country than elsewhere. The use of this credit would be a factor in price maintenance and prevent market congestion. The distribution of credit and its use by farmers would individually be most profitable and often give more substantial gains than many projected cooperative movements. The effect of this great national cooperative action in securing adequate prices for farm products, may require more local credit than heretofore used. This will be a great gain, not only to the farmer but to the business center of his local trading. The surplus money of a farm community when on deposit and sent to the city or invested in outside credits impoverishes and prevents the fuller development of the farm community. To the local town business man the distribution of adequate earnings to the farmer is of much greater gain to him than the present system of unstabilized marketings. Credit is simply faith, "I believe," and the farmer must believe himself.

Perishable Products.

The difficulties attending the marketing of fruits and vegetables has centered these in the public eye because of some marked successes in distribution as well as some occasional severe losses because of excess production beyond the power to immediately consume. The problem is like the oversupply potato crop of 1917 and will compel a group ownership of construction and arrangements for canning, drying, or preserving in some form the surplus which is the disturbing element. The cost of this project must be regarded as group insurance. The word "group" must be understood to mean an associated line, like fruit growers, potato producers, etc. Too much of mass or unrelated correlation distracts rather than coordinates.

Financing the Expense of Farm Bureaus.

This work ultimately can best be done by group assessment on units of product. A fraction of one cent per bushel on the great staples would prove ample. This method has worked well with the Michigan Milk Producers' Association. Elaboration of the plan is not necessary at this time.

The necessity of the economic integrity of the farmer is immediate to insure the maximum of spring planting. Private calculations indicate a reduction of from five to seven million head of hogs, while the United States estimates a 1,675,000 loss. Cattle shortage is also appalling though figures are lacking.

The last trade advices are that stocks of corn, oats and barley being about the same as last season, there is no surplus of feeding stuffs. During 1918-19 the United States maintained a \$17.50 minimum market on the thirteen to one plan. This year with the same ratio of corn to hogs the price would be about \$4.00 per hundred higher. This difference is not saved to the consumer, but is largely lost in profits that do not appear again in production, hence, the approaching meat shortage. We must prepare to salvage this loss to the producer and provide more meat for the consumer.

This is not only an individual need but a national necessity. This absorption or deflection of earnings has a deeper significance, it enables other industries for which the farmer supplies raw material to pay increased wages which attracts labor from the farm. Then next comes the useless or unwise expenditure for luxury of labor's high wages and what should be returned to produce more food from the soil has been absorbed and in a continued measure fails to return as capital devoted to farm products.

Expensive city construction cannot (Continued on page 284).

The thinking Farmer is Finding Out for himself

THE farmer who *thinks* for himself is rightly *suspicious* of the untried—the unproven.

Every year it is becoming *harder* to interest him in farm machinery that has nothing but *theories* or *appearances* back of it.

Everything he buys for his farm must meet these simple tests—Does it work—How long will it *continue* to work—What will it cost to operate?

When the thinking farmer considers buying a tractor, he disregards impressions. He gets at the bottom of the matter by finding out what tractor has always made an *honest return* in service for the money put into it.

He finds that the G-O Tractor for nine years has been *operating successfully* on farms all over the country.

He finds that in *every sort* of field work—from plowing virgin soil to the final harvesting, and on *every sort* of belt-job, from sawing wood to filling silos—the G-O Tractor

does the work, does it economically, and keeps on doing it.

So *simple* is the *operation* of the G-O that an unskilled hired man can run it.

With its six speeds forward and reverse, the G-O Tractor can be *instantly adapted* to any kind of soil, or any kind of belt work.

The G-O patented driving mechanism does away with complicated gears and the trouble and expense that goes with them.

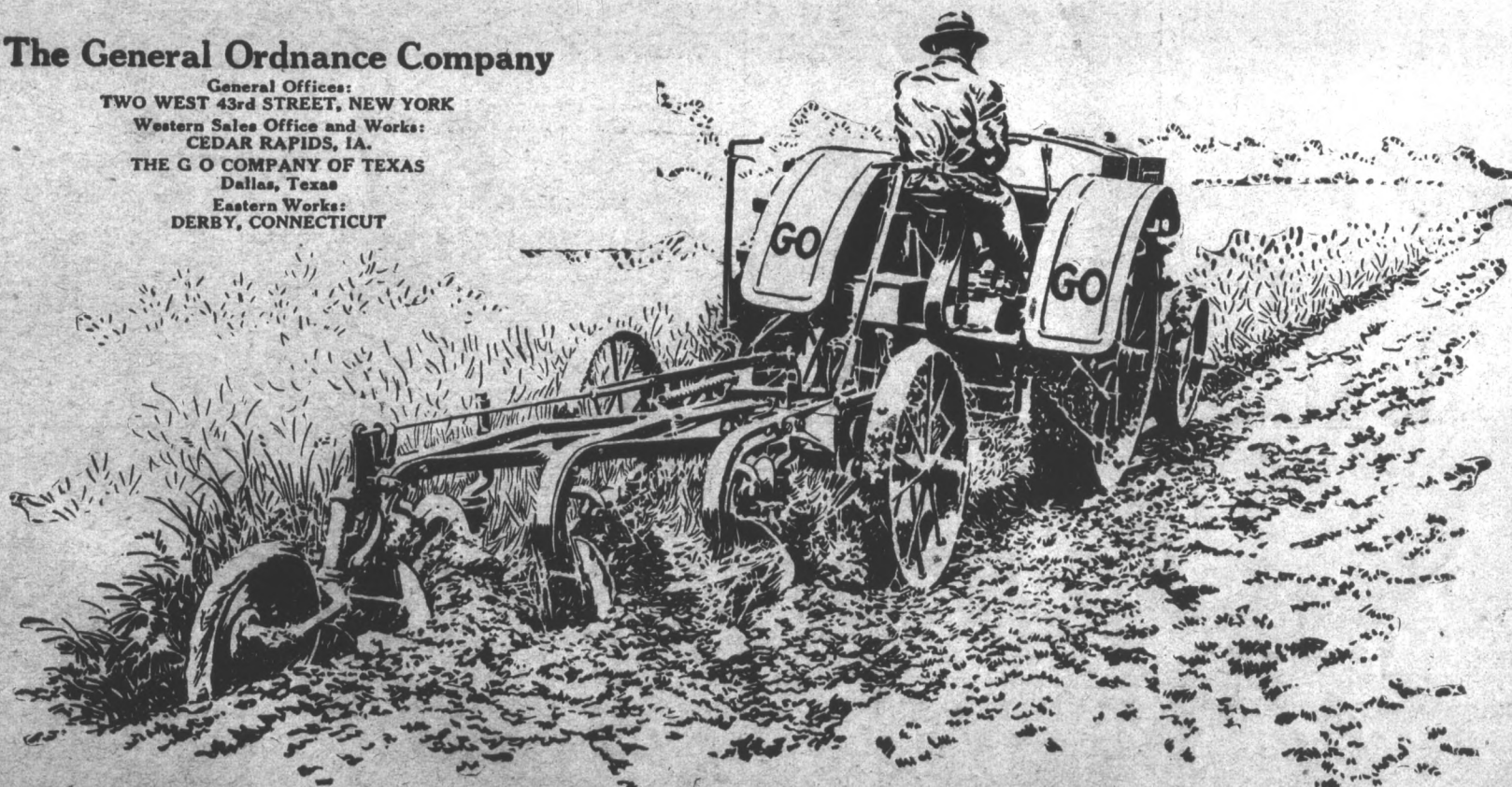
Its oil-filled, dust-proof gear casings—the limited number and simplicity of its parts—its scientific three-point suspension—all reduce the wear and tear on the tractor and add years to its working life.

The farmer who is looking for a tried and proven tractor will inevitably be led to the G-O.

Our booklet "How Success Came to Power Farm" may be had for the asking. No expense. No obligation.

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PREPARING the Spring seed bed is a quick, sure job for the Bates Steel Mule.

Its Crawler traction does not slip on the soft ground and therefore allows double discing and harrowing in one operation.

It also does this work at a fast speed, thus making a finer seed bed than is possible with most tractors.

The Bates Steel Mule does not pack the ground because of the broad Crawler surface and allows the tractor to rest on top of the ground as lightly as a child's foot.

The front wheels make easy steering and comfortable riding.

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Bates Machine & Tractor Co.
Established 1883
Joliet, Illinois

Bates Steel Mule
—the most efficient Tractor in America

The Grain Show at M. A. C.

Attracts Many Visitors During Farmers' Week

THE ninth annual grain show held in connection with Farmers' Week at the Michigan Agricultural College, surpassed in the number and quality of the exhibits, those of any previous year. The Michigan Crop Improvement Association had direct charge of the exhibits. Over one hundred farmers in the state made entries. The following is a list of the prize winners:

Corn—Southern District.

For the best ten ears of yellow dent—First, Wm. F. Wahl & Son, Centerville; second, Luke Roberts, Caledonia; third, M. J. French, Parma; 4th, Milo Robinson; fifth, Arthur W. Jewett, Jr., Mason.

For the best ten ears of white dent—First, M. E. Farley, Albion; second, Garfield Farley, Albion; third, W. F. Wahl, Centerville; fourth, Arthur W. Jewett, Jr., Mason; fifth, McGawn Bros., Three Oaks.

For the best ten ears of white cap or any other dent—First, Byron Wood- en, Hanover; second, Ross Toney, Berrien Center; third, Arthur W. Jewett, Jr., Mason; fourth, Mack Peacock, Kinney; fifth, George W. Rice, Portland.

For the best one hundred ears of yellow dent—First, Milo Robinson; second, Schrader Bros., Centerville; third, L. L. Laurence, Decatur; fourth, D. E. Turner, Mosherville; fifth, Arthur W. Jewett, Jr., Mason; sixth, Robert Williams, Lacota.

Corn—Northern District.

For the best ten ears of yellow dent corn—First, Leslie Gore, Traverse City; second, Olaf Nelson, Aloah; third, George Wheeler, Mt. Pleasant; fourth, P. P. Pope, Mt. Pleasant; fifth, Austin Garner, Vassar.

For the best ten ears of yellow dent—First, Douglas V. Bow, Saginaw.

For the best hundred ears of yellow dent—First, P. P. Pope, Mt. Pleasant; second, Leslie Gore, Traverse City.

For the best ten ears of flint, grown anywhere in the state—First, Arthur W. Jewett, Jr.; second, James Hoyt, Harbor Springs; third, J. C. Jewett, Mason; fourth, Edward Cetas, Good Heart.

For the best ten ears of pop corn—First, Arthur W. Jewett, Jr., Mason; second, J. F. Boes, Bay City; third, J. C. Jewett, Mason.

For the best four quarts of red wheat—First, Arthur W. Jewett, Jr., Mason; second, Jessie Pickett, Caledonia; third, Earl Pickett, Caledonia; fourth, D. E. Turner, Mosherville; fifth, H. W. Hoffman, Albion; sixth, George Emmerick, Saginaw; seventh, J. C. Jewett, Mason; eighth, Aaron Hangen- bauck, Three Rivers.

For the best four quarts of white wheat—First, Alvin Ruppert, Akron; second, Arthur W. Jewett, Jr., Mason; third, J. C. Jewett, Mason.

For the best four quarts of Rosen rye—First, L. A. Segwick, Parma; second, Arthur W. Jewett, Jr., Mason; third, H. M. Queal, Kalamazoo; fourth, C. S. Bender, Kalamazoo; fifth, R. E. Smith, Hemlock; sixth, L. L. Laurence, Decatur.

For the best four quarts of any pedigree variety of oats—First, Clustin Read, Richland; second, Arthur W. Jewett, Jr., Mason; third, John Patterson, Columbus; fourth, George Emmerick, Saginaw.

For the best four quarts of any other variety of oats—First, Arthur W. Jewett, Jr., Mason; second, J. C. Jewett, Mason; third, Earl McCarty, Bad Axe.

For the best four quarts of spring barley—First, Arthur W. Jewett, Jr., Mason; second, Jessie Pickett, Caledonia; third, Earl Pickett, Caledonia; 4th, I. K. Maystead, Owosso.

For the best four quarts of winter barley—First, F. E. Adams, Allegan; second, Arthur W. Jewett, Mason.

For the best sheaf of wheat—First, Jessie Pickett, Caledonia; second, Lewis Eckart, Eaton Rapids; third, R. Arbogast, Union City; fourth, W. M. Garret, Coldwater.

For the best sheaf of rye—First, Nicolson & Baney, Marlette; second, L. B. Day, Albion; third, J. C. Jewett, Mason; fourth, Arthur W. Jewett, Jr., Mason.

For the best sheaf of oats—First, Thomas Bannan, Burt; second, Laurence Bannan, Burt; third, John Patterson, Columbus; fourth, J. C. Jewett, Mason.

For the best sheaf of barley—First, Jessie Pickett, Caledonia; second, Arthur W. Jewett, Jr., Mason; third, Tom

Bannan, Burt; fourth, F. E. Adams, Allegan.

For the best sheaf of alfalfa—First, Nicolson & Baney, Marlette; second, Lewis Eckart, Eaton Rapids; third, Arthur W. Jewett, Jr., Mason; fourth, J. C. Jewett, Mason.

For the best four quarts of white field beans—First, Douglas Bow, Saginaw; second, W. E. Allright, Bay City; third, Arthur W. Jewett, Jr., Mason; fourth, C. S. Langdon, Hubbardston; fifth, Austin Garner, Vassar; sixth, Earl McCarty, Bad Axe.

For the best four quarts of kidney beans—First, J. C. Jewett, Mason; second, W. E. Allright, Bay City; third, Arthur W. Jewett, Jr., Mason.

For the best four quarts of soy beans—First, E. E. Evans, West Branch; second, Arthur W. Jewett, Jr., Mason; third, J. C. Jewett, Mason.

For the best four quarts of field peas—First, E. E. Evans, West Branch; second, Arthur W. Jewett, Jr., Mason; third, J. C. Jewett, Mason.

For the best four quarts of buck- wheat—First, Arthur W. Jewett, Jr., Mason; second, J. C. Jewett, Mason.

For the best four quarts of alfalfa seed—First, J. C. Jewett, Mason; second, Arthur W. Jewett, Jr., Mason.

For the best four quarts of sweet clover seed—First, Arthur W. Jewett, Jr., Mason.

For the best four quarts of medium clover seed—First, Arthur W. Jewett, Jr., Mason; second, Winston Fallen, Clinton; third, C. S. Langdon, Hubbardston; fourth, J. C. Jewett, Mason.

For the best four quarts of alsike clover seed—First, Arthur Lutz, Saline; second, J. C. Jewett, Mason; third, Arthur W. Jewett, Jr., Mason.

TO DEVELOP EXPORT TRADE.

REPRESENTATIVES of some of the country's largest milk condenseries say that the present supply of fresh milk is more than sufficient for domestic consumption and milk canners are preparing for an expansion of their already large export business. No change in prevailing prices is foreseen.

Production of canned milk in the last three years has increased 150 per cent, according to W. T. Nardin, of Chicago, chairman of the milk section. Forty per cent of this is expected. The great export business during the war led canners to neglect home consumption, William Gale, of Germantown, Wisconsin, stated, with the result that condenseries are now stocked with a supply far in excess of the demand. This has seriously lowered the price of canned milk, Mr. Gale said, and the canners must seek relief through increased exports.

A COMPREHENSIVE AGRICULTURAL POLICY.

(Continued from page 232.)
be made a safe measure of national progress with a diminishing food supply. The attaching of high prices by the United States on the basis of farm prices, and by cities and states as to milk and meats, was and is myopic, uneconomic, if not idiotic. As the Frenchman said about the chameleon, "the more it changes the more it remains the same." That is, prices go higher because food is scarcer, and what is worse, no intelligent effort is made to increase foodstuffs, but every effort made to decrease it by unwise efforts. Labor led by radicals proposes shorter hours and imposes inefficiency in production is met by unwise governmental plans which, however well meant, only accentuates the difficulties. To use a cattleman's phrase, "the whole herd is 'milling'."

From the highest motives of patriotism and national welfare, I appeal for agriculture to firmly establish an equitable price and production base and notify other industries that they, too, must set their house in order and thus prevent disaster.

CONE-SHAPE GRINDERS

It PAYS to GRIND ALL GRAINS

Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of shaft; thus more capacity, lighter draft, longer life.

"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than One Dollar per year for repairs." E. W. Watt, Jacobburg, C.

10 sizes; 2 to 25 H. P. Write for free catalogue.

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SLIDEWELL COLLARS

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Illustrating FREEDOM

Made by Troy's Master Craftsmen

SLIDEWELL Collars save your Tie, Time and Temper

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Fruit Trees

Jonathan, Delicious, Spy, Duchess, etc.—best 2 yr. stock. Elberta Peach, Sweet and Sour Cherries, Plums, Pears, Berries, Grapes, Roses, Shrubbery. Send for prices and particulars and order this month for stock is scarce.

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Kalamazoo, Mich.

HOOSIER STOVES & RANGES FREE

To try in your home 30 days free no matter where you live. Show your friends, send it back at our expense if you do not want to keep it. Millions of families enjoying the comforts and pleasures of "Hoosier" Stoves & Ranges, perfect bakers and heaters, beautifully finished, smooth latest design, guaranteed for years.

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

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Hand and power, the size you need at a price you'd like. Work done in one-fifth the time. Built of all steel and iron like the \$500 mixers but simpler. The Leader of Little Mixers. Perfect work in any class of mixing. Employs a minute. Only practical mixer for farmer or contractor. Satisfaction guaranteed or money refunded. Write for circulars or order from this advertisement to avoid delay.

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ONLY \$60.00

8 MEN CAN'T STICK IT

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It is furnishing bright clean electric light throughout the house and barn—doing away with the smoky, dangerous kerosene lamp and lantern.

It is providing power to pump water, thus making possible a modern bath and the convenience of running water throughout the house and barn.

It is operating the washing machine, the churn and cream separator, the vacuum cleaner, the milking machine, the fanning mill, and the grindstone.

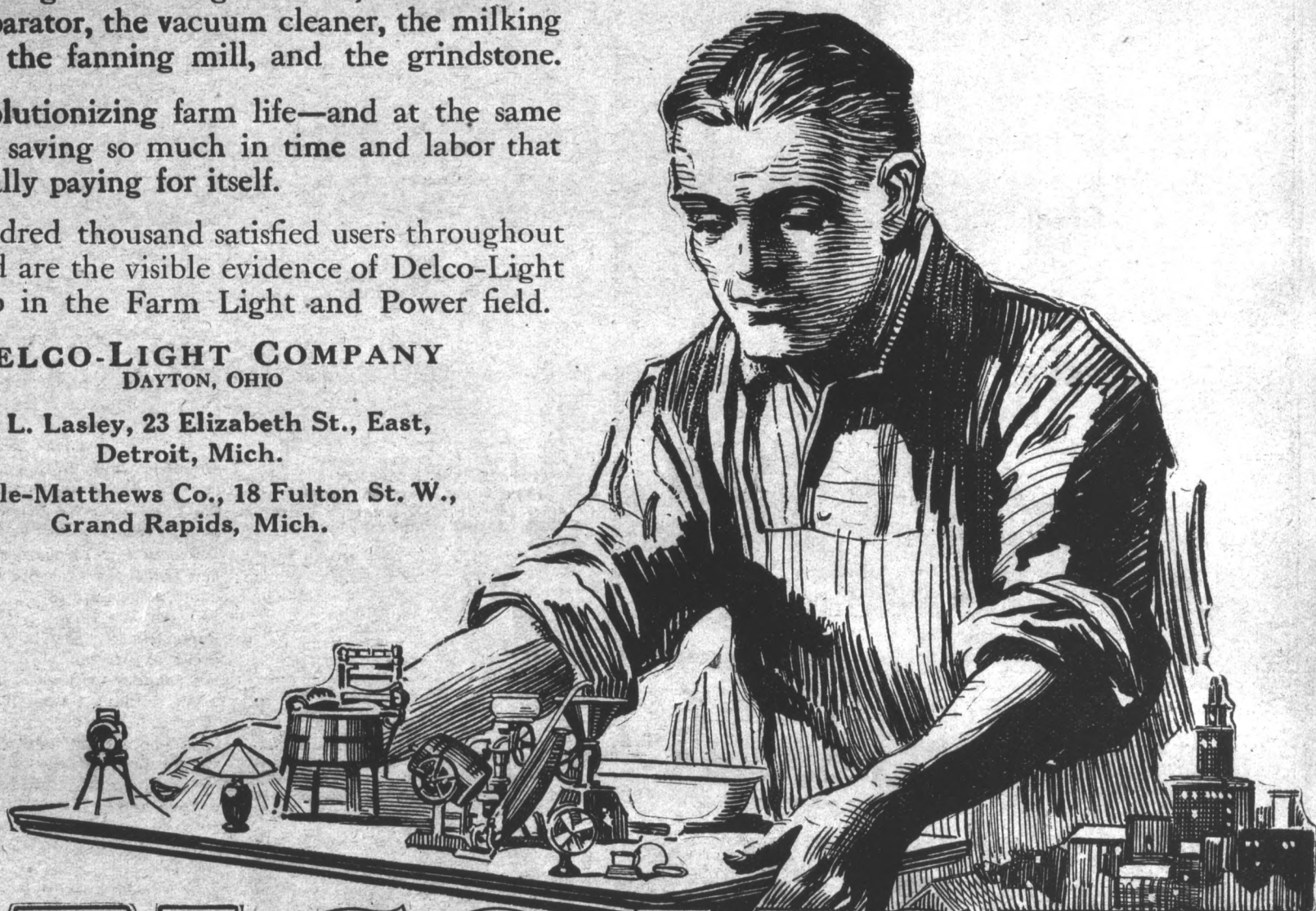
It is revolutionizing farm life—and at the same time it is saving so much in time and labor that it is actually paying for itself.

One hundred thousand satisfied users throughout the world are the visible evidence of Delco-Light leadership in the Farm Light and Power field.

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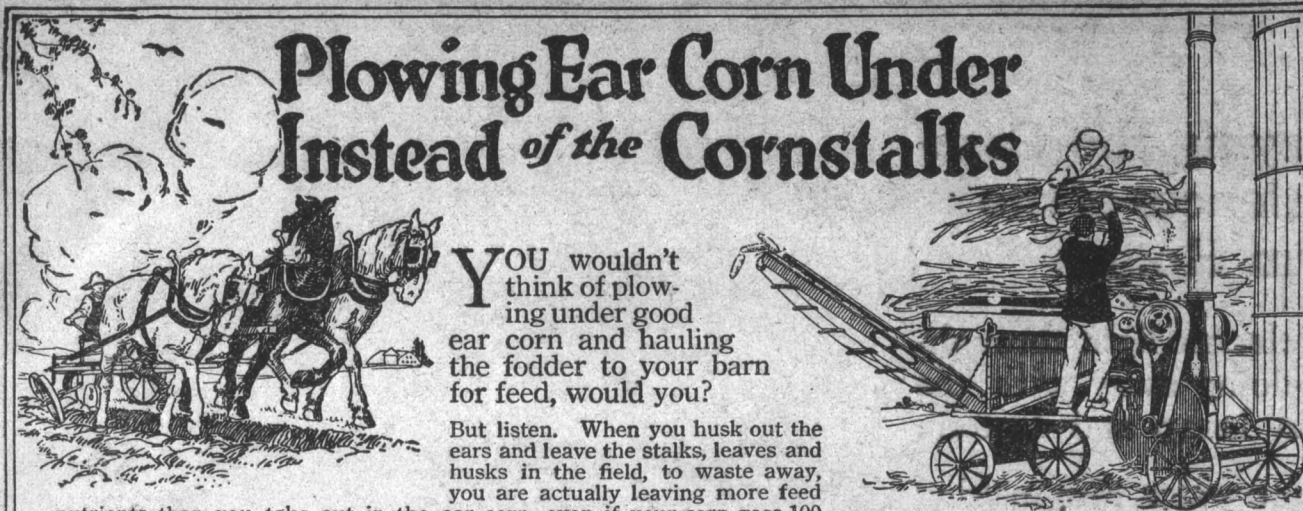


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A complete electric light and power plant for farms and country homes, self-cranking—air cooled—ball bearings—no belts—only one place to oil—thick plates—long-lived battery.

**Valve-in-Head Motor
Runs on Kerosene**



Plowing Ear Corn Under Instead of the Cornstalks

YOU wouldn't think of plowing under good ear corn and hauling the fodder to your barn for feed, would you?

But listen. When you husk out the ears and leave the stalks, leaves and husks in the field, to waste away, you are actually leaving more feed nutrients than you take out in the ear corn, even if your corn goes 100 bushels to the acre. That's astonishing, isn't it? But, nevertheless, it is a fact. A recent Bulletin put out by the University of Illinois on Stover Silage under the title, "CORN STALKS WITHOUT EARS MAKE EXCELLENT FEED, WHEN PUT THROUGH A SILO," says:

"Studies made by Dr. Grindley and associates in the nutrition division show that the largest supply of digestible nutrients in the entire corn plant occur at the stage of maturity when the corn plant is just right to cut for shocking. These studies show that even in a field of corn yielding over one hundred bushels per acre there is a slightly larger total quantity of nutrients in the stalk, leaves and husks than in the grain."

When you WASTE your cornstalks by leaving them in the field to wither and blow away, you are actually wasting half of your corn crop. You can save this unnecessary waste with a

JENNEY SILO-FILLER-HUSKER

The Machine That Husks Your Corn and Puts the Stover in Your Silo at the Same Time

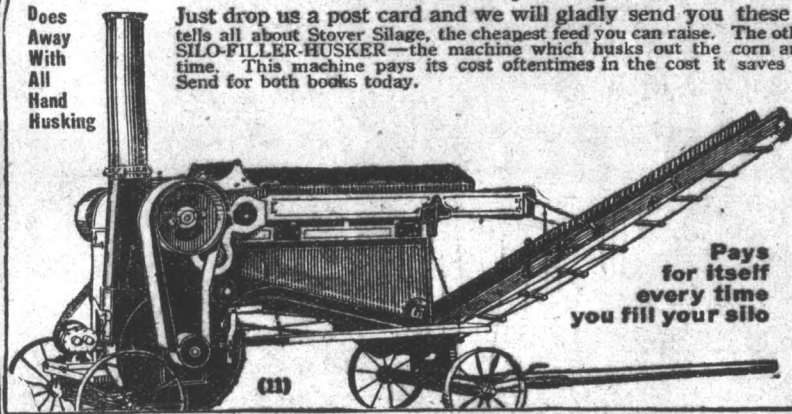
Get posted NOW so as to get DOUBLE PROFIT out of your 1920 corn crop. At the University of Illinois in a feeding test they found breeding cows were wintered through on Stover Silage (silage made from fodder without the ears) at a cost of 7.8 cent per head per day as against 24.8 cents per head per day on corn silage. Read this letter:

"We took 3000 bushels of ear corn out when filling our two silos last year. We have been doing this three years now, and get as good feeding value as we did from regular corn silage. We will never put good ear corn in our silos again, as we get two feeds instead of one from our corn crop. Filled silos three times last year by putting up and shocking all our corn."

Get These Two FREE BOOKS on How to Make Your Corn Crop Pay Double Profit

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Away
With
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Just drop us a post card and we will gladly send you these two free books. One tells all about Stover Silage, the cheapest feed you can raise. The other illustrates the JENNEY SILO-FILLER-HUSKER—the machine which husks out the corn and fills the silo at the same time. This machine pays its cost oftentimes in the cost it saves you in filling a single silo. Send for both books today.



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Gentlemen: Please send me your two new books and oblige.

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R. F. D. State



STATE FARM BUREAU ACTIVITIES.

ESTABLISHMENT of a seed and grain purchasing and selling department of the Michigan State Farm Bureau to serve the thousands of farmers of Michigan has been decided upon by the executive committee meeting in Birmingham. The Michigan Crop Improvement Association has been taken over as the nucleus of the new department and J. W. Nicolson, of the Michigan Agricultural College, employed as manager.

Michigan is growing several grains in great demand over the country, notably Rosen rye and Red Rock wheat. Supplying of other states with these seed grains in carload quantities will be one of the activities of the new farm bureau department. Purchasing of improved seeds and grains grown elsewhere, such as North Dakota alfalfa and Idaho clover, for Michigan farmers in wholesale quantities on a cost basis, also will be done. The department is intended to be self-sustaining. It is expected that this department will do a \$500,000 business in the coming year.

Preliminary financing of the Michigan Wool Growers' Association, as a subsidiary of the State Farm Bureau, also was decided upon at the request of officers of the wool growers. A large warehouse will be obtained and the wool of the farmers of the state will be handled for them on a cost basis. It is expected that this department will be in operation in time to handle the bulk of the spring clip.

Executive officers of the State Farm Bureau chosen by the executive committee were: Fred Van Nordsall, of Three Rivers, treasurer; C. A. Bingham, Birmingham, secretary, and J. P. Powers, Detroit, assistant secretary.

Delegates of the Michigan State Farm Bureau to the American Farm Bureau Federation, which will convene in Chicago, March 3, are Roland Morrill, Benton Harbor; James Nicol, of South Haven, and R. G. Potts, Washington.

FARM ASSOCIATIONS ELECT NEW OFFICERS.

AMONG the officers elected by different associations at the recent annual meetings, are the following:

Michigan Crop Improvement Association.—L. Whitney Watkins, of Manchester, president; A. B. Cook, of Owosso, vice-president; J. W. Nicolson, of East Lansing, secretary-treasurer; Garfield Farley, of Albion, Fred Cornair, of Union, City, J. F. Cox, of East Lansing, and F. A. Spragg, of East Lansing, directors.

The Michigan Veterinary Association.—Dr. R. H. Wilson, of Rochester, president; Dr. B. A. Perry, of Hastings, first vice-president; Dr. A. Z. Nichols, of Hillsdale, second vice-president; Dr. B. J. Killham, of Adrian, third vice-president; Dr. H. F. Palmer, of Brooklyn, secretary-treasurer.

Michigan Potato Producers' Association.—Arthur N. Smith, of Lake City, president; M. B. McPherson, of Lowell, vice-president; H. C. Moore, of East Lansing, secretary; Dorr D. Buell of Cadillac, treasurer.

Michigan Muck Farmers' Association.—C. E. Downing, of Vermontville, president; Lewis Merriman, of Deckerville, vice-president; Ezra Levin, of East Lansing, secretary.

Michigan State Farm Bureau.—Roland Morrill, of Benton Harbor, president; R. G. Potts, of Washington, vice-president; A. J. Rogers, of Beulah, A. E. Illenden, of Adrian, and James Nicol, of South Haven, executive committee for two years; Robert Blemhuber, of Marquette, Mrs. Cora Ketcham, of Hastings, and A. M. Berridge, of Greenville, on the executive committee for one year.

BEEHIVES
Sections, Comb Foundation, etc. Everything for the bees including Beginner's Outfits. Send for 1920 catalog.

BERRY BASKETS
and 16 Qt. crates. Send for Price Card.
M. H. Hunt & Son,
Box 525, Lansing, Mich.

CLOVER SEED
Send us your samples of clover seed, vetch, garden beans, red kidneys, white beans, etc. Name lowest price or ask us for bids.
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agents both local and traveling, wanted to sell a SILO with so many GOOD FEATURES that Farmers help you. PRICED RIGHT.
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Also Sanitary Storage for smoked meats

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It is now possible to secure a Lasco Tile Silo With the Famous Ladder-Hinge Door. Door forms a perfect ladder—steps 15 inches apart. Safe, easy—any boy can operate. Door always in place—no lost doors. Lever Lock operated by one hand. Keeps ensilage perfectly next to the door. Does not sag, bind or stick. Write for Booklet. Agents Wanted. You can also secure the Ladder-Hinge Door with our stave silos.
LANSING SILO COMPANY
304 E. State St., Lansing, Mich.

MORTGAGE AND LAND CONTRACT.

I sold my farm on contract, \$1,000 down, balance, \$5,000, payable with interest in yearly installments of \$100 or more. A notary made out the papers land contract note, and mortgage. I wanted to sell the mortgage to a banker and he said it was no good, that the parties purchasing could not give a mortgage on what they did not own. I have an abstract and there was no incumbrance on the place when I sold it. J. S.

This is a badly mixed up transaction. In the first place, the seller was very unwise to sell on such a small down payment with fifty years to pay the balance in. In the next place the banker is right as to the mortgage. However, the seller is better off than if she had given a deed and taken back a mortgage. She has given the buyer a contract agreeing to deed to him on receiving the payment of the price, at the end of fifty years or whatever shorter time the buyer gets the balance paid, and this gives her right to possession in some thirty days if the buyer defaults on his payments. The note is very well as collateral to the land contract but the mortgage is quite superfluous. The seller can sell the land and contract at any time, subject to the rights of the buyer, whenever she can find anyone willing to buy her rights. J. R. R.

WORKMEN'S COMPENSATION.

What is the liability of a farmer to a carpenter falling from a farm building on which he was working? How long would the person have to collect in, and what kind of contract would a person have to make to avoid liability? F. S.

The workmen's compensation law of this state provides that hereafter it shall be no defense to an action by an employe against an employer for a personal injury, or injury resulting in death, that the employe was negligent, unless the negligence was wilful, nor that he was injured by the fault of a fellow employe, nor that he assumed the risk as one incident to the employment. The only exception is that the act shall not apply to "household domestic servants and farm laborers."

It could hardly be said that a carpenter building a barn on a farm was engaged as a farm laborer, we would think. The only way to avoid the liability would be by insurance policy. The action would have to be started within three years after the injury was received. J. R. R.

STRAY DOGS.

Can a farmer poison, trap, or shoot stray dogs roaming on his land? It is impossible to notify owners.—H. W.

The statute of 1919 (No. 339) provides (Sec. 19): "Any dog that enters any field or enclosure outside of any incorporated city, unaccompanied by his owner or his owner's agent, shall constitute a private nuisance, and the owner or tenant of such field or other enclosure, or his agent or servant, may kill such dog while it is in the field or other enclosure without liability for such killing." J. R. R.

LINE FENCE.

The line fence between my neighbor and myself is crooked. My share of the fence needs repairs. Have I a right to clear the way and make the fence straight myself without survey? SUBSCRIBER.

Unless title has been acquired by adverse possession the person bound to maintain the fence may build it on the line. The court would be very loath to believe that the parties intended to have a crooked line and would rather conclude that the fence was put up crooked as a temporary convenience. It is doubtful whether the amount involved would warrant a law suit, but that is the only recourse if the parties cannot agree. J. R. R.

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Farmers are installing Lalley Light *now* in greatly increased numbers.

They realize more than ever that *right now* they have plenty of time to install this essential equipment.

They realize that they can have Lalley benefits and comforts *immediately* and be ready for the greater benefits that Lalley Light will give them when the rush of farm work comes.

They realize that Lalley Light, with its ten-year owner experience, is so valuable an investment that they cannot afford to be without it one day longer.

Delay May be Costly

Right now is the best time for you to begin enjoying Lalley electricity.

Not only do you need this equipment *now*, but if you delay, you may have to pay an increased price for it.

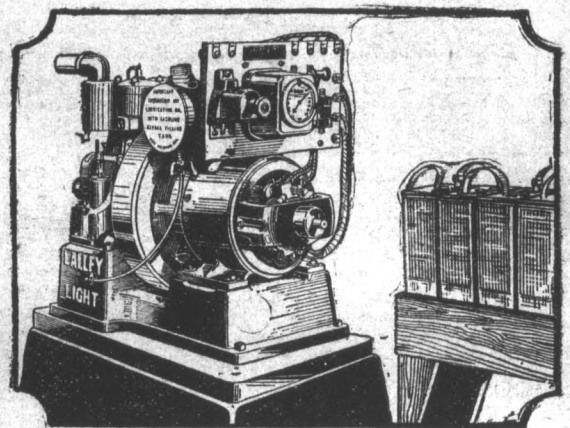
Do not delay. Go to see your Lalley Light dealer *now* and place your order for a Lalley Light Plant to be installed immediately.

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Lalley Light is a complete unit—engine and generator—with 16-cell storage battery. It supplies ample electricity for lights, water pump, washing machine, sweeper, cream separator, fanning mill, iron, etc.



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THE ELECTRIC LIGHT AND POWER FOR EVERY FARM



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FOR the first time American farmers can solve the drainage problem at low cost. Find out about this tool. Don't put it off. Write for the new book that tells the story.

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Cuts V-shaped farm ditch down to 4 ft. deep; cleans old ditches; grades roads; builds farm terraces, dykes and levees; works in any soil, wet or dry. 2, 4 and 6 horse sizes; large size fine for tractor. Does work of 100 men. Write and find out how to make big crops sure. New free book on drainage, irrigation and terracing. Address

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CLOVER—free from Buckthorn, Timothy and Alsike mixed. Soy Beans, all Field Seeds. Write for free samples and the freight-paid prices on our absolute Money Back guarantee. Farmers Commercial Seed Company 140 WEST VAN BUREN STREET CHICAGO, ILL. Dept. "F"

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Seed to be worth planting at all must not only grow, but must grow a profitable crop. For years we have been supplying seed practically free from weed seeds and dead grains, the only kind that will show a profit. Samples and our Field Seed Book, which tells exactly "How to Know Good Seed," are free. To save losses from weeds, you need this information. Write today. O. M. Scott & Sons Co. 74 Main St., Marysville, Ohio.

Seed Corn Selected seed of the following varieties testing 90 percent or better. Early Butler, Pride of the North, Leaning White Cap, Yellow Dent, Mammoth White Dent. Price \$3.00 per bushel. Bags extra at 60 cents each. Sample ears at 25 cents each. THE HORN BROS. CO. MONROEVILLE, OHIO.

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For ten years these rings have stood the test—made good. And time is the severest test of any product. They are tried and true.

Genuine McQuay-Norris **LEAK-PROOF** Piston Rings, by creating uniform action on the cylinder walls, stop piston ring leakage, increase motor power, decrease carbon and save fuel and oil.

They are made in every size and over-size to fit every make and model of tractor, truck, passenger car or gasoline engine. Your dealer has them or can get proper sizes for you promptly from his jobber's complete stock.



To Control Excess Oil
A special ring for motors that pump oil. Use in top grooves of each piston. In the lower grooves use McQuay-Norris **LEAK-PROOF** Piston Rings for complete compression—power.

Write for this Booklet

"To Have and to Hold Power," a valuable explanation of the relation of piston rings to power.
Address Dept. AE

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



WHITE BUNCHES ON LIVER.

My one-and-a-half and two-and-a-half-year-old hens seem to be all right, and then they suddenly drop dead. I have opened some. Some I found with a portion of fat upon the bottom and top of the heart. They were quite fat. In others I found the heart the same and the liver covered with white bunches half the size of a pea and as hard as a stone, the liver being very dark. They all have been very fat. Some have died from bowel trouble. They became very poor, and had no desire to eat or move about. We fed a warm mash in the morning, consisting of ground corn, oats and bran. Then alfalfa chaff. At night barley, oats, wheat and very little corn. They have had plenty of exercise until recently we have had them shut in the coop, which is a basement coop where it very seldom freezes. They have lots of light and air. Will you kindly tell me what to use? They are Rhode Island Reds. Mrs. L. L.

Hens that are over-fat and die suddenly are usually victims of apoplexy. This trouble can be largely prevented by the use of balanced rations and the deep litter which makes the birds scratch for their grain. Culling out birds that become over-fat and the old hens that are through laying, helps to keep down the losses from a disease like apoplexy.

The birds that became thin and had white bunches on the liver were suffering from tuberculosis. The carcasses should be handled carefully and burned to prevent spread of the disease. It can be eliminated from a flock by breeding from healthy birds and using the best sanitary measures to keep the flock healthful. Some breeders do not like the warm mash in the morning but prefer to feed it at noon if that is to form a part of the ration. Scratch feed is given in the morning to keep them busy in the litter. The mash in the morning often satisfies their appetites and they hump up in the corners of the house waiting for more feed without work. This lack of exercise is conducive to ill health.

RABBITS AS A SIDELINE.

NOWADAYS any sideline that will help reduce living expenses is worthy of serious attention. In this connection we have found rabbits most interesting and profitable. They can be kept in almost any backyard and usually require less room and are cheaper to feed than poultry. They are also rapid multipliers and a few breeders will keep an average-sized family fairly well supplied with meat.

A small start can be made with only one or two does. We prefer either purebred Belgian hares or a cross between a Belgian hare doe and a Flemish Giant buck. For a beginner the best way is to buy a doe already bred and get her from a reliable breeder. If she can have a small range she will pick up most of her food. Weeds, dandelions, plantain, etc., are all good foods. Any green stuff from the garden, such as lettuce, cabbage, carrot tops, mustard, parsley, and turnip tops may be utilized to advantage.

The supplied feed should be a handful of good oats to each rabbit at night, while just before she is due the doe should have a warm mash in the morning—at least in cold weather—and bran and middlings are excellent for this purpose. In the winter when green stuff can not be procured, rabbits readily eat dry clover or alfalfa hay. One can buy a bale at any feed store and feed it a little at a time.

Each doe should have a hutch at least five feet long, two feet wide and two feet high. This allows sufficient room for exercise. Part of this should be divided off and closed in the front, so as to form a sleeping compartment.

Continued on page 301.

POULTRY

Ring Neck Pheasants

THOROUGHBREDS PAY

Lay 40 to 50 eggs each per year—Raised as easily as chickens—Only eat half as much—Very profitable—Bring \$2.00 per pound alive.

Genuine Wild Mallard Ducks
Lay 50 to 60 eggs per year—Guaranteed to be only from Wild Trapped Mallards.

Giant Bronze Turkeys
Prize Flock, headed by 55 pound tom.

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Fine laying strain of prize birds.

Send for Free Booklet of Instructions and Price List of Eggs.

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By Parcel Post Prepaid. Delivered to You. Guaranteed Live Delivery. Eggs for Hatching by the Setting or 100.

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This is our 11th season. With the great increased demand for our chicks and the fine reports and praise we receive from our customers, proves that our chicks are from Stock of Good Quality. Bred for Heavy Egg Production and that they are Properly Hatched. Stop your loss by buying our Reliable Chicks.

We hatch all our chicks from pure bred, free range farm stock. S. S. White and Brown Leghorns, S. O. Anconas, Barred Rocks, S. O. and R. O. Reds, S. O. Black Minorcas, and S. O. Buff Orpingtons. Special combination offer on chicks, hovers and brooder stoves. Before buying elsewhere send for free illustrated catalog and prices. Place your order at once and avoid disappointment in the rush of the season.

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BOTH for \$17.25 **You Take No Risk with an Ironclad** *THE IRON COVERED INCUBATOR*

Why pay more? For \$17.25 you can get these 2 unbeatable machines, set up complete, ready for use, delivered, freight paid east of Rockies. **Money Back if Not Satisfied** We will send both machines back—let you use them 30 days—and if you don't find them satisfactory, send them back—we'll pay the freight charges and return your money. You are absolutely safe.

150-Egg Incubator—150-Chick Brooder Don't class this big galvanized iron covered, dependable hatcher with cheaply constructed machines. Ironclads are not covered with cheap, thin metal and painted, like some, to cover up poor quality of material. Ironclads are shipped in the natural color—you can see exactly what you are getting. Made of genuine California Redwood, triple walls, asbestos lining, vulcanized iron covering. Large egg tray, extra deep chick nursery, hot water heater, COPPER tanks and boiler, self-regulator, Lycos thermometer, glass in door, and many other special advantages fully explained in free catalog. Write for it TODAY or order direct from this advertisement.

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All styles. 150 illustrations. Send 10 cents.
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Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, hinnerneck etc.
At dealers or postpaid 75 cts. with 5 book Poultry Library.
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The Day Old Chick business is on. We advise you to write for Catalog now, and then order as early as you can.

The most complete descriptive Catalog we have yet published; its instruction will help you.

Thirteen Heavy Breeds.
Three Especial Egg Breeds.

You will be particularly interested in the extra heavy laying breeds: White Leghorns inspected and certified as heavy producers by the Poultry Extension Specialist of the Agricultural College.

Cockerels—A few very fine R. O. and S. C. Reds; Barred Rocks; White Wyandottes; R. O. Brown Leghorns.

Pullets—20 S. O. Brown Leghorn yearlings.

We solicit your interest in the Homestead Farm plan of Pure Bred Poultry raising.

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Barred Rocks egg contest winners, eggs from strain with records to 280 a year. \$2.00 per setting prepaid by P. P. Circular troop.
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BABY CHICKS S. C. W. Leghorns, White, Buff Barred P. Rocks, S. C. R. I. Red, Anconas, White Wyandottes, Buff and Brown Leghorns, 25 for \$6.25, 50 for \$11.00 for \$20. Fenton Chicken Hatchery, Fenton, Mich. Box 244.

Baby Chicks S. C. W. and Brown Leghorns and S. O. Anconas. Healthy, vigorous, and from a good laying strain. We guarantee safe delivery. Order now. Seventh season. Send for price list. City Limits Hatchery and Poultry Yard, R. 5, Holland, Mich.

Buff Leghorn and White Leghorn Cockerels, from 200 egg strains. Booking orders for eggs and chicks.
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Double Walls Fibre Board—Self-regulated—Hot-Water Copper Tank—Safety Lamp—Thermometer Holder—Egg Tester—Nursery. With my \$7.55 Hot Water Double-Walled 140-Chick Brooder—both only \$18.50

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Additional Poultry Ads. on Page 301

RATION TOO BULKY.

We have erected a silo this year and have it filled. There was a large amount of good ear corn on the stalks and we thought we would get it back in the milk, but our results have been disappointing. We feed a bushel of silage twice a day and some hay, but the cows are not doing well; in fact, they are falling off in their flow of milk. Will you please advise me how to feed them to get a satisfactory flow of milk?

Kent Co.

M. D. V.

All the feeds you are feeding your cows are excellent, but all of them are bulky and your cows must have some concentrate to mix with this in order for them to do their best. A cow could not possibly eat a sufficient amount of these bulky foods so that she could get food nutrients enough to produce a normal flow of milk. It would pay you to purchase grain to feed in connection with this bulky ration. I would suggest that you feed your cows two pounds of oil meal each a day and then a sufficient amount of wheat bran besides to give each cow one pound of grain for every three or four pounds of milk which they produce in a day. If you do this you will find that they will not consume anywhere near as much of your roughage and you will get a more liberal flow of milk and produce it more economically.

C. C. L.

HORSE FEEDS ON RENTED FARM.

I have a forty-acre farm all tiled and good buildings, silo and six milch cows, that I want to leave out on shares. Would it be fair to both parties to furnish half of the cows, chickens and pigs and half of the seed and half of the feed, each party to share half of the profits, second party to furnish the horses and machinery and feed horses out of his share, and also to do all the labor in case of second party leaving the farm? What would be a fair price for first party to pay for feed left in silo and how to estimate the same.

Wayne Co.

W. C.

Your agreement as to division of proceeds seems fair to both parties. If the horses are to be kept busy on the forty acres of land it would be fair that they should be fed from the feeds grown on the farm and from the feeds purchased jointly. On the other hand, if the horses are used for outside work it would be unfair for the owner of the farm to furnish feed for service from which he derived no benefits. These points must be given careful consideration by both parties before they can arrive at a fair solution of the horse feed problem.

Good corn silage has a value of approximately one-third of the price of timothy hay at the farm. One cubic foot of silage weighs about forty pounds.

W. M. K.

CROPS BY TRESPASSER.

A neighbor of mine put in four acres of Rosen Rye on my farm without asking me in any way. He put it in where I had intended planting potatoes next year. What can I do about it? Can I add manure and then turn it under, or am I compelled to allow his rye to grow and take what share he offers me? He made no bargain whatever with me.

G. A. N.

The owner owes no duty to the trespasser, and the trespasser has no rights. The owner may plow down the crop or harvest it without any liability to the trespasser.

J. R. R.

DEFENSE TO NOTE.

I gave a note for \$100 for share in a cooperative store, which is not what they said it would be. (The bank insists on us paying the note and interest, and we have told them to sell the stuff on the shelf or sell the share. Do we have to pay the note?)

SUBSCRIBER.

Defenses between the parties to a note do not hold against purchasers in due course without notice, which we take to be the situation of the bank.

J. R. R.

Here Is Still a 1918 Price!

Primrose Cream Separators Are Fighting the H.C.L.

PRIMROSE today presents a red-letter opportunity that no man interested in dairy profits can afford to ignore. Indulge your old habits of economy and buy a **Primrose Cream Separator**, which in this day of skyrocketing prices still sells as it sold two years ago. Primrose price today is but slightly more than the low price prevailing in 1914, instead of 60 or 100 per cent more, as in most cases where high-grade steel products are concerned. Buy Primrose now at the 1918 price. Why is so low a price possible?

Because:

The growing popularity of Primrose Separators, has resulted in greatly increased demands;

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Large-quantity raw material orders

with quick turnovers into machine sales, means lower costs; active labor and equipment produce more for each dollar of operating expense than idle labor and equipment;

The increases in the general cost of raw materials and labor have been practically offset, in the case of Primrose Cream Separators, by the reduced costs of unit production and distribution, due to the increased demand.

Therefore the prices of Primrose Cream Separators still stand at the old figure of 1918—considerably less than the present high-priced separators. Make the most of this rare opportunity. See your International dealer.

INTERNATIONAL HARVESTER COMPANY

CHICAGO

OF AMERICA

U S A



Test the Soothing Action of the Empire Teat Cups

Visit some dairy near you where they are using Empires. If you don't happen to know of one write us and we'll direct you. Ask the man to let you test the action of the teat cup. Put your thumb in it. Then you'll understand why cows like the Empire—why they let down easily and give more milk and act so contented when the Empire is at work. If you're milking 10 or more cows you should use the famous Empire Milker. Write for our catalog 23-M.

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Wood Silos in fir and pine with hinged doors. Cement Block Silos, puddled process sealed and poured joints.

Hollow glazed building blocks for farm buildings—last forever—cheaper than lumber. Buy early and save money.

Write for literature, prices and special agent proposition.

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FEEDS Dairy, Horse, Hog and Poultry feeds. Bran, Middlings, Cotton seed Meal, Cull Beans.

We want to send you our price list.

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Please Mention The Michigan Farmer When Writing to Advertisers

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Read what
Mr. Currie
has to
say.

Heath & Milligan Mfg. Company,
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Dear Sirs:—Some time ago I purchased enough Heath & Milligan Best Prepared Paint to paint my residence and barn. I figured on giving them two coats. I got two practical painters from Amsterdam, who applied the first coat as per directions. The result was so far ahead of anything I expected, when the first coat was dry, that I decided not to apply the second coat, and I used the paint I had left over, to paint a two-story and attic store building. So I am getting two pieces of property painted, for the price of one, and the result is better than anything I have seen around here, even with two coat work. I have used Heath & Milligan's Flat Wall Finish, too, on the interior of my residence, with satisfactory results.

Yours very truly,
WILLIAM CURRIE.

DEPENDABLE
HEATH & MILLIGAN
REG. U.S. PAT. OFF.
PAINTS

Since 1851

Home of
Wm. Currie,
Tribes Hill,
New York.



"Save the
surface and you
save all"

feet, one coat. Whereas Mr. Currie's former experience had been with so called good paint at a lower price, which goes only half as far when brushed out on the wood, and requires double the time of the painter. Of course, it isn't always possible to do the job with one coat of paint as Mr. Currie did. But his experience is absolute proof that it pays to use the best.

Wears Longer—Looks Better

You know the surface underneath a coat of paint must be entirely covered and hidden no matter how much it takes, if you want a durable and attractive job. Heath & Milligan Paint does cover and hide. In fact it wears longer and looks better. Leaves the surface in perfect condition to repaint.

When William Currie of Tribes Hill, New York decided to save the surface of his house with Heath & Milligan Dependable Paint, he didn't know that he was going to save quite a sum of money on the paint and labor too. But you see this paint covers 720 to 800 square

"Save the
surface and you
save all"
Use Paint and
Varnish

50 Distinct Products

There are more than 50 distinct Heath & Milligan Dependable Paint Products. Creolite for floors. Flat Wall Finish for Walls. Sunshine Finish to renew furniture, floors and woodwork. Cement Coating for concrete, brick and stucco. Best Prepared Paint for houses, barns, garages, etc. They are all of the same high quality standard. Cheapest in the end for you to use. They are carried by dealers all over the United States. To find them in the town where you trade, look at the list below for name of our dealer.

FREE PAINT BOOK

Go to him and get a copy of our FREE Book "How to Paint" or return the coupon on this page to us, and we will send it.

Some of Our Dealers Nearest You—Is Yours On This List?

The small figures after the names of our dealers on this list, signify the number of years they have continuously sold Heath & Milligan Paints in their respective localities.

MICHIGAN DEALERS
Allegan, The Grange Store
Amasa, Amasa Co-Operative Store
Au Gres, Cole Sproule Hdwe. Co.
Battle Creek, Wayne D. Marsh
Bay City, Ig. Andrzejewski
Bay City, H. & H. L. Eickemeyer
Bay City, The Jennison Hdwe. Co. —33
Bay City, M. G. Kabat
Bay City, E. E. Mannassa
Bay City, Wilton & Mack
Benton Harbor, George C. Bridgeman
Berrien Springs, H. K. Graham
Bessemer, Bessemer Lumber Co.
Bloomington, Harrison & Spayde
Buchanan, H. R. Adams
Caro, F. A. Riley
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Lake Linden, Schuette & Ton-
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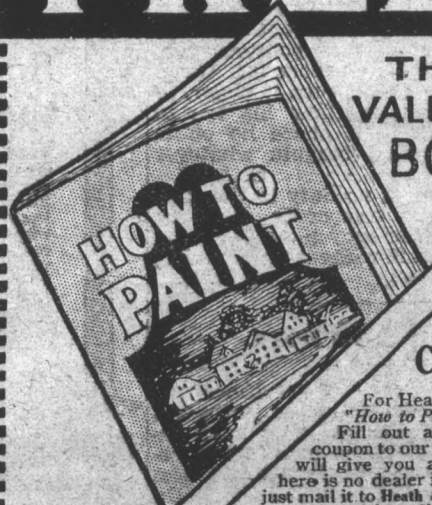
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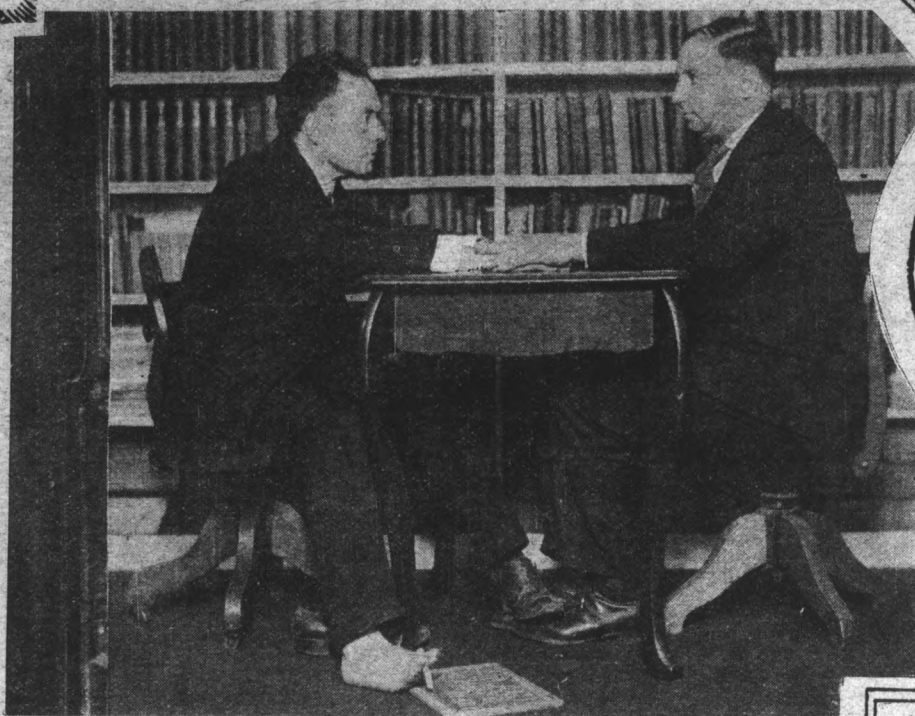
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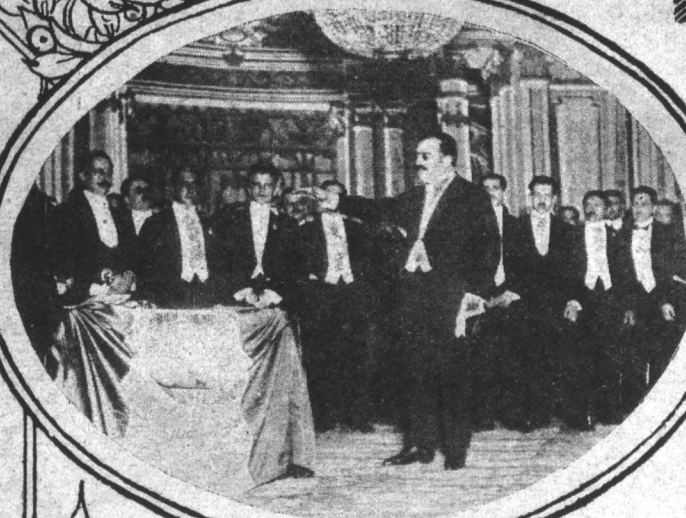
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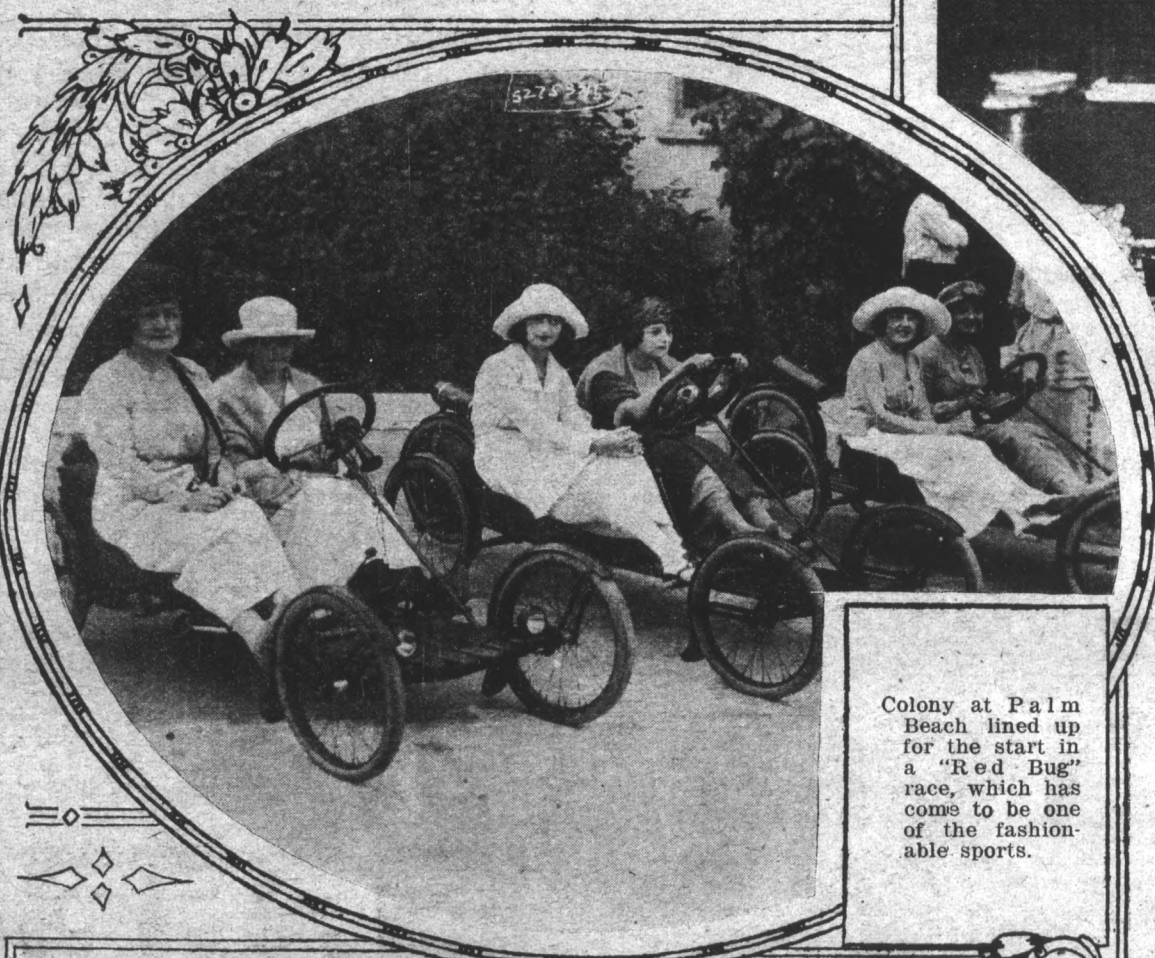
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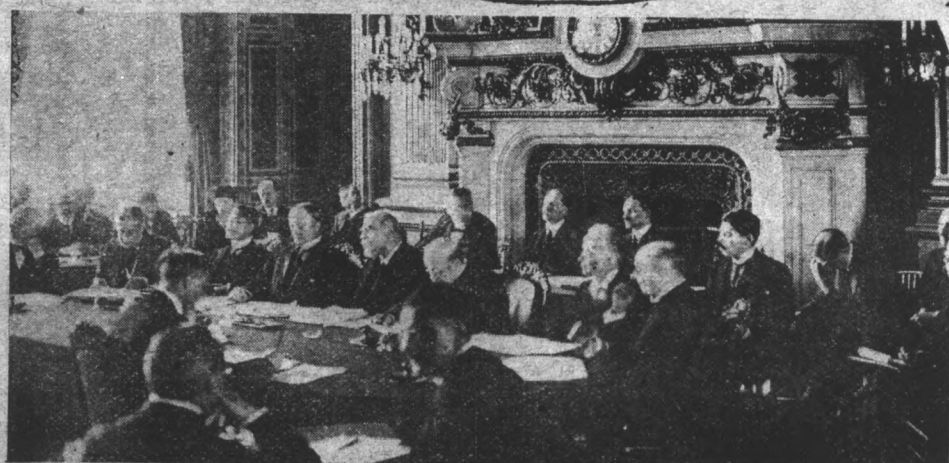
General Gonzales, with hand extended, accepting the democratic nomination for the presidency of Mexico.



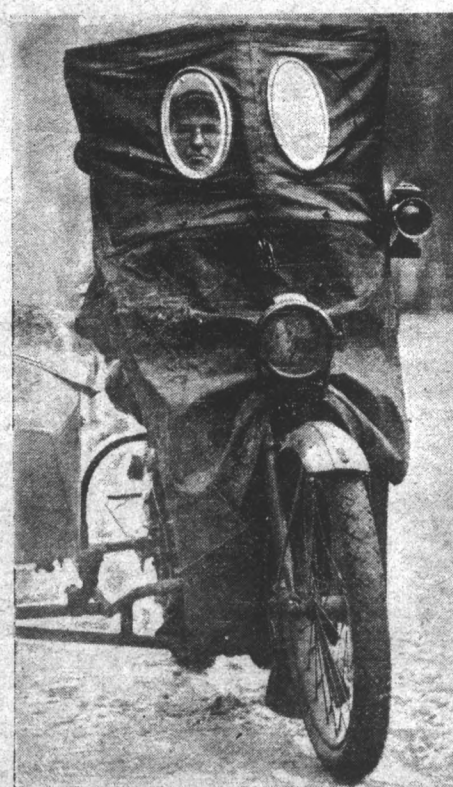
Dr. Varonoff, French Surgeon who recently made a report to the Paris Surgical Congress on his remarkable experiments in prolonging life.



Colony at Palm Beach lined up for the start in a "Red Bug" race, which has come to be one of the fashionable sports.



This remarkable picture was taken during the first session of the League of Nations in the Cloak Room of the French Foreign Office in Paris. Eight countries are represented. Greece, Brazil, Japan, England, France, Italy, Belgium and Spain.

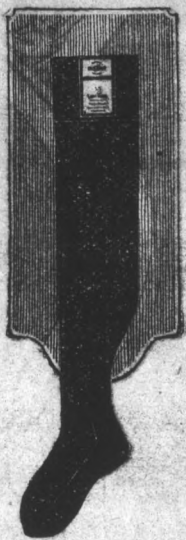


This ingenious traveller has equipped his motorcycle and sidecar with shields to protect himself and companion from wind and rain when out in bad weather.

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The Light On The Lake

By Charles H. Smith

THE sun had gone down and darkness had fallen when Sam Weston opened the big gate in the lane which led to his father's barnyard. Sam had been over to Clear Lake setting traps for muskrat and mink, for the season was early autumn and every fall he had a trap line over which he went each morning before school. In addition to the sport of trapping this netted him quite a tidy sum of money when he disposed of his pelts at the end of the trapping season. On this trip from which he was just returning he had not succeeded in finding "sets" for all of the traps which he had taken with him and so he was bringing a part of them back until the following afternoon when he would look for more "sets."

As he turned to shut the lane gate he saw something in the sky just above the lake that caused him to pause and look. For perhaps a minute he watched. Just above the wooded shore line of the lake was the flickering reflection of a light. Very slowly it seemed to be moving from one point to another. Hurriedly closing the gate Sam ran to the woodshed back of his home, flung down his traps, and sped towards the house where his chum, Bill Simpson, lived.

Bill's home was only a short half-mile away and in less than ten minutes Sam reached his destination. Giving a peculiar whistle—a signal between him and Bill—as he neared the house, Sam stopped at the front gate and waited. In a minute Bill came out of the house and down to the gate.

"Hello, Sam. What's doing?"

"Something is going on over to the lake, Bill. I just saw a big light over there. We can't quite see it from here. I'd just like to know what's up. What do you say? Let's go over and see."

"Maybe it's a party of campers. Or maybe someone catching bullheads and they've built a camp-fire," suggested Bill.

"No, I don't think so. It can't be a camp-fire because it moves from one place to another. Besides it's too late in the year for campers or fishermen," objected Sam.

"Well, then, let's find out for sure what it is," replied Bill.

"Come on."

Breaking into a trot the boys started down the road to Sam's home. From here they went down the lane to the big woods bordering the shores of Clear Lake. They ran all the way until they came to the woods. Here they had to go slower because of following the old logging road through the trees. It had grown up to brush and the two boys had to pick their way as best they could in the darkness.

In less than a quarter of an hour, however, they stood on the beach of the lake and looking towards the other side they saw the cause of the reflection in the sky. Moving very slowly was a boat with a huge torch on its prow which flamed and flickered as the boat moved. It lighted up the whole lake for the night was very dark and still. As the boat continued to follow the shore line of the lake where the water was not very deep it began drawing nearer to the boys watching it on the shore.

"Let's get out of sight," suggested Sam. "Then we can watch 'em and see just what they're doing."

Not far from them, close to the edge of the water, rose a big oak tree and going over to it, the boys concealed themselves behind it. The boat drew nearer and nearer. Finally it was directly opposite them only a few rods from their hiding place. The boys could see very plainly now and they noticed that there were two men in the boat. One stood up in the front end just behind the big torch, holding

a long-handled instrument which every now and then he plunged into the water. Usually a fish would be wiggling on the end of it when he drew it back out of the water. Sometimes, though, he got nothing. After he had taken the flopping fish off he would throw him in the boat and watch intently ahead to catch sight of another one. The second man kept the boat moving slowly forward by rowing gently.

"How am I keeping the boat? Is it deep enough to see 'em good?" asked the man rowing, as the boat passed by Sam and Bill.

"Just right—I can see 'em fine," answered the man in the front of the boat.

When the boat had gone on for some distance the boys left their place behind the big oak.

"They're spearing fish, Bill," said Sam in a whisper.

"Yes, and that's why the fishing isn't any better than it is for us fellows who fish with a pole and line," replied Bill angrily.

"Of course, it's against the law to spear fish, Bill. Those fellows are law-breakers and if the fish warden knew it he would arrest them quickly, you bet."

"I know it. But he is in Greenfield, seven miles away, and before he could get here they will be gone with the fish," replied Sam.

"Can't we do something to make those fellows have some respect for the law?" asked Bill earnestly.

For a moment Sam was silent as he thought of what could be done.

"I'll tell you what we can do," he said finally. "We can scare those fellows so that they'll keep off the lakes for awhile, anyway. I was setting my traps out this afternoon and I happen to have the key to our boat with me. Now let's get the boat and go out on the lake after those men. They'll think that we're the officers after them sure. They have probably got a guilty conscience already and are listening and watching for someone to come after them. What do you say?"

"Fine! Let's do it. Your boat is down on the Pointe isn't it?"

"Yes. Now go still. Be careful of the dry branches—don't step on any if you can help it. They crack like a gun."

Very cautiously the boys made their way from the big Oak to the Pointe upon which Sam's father kept his boat. By the time they arrived there the two spearmen were approaching again so they waited until the boat had passed by. Then very carefully they slipped the chain, link by link, through the oar pins and unlocked the boat and oars from the post on the beach. Placing the oars in the oar-locks they shoved the boat out into the water and jumped in it. As quietly as possible Sam rowed the boat towards the big torch nearly a quarter of a mile ahead of them. In a few minutes they were close to it. But Sam did not propose getting too close for he knew that the men would not run from two boys. So he stopped his boat and making his voice as gruff and deep as he could he shouted at the men.

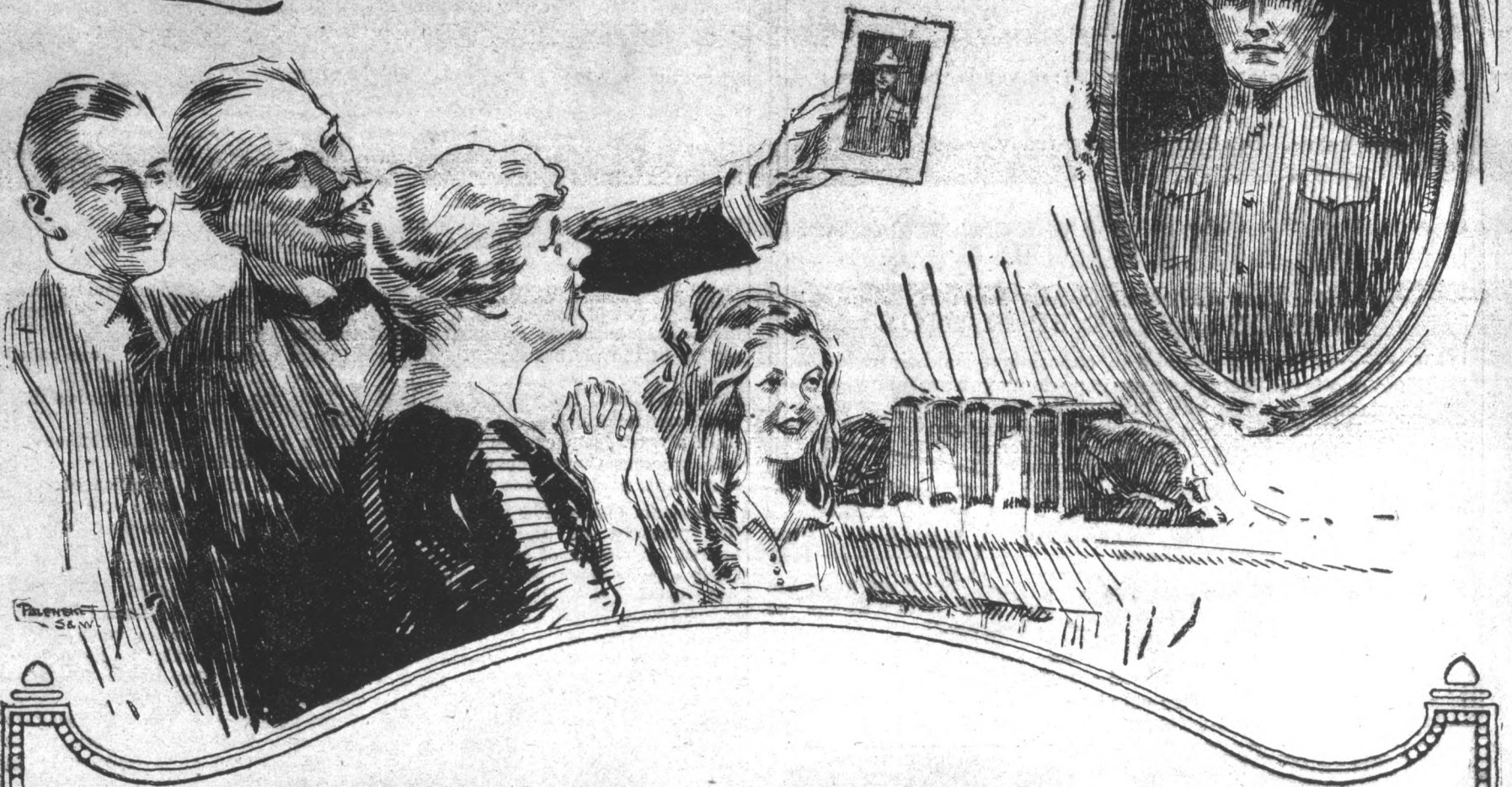
"Don't try to get away! We've got you fellows this time!"

Almost instantly the big torch rose into the air and then plunged into the waters of the lake. The men, frightened, had thrown it away. Everything was now in darkness and Sam and Bill could hear the rapid click of the other boat's oars as it sped away in the blackness, fleeing from the supposed fish warden and his officer. Following as closely as possible the boys raced after the spearmen's boat.

"It's no use trying to get away. We have you fellows this time!" shouted

(Continued on page 297).

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Crooked Trails and Straight

By Wm. MacLeod Raine

The sight of the mask had given the sleeper someone came running back on the other side. Curly an idea. He was of about the same build as Sam. Why not go in his place? It would be worth doing just to catch sight of Soapy's face when he took the mask off after the robbers had been captured.

"What's the use?" Davis protested. "It's an unnecessary risk. They might shoot you in place of Sam."

"I'll look out for myself. Don't worry about that. Before the time for getting rid of Sam comes Mr. Soapy and his bunch will be prisoners."

They argued it out, but Curly was set and could not be moved. He dressed in young Cullison's clothes and with Maloney took the express at 9:57. Davis remained to guard Sam.

Curly's watch showed 10:17 when the wheels began to grind from the setting of the air brakes. He was in the last sleeper, Dick in the day coach near the front. They had agreed that Dick was to drop off as soon as the train slowed down enough to make it safe, whereas Curly would go on and play Sam's part until the proper time.

The train almost slid to a halt from the pressure of the hard-jammed brakes. A volley of shots rang out. Curly slipped the mask over his face and rose with a revolver in each hand. He had been sitting at the end of the car, so that nobody noticed him until his voice rang out with a crisp order.

"Hands up! Don't anybody move!" An earthquake shock could not have alarmed the passengers more. The color was washed completely from the faces of most of them.

"Reach for the roof. Come, punch a hole in the sky!" To do it thoroughly, Curly flung a couple of shots through the ceiling. That was enough. Hands went up without any argument, most of them quivering as from an Arkansas chill.

Presently Cranston herded the passengers in from the forward coaches. With them were most of the train crew. The front door of the car was locked so that they could not easily get out.

"We're cutting off the express car and going forward to Dobe Wells with it. There we can blow open the safe uninterrupted," Bad Bill explained. "You ride herd on the passengers here from the outside till you hear two shots, then hump yourself forward and hop on the express car."

Fine! Curly was to stand out there in the moonlight and let anybody in the car that had the nerve pepper away at him. If they did not attend to the job of riddling him, his false friends would do it while he was running forward to get aboard. Nothing could have been simpler if he had not happened to have had inside information of their intent.

He had to think quickly, for the plans of him and his friends had been deranged. They had reckoned on the express car being rifled on the spot. This would have given Cullison time to reach the scene of action. Now they would be too late. Maloney, lying snugly in the bear grass beside the track, would not be informed as to the arrangement. Unless Curly could stop it, the hold-up would go through according to the program of Soapy and not of his enemies.

The decision of Flandrau was instantaneous. He slid down beside the track into the long grass. Whipping up one of his guns, he fired. As if in answer to the first shot his revolver cracked twice. Simultaneously, he let out a cry of pain, wriggled back for a dozen yards through the grass, and crossed the track in the darkness. As he crouched down close to the wheels of

back on the other side. "What's up, Sam? You hit?" he could hear Blackwell whisper.

No answer came. The paroled convict was standing close to the car for fear of being hit himself and he dared not move forward into the grass to investigate.

"Sam," he called again; then, "He's sure got his."

That was all Curly wanted to know. Softly he padded forward, keeping as low as he could till he reached the empty sleepers. A brakeman was just uncoupling the express car when Curly dived underneath and nestled close to the trucks.

From where he lay he could almost have reached out and touched Soapy standing by the car.

"What about the kid?" Stone asked Blackwell as the latter came up.

"They got him. Didn't you hear him yelp?"

"Yes, but did they put him out of business? See his body?"

Blackwell had no intention of going back into the fire zone and making sure. For his part he was satisfied. So he lied.

"Yep. Blew the top of his head off." "Good," Soapy nodded. "That's a receipt in full for Mr. Luck Cullison."

The wheels began to move. Soon they were hitting only the high spots. Curly guessed they must be doing close to sixty miles an hour. Down where he was the dust was flying so thickly he could scarce breathe, as it usually does on an Arizona track in the middle of summer.

Before many minutes the engine began to slow down. The wheels had hardly stopped moving when Curly crept out, plowed through the sand, up the rubble of a little hill, and into a draw where a bunch of scrub oaks offered cover.

A voice from in front called to him. Just then the moon appeared from behind drifting clouds.

"Oh, it's you, Sam. Everything all right?"

"Right as the wheat. We're blowing open the safe now," Curly answered.

Moving closer, he saw that his questioner was the man in charge of the horses. Though he knew the voice, he could not put a name to its owner. But this was not the point that first occupied his mind. There were only four horses for five riders. Curly knew now that he had not been mistaken. Soapy had expected one of his allies to stay on the field of battle, had prepared for it from the beginning. The knowledge of this froze any remorse the young vaquero might have felt.

He pushed his revolver against the teeth of the horse wrangler.

"Don't move, you bandy-legged maverick, or I'll fill your hide full of holes. And if you want to keep on living padlock that mouth of yours."

In spite of his surprise the man caught the point at once. He turned over his weapons without a word.

Curly unwound a rope from one of the saddles and dropped a loop round the neck of his prisoner. The two men mounted and rode out of the draw, the outlaw leading the other two horses. As soon as they reached the bluff above Flandrau outlined the next step in the program.

"We'll stay here in the tornilla and see what happens, my friend. Unless you've a fancy to get lead poisoning keep still."

"Who in Mexico are you?" the captured man asked.

"It's your showdown. Skin off that mask."

The man hesitated. His own revolver moved a few inches toward his

head. Hastily he took off the mask. The moon shone on the face of the man called Dutch. Flandrau laughed. Last time they had met Curly had a rope around his neck. Now the situation was reversed.

An explosion below told them that the robbers had blown open the safe. Presently Soapy's voice came faintly to them.

"Bring up the horses."

He called again, and a third time. The dwarfed figures of the outlaws stood out clear in the moonlight. One of them ran up the track toward the draw. He disappeared into the scrub oaks, from whence his alarmed voice came in a minute.

"Dutch! Oh, Dutch!"

The revolver rim pressed a little harder against the bridge of the horse wrangler's nose.

"He ain't here," Blackwell called back to his accomplices.

That brought Stone on the run. "You condemned idiot, he must be there. Ain't he had two hours to get here since he left Tin Cup?"

They shouted themselves hoarse. They wandered up and down in a vain search. All the time Curly and his prisoner sat in the brush and scarcely batted an eye.

At last Soapy gave up the hunt. The engine and the express car were sent back to join the rest of the train and as soon as they were out of sight the robbers set out across country toward the Flatiron ranch.

Curly guessed their intentions. They would rustle horses there and head for the border. It was the only chance still left them.

After they had gone Curly and his prisoner returned to the road and set out toward Tin Cup. About a mile and a half up the line they met Cullison and his riders on the way down. Maloney was with them. He had been picked up at the station.

Dick gave a shout of joy when he heard Flandrau's voice.

"Oh, you Curly! I've been scared stiff for fear they'd got you."

Luck caught the boy's hand and wrung it hard. "You plucky young idiot, you've got sand in your craw. What the deuce did you do it for?"

They held a conference while the Circle C riders handcuffed Dutch and tied him to a horse. Soon the posse was off again, having left the prisoner in charge of one of the men. They swung round in a wide circle, not wishing to startle their game until the proper time. The horses pounded up hills, slid into washes, and plowed through sand on a Spanish trot, sometimes in the moonlight, more often in darkness. The going was rough, but they could not afford to slacken speed.

When they reached the edge of the mesa that looked down on the Flatiron the moon was out and the valley was swimming in light. They followed the dip of a road that led down to the corral. Passing the fenced lane leading to the stable, they tied their ponies inside and took the placed assigned them by Cullison.

They had not long to wait. In less than half an hour three shadowy figures slipped round the edge of the corral and up the lane. Each of them carried a rifle in addition to his hip guns.

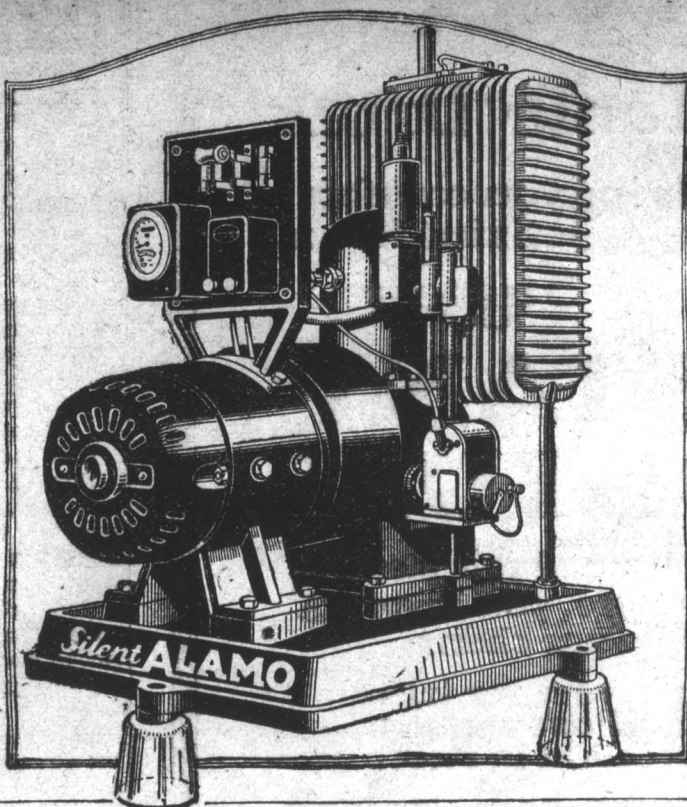
They slid into the open end of the stable. Cullison's voice rang out coldly. "Drop your guns!"

A startled oath, a shot, and before one could have lifted a hand that silent moonlit valley of peace had become a battlefield.

The outlaws fell back from the stable, weapons smoking furiously. Blackwell broke into a run, never looking behind him, but Soapy and Bad Bill gave back foot by foot fighting every step of the way.

Dick and Curly rose from behind the rocks where they had been placed and

This illustration shows the famous Silent Alamo Water Glass Test



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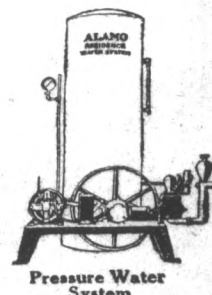
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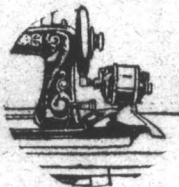
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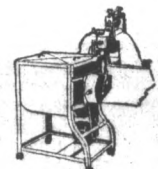
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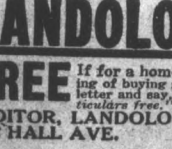
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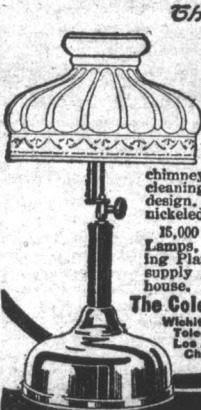
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closed the trap on Blackwell. The pa-
roled convict let out one yell.

"I give up. Don't shoot."
His rifle had already been thrown
away. With his arms reaching above
him, his terror-stricken eyes popping
from his head, he was a picture of the
most frightened "bad man" who had
ever done business in Arizona.

Half way down the lane Cranston
was hit. He sank to his knees, and
from there lopped over sideways to his
left elbow. In the darkness his voice
could be heard, for the firing had mo-
mentarily ceased.

"They've got me, Soapy. Run for
it. I'll hold 'em back."

"Hit bad, Bill?"

"I'm all in. Vamos!"

Stone turned to run, and for the first
time saw that his retreat was cut off.
As fast as he could pump the lever his
rifle began working again.

The firing this time did not last
more than five seconds. When the
smoke cleared it was all over. Soapy
lay on his back, shot through and
through. Blackwell had taken advan-
tage of the diversion to crawl through
the strands of barbed wire and to dis-
appear in the chaparral. Bill had roll-
ed over on his face.

Curly crept through the fence after
the escaping man, but in that heavy
undergrowth he knew it was like look-
ing for a needle in a haystack. After
a time he gave it up and returned to
the field of battle.

Dick was bending over Stone. He
looked up at the approach of his friend
and said just one word.

"Dead."

Cullison had torn open Cranston's
shirt and was examining his wounds.
"No use, Luck. I've got a plenty.
You sure fooled us thorough. Was it
Sam gave us away?"

"No, Bill. Curly overheard Soapy
and Blackwell at Chalkey's Place.
Sam stood pat, though you were plan-
ning to murder him."

"I wasn't in on that, Luck—didn't
know a thing about it till after the boy
was shot. I wouldn't a stood for it."

"He wasn't shot. Curly saved him.
He had to give you away to do it."

"Good enough. Serves Soapy right
for double-crossing Sam. Take care of
that kid, Luck. He's all right yet." His
eye fell on Flandrau. "You're a
game sport, son. You beat us all. No
hard feelings."

"Sorry it had to be this way, Bill."

The dying man was already gray to
the lips, but his nerve did not falter.
"It had to come some time. And it
was Luck ought to have done it too."

He waved aside Sweeney, who was
holding a flask to his lips. "What's the
use? I've got mine."

"Shall we take him to the house?"
Maloney asked.

"No. I'll die in the open. Say, there's
something else, boys. Curly has been
accused of that Bar Double M horse
rustling back in the early summer. I
did that job. He was not one of us.

You hear, boys. Curly was not in it."
A quarter of an hour later he died.
He had lied to save from the peniten-
tiary the lad who had brought about
his death. Curly knew why he had
done it—because he felt himself to
blame for the affair. Maybe Bad Bill
had been a desperado, a miscreant ac-
cording to the usual standard, but
when it came to dying he knew how to
go better than many a respectable citi-
zen. Curly stole off into the darkness
so that the boys would not see him
play the baby.

By this time the men from the Flat-
iron were appearing, armed with such
weapons as they could hastily gather.
The situation was explained to them.
Neighboring ranches were called up by
telephone and a systematic hunt start-
ed to capture Blackwell.

Luck left his three riders to help in
the man hunt, but he returned with
Curly and Maloney to Saguache. On
which I had got started.

The pommel of his saddle was a sack.
It contained the loot from the express
perched so low he could hardly hear.

car of the Flyer. Two lives already
had been sacrificed to get it, and the
sum total taken amounted only to one
hundred ninety-four dollars and sixteen
cents.

CHAPTER XVII.

The Prodigal Son.

THEY found the prodigal son with
his sister and Laura London at
the Del Mar. Repentance was
writ large all over his face and man-
ner. From Davis and from the girls
he had heard the story of how Soapy
Stone had intended to destroy him. His
scheme of life had been broken into
pieces and he was a badly shaken
young scamp.

When Luck and Curly came into the
room he jumped up, very white about
the lips.

"Father!"

"My boy!"

"What—what?"

Cullison had him by the hand, one
arm around the shaking shoulders.

Sam's question broke down, but his
father guessed it.

"Soapy and Bad Bill were killed,
Dutch is a prisoner, and Blackwell es-
caped. All Spring Valley is out after
him."

The boy was aghast.

"Best thing for all of us. Soapy
meant to murder you. If it hadn't been
for Curly—"

"Are you sure?"

"No question about it. He brought
no horse for you to ride away on. Bill
admitted it, though he didn't know
what was planned. Curly heard Soapy
ask Blackwell whether he had seen
your body."

The boy shuddered and drew a long
sobbing breath. "I've been a fool,
Father—and worse."

"Forget it, son. We'll wipe the slate
clean. I've been to blame, too."

It was no place for outsiders. Curly
beat a retreat into the next room. The
young women followed him. Both of
them were frankly weeping. Arms
twined about each other's waists, they
disappeared into an adjoining bed-
room.

"Don't go," Kate called to him over
her shoulder.

Curly sat down and waited. Present-
ly Kate came back alone. Her shining
eyes met his.

"I never was so happy in all my life
before. Tell me what happened—ev-
erything please."

As much as was good for her to
know Curly told. Without saying a
word she listened till he was through.
Then she asked a question.

"Won't Dutch tell about Sam being
in it?"

"Don't matter if he does. Evidence
of an accomplice not enough to con-
vict. Soapy overshot himself. I'm
here to testify that Sam and he quar-
relled before Sam left. Besides, Dutch
won't talk. I drilled it into him thor-
ough that he'd better take his medi-
cine without bringing Sam in."

She sat for a long time looking out
of the window without moving. She
did not make the least sound, but the
young man knew she was crying softly
to herself. At last she spoke in a low
sweet voice.

"What can we do for you? First you
save Father and Sam. You risked ev-
erything for my brother—to win him
back to us, to save his life and now his
reputation. If you had been killed peo-
ple would always have believed you
were one of the gang."

"Sho! That's nonsense, Miss Kate."

He twisted his hat in his hand uneas-
ily. "Honest, I enjoyed every bit of it.
And a fellow has to pay his debts."

"Was that why you did it?" she ask-
ed softly.

"Yes. I had to make good. I had
to show your father and you that I had
not thrown away all your kindness. So
I quit traveling that downhill road on
Curly and Maloney to Saguache. On
which I had got started."

"I'm glad—I'm so glad." She whis-
pered it so low he could hardly hear.

"There was one way to prove myself. That was to stand between Sam and trouble. So I butted in and spoiled Soapy's game."

"I wish I could tell you how fine Father thinks it was of you. He doesn't speak of it much, but I know."

"Nothing to what I did—nothing at all." A wave of embarrassment had crept to the roots of his curly hair.

"Just because a fellow—Oh, shucks!"

"That's all very well for you to say, but you can't help us thinking what we please."

"But that ain't right. I don't want you thinking things that ain't so because—"

"Yes? Because—?"

She lifted her eyes and met his. When she knew it had to come out, that the feeling banked in him would overflow in words.

"Because you're the girl I love."

He had not intended to say it now, lest he might seem to be urging his services as a claim upon her. But the words had slipped out in spite of him.

She held out her two hands to him with a little gesture of surrender. The light of love was in her starry eyes.

And then—
She was in his arms, and the kisses he had dreamed about were on his lips.

(Continued next week).

THE LIGHT ON THE LAKE.

(Continued from page 292).

Sam. "Row to the west, Bill, we've got 'em all right."

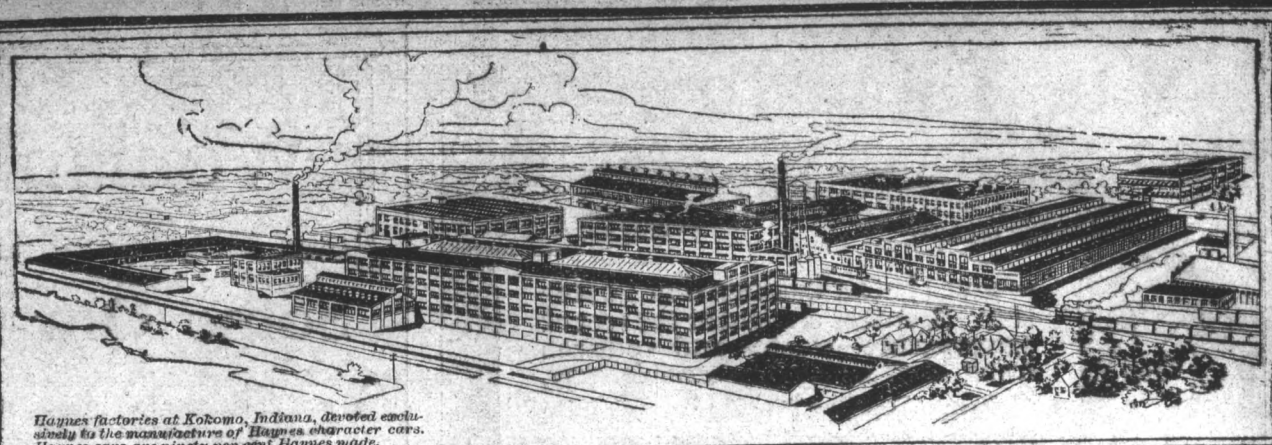
But secretly Bill and Sam could hardly keep from laughing aloud. It was so funny to think the men were making such haste from two boys. Sam and Bill could hear them rowing and splashing the water furiously in their hurry to avoid arrest. The boys could not tell which direction the law-breakers were taking but they followed in the general direction from which the noise came. Soon the other boat grated on the gravel shore and then they heard the rapid footsteps of the two men as they ran over the hill and away from the lake. In the pocket of one of the men was a tin box evidently filled with fish-hooks and as he ran the boys heard the "Jingle, jingle, jingle," of the hooks in it against the sides of the box. The men were badly frightened.

When they were sure that the spearers had fled Bill and Sam broke into loud laughter. The headlong haste of the men had been ridiculous—and two boys had caused them to flee. It had been great sport. Rowing slowly close to shore they finally found the boat abandoned by the law-breakers and drawing their own boat alongside of it they lighted a match and looked over into it. On the floor of the boat were about thirty fine fish, two cloth bags and a spear.

"What shall we do with this stuff, Bill?" asked Sam.

"Let's take the fish home with us. All of them are either injured badly or dead and will only go to waste if we leave them here," answered Bill. "The spear we ought to throw in the lake."

Picking up the two bags the boys divided the fish—bluegills, speckled bass and black bass. There were plenty for two fine messes of them and putting the two bags filled with fish into their boat they rowed back to the Pointe and locked the boat to the post. Then shouldering their fish they went back through the woods to their homes. But all the way home they could not help from bursting into laughter whenever they thought of the headlong flight of the two law-breakers from the lake and over the hills.



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We hope to be able to keep pace with the demand, and to that end our producing facilities have been and are being enlarged. Again, however, we would state that no Haynes car can leave our factory until it has satisfied our engineers, designers, and inspectors that it is fully up to the rigid Haynes standard of beauty, strength, power and comfort.

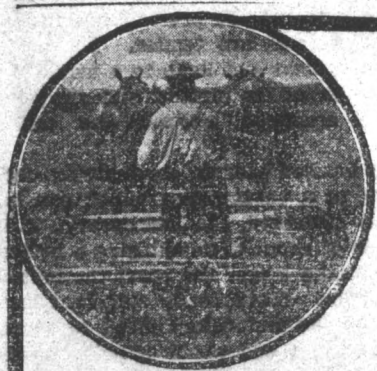
A beautifully illustrated brochure, and prices, will be sent on request. Address Dept. 233

The Haynes Automobile Company, Kokomo, Indiana, U. S. A.

The Haynes, AMERICA'S FIRST CAR now exhibited by the Government at the Smithsonian Institution, Washington, D. C., was invented, designed and built by Elwood Haynes, in 1893.

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"The Coulters Do the Work." They slice their way through sod and trash. They fill air spaces and compact the furrow slices. They pulverize and level the surface soil.

The "Acme" Harrow is light in draft—easy on the team, and you ride. Sizes: 1-horse to 4-horse; the larger sizes are just right for the tractor.

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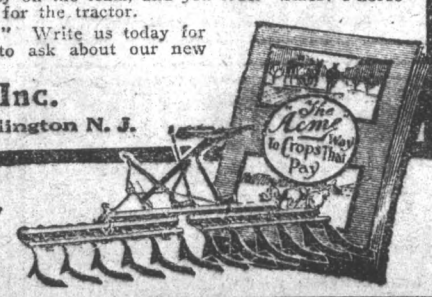
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This model has 12 coulters and cuts 6 1/2 ft.
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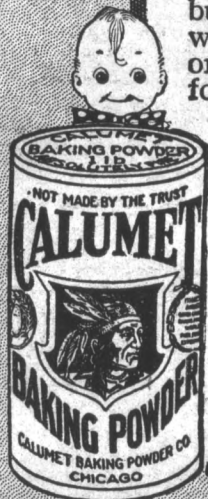
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You save when you buy it—moderate in cost. You save when you use it—has more than the ordinary leavening strength—therefore you use less. You save materials it is used with—no failures.

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Contains only such ingredients as have been officially approved by United States Food Authorities. Sold by your grocer under a definite money-back guarantee, if it doesn't prove "best by test"—in your own kitchen, in any baking.



BEST BY TEST

Woman's Interests

Some One-Dish Dinners

ANYTHING which eliminates a steak for the family and an unexpected guest dropped in at 4:30. Veal a la washing is always hailed with joy by the person who has the dishes to wash. If homemakers are to manage so as to have time for reading and recreation, they must count dishwashing as one of their biggest timetakers, and look for ways to shorten the time it takes to the least possible number of minutes. One-dish dinners offers the best solution to the problem of which I know, as it not only limits cooking utensils to one kettle, or casserole, but it does away with side dishes as well. The dinner is served on one plate, and that, with the bread and butter plate, and perhaps a sauce dish or pie plate for dessert, constitutes the service.

The one objection to one-dish dinners comes from the man of the house. Few men like "messes," as witness the number who turn up their noses at perfectly good stews and boiled dinners. Since the war has brought the price of food up I have noticed that a number of men can eat no end of things they never could eat before, so patience and a little tact may bring the men folks really to like the dinner which saves the cook so much work and time.

Perhaps the oldest one-dish dinner known to us is the "boiled dinner." For this corned beef is usually chosen for the meat, though some cooks prefer a boiling piece of fresh beef. Rinse the meat well and put in the kettle, covered with cold water. Bring slowly to the boiling point, skim, then cover and let simmer until it begins to get tender. Four and a half hours would suffice. Have ready medium-sized potatoes and small white turnips, pared; carrots, scraped and cut in quarters lengthwise, and cabbage, which has been cut half way through in fourths and soaked in salted water an hour, then completely quartered and the discolored portions trimmed off. Place potatoes, carrots and turnips directly in the pot with the meat, and the cabbage in a steamer, over it, or directly in the water as you prefer. Cook until the vegetables are tender. To serve, slice the meat and heap in a mound in the center of the platter, with the vegetables arranged around the outer edge.

Hot pot of mutton is a government war-time dish which has met with much favor in this family, where mutton is none too well liked. Select a good boiling piece of mutton, about two and a half pounds, wipe well with a clean cloth wrung out of cold water, and put over to stew in two quarts of boiling water, salted to taste, and a half cup of pearl barley. When the mutton has cooked about two hours add potatoes pared and halved and small onions pared, in a quantity sufficient for your own family. The mutton should be cut in pieces of correct size for serving before putting over to cook. (Then if the dinner has been cooked in a good looking aluminum or agate kettle, it may be served directly from the cooking dish.)

Spanish beefsteak is another dish which requires but one utensil for cooking both meat and vegetables. Fry three medium-sized onions, sliced, and two green peppers, chopped and seeded, in hot lard. When nearly done remove and put in your steak. Sear on both sides, turning frequently, salt, and return peppers and onions to pan. Cover with ripe tomatoes sliced, and let cook slowly until tomatoes are done. If canned tomatoes are used, allow at least a half hour for cooking the meat thoroughly.

Spanish rice furnishes meat, vegetables and the starchy food and may make the entire dinner dish unless the family demands potatoes. Dice a quarter of a pound of bacon, which has been sliced thin, and fry a minute or so in frying pan. Add three onions chopped, stir until onions brown, then add a half cup of rice which has been looked over and washed, and a pint of boiling water. Salt, and cook slowly, adding water as it is taken up by the rice. A red pepper, chopped, should be added when rice is put in. When the rice is about half done add one pint of tomatoes. This must be stirred often to prevent sticking.

A dish which is very popular in one household was discovered quite by accident. There was just enough veal Casserole cookery offers as good a

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Are compact and complete seed assortments of delicious vegetables. Simplicity of culture on concentrated areas has been the watchword of their preparation. When April comes, be sure there is a bit of Sunshine in your garden. Prices as quoted include postage.

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Guaranteed Odorless
The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. The original closet. Guaranteed. THIRTY DAYS TRIAL. Ask for catalog and price.
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No Plumbing Required.

Strawberry plants, 100 early to late, \$1.00, postpaid. Catalog of plants and trees free. L. G. TINGLE, Box 77, PITTSVILLE, MD.

solution to extra dishes as the housekeeper can wish, if it is not overdone so that the family tire of stews and goulashes. Almost any meat, and any reasonable combination of vegetables may be cooked in the casserole, and served from the dish in which it is cooked. As every mother knows the likes and dislikes of her own family, she can originate casserole dishes suited to her own needs. One woman may find it wiser to omit the onions from one-dish dinners, while another may find her entire flock rebels at carrots.

The wise woman is the one who brings the children up to like everything. We hear a great deal about individual likes and dislikes, but as a rule most of these ideas have been fostered. If the child from infancy is never asked what he would "like," but is given what he should have, in the majority of cases he will grow up liking pretty much everything wholesome. If he constantly hears that mother or father or grandpa doesn't "like" certain things, he naturally begins to think he doesn't like them either. The best course is to say as little as possible about what you eat. Assume that everyone is going to like a dish that is wholesome and palatable, and let that end it.

But—be sure the dish is palatable, as well as wholesome.

DEBORAH.

HOUSEHOLD HINTS.

Using Chicken Fat.—By using chicken fat in cooking you can cut down the amount of fat you must buy for that purpose. To prepare it, try it out in a double boiler, or other vessel set in hot water, until the fat just melts away from the tissues and can be poured off. This fat becomes rancid easily and should be kept cool and covered like butter and used in a very few days. Chicken fat, like goose fat, may be used for shortening in cakes, such as spice cake, where the seasoning used will mask any flavor which the fat might have. It can also be used for frying the chicken itself or other meats, and for warming vegetables, etc.—Mrs. J. J. O'C.

China decorated with gilt should never be washed with water containing soda, for the soda will soon take off the gilding. Good white soap cut into bits and put in moderately hot water, will answer the purpose and do no injury—Mrs. J. J. O'C.

Many who use gasoline for cleaning spots on clothing dislike the "ring" which it leaves around the place where the spot was. If a very little water is added to the gasoline no marks will appear.—Mrs. E. T.

Last fall I picked ripe grapes, several different kinds, dipped the stem of each in melted paraffin, and packed them in a wooden box between layers of cotton batting, being careful not to let the bunches touch, laid a newspaper over top of box and set in a dry, cool room. We had grapes to eat on New Year's day, as nice as if they were just picked from the vine.—Mr. F.

KEEP LAMPS SHINING BRIGHTLY.

A GOOD many industrious and cleanly disposed housewives, like Aladdin of old, believe in rubbing their metal lamps. Aladdin got what he wished for when he rubbed his glim producer, but the housewife generally gets, in the course of time, what she doesn't want; namely, a shabby appearing lamp, for it doesn't take long to rub the lacquer off metal.

Lamps wouldn't be permitted to remain shabby very long if housekeepers knew how simple a process it is to relacquer or re-enamel them. Paint dealers, druggists and dealers in plumbing supplies sell the lacquers and enamels in small-quantity containers. Direction for applying usually come with them.

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(Pronounced Gul-BRAN-sen)

Player-Piano



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Just a Song at Twilight
Comin' Thro' the Rye
Juanita
Old Oaken Bucket
Silver Threads Among the Gold
In the Gloaming



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Good Times With Your Gulbransen

Our new book containing more than 50 pages tells of the fun you can have with the Gulbransen Player-Piano.

Every kind of song you ever heard of, even songs in foreign languages, are listed. The best dance music of all kinds and ages is interestingly described.

Send us the coupon below with your name and address and get a free copy of this new book.

Gulbransen "Pedal-Touch"

GULBRANSEN "pedal-touch" is satisfyingly different from that of the ordinary player-piano. You will notice it before you have made a dozen pedal strokes. The Gulbransen pedals feel firm yet move easily. You do not have to push hard or pedal fast.

The "pedal-touch" of a player-piano is important—as important as "key-touch" to a hand pianist. Because, to the player-pianist, the pedals are the "keys" through which he produces expression.

If the "pedal-touch" is stiff it resists too much; it forces you to push hard. The reverse—a *mushy* "pedal-touch"—resists too little; the pedals die away under your feet. You are forced to pedal fast just to keep the instrument playing.

So, either *stiff* or *mushy* "pedal-touch" will make you work hard—take the fun

out of playing—and give you little opportunity for expression. That is why much player music sounds mechanical.

Gulbransen "pedal-touch" is easy, responsive, natural—well, just exquisite! You pedal as the music requires—gently or firmly—always leisurely, always relaxed, enjoying the music.

That is why Gulbransen owners play so well—with so much expression. They have the instrument which permits it—invites it. And the rich, full, resonant tone of the Gulbransen helps give spirit to the music.

You would enjoy a Gulbransen. You could play it well. Just try one at our dealer's store. You can locate him by the "Baby at the Pedals"—actually playing the Gulbransen—in his window. And send coupon below for our free book "Good Times With Your Gulbransen." Tells all about the music available and the fun you can have.



To Gulbransen Owners

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—land similar to that which through many years has yielded from 20 to 45 bushels of wheat to the acre. Hundreds of farmers in Western Canada have raised crops in a single season worth more than the whole cost of their land. With such crops come prosperity, independence, good homes, and all the comforts and conveniences which make for happy living.

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No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel-Hoe, Cultivator and Plow sows all garden seeds (in hills or drills) plows, opens furrows and covers them, hoes and cultivates them all through the season. A hand machine that does the work so thoroughly, quickly and easily that it pays for itself in a single season.

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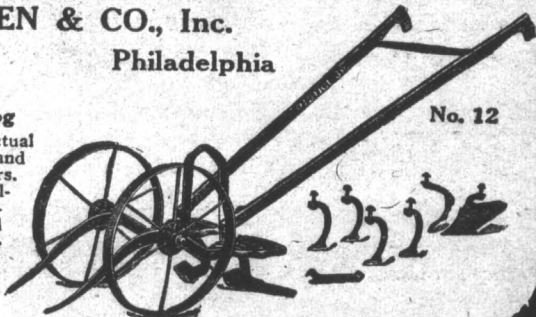
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Every resource known to the science of seed improvement is used at our great trial and propagating grounds—Cliffwood and Fairview. Salzer's Seeds are proven seeds—that's why they are better seeds. Safe delivery of all orders is guaranteed.

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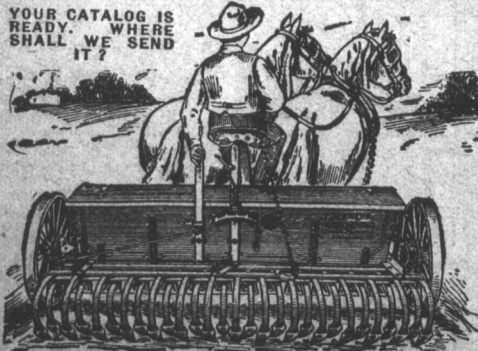
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Our Boys' and Girls' Page

Helped or Hurt by Farm Life

By Edgar L. Vincent

NOW and then we sit down with our account books and paper and pencil and reckon up in regular order the receipts and expenditures of the month or the year, as the case may be. Subtracting the one set of figures from the other we get what book-keepers call a balance, and that shows whether we have come out ahead or run behind during the given period. This is a good thing to do. In fact, it is the only safe way of carrying on our farming operations.

Would it not be a good plan for us to do the same thing when it comes to reckoning up our mental, moral and spiritual resources? And yet, how seldom do we spend the time for that! It seems so much more worth while that we should know all about our financial standing than to pay any attention to the other and the far more important side of our everyday life.

One thing that makes it more easy for us to give all possible attention to the money part of our farm life, is that we get the idea into our heads that if we do not make good financially, our reputation in the community will suffer. We gauge our strength as men and as farmers by the amount of money we make, and we think that is what counts for most with our neighbors. And all the while we are greatly mistaken. Our real standing in the sight of the world depends almost entirely upon our integrity of character; and by integrity I mean everything that makes a man good and kind and true and straight. If a man have not these characteristics, he may have a million dollars and still be a very weak, lonely man in the community.

In the course of my travels I came across a man who had held some offices and gathered together a little fortune. He had a nice farm, with everything the heart could wish, about him; and yet, nobody ever called him friend, and this is what fixes a man's worth in the world. Fortune does not count; brotherly kindness does.

Now, farm life is doing something to you and me, just as surely as the world stands. Either we are being made better or worse by the experiences of the day. Stop a few minutes and hold an accounting with yourself. How is it? Are you more determined to do the best possible than you were a year ago? Are you more kind to the ones God has given you? Do the neighbors look upon you as a man that they can trust? Do they come to you with their little troubles and ask your advice on matters that concern their lives as men and as farmers? Have you grown nearer to the boys and girls, more mellow in heart than you once were?

There are a good many things that test the very best there is in a man in the everyday life of the farm. A man might spend his whole time finding fault with his condition and worrying because he does not win out as he thinks he ought to. The past few years have been particularly severe on the fibre of the manhood of this country. To my mind, the worst thing that has come out of the great war in some parts of the world is the tearing down of manhood; the undermining of the principles of right, the letting down of the high moral standards which once led men on to make a point of themselves. I do not say it is that way in this country of ours; I hope it is not, but I do know that there has been a bigger fight going on in the hearts and lives of thousands of

men and women in the United States of late than any that Flanders field ever knew. The stress has been severe. Many men have had trials and temptations to meet that they never dreamed of before. If the story could be written of the struggles that have been going on in the homes of the farmer folks of this country since the war began, it would be a tale to make men and angels weep, sometimes for joy, sometimes for sorrow.

What have these experiences done to you and me? Here is a chance to do some reckoning up that is greatly worth while. Surely, we are not the same we were a few years ago. Up or down, one way or the other we have been going. And it will not do to say weakly, "I have done the best I could to stem the tide, but I have had to take some back tracks." That is to admit defeat, and no good man ever will be guilty of that. For a time we may seem to be driven back and repulsed but never let us own up to defeat.

Every frost, every storm, every battle with adverse circumstances should leave us stronger men than we were before. Out of our hard battles we ought to come braver, better able to cope with still more severe struggles; and it may be so if our trust is in the right place. With God on our side we cannot be beaten!

STRETCHING SKINS FOR MARKET.

BY EARLE W. GAGE.

IT is very important that the skin should be properly removed from an animal and stretched so that it will not shrink. The manner in which a skin is stretched and cured will often change its value by half.

The skins of mink, muskrat, fox, skunk, opossum and cats should be "cased," that is, taken off whole. Start with the knife at the hind foot, slit up the back of each hind leg to and around the vent. Peel the skin from the hind legs and the tail. Make no other slits in the skin, but draw it down over the body and by cutting a few ligaments it will peel off readily until it is cut loose at the mouth. The skin will now be in the form of a long pocket with the flesh side out. Pull it over a tapering board and "flesh" it by scraping with a dull knife from the tail toward the nose to remove any surplus fat and flesh. All trash, hairs and the like should be removed from the fur before this is done.

After being fleshed, the skin should be stretched over a board of suitable size and shape. Nothing has proved more satisfactory than a plain half-inch board. For mink this board should be twenty-eight inches long, four inches wide at the large end and tapering to two and one-half inches at the rounded end. There will be furs of different size, so that it will be well to have a supply of stretching boards as small as the muskrat and as large as the fox. The past little smaller. Muskrat skins should be stretched on a board twenty-one inches long and six inches wide, tapering to fit, while skunks will require a board 7x28, and the opossum the same. For a fox of average size the board should be four feet long, six and a half inches wide at the base and five and a half inches at the shoulder, tapering to a point.

When a skin is stretched after pulling it over the board, tack the legs and tail and also put a tack in the nose at the top pulling all down snugly. Be careful to stretch evenly with the tail on

one side of the board and the belly on the other. The skin should be tight, but not tight enough to make the fur show thin. If desired to make it tighter on the board, slip a long, flat strip of wood an inch wide and a quarter of an inch thick, rounded on one side, in between the skin and the board.

Another form of stretcher is a board in three parts, the center being wedge-shaped. The two outside pieces are inserted first and made tight when the central wedge is pushed in. When stretching boards are not at hand, a strong hickory withe doubled and pushed inside the cased fur may be made to answer.

Never permit a skin to dry in the sun, but hang it in an open building in the shade where there is a free circulation of air. Keep them out of reach of cats and dogs. When the furs have dried sufficiently, which will take from three days to a week, they may be taken from the board and packed for shipment.

All cased furs except that of the fox should be left with the fur side in just as they have dried. The fox skin should be turned with the fur side out, and it should not be packed or baled with furs having the flesh side out. The tails of opossum and muskrat should be cut off when skinning, since they have no value.

The skins of raccoon and wolf should be removed open, just as you would skin a beef, by slitting down the legs and along the belly. Stretch them by tacking to a board or the inside wall of a building and permit them to dry in the shade.

By paying a little attention to these rules, it will be possible for the trapper to realize more for his pelts.

RABBITS AS A SIDELINE.

(Continued from page 288).

The front of the run can simply be fine mesh wire netting.

The hutches may be placed in tiers of two or three high, when desired, the best place for them being inside an old shed or outhouse. Rabbits can stand a great deal of cold, but if their hutches are out in the open it is best to put them in as sheltered a position as possible and see that the top is thoroughly waterproof.

Give each doe plenty of short bedding, with which she can make her nest. It is best not to be inquisitive about the little family when it first arrives, as the mother usually resents interference and we have found most of them quite capable of managing their offspring without assistance—at least for the first two or three weeks. Litters usually run from three to ten in number—six is a good average.

The youngsters will not eat any supplied food until two or three weeks old, when they should begin to have grass or hay and oats. Feed the mother well in the meantime, as this greatly helps in making the little ones thrive while she is nursing them.

We have found it best to wean at six weeks, at which time the youngsters can be sold for pets or to other people for raising. However, if one wants to market them and has the room, it is advisable to fatten them up to killing size when they will be ten to twelve weeks old. For fattening nothing beats a crumbly mash of middlings and corn meal in addition to the customary ration of hay or grass.

The doe should not be bred again until a week or more after weaning the young, so that she is in good fettle to mate again. By following this practice our does have four litters a year, which is ample. If bred too quickly the litter is not likely to be so numerous nor the individuals of maximum size and strength.



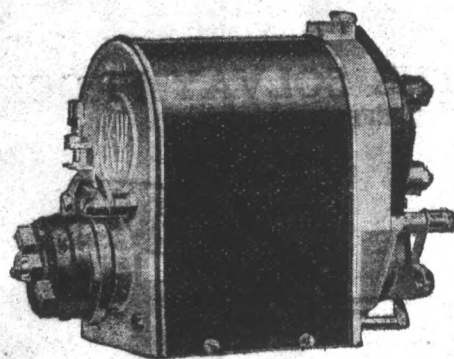
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Wisconsin are made of genuine California Redwood. Incubators have double walls, air space between, double glass doors, copper tanks, self-regulating. Shipped complete with thermometers, egg tester, lamps, etc., ready to run. Send today for our new 1920 catalog, free and postpaid. Large size 150-EGG INCUBATOR AND BROODER, BOTH \$20.00.

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Barred Rock Baby chicks a specialty. We are booking orders now for 1920. Apply for terms. **H. M. FIERCE, Jerome, Mich.**

Baby Chicks Importer and breeder of Barron White Leghorns, White and Barred Rocks and S. C. Rhode Island Reds. Book orders early. I have taken over the Holly Cove Farms and stock business; Brummer's Poultry Farm, Holland, Mich., R.R. No. 3

BABY CHICKS S. C. White Leghorns \$20.00 per 100, eggs \$2.00 for 15. Order early. Hillsdale Poultry Farm, Hillsdale, Mich.

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

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

Additional Poultry Ads. on Page 305

A Railroad Situation You Should Know About—and Prepare For

Undoubtedly you have experienced delays in freight shipments. Perhaps you have experienced a delay in the shipment of Solvay Pulverized Limestone.

While we are doing everything possible to prevent delays for our customers, we believe that a frank statement of railroad conditions in the United States today will show you the difficulties under which we are working, and the wisdom of ordering far in advance.

In 1918 the United States moved more freight than they had ever moved in history before. Prior to that year, under private management, a great many of the roads had been unsuccessful in securing sufficient revenue to build equipment, and to expand as a normal business expansion required. Therefore the large tonnage moved in 1918 was a result of improvements and economies in re-routing, and was in no way due to expansion of the mechanism of transportation. For more than two years now, few box cars and locomotives have been built in America. The increasing rate of depreciation of box cars and locomotives without proper care and proper money appropriations has sent an enormously large percentage of them to the junk heap. Yet, in the face of this condition—fewer box cars, fewer locomotives, fewer operatives—the world is demanding of Americans more produce from their farms and factories—more transportation.

The natural consequence is congestion—a congestion that is frightful and beyond comprehension. Scarcity of labor is further adding to the difficulties.

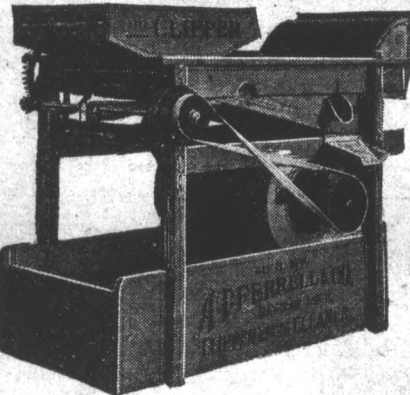
You can readily see that ordering far in advance is absolutely essential at this time. In order to make it convenient and economical for you to do this

—we will postpone all payments on shipments of Solvay Pulverized Limestone, Arcadian Sulphate of Ammonia and "U-S" Potash made during February. Shipments made during February will be billed April 1st. A cash discount will be allowed until April 10th, and a net cash payment on or before July 1st.

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2091 JEFFERSON AVE. DETROIT, MICHIGAN



The "Clipper" Grain and Seed Cleaners



The Clipper is different in principle from all other grain and seed cleaners. It has been thoroughly tried out by years of constant use by thousands of the best farmers, the U. S. Department of Agriculture, Agricultural Colleges, Experimental Farms and hundreds of the leading seedsmen, seed corn growers, etc.

The Clipper is the only mill that has the "Vertical Blast", which weighs every seed and kernel, separating the light, shrunken, immature seed from the plump, heavy mature seed, 98% of which will germinate under test. This point alone makes much of the difference between crop success and failure.

No Mill Will Do Good Work Without the Proper Assortment of Screens

We furnish an outfit of 12 screens for cleaning and grading all kinds of seed, seed grain, seed corn, clovers, alfalfa, millet, timothy, flax, peas, beans, cow peas, soy beans, etc. And after the most careful study and tests in actual work, we guarantee this screen outfit to be the best that has ever been offered with any mill. There are screens for clover containing buck horn or plantain, timothy seed containing pepper grass, for separating cockle from wheat and many other difficult separations.

Sold Under a 30 Day Guarantee of Satisfaction or Money Refunded

Made in Two Sizes: No. 1-B \$35.00 (Freight prepaid to any point east of the Mississippi River.)
No. 2-B \$45.00

In Successful Farming Three Factors are Prominent—the Soil, the Man and Good Seed. The Clipper Cleaner puts success within your reach by insuring the Good Seed. Write for Catalog and the address of the nearest jobber.

A. T. FERRELL & CO., SAGINAW, W. S., MICH.



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Timothy, Clover, Alfalfa and Other Field Seeds
FOR BETTER CROPS

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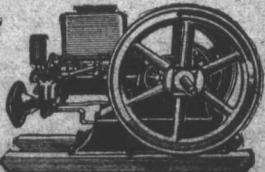
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The Calf and Its Mother

EVERY heifer calf that is to be raised for the dairy should have a good mother. Maybe I am putting the cart before the horse by mentioning the mother afterwards, but it is the calf that I want to say the most about. With the market for all kinds of dairy products rapidly advancing, and so few farmers devoting any special attention to the raising of better producing cows, it is clearly to our advantage to take greater pains in developing cows that have the capacity to produce greater quantities of milk and butterfat at a lower cost.

On the dairy farm it is the cows that are the money-makers, and the way we feed and care for our calves is the cornerstone upon which we build up our dairy business. If we are interested in getting good calves we must begin by feeding the mother a proper ration of good nutritious bone, blood and muscle-building foods. If these foods are withheld she cannot produce calves that are large and vigorous and possess strong constitutions. We make a serious mistake when we think of the cow as a milk-producing machine rather than a mother. It does not pay to leave her out in the cold, to exercise in a chilling wind and confine her to a ration of straw, inferior hay and fodder and expect her to bring us a robust calf and give a profitable flow of milk during the year. The unborn calf suffers in the same proportion as the cow that is carrying it when such conditions prevail.

Many cases of abortion, milk-fever, garget, or a calf born weak and poorly developed in some way are the direct result of mismanagement on the part of the owner of the cow. We must come to realize that to nourish an unborn calf and keep her own body supplied constitutes a heavy drain on the cow's system. Hence, the necessity of furnishing her with a properly balanced ration containing home-grown grain feeds properly supplemented with protein concentrates and all of the good, palatable roughage, in the form of alfalfa, clover or mixed hay and silage, she will consume. I am a great stickler for corn in the ration; because corn is a food that seems to have a special value in building bone and muscular tissues. In a test at the Wisconsin Station to ascertain the relative efficiency of various feeds used for feeding cows that were with calf, it was found that the proteins in corn were particularly valuable in supplementing the proteins in wheat. In the case of wheat alone as a feed for cows carrying calves, the addition of corn seemed to produce wonderful results in insuring stronger and more thrifty calves.

As calving time draws near the prudent caretaker will see that the cow's digestive system is in good condition and withhold all heavy, heat-producing foods. This will minimize the danger of milk-fever and a caked udder. Get her into a box stall and provide her with a clean litter of straw. It is always best to let nature take its course, but be near at hand in case any assistance may be needed.

Immediately after the calf is born give the cow a pail of warm water with a little bran added, and a few whole oats. Warm water and oats seem to aid in expelling the placenta. As a general proposition I believe it best to remove the calf from the cow as soon as possible as they both seem to forget each other and do less worrying. Be sure that the calf gets the first milk, as it acts as a gentle purge and starts its digestive organs to working naturally. Give the calf whole milk for the first few days and go slow in making the change from whole-milk to skim-milk. After the first month the calf will be able to get proper nourish-

AUSTIN



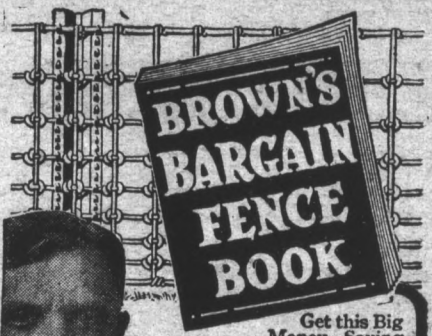
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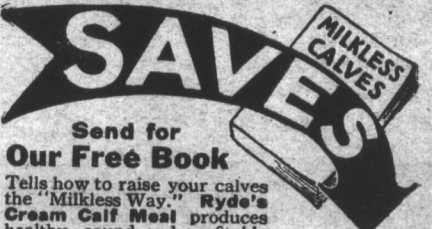


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ment from other forms of fat substituted in its diet to take the place of the fats removed from the milk by skimming.

I have found rolled oats and old process linseed meal excellent grain feeds for young calves and I always try to encourage them to eat a little hay as early as possible. Second cutting clover or alfalfa seems to give the best results; fine timothy is also relished by the calves and gives good results, especially when their other feeds contain plenty of digestible protein. The use of roughage in the calf's ration should be encouraged as it tends to enlarge the digestive organs and enables them to make better use of their grain feeds.

Keeping the feeding pails and pens clean is another important factor in raising healthy calves. A little time spent in petting and fussing with the calves and teaching them to lead is time well spent as it will be easier to train them when they are ready to take their place in the herd. And when the time comes that they are ready to be milked they will not be afraid of you and have to have their legs strapped to prevent them from kicking.

When to breed the young heifers is another important question that has an influence upon their future usefulness in the herd. If they have been properly fed and cared for they may safely be bred for their first calf so that they will freshen when they are from twenty-four to thirty months of age. Some excellent breeders prefer to breed them early and give them a good, long, growing period between their first and second freshening. A heifer that freshens when she is twenty-four months of age and is given a period of five months before she is again bred will make a good growth and have a tendency to milk for a longer lactation period than is the case when she is bred back to soon and not given time to build up a more vigorous body.

Genesee Co. T. J. ROBINSON.

FREMONT CREAMERY HAS BIG YEAR.

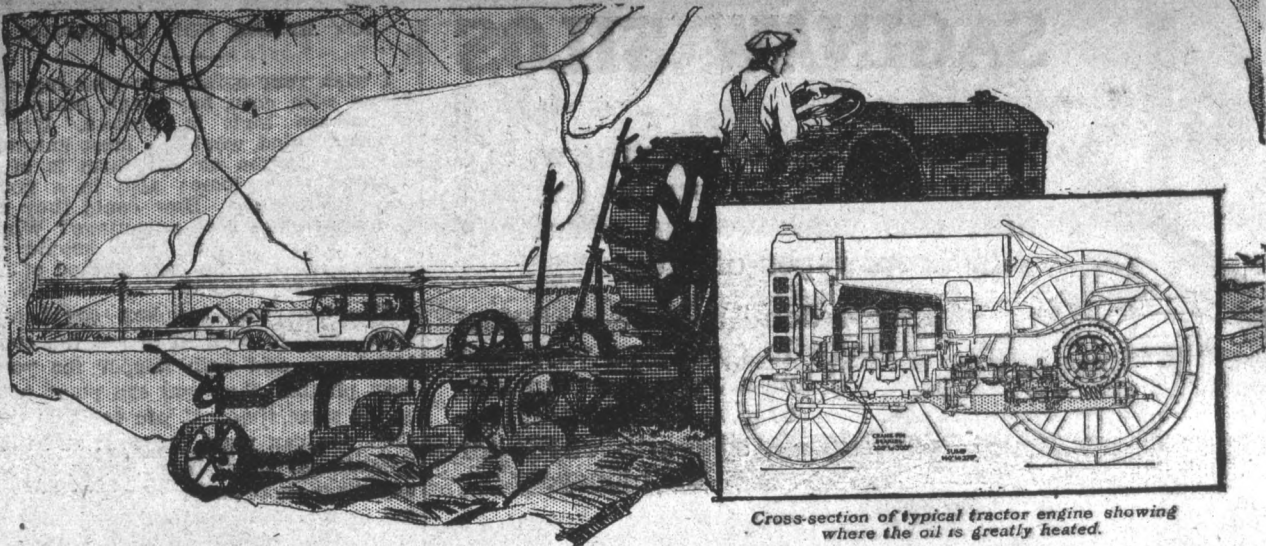
THE Fremont Creamery Company closed a very prosperous year, according to the reports of the business given at the recent annual meeting. The usual fifteen per cent dividend was declared, and the stockholders elected Frank Eisenach, Dirk Kolk, John Schreur, James Murphy, Henry Rozema, Henry Kolk and Joseph Nannenbergh members of the board of directors. Mr. Eisenach was re-elected president; Dirk Kolk, vice-president; John Schreur, secretary; James Murphy, treasurer; Henry Rozema, manager.

The report of the business for the year 1919 follows:

Milk received, 1,717,878 lbs; butterfat from same, 66,100 lbs; average test 3.85 per cent; cream received, 674,411 lbs; butterfat from same, 199,548 lbs; average test, 29.59 per cent; total butter made, 323,954 lbs; amount received, \$185,926.94; amount paid, \$174,544.84; paid per pounds fat, \$.6572; feed sold, \$25,404.98; the total amount of business done was \$211,331.92.

The Fremont creamery is one of the most prosperous cooperative commercial industries in the state. It has been the model after which many others have patterned. Its success has been due in large part to its excellent management, and because of the fact that practically all of the profits over the regular fifteen per cent dividend are paid to the farmers for their products, the patrons are satisfied with their returns.

During the year just closed the creamery manufactured about two thousand pounds more butter than the output of the previous year, and paid an average of seven cents per pound more than was paid during the year 1918.



Cross-section of typical tractor engine showing where the oil is greatly heated.

Engine troubles—90% preventable

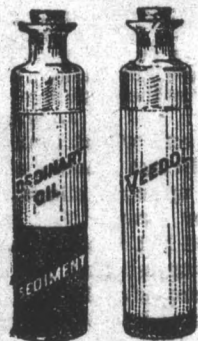
Burned out bearings, overheating, lack of power are caused by failure to lubricate properly

ONE man has trouble with his engine—another one does not. What is the difference?

In nine cases out of ten, engine trouble in automobiles, tractors and trucks is preventable. This is the verdict of automotive engineers, practical repair men and dealers after years of study.

It is the tremendous heat at which engines operate which makes lubrication a problem. Ordinary oil breaks down under this terrific heat—200° to 2,000° F. Large quantities of sediment which has no lubricating value are formed. The lubricant evaporates like boiling water. The oil in the sump is contaminated and thinned down by fuel.

As a result carbon forms rapidly, bearings soon burn out and the engine overheats. Serious engine trouble soon results. Because the tractor works at higher temperature, these evils are exaggerated in its case.



Ordinary oil after use. Sediment formed after 50 hours running in a tractor.

Solving lubrication problems

To overcome these difficulties engineers of the Tide Water Oil Company developed the famous Faulkner process used exclusively to produce Veedol, the lubri-

cant that resists heat. How Veedol resists heat is clearly illustrated by the sediment test on the left.

The proper grade of Veedol for all engines not only reduces by 86% the amount of sediment formed, but prevents excessive contamination. Because it reduces evaporation to a minimum, Veedol gives from 25% to 50% greater service per gallon.

Recommended for most fine tractors

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Leading dealers have Veedol in stock. The new 100-page Veedol book will save you many dollars and help you keep your tractor, car and truck running at minimum cost. Send 10c for copy.

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BLUE BIRD BRAND FARM & GARDEN SEEDS

In the Legend, the Blue Bird stands for Purity, Happiness and Good Luck. In Seeds, for the Best that Grows.

Our 1920 catalog gives the Legend and tells why the Blue Bird was adopted as a trade mark for Good Seeds. It furnishes the most complete information on Red Clover, Alfalfa, Alsike, Sweet Clover, Vetches, Millets, Sudan Grass and other Farm and Garden Seeds of any free book published. It is larger and more beautifully printed than ever before. It will assist in planning your crop campaign for the coming season. A post card will bring YOUR FREE COPY.

Supplies of many seeds are very light. Order Now, Save Money and have your seed when wanted.

THE C. E. DePUY CO., Seedsmen, Pontiac, Mich.

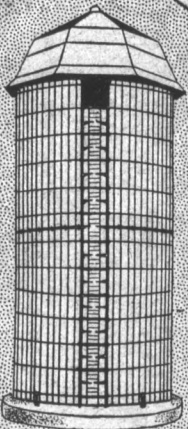


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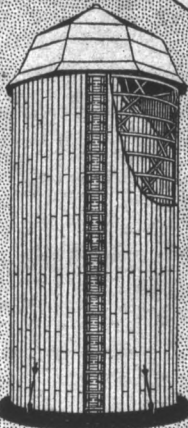
SAGINAW SILOS

The character of Saginaw Silo service is best shown by the fact that this year we are offering 4 different types of silos.

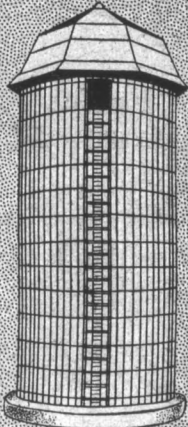
This is done because we know that silo conditions vary and it has always been our aim to give the greatest possible silo value for the money.



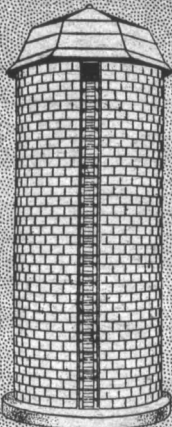
Saginaw Steel-Built Wood Stave



Saginaw Hollow Wall Wood Stave with Cross-Truss



Saginaw Leader Wood Stave Silo



Saginaw Vitrified Clay Silo

Good silage depends largely on your silo. It must do certain things if you are to get sweet, clean, succulent silage.

With the Saginaw big 4 to choose from you are sure of getting a silo that meets your own particular needs, and at a price that will make silage feeding profitable for you. Address Dept. 10 for booklets.

The McClure Co.

Cairo, Illinois

Saginaw, Michigan

BREEDERS' DIRECTORY

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

Wildwood Farms
Angus

Home of Edgar of Dalmeny one of the world's greatest sires.
He produced Erodemas, the grand champion bull at show in Perth, Scotland in Jan. 1919, and He produced Blue Bell a cross-bred heifer which was awarded the championship at the Smithfield, (Eng.) fat stock show in Dec. 1919. (The latter is England's equivalent of our Chicago International.)

Edgar is now an American Citizen, and is here for the purpose of bettering the breed in this country.

Edgar's calves are as yet too young to offer for sale but they are a promising lot and are being spoken for fast.

We have a few choice young bulls by Black Monarch III who won the Mich. State Fair Grand Championship in 1914-1915-1916, still for sale.

Our herd is under State and Federal supervision. A visit will interest you, write for particulars.

WILDWOOD FARMS
ORION, MICHIGAN

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

WOODCOTE AUGUS

1919 Winnings to Date
Mich. State Fair 12 1sts 2 cham. 1 gd. ch.
N. Y. " 9 1st 2 " 1 " "
West Mich. " 11 1st 2 " 2 " "
Saginaw " 10 1st 4 " 2 " "
International—2 firsts including the undefeated calf herd for 1919.
Every Animal Bred At
WOODCOTE STOCK FARM, Ionia, Mich.

Registered Aberdeen Angus. Seven bulls from four to twelve months old. Plenty of size, best of breeding. Prices reasonable. Come and see them. Inquire F. J. WILBER, Olio, Mich.

ABERDEEN Angus bulls for sale, one yearling, one two year old, also a few bull calves. LONGWOOD FARM, Marshall Kelly, R. 10, Charlotte, Mich.

GUERNSEY BULLS
FOR SALE

Atta Boy of Maple Crest born April 1919. Sire Imp. Spotswood Sequel A. R. 19 A. R. daughters Dam imp. Albina price \$175.00. Pride's May King of Avondale born June 1919 Sire Nora's May King of Bailey Falls dam Queens Pride of Harriston A. R. price \$150.00.

Avondale Farms, Wayne, Mich.

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

GUERNSEYS



\$546 was the average price paid for all Guernseys sold at public auction in 1919. This figure indicates the buyers' high estimation of the value of the breed. Let us tell you why Guernseys lead in popular favor.

The American Guernsey Cattle Club, Box 140, Peterboro, N.H.



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 nicely marked four months old bull calf, F. E. ROBSON, Room 307, M. C. R. R. Depot Building, Detroit, Michigan.

REG. GUERNSEY'S

The best of breeding—at prices you will pay—for good bulls—and bull calves—we can't beat the best.
J. W. WILLIAMS, No. Adams, Mich.

Guernseys Federal inspected herd. Bull 2 yrs. old g. son of Imp. Spotswood Sequel, dam's A. R. record 419.34 b. f. class G. Bull calf 8 mo's. old, 6 bull calves 2 to 5 mos. old. Satisfaction guaranteed G. W. & H. G. Ray Albion, Mich.

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

Reg. Guernsey Bull calf 4 mo. old for \$75. delivered. Sire Deane's May Rose of Allenwood 33278. His 5 nearest dams average 726 lbs. fat. dam of calf Imp. E. A. BLACK, R. 3, Howard City, Mich.

For Sale A number of Register Guernsey bull calves May Rose breeding. Cheap if taken soon. JOHN EBELS, Holland, Michigan R. 2.

For Sale Four Reg. Guernsey females all but one due to freshen soon, also bull calf. P. J. ANDERSON Fremont, Michigan.

Holstein-Friesian Cattle

Herd Headed by
Segis Pontiac De Nijlander

A 32-lb. grandson of Michigan's great 35-lb. champion. His dam, Oak Valley Korndyke Beets Segis Fan, 32.06, is also a Michigan prize winner. Write for calf list. Wah-be-me-me Farms, White Pigeon, Mich.

GRADE UP YOUR HERD

with a young son of Spring Farm Pontiac Cornucopia 18th, whose five nearest dams have an average record of 35.22 pounds of butter in seven days. Have several priced to sell.
JOSEPH H. BREWER, Grand Rapids, Michigan

SOY BEANS FOR ENSILAGE.

I wish your opinion on planting soy beans with corn for silage, since soy beans are high in protein. Which brand or kind would be most suitable for this section as our farm is of a genuine black loam; also in a good state of fertility. How could they be planted to the best advantage? What amount of corn and beans should be used? What is the best method of inoculating soy beans?
J. S.

The best way to plant soy beans with ensilage corn is to get the combined pea and corn hopper for your corn planter, then you can plant both at the same time. If you can't do this then you can plant the corn and then immediately plant beans. You should use about eight quarts of corn per acre for ensilage and about six quarts of soy beans. The more evenly you get them distributed the better.

If you could get some soil where soy beans did well last year, about the best way to inoculate is by the glue method. That is, moisten your beans with water in which glue is dissolved, then grind the earth real fine and stir it in with the beans until a portion of the earth sticks to each bean. If you cannot get this earth then buy some soy bean culture and apply to the seed.

C. C. L.

MORE PROTEINS NEEDED.

Have six cows this winter and would like to do the best I could in milk production with the feed I have, and possibly some extra grain. Have good corn silage, lots of ripe corn in it, corn fodder and oat and barley straw. At present am feeding ground barley and bran or middlings. Is the barley all right or would you suggest something else with it? Have not enough barley to last the winter without adding something else to it.
J. W. A.

Ground barley and wheat bran does not contain a sufficient amount of protein to balance up corn silage, corn fodder and barley straw. The barley is a valuable food but it lacks in protein. I would suggest that you feed your cows two pounds each per day of oil meal or cottonseed meal, whichever can be procured the more advantageously, then mix the ground barley, wheat bran, equal parts by weight, and feed a sufficient amount of this grain, including the two pounds of oil meal or cottonseed meal to give each cow a pound of grain for every three or four pounds of milk they produce daily. For instance, if a cow gives thirty pounds of milk in a day then she ought to have two pounds of oil meal and eight pounds of the barley and wheat bran mixture. Increasing the bran and oil meal will allow your barley to go farther, but if you should run out of barley you can substitute ground oats or even corn meal.
C. C. L.

STRAW ON FARM PURCHASED.

I purchased a farm on February 15, 1919, understanding that all roughage went with it. I discovered later that the party who worked the place on shares before claimed an oat straw stack and some bean pods, part of which he hauled away. Now he claims the remainder though largely decayed. Have I a right to stop him? E. G.

The purchase of the land does not include the straw unless by express agreement, and even then if the straw belonged to the tenant the tenant's possession was notice to the purchaser of the tenant's rights. The fact that the tenant has left the straw on the place since last spring merely raises a question of abandonment, which is a question of fact.
J. R. R.

STRAY AND ABANDONED STOCK.

One of my boys has left a horse at home and we have not heard from the boy since. Have we a right to sell the horse or must we keep him?
SUBSCRIBER.

Any person on whose premises live stock is left without contract can advertise the stock as a stray under the statute.
J. R. R.

THE BEST LINIMENT

OR PAIN KILLER FOR THE HUMAN BODY

Gombault's
Caustic Balsam

IT HAS NO EQUAL

For the Human Body

It is penetrating, soothing and healing, and for all Old Sores, Bruises, or Wounds, Felons, Exterior Cancers, Boils, Corns and Bunions, CAUSTIC BALSAM has no equal as a Liniment.

We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, thorough use will cure many old or chronic ailments and it can be used on any case that requires an outward application with perfect safety.

A Perfectly Safe and Reliable Remedy for
Sore Throat
Chest Cold
Backache
Neuralgia
Sprains
Strains
Lumbago
Diphtheria
Sore Lungs
Rheumatism
and all Stiff Joints

REMOVES THE SORENESS—STRENGTHENS MUSCLES

Cornhill, Tex.—"One bottle Caustic Balsam did my rheumatism more good than \$120.00 paid in doctor's bills."
OTTO A. BEYER.
Price \$1.75 per bottle. Sold by druggists, or sent by express prepaid. Write for Booklet R.
The LAWRENCE-WILLIAMS COMPANY, Cleveland, O.

Facts in
BLACK & WHITEHolsteins are the Most
Profitable of Dairy Breeds

The purebred registered Holstein cow is an economical investment, for she produces more milk and more butter per year and per lifetime than any other cow, and her physical fitness, organization and digestive capacity are such that she is able to turn the roughage of the farm to the best advantage. She is not fastidious, and with ordinary farm care will astonish her owner. It is by no means uncommon for cows of the Holstein-Friesian breed to produce upward of 100 pounds of milk per day and 1,000 pounds of butter in a year.

You owe it to yourself to read our various free booklets. Send now.

THE HOLSTEIN-FRIESIAN ASSOCIATION
164 Hudson Street
Brattleboro, Vermont

The Traverse Herd

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

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.

"Top-Notch"
HOLSTEINS

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

McPherson Farms Co., Howell, Mich.

GET A BETTER BULL
WINNWOOD HERD

BREEDERS OF

Registered Holstein-Friesian Cattle

We have bull calves ready for service and a new crop of baby bulls coming all of Maplecreek breeding. We have one of the largest pure bred herds in Michigan and this will be the last chance to buy sons of Flint Maplecreek Boy, cheap. For his daughters start to freshen this winter and they will all go on yearly tests. We own them all and will develop them. Don't wait, a bankable note is the same as cash to us and our price will be right. Tell us your wants.

JOHN H. WINN, (Inc.)

Lock Box 248, Roscommon, Mich.

For Sale Seven cows and three heifers, registered.
L. F. STAUTZ, Manchester, Michigan.

Additional Stock Ads, on Page 306

THE CATTLE OUTLOOK.

ONLY by holding down cattle supplies to moderate proportions is it possible to maintain prices, for the requirements of the trade are on a greatly reduced scale. Although the Chicago receipts of late have been smaller than a year ago, the best steers have sold much lower than a few weeks ago, with the top on Monday of last week \$16 for the best offerings, which was also the top price paid for prime hogs. A day later some prime 1,500-pound steers sold at \$16.75, there being three loads, and this was twenty-five cents above the highest price paid during the previous week, while a year ago the top price stood at \$20. Three weeks ago the best steers sold at \$18.50. The demand is still running mainly on the cheaper class of cattle, the packers being extremely partial to cattle offered at \$13 and under. With the exception of last year, cattle are selling much higher than in past years, with a scarcity of choice heaves, most stockmen being afraid of big feed bills at the present time. Prime yearling steers are quotable at \$15.50 to \$16, but not many steers sell as high as \$15. Killers are good buyers of butcher stock, and cows and heifers are most of the time good sellers. On some recent days there has been a good demand from country buyers for stock cattle, the bulk of the business being at \$9.50 to \$11.50 for feeders, with choice fleshy lots quotable up to \$12.50, although few sold anywhere near that price. The call for cheap stock steers has fallen off, but there is a demand for stock cows and heifers at \$7.50 to \$8.50. It is safe to say that as soon as there is a permanent improvement in the fat cattle trade the market will become animated for stockers and feeders at higher prices. Already live stock commission firms say the inquiry from the feeding districts for these cattle is the largest ever known so early in the year.—F.

MANY FARMERS DISSATISFIED

INDICATIONS of widespread unrest among farmers of the country, so threatening as likely to disturb the existing economic structure, is revealed in forty thousand replies to a questionnaire sent out by the post office department.

The replies were summarized in a report prepared by George L. Wood, superintendent of the division of rural mails, read to the senate postoffice committee by James I. Blakslee, fourth assistant postmaster general.

The views of the forty thousand or more farmers were obtained by the broadcasting of two hundred thousand copies of a questionnaire throughout the agricultural states asking for suggestions whereby the postoffice department might aid in cutting down the cost of living.

The answers show the major complaints of the farmers in numerical order to be:

Inability to obtain labor to work the farms, hired help and the farmers' children having been lured to the city by higher wages and easier living.

High profits taken by middlemen for the handling of food products.

Lack of proper agencies of contact between the farmer and the ultimate consumer.

Many of the replies, probably as many as fifty per cent, indicate that the writers contemplate either leaving their farms or curtailing acreage under cultivation because of one or more of the three major grievances and because of the growing feeling against non-producing city dwellers.

Commenting on the replies, Assistant Postmaster General Blakslee said: "Such a condition at a time when the predominant cry is for more production cannot but constitute a grave menace."

Superior

"Grain Drills That Sow for Profit"

TO GET more grain from every acre, you need good implements. And that's why the big majority of farmers everywhere choose the Superior Grain Drill. They know that this drill meets all requirements of seed and soil—that it sows their grain for biggest profit per acre.

No skipping or bunching with the Superior. No waste of seed or ground. It forms roomy, even seed trenches that allow greatest chance for quick germination and sturdy, perfect growth.

For Team or Any Tractor

Construction that Meets Your Power Needs Exactly

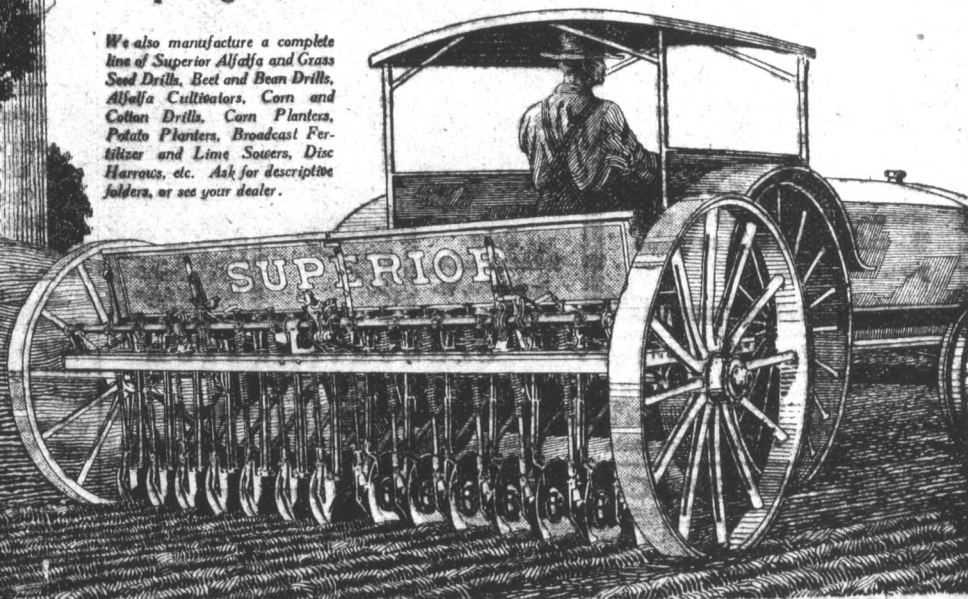
Superior Grain Drills are extra strong and long lasting. Yet their simplicity and scientific design insure the lightest draft for teams.

Superior Tractor Drills have an adjustable tractor hitch—and a special power lift which enables operator to raise and lower discs while in motion without leaving his seat. A great time and labor saver.

Ask your Superior dealer to show and explain to you the many special and exclusive features.

The American Seeding-Machine Co.
Springfield INCORPORATED Ohio

We also manufacture a complete line of Superior Alfalfa and Grass Seed Drills, Beet and Bean Drills, Alfalfa Cultivators, Corn and Cotton Drills, Corn Planters, Potato Planters, Broadcast Fertilizer and Lime Sowers, Disc Harrows, etc. Ask for descriptive folders, or see your dealer.



Drench Kills Tix Ton Balls Stomach Worms

ENOUGH FOR
10 Sheep \$1.25
30 " \$2.50
150 " \$10.00



Remedy sent by Parcel Post upon receipt of price
PARSONS CHEMICAL WKS.
GRAND LEDGE, MICH.
Leona Park Farms Experiment Station

POULTRY

B-A-B-Y C-H-I-C-K-S

Crescent White Leghorns; also, Brown Leghorns, Black Minorcas, Reds, Rocks, and Wyandottes. Send for circular and Price List.
CRESCENT EGG COMPANY, Allegan, Mich.

Barred Ply. Rocks, Chicago winners. Great winter layers. 100 choice Cockerels. Eggs for hatching. Prices reasonable. Satisfaction guaranteed. 28th year.
G. EARL HOOVER, R. 3, MATTHEWS, IND.

COCKERELS: Rose and Single Comb R. I. Reds. Bred for color and eggs. \$3.50 and \$5 each. Satisfaction guaranteed. CHICKS, Rose and Single Comb R. I. Reds. Barred Plymouth Rocks. Prepaid by parcel post and safe delivery guaranteed. Write for free illustrated catalog. INTERLAKES FARM, Box 39, Lawrence, Mich.

Chicks that Live \$15 per 100 S. C. W. Leghorns. Send for catalog. SNOWFLAKE POULTRY FARM, R. 1, Grand Rapids, Mich.

DAY OLD CHICKS

Guaranteed to 1,500 miles. Eggs for Hatching. Bar. Rocks, S. C. W. Leg., S. C. & R. C. Reds, W. Wyand., Buff & W. Orp. Catalog free.
GOSHEN POULTRY FARMS, R. 19 Goshen, Indiana

DANGER If chicks and eggs are not shipped right. **Chix 15c Up** 100,000 Chix this season. Best blooded stock ever produced at low prices quoted. Selected Utility, Exhibition trapnested stock. 16 varieties. Hatching eggs. Hens, Ducks, Turkeys, Geese. Book your orders early. Avoid disappointment. Stamps appreciated. Beckman Hatchery, 26 E. Lyon, Grand Rapids, Mich.

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

Fine white Rock cockerels for sale. 8 lbs. to 9 lbs. \$3.50 each, two for \$6.50. Write at once.
Mrs. Elsie M. Robinson, Petersburg, Michigan.

John's Big beautiful Barred Rocks are hen hatched & grow quick, good layers, sold on approval, males \$4 to \$8. Circulars photos. John Northon, Clare, Mich.

LOOK: BABY CHICKS AND DUCKS 29 breeds of chicks, 4 breeds of ducks. Utility and Exhibition grades. Postage paid and live delivery guaranteed. Capacity 100,000 weekly Catalog free. Stamps appreciated.
NABOB HATCHERIES, Gambier, Ohio.

RHODE ISLAND REDS—Rose Comb Cockerels hen-hatched, farm raised, big and thrifty, from prize winning strains. \$4 to \$7.50, four top birds \$10 each. For immediate or later shipment—orders filled in turn as received. Write now to secure best selection.
BIDWELL STOCK FARM, Tecumseh, Mich.

Rhode Is'land Reds, R. C. large fancy cockerels at \$4.00 each.
BURT Sisson, Imlay City, Michigan.

R. C. Br. Leghorn eggs \$1.50 for 15. Pekin ducks \$1.50 for 8. White Chinese geese eggs 40 cents each.
Mrs. CLAUDIA BETTS, Hillsdale, Mich.

Silver Spangled Hamburg Cockerels at \$5.00 each my hens won in the laying contest at the Michigan State Fair 1919 being eight other entries. From 100 Hens sold \$457.18 of eggs 1919.
Mrs. G. A. PROCTOR, Vassas, Michigan.

S. C. Brown Leghorns Excellent layers, Farm range. Eggs postpaid. 15, \$1.50; 30, \$3; 45, \$4; 100 \$8. Floyd Robertson R. 1 Lexington, Indiana.

S. C. R. I. Reds. Choice cockerel and pullets from pure bred quick maturing heavy laying strain. Cockerels \$4.00 to \$8.00. Pullets \$3.00 to \$5.00. Pans \$15.00 to \$25.00.
H. J. PATON, Route 3, Box 115, Ypsilanti, Mich.

S. C. B. Minorca Cockerels, 8 to 9 lbs. Price \$5 to \$10, eggs in season. Satisfaction guaranteed.
CHAS. SCHOOK, Allenton, Mich.

Silver, Golden and White Wyandottes. Choice quality cockerels and pullets \$3.00 to \$5.00 each.
C. W. Browning, R. 2, Portland, Mich.

White Wyandottes Choice cockerels and pullets from pure bred quick maturing heavy laying strain. Cockerels \$4.00 to \$8.00. Pullets \$3.00 to \$5.00. Pans \$15.00 to \$25.00.
H. J. PATON, Route 3, Box 115, Ypsilanti, Mich.

White Plymouth Rocks Stock for sale, breeding and quality of the best. Write wants. Richard M. Gretton, Mason, Mich.

White Rocks. Choice Cockerel and Pullets from pure bred quick maturing heavy laying strain. Cockerels \$4.00 to \$8.00. Pullets \$3.00 to \$5.00. Pans \$15.00 to \$25.00.
H. J. PATON, Route 3, Box 115, Ypsilanti, Mich.

White Wyandotte: out of choice stock for sale; cocks, cockerels \$3.50 each, send for my circular.
DAVID RAY, Ypsilanti, Mich.

White Leghorns, Brown Leghorns, Ancona chick \$17 per 100. Live arrival guaranteed. Eggs of all varieties. Catalog free. Triangle, Clinton, Mo.

W Holland Turkey Toms, \$15.00 Pairs \$27.00. White African Guineas \$2.00 each Trio \$5.00 A few Columbian Wyandotte Cockerels at \$4.00 safe arrival guaranteed. Aiden Wildcomb, Byron Center, Michigan.

Wanted. Several large Standard Cyphers incubators. State condition and price wanted. Interlakes Farm, Lawrence, Michigan.



18,458 Pounds Milk

in a year is the record of this fine Guernsey. Records are worth trying for; but health is an absolute essential. Raise the health standard of your cows, and the milk yield will surprise you.

So Easy to Put Your Dairy On a Good-Health Basis

To be satisfied with anything less than top-notch health in your cows is a foolish waste of milk-income. Most cow sickness is preventable—or curable. With the aid of KOW-KURE, the great cow medicine, such troubles as Abortion, Retained Afterbirth, Barrenness, Scouring, Bunches and Milk Fever can be eliminated from your herd. KOW-KURE acts on the digestive and genital organs—where nearly all cow diseases originate, and aids nature in inducing normal, healthy action. No dairyman who has used KOW-KURE will be without it. Sold by nearly all druggists and feed dealers; 60c and \$1.20 packages. Write for our big free book, "THE HOME COW DOCTOR."

It is full of facts every dairyman ought to know, and tells just how to treat cow diseases of all kinds.

Dairy Association Co.,
Lyndonville, Vt.



HOLSTEINS OF QUALITY

A few richly bred bull calves for sale from dams with records from 20 to 25 lbs. in 7 da. and from 33 lbs. sire. Shipped to any reliable party on approval. Write me price you wish to pay, and I will describe the best bull that I have for the money.

E. A. HARDY, Rochester, Mich.

LONG DISTANCE

Holstein calves of either sex. Can spare a nicely marked heifer backed by seven dams that average above 1200 lbs. butter and 2400 lbs. milk in one year. Choice Duroc Sows.

A. FLEMING, Lake, Mich.

A Grand Opportunity

We have for sale one more son (ready for heavy service) of the famous sire "Alcartra Pontiac Butter Boy" (136933) whose daughters sold so well at the Lansing sale, one selling for \$2000 and one a ten months old calf for \$500.

The dam is nearly ready to freshen and we expect her to materially increase her present record of 18.6.

Write for pedigree.

SINDLINGER BROS.

Lake Odessa,

Michigan

King of the Pontiacs and King Segis

Bull calf born Dec. 10th. 1919. Sire: from son of King of the Pontiac whose dam is 33 lb. daughter of King Segis. Sire's dam Bucca Lassie Jean Butter 33.05 Milk 721.

Dam, Fine large cow now on test making 23 lbs. Price \$150.00 if sold at once.

A. W. COPLAND, Birmingham, Mich.
Herd under state and federal supervision.

A BULLY GOOD BULL CALF.

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

L. E. CONNELL, Fayette, Ohio.
\$50 gets 99% white gdson Flint H. S. 27 lb butter 501 lb. milk in 7 days. Maple O. K. H. his dam gave 1232 lb. butter 2506 lb. milk 1 yr. Terms M. L. McLAULIN, Redford, Michigan.

REGISTERED Holstein bulls sired by King Zerna Alcartra Pontiac, son of the \$30,000 bull; some from good A. R. O. cows. C. H. Giddings, Gobleville, Mich.

CLUNY STOCK FARM

A Semi-Official Bred Bull to Head Your Herd

Maplecrest Application Pontiac No. 132652, heads Your Herd

His dam's record is 1344.3 lbs. butter, 23,421.2 lbs. milk in 365 days, and 35.103 lbs. butter and 515.6 lbs. milk in 7 days.

One of his sons from our good record dams will carry these great blood lines into Your Herd. For Pedigrees and Prices write to R. BRUCE McPHERSON, Howell, Mich.

Genrida Farms

Has for sale Bull calf, born Sept. 25, 1919, mostly white

Sire: King Flint, who combines the blood lines of W families of 3 generations of 30 lb. cows and 2 generations of 1200 lb. yearly record cows. Dam of sire has 33.1 lbs. butter, 723.4 lbs. milk in 7 days; 1007.76 lbs. butter, 21419 lbs. milk in 365 days.

Dam: Is 17.97 lbs. Jr. 3 yr. daughter of of Johan Bengtsson Lad. Her grand-dam has 20.97 lbs. 7 day record and her dam has 2 A. R. O. daughters.

For particulars write Walter T. Hill, Davison, Mich.

Reg. Holstein cows and heifers priced reasonable. High class breeding. All bred to 933 lb. and 942 lb. Bull. Some fresh soon. B. B. Reavey, Akron, Mich.

Reg. Holstein Bull Calf born Feb. 1, 1920. Sires 13 R dams ave. 31 lbs. Price \$100 Reg. and Del. would take Liberty bond. J. R. Hicks, R. 3 St. Johns, Mich.

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

The Wildwood Farm

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

Maple Lanet Register of Merit Jersey Herd. Bulls ready for service out of R. of M. dams and sired by one of the best grandsons of Pegasus 9th of Hood Farm. IRVIN FOX, Allegan, Mich.

\$125 Buys a registered Holstein Friesian bull ready for service splendid individual and best of blood lines sired by a bull with Pontiac and Colantha Johanna Lad Breeding light in color. If interested write quick. Henry S. Rohlf, R. 1, Akron, Mich.

3 Reg. Holstein Bulls Born Jan. 18, 20, Feb. 1 of good breeding. \$50 or Liberty Bond each. J. E. LANCIAUX, R. F. D. 3 Fremont, Michigan.

HARWOOD HEREFORDS

Young stock both sexes for sale. "Keep On 508019" heads the herd. Write us your wants. Visitors welcome.

JAY HARWOOD, Ionia, Mich.
Farm six miles south of Ionia.

WOOL IN BEST SUIT COSTS MAKER \$7.37.

ESTABLISHMENT in the principal centers by the wool growers of the nation of selling agencies to dispose of their production direct to the manufacturer, instead of the present system by which brokerage and commission merchants are placed in the position of the middleman, was advocated today by Dr. S. W. McClure in his address, "A Market for Our Wool," at the second day's session of the convention of the National Wool Growers' Association.

Doctor McClure said the wool of the country is handled almost exclusively by speculators, whose interest it is to buy at the lowest price and sell at the highest, and fix conditions under which the wool is sold. If the prospects are for better prices, the dealer buys the wool outright—but, if the prospects point to lower wool, the dealer takes it on consignment. Where there is probability of a profit, the dealer reaps the reward; but, where a loss seems imminent, the grower is left holding the sack, the speaker said. Establishment by the growers of their own selling agencies would make them both producer and middleman, and allow them to reap the reward as well as bear the burdens.

Another increase in the price of wool clothing by retailers is imminent, the wool growers were informed in a telegram from Senator Capper, of Kansas, asking the position of the National Wool Growers' Association in the matter. Senator Capper asked for complete information as to the justification for such contemplated increase.

Doctor McClure was authorized to send the following statement to Senator Capper:

"Retail clothing is high and many people are of the opinion that this high price is due to the price of wool. The National Wool Growers' Association desires that the public shall know exactly what part of the cost of clothing goes to the man who raises the sheep and produces the wool out of which woolen clothing is made and, to that end, this statement is published.

"An average all-wool three-piece suit of men's clothing is retailing at \$50 to \$75. For a man weighing 175 pounds three and one-half yards of cloth is required to make a suit. The weight of cloth for men's clothing ranges all the way from ten ounces to eighteen ounces per yard. The average medium weight winter suit is made of goods weighing fourteen ounces per yard. At three and a half yards per unit, the cloth in the entire suit weighs forty-nine ounces, or slightly over three pounds.

"In the manufacture of worsted, all-wool cloth it requires one and a quarter pounds of scoured wool to produce one pound of cloth, therefore to make all the cloth in this suit would require sixty-one and a quarter ounces of scoured wool, or, say, sixty-two ounces.

"If the suit happens to be made of the very finest western wool, selling at \$1.90 per scoured pound, instead of the medium grade, then the wool in the entire suit will cost \$7.37.

"We are not charging any one with profiteering in the sale of clothing, as it is not our place to do so. All we ask is that the public place on the shoulders of our wool growers only that portion of responsibility for high-priced clothing that properly belongs to them. We are willing to assume that responsibility."

A field of winter rye upon which the hogs may be turned early in the spring and on which they may feed while the other forage crops are being sown and started, will help out wonderfully in the amount of grain food required to keep them in a good, thrifty condition.

Great Hog Profits



Hustles Heavy Hogs to Market

Cuts your feeding costs. Have bigger pigs, fatter hogs. Get them ready for market in far less time. You can do it. Prove at our risk that Milkoline is the surest farm money maker known.

Guaranteed Trial Offer We will ship you ten gallons, half a barrel, or a barrel. Take 30 days—feed half to your hogs and poultry. If not absolutely satisfied return the unused part and we will refund every cent you paid us—no charge for the half you used.

Milkoline has a base of A. 1. Buttermilk to which essential fats and acids are added. Milkoline comes in condensed form. Will keep indefinitely in any climate. Will not mould, sour or rot. Files will not come near it.

2c a Gallon For feeding mix one part Milkoline with 50 parts water or swirl and feed with your usual grain feeds. It helps keep hogs healthy, their appetites keen and makes more pork per bushel of grain. Stop buying buttermilk of uncertain quality. Use Milkoline and you will always be sure of uniform acidity, and at a cost of 2c a gallon or less when fed as directed. Many users say Milkoline saves them one-third on feed bills because it makes their hogs and poultry assimilate all their feed.

1400% Profit W. H. Graham, Middleton, Mo., writes that he got an extra \$400 worth of pork from \$30 worth of Milkoline in a sixty day feed. He made an actual test of this lot of hogs in comparison with another bunch. We could quote hundreds of testimonials, but the best proof is that we legally guarantee Milkoline to be satisfactory or refund your money, (you are the judge) and refer you to S. W. Blvd. Bank of Kansas City, Mo., and R. C. Dunn & Co. MILKOLINE is just as good for Poultry as for Hogs.

Order from Nearest Dealer or Direct from this Ad. Send check or money order and ask for free booklet, "Hustles Heavy Hogs to Market."

5 Gals. at Creamery \$1.50 per gal.	\$7.50
10 " " " 1.25 per gal.	12.50
15 " " " 1.10 per gal.	16.50
32 " " " 1.00 per gal.	32.00
66 " " " .90 per gal.	59.50

No charge for hogs or barrels. Prices F. O. B. Nearest Dealer or Kansas City, Mo.

THE MILKOLINE MFG. CO. 360 Creamery Bldg. KANSAS CITY, MO.

Distributed by Schwartz Bros., Saginaw, Mich.

15% More Wool

You wouldn't let 15% of any crop go unharvested, yet that's the waste in your wool crop if you still shear by hand. The most expert hand shearer doesn't get all the wool, nor does he cut evenly.

The modern sheep shearing machine not only gets 15% more wool, but gets it quicker and easier, and the wool is longer and better. The sheep is not scarred, and a smooth, even stubble is left, which means a bigger, better crop next season.

Good, marketable wool brings top prices. Why waste your time shearing by hand and cut down your wool profits?

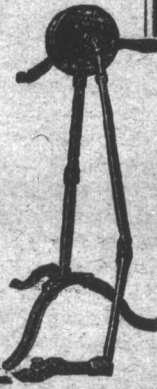
Get a Stewart No. 9 Ball Bearing Machine—it's a time and money saver for flocks up to 300 head. Soon pays for itself. Strongly built, runs easily, will last a lifetime.

Price Only \$19.25

Your dealer has it, or you can buy from us by sending \$2.00 and paying balance on arrival. Write for catalog.

Chicago Flexible Shaft Company

Dept. 127, 5600 Roosevelt Road, Chicago



Herefords Special low price on the following for a short time. One four year old cow due in spring. Two 2 year olds with calves by side. One yearling heifer. Three bull calves, about 9 months old, one polled, two horned, all well marked and good dark color. COLE & GARDNER, Hudson, Mich.

HEREFORDS

3 Prince Donald, 3 Farmer and one Polled bulls from 7 to 13 months old, for sale.

ALLEN BROS.

PAW PAW, MICHIGAN

Herefords. Just purchased 3 new herds, now have four year old cow due in spring. Two 2 year olds with calves by side. One yearling heifer. Three bull calves, about 9 months old, one polled, two horned, all well marked and good dark color. COLE & GARDNER, Hudson, Mich.

Hereford Herd Headers only the upper-crust retained, undesirable unsexed, not the largest herd, but few as good. Come and see. Farm adjoins town. E. J. Taylor, Fremont, Mich.

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

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

LILLIE Farmstead Jerseys—A few heifers bred to freshen soon, heifers bred to freshen next fall. 3 cows, R. of M. bull calves. O. C. Lillie, Coopersville, Mich.

Bulls ready for service from our herd bull Marguerite Premier, gdson of Pegasus 9th of Hood Farm, and cows now on test for R. of M. Smith & Parker, Howell, Mich.

Additional Stock Ads. on Page 106

PLANS FOR HANDLING MICHIGAN WOOL.

THE Michigan wool growers have recently incorporated and elected H. C. Reed, of Richland, as president; H. H. Halliday, Lansing, treasurer, and Mr. Williams, of the Michigan Agricultural College, secretary. The board of directors includes leading wool growers whose purpose it is to market cooperatively, the wool of Michigan on the basis of cost of handling. While operating methods are not entirely completed, the plan that has worked so successfully in Ohio will be used with such modification as is necessary to suit conditions here. In general, an agency relation is established, with headquarters and office force. This agency incorporates under the warehouse act and carries insurance on the wool.

An experienced wool sorter is employed and probably will work under the direction of an official grader from the Bureau of Markets of the United States.

Carloads of wool will be assembled at the various points throughout the state. Each wool grower will have his clip in sacks—properly tagged. On arrival at the central warehouse, the wool will be graded and each grade sold on its merits. The actual cost of handling wool will, in the large volume be very small. Based on the Ohio experience the increased price to the grower ought to be around ten cents per pound. The actual working together of the states of Michigan, Ohio, Illinois and New York, with interchange of selling advices, will mean the prevention of the bear raid on wool values always given out to lower prices to the grower. The local wool buyer is helpless in this matter for he too, must be coerced by the concentrated buying power operating against the small carload or two local shipments, and he is quite often financed by eastern buyers who in this way fix the price on the farmer's wool.

Those who have attended conventions of wool dealers have grown to expect the bear reports and all manner of influences for price depression that is usually disseminated by buyers for houses with foreign names. The concentrated selling power of the aggregation of Michigan wool can and will prevent this market depression. The wool scandal of war buying is fresh in the minds of wool growers.

The Michigan Farm Bureau have declared the wool growers in their cooperation plan for selling an affiliated organization and advanced them two thousand dollars for organization work. Active work all over the state will commence immediately and through the Farm Bureaus of the respective counties. Farm Bureau tags, wool sacks and complete plans will soon be in the hands of the county bureaus. Strong financial connections will be made so that Michigan wool growers will have the best marketing conditions ever before undertaken. The Michigan Farm Bureau will put this plan over the top as one of their first big projects.

FATTENING STEERS.

I am fattening two-year-old steers. I have mixed hay, straw and corn on the cob. I feed stalks and oat straw at noon and hay at night. Corn on the cob morning and night. Will you advise me how to rush these cattle to market as I have but little hay left.

Washtenaw Co. D. J. S.

These steers are not getting anywhere near as much protein as they ought to have to make them fatten rapidly. You can rush them by feeding in addition, wheat bran and cottonseed meal mixed in about equal parts by weight, and feed all they will eat up clean, giving them the ear corn besides. Where you feed ear corn you ought to have hogs to follow steers to prevent waste.

C. C. L.

Kalamazoo

Points That Win



**GREAT CAPACITY
EASY TO RUN
POSITIVELY SAFE
A GIANT IN STRENGTH**

THREE Feed Rollers with an extra large mouth enable the KALAMAZOO to handle the ensilage in great quantities with an ease and speed that is not equalled in ordinary machines.

The Exclusive Center-Shear Cut, which throws the resistance to the center of the knife wheel instead of to the outside, naturally makes the cutter wheel turn easily. A feature of immense power and fuel saving character. Hard oil cups keep the KALAMAZOO bearings constantly oiled. Thousands of customers praise the

KALAMAZOO for its easy running qualities.

Every part of the machinery in which your hand or clothing might become entangled is covered by shields. The belt pulley is protected. The fans and cutter wheel are one-piece. The knife wheel is made of non-breakable, malleable iron. Positively safe. Danger of accident reduced to a minimum.

The KALAMAZOO Cutter Frame is made of best heavy channel steel. Every part is made to LAST. For over 25 years this fact has been demonstrated. Send us your name and receive our Big Catalog explaining the KALAMAZOO Line. There's a KALAMAZOO of a size for you. Also Tile and Wood Silos that stand the test. Write TODAY.

2021

KALAMAZOO TANK & SILO CO., Dept. 123-C Kalamazoo, Mich.

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Save Money

You can save more money and make more money if you plant Isbell seeds. It means sure crops, big crops of the kind that bring the most cash. Isbell's Seeds have that reputation among more than 200,000 users. Whatever your demands may be, Isbell seeds will meet your needs.

—the best seeds you can buy. That's a proved fact because they are

NORTHERN MICHIGAN GROWN

Isbell's Seeds
As They Grow, Their Name Grows

TRADE MARK

Michigan is acknowledged the best seed growing state in the Union and Isbell's grow their own seeds. You buy direct and are thus assured of quality, hardy, early maturing, pure, rugged seeds of the best that 41 years of experimenting, developing and study can produce. This makes sure crops,—big sure yields and satisfaction.

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Just send the coupon or post card. Tell us which samples you prefer. We will send them Free, without obligation, with the new 1920 Isbell catalog. The more you know about seeds, the better you will appreciate Isbell quality and this wonderful buying guide. Write today.

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S. M. ISBELL & CO., 208 Mechanic St., Jackson, Mich.

Gentlemen:—Please send me these samples and 1920 Catalog.

—Clover —Barley —Oats —Alfalfa —Corn —Timothy

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FISH-FISH

Fresh Frozen Herring 5c lb. Pickerel 8½c. Pike 15c. Dressed Bluefish 6½c. Salmon 15c. Halibut 17c. Steak Cod 7c. Mullet 6½c. Sea Pike 6c. 20 lb. basket Smoked Bluefish at \$1.80. Write for our complete price list Frozen, Salted, Spiced, Smoked and Canned Lake and Ocean Fish.

JOHNSON FISH CO.

Dept. M,

Green Bay, Wis.

FREE INFORMATION



Largest returns on your small catch of furs. We are tanners and manufacturers of cattle and horse hides for coats, robes, rugs and mittens. Ladies Furs from coon, opossum, fox, muskrat, mink, coyote, badgers, skunk and rabbits. Taxidermist work on deer heads and rugs. Tell us the kind of fur you have and we will answer fully.

W. W. WEAVER, Custom Tanner, Reading, Mich.

TREES Plant for Profit

All Kinds of Trees and Plants. Our Trees Grow. Improve value, appearance, pleasure and profit of your farm, garden or orchard. Reduce high cost of living. Plant good stock. Fruit needed everywhere. Free Catalogue. MITCHELL NURSERY, Beverly, Ohio.

Sweet Clover Seed and honey direct from producer. Circular and prices free. JOHN A. SHEEHAN, Route 4, FAIRMOUTH, KY.

Good Reading

OFFER No. 114.

The Michigan Farmer, one year.. \$1.00

Hoard's Dairyman, one year..... 1.00

Swine Breeders' Journal, one year .50

Total value 2.50

All for \$1.90.

MICHIGAN JERSEYS

Michigan is an ideal place for the raising of Jersey Cattle and there are no better cattle for dairying than Jerseys.

Jerseys mature early, live long, produce persistently, give the greatest amount of butter-fat obtainable from every pound of feed. They are hardy and vigorous, always on the job and the greatest mortgage-lifters that ever entered a barn.

Michigan should have more Jerseys and the Jersey breeders of the state are anxious to cooperate with anyone who is interested in successful dairy farming.

MICHIGAN JERSEY CATTLE CLUB

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

For Sale Shorthorns of Quality Scotch and Scotch-Topped, descended from Archers Hope, Ayondae, Maxwellton Sultan and White Hall Sultan. Model Type, by the Oscola Co. Shorthorn Breeders Ass. John Schmidt, Sec. Reed City, Mich.

BIDWELL SHORTHORNS
For Beef and Milk

Registered bulls, cows and heifers. Good Scotch and Scotch-Topped for sale. In prime condition. Modern sanitary equipment. Herd under state and federal supervision. Farm 10 minutes from N. Y. C. depot. 4 hour from Toledo, Ohio. Automobile meets all trains. Write

BIDWELL STOCK FARM
Box B, Tecumseh, Mich.

Richland Stock Farms

Home of the Michigan Champions.
Shorthorn Sires in Service:

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

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

Scotch Shorthorns Imp. Royal Bruce heads a select herd of females consisting of the Rosewood, Lovely, Orangeblow and Roan Lady and several other good females. Two bulls ready for service for sale also a few females. CARR BROS. & CO., Bad Axe, Mich., Address Norman Carr, Secretary.

Branch County Farm breeders of American Polled Shorthorns. Herd headed by Grand Champion bull, Sultan, Standard, son of Sultan. Cured. For sale choice young bulls & heifers priced to sell. Address G. E. Burdick, Mgr., Coldwater, Mich.

MEADOW HILLS Shorthorns Herd headed by Silver King, full brother of Lavender Sultan. Purebred. For sale choice young bulls & heifers of all ages, a few young bulls. Geo. D. Foster, Dexter, Mich.

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

Milking Shorthorns of best Bates breeding. Nothing for sale at present. E. H. KURTZ, Mason, Mich.

Central Mich. Shorthorn Breeders Assn. offer 10 bulls, 3 females, write for new list. OSCAR SKINNER, Sec. Gowen, Mich.

The Kent Co. Shorthorn Assn. have males and females of quality for sale. L. H. LEONARD, Sec., Caledonia, Mich.

Wanted Several Scotch and Scotch topped heifers or young cows that are in calf to good Scotch bulls. Lawrence P. Otto, Charlotte, Mich.

HOGS

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

Berkshires Bred and open gilts, serviceable boars, can furnish pairs or trios. RUSSELL BROS., R. 1, Merrill, Mich.

Walnut Hill Durocs June farrowed boars ready for service from Ira Jackson and Brookwater stock, also bred gilts and sows of all ages for Mar. and Apr. farrow, priced right and registered in buyer's name. Write JOHN C. DEAN, R. 1, Mason, Mich.

DUROC JERSEYS

CAREY U. EDMUNDS, Hastings, Mich.

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



BROOKWATER PROTECTIONESS

Brookwater Duroc Jersey Bred Sows

Attractive Prices During February

Our show herd has met successfully the strongest competition east and west. The grand champion boar and the grand champion sow at the Michigan State Fair for five consecutive years was shown by us. We breed a type that proves profitable in the feed lot and wins favor at the big shows.

The bred sows we are offering are sired by, out of, and bred to high class individuals of these prize winning strains. Our prices are more reasonable than those of any other herd of equal prominence. By buying in Michigan you can see what you buy and save express. We invite you to come to the farm and make your own selections. If this is impossible, write and tell us what you want. We will not have enough to supply the demand. Act promptly and save disappointment.

BROOKWATER FARM, R. 7, ANN ARBOR, MICH.

Herbert W. Mumford, Owner,

J. B. Andrews, Manager

P. S. Some ready for service Jersey bulls by a double grand son of Royal Majesty out of Majesty's Iris, The Register of Merit Kind. You cannot afford to be without one.

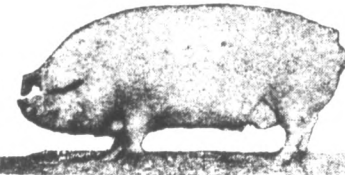
What does it cost to fill the milk-pail?

JERSEYS

IT'S not how much milk you get, but how much it costs you to get the milk that counts. Jerseys feed for their well-rounded udder—not beef and bone. Jersey Milk is of the richest quality with a butter fat average of 5.37%. Jersey milk, Jersey butter and Jersey cheese sell for more on the markets. Jerseys are adaptable to any climate. They are an asset to their owners, for they mature earlier for milking and are still producing long after other cows have gone dry. Let us tell you more about Jerseys. Write for our free literature.

THE AMERICAN JERSEY CATTLE CLUB
322-M W. 23rd St., New York, N. Y.

THE FAMOUS O. I. C. SWINE



We have the undefeated Herd of the World. Winning premier breeder and exhibitor at every fair shown in 1919-1918-1917, including the following state fairs—Ohio, Michigan, Indiana, Illinois, Missouri, Kentucky, Tennessee, Oklahoma, New York, Alabama, Tri-state fair Memphis, and the National O. I. C. twice. Stock of all ages for sale. Registered free in the O. I. C. association. Order now. We will ship any of our stock on approval allow you to keep three days before you have to pay for it. You will be your own judge on your own farm.

CRANDELL'S PRIZE HOGS, Cass City, Mich.

O. I. C. SOWS FOR SALE

One of the Best Herds in Michigan
Spring gilts and fall yearlings bred for March, April and May litters. I ship C. O. D., pay express and register in buyer's name. If you want a BIG TYPE sow, guaranteed right in every way, write me.
J. CARL JEWETT, R. 5, Mason, Michigan.

Duroc Jerseys Our herd won 15 firsts, 9 seconds, 3 thirds, 3 fourths, 3 fifths at leading Michigan fairs including State Fairs. We have some choice boars ready for service, reasonable prices. Some bred sows later on. RUSH BROS., OAKWOOD FARM, Romeo, Mich.

Michigan Farm offers some exceptional values in bred gilts. Also in tried sows. These are guaranteed to give satisfaction and they will ship on approval to responsible parties. They breed and sell good Durocs. O. F. Porter Mgr. Pavilion, Mich.

DUROC JERSEYS

Gilts bred for March and April farrow. A Guaranteed back of every Sow sold.
F. J. Drott, Monroe, Mich. R. 1.

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

DUROC GILTS. Bred and open. Real ones at fair prices.
BOARDMAN FARMS, Jackson, Michigan.

DUROCS for Sale Bred sows and fall pigs of both sex and a car of grade draft colts.
CHAS BRAY, Okemos, Michigan.

Chester Whites. spring and fall stock for sale either sex. At Saginaw fair we won highest honors against strong competition.
F. W. ALEXANDER, Vassar, Mich.

Raise Chester Whites

Like This

the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at 4 months old. Write for my plan—More Money from Hogs.
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

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

O. I. C's. Last spring boars all sold. Have an extra good stock, registered free, 1/2 mile west of Depot.
OTTO B. SCHULZE, Nashville, Mich.

O. I. C's Am offering a few September pigs that combine size and quality.
C. J. THOMPSON, Rockford, Mich.

O. I. C's. Big type gilts, fall yrs., tried sows, Mar. Apr. farrow. Summer and fall pigs. I pay exp., reg. free, satisfaction guaranteed. G. F. Andrews, Danville, Mich.

O. I. C's. Gilts bred for March and April farrow. I pay express and register in buyers name.
H. W. MANN, Danville, Mich.

O. I. C's Service boars, fall pigs no akin also Buff R. cks. at \$3.00 each.
CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C's Have some Choice Spring Gilts, bred for spring farrow.
THAYER BROS., R. 1, Mason, Mich.

O. I. C's Gilts bred for March and April farrow, guaranteed. Herd immune by D. L. F. C. Burgess, R. 3, Mason, Mich.

O. I. C's choice gilts bred for March, April and May farrow and fall boars. Am booking orders for spring pigs. A. J. Barker & Son, Belmont, Mich.

L. T. P. C's I spring boar, (by Long Jones) the best pig you ever saw, price \$100.00. send check with first letter or the other fellow will beat you, if you don't like description will return check. A few good spring boars left at farmer's price. A Grand Son of Disher's Giant, no better pair of young boars in the state, and Wiley's King Boar.
H. O. SWARTZ, Schoolcraft, Mich.

FOR Sale—Large Type Poland China Gilts, bred for April farrow. Inspection invited. Free delivery from Manchester. A. A. Feldkamp, R. 2, Manchester, Mich.

Poland Chinas sows bred for March and Apr. farrow. Large type with best of breeding.
R. W. MILLS, Saline, Mich.

MILLER Meadows L. T. P. C. boars all sold. Gilts sired by General Jones and bred to our young boar Alaska, address CLYDE WEAVER, Ceresco, Mich.

Boars also sows and pigs. Real Big Type Poland Chinas. Bred big for 25 years. Sired by Mich. Buster by Giant Buster, litter 14 out of 15 sows. Miss Queen 2nd, some breeding, also by Butler's Big Joe. Hust's Big Joe, out of a Wonder Queen, nuf said. Write us your wants, we will treat you right, our price, as are low.
J. C. BUTLER, Portland, Mich.

LARGE Type P. C's the largest in Mich. Spring boars bred for the farmers. Come and see the real large type with quality. Free delivery from Parma furnished Fair, Sept. 8th to 12th, expenses paid if not as advertised. W. E. Livingston, Parma, Mich.

MR. P. O. Breeder if you want to get in the King row, Buy a Gilt bred to Big Bob Mastodon, more Grand Champion Blood in his veins than any other Boar in Michigan. C. E. Garnant, Eaton Rapids, Mich.

Big Type P. C. Boars, best breeding, A. A. WOOD & SON, Saline, Mich.

TWO HERD BOARS

for sale. Ask for description of a real boar, five wires. Also have a few fall pigs, pair not akin C. A. BOONE, Blanchard, Mich.

BIG Type Poland Chinas Sired by Smooth Mastodon litter mate to the Ill. Grand Champion. The big boned, deep, long bodied kind at farmer's prices. Wash-be-me-me Farms, White Pigeon, Michigan

Big Type P. C. sows bred to La Big Bob & THIRTY La Giant, fall pigs, none better, call or write. E. R. LEONARD, St. Louis, Mich.

Bargains on big type Poland Chinas, both sex, all ages. Shorthorn calves, either sex, and B. F. Rock cockerels. Robert Nece, Pierson, Mich.

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

HAMPSHIRE

Steuben's Hampshire Farm

A few No. 1 bred Gilts left, a few choice fall boar pigs, can furnish pairs not akin. Booking orders for spring pigs, large type, no better blood lines. Satisfaction guaranteed.

STEUBEN'S HAMPSHIRE FARM
ANGOLA, IND.

Pine Grove Hampshires "Quality First" Michigan Pine Roy, Grand Champion boar of Michigan. Bred and owned by us. Many other prize winners at Michigan State Fair 1919. Big sows for sale all ages, both sex. "Lookout Joe", a \$1000 boar heads our herd. GEO. COUPAR & SONS, R. 1, Mariette, Mich.

Hampshires Bred gilts now ready to ship, a few 150 lbs. boars left and fall pigs from new blood lines. JOHN W. SNYDER, R. 4, St. Johns, Mich.

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

Big Type P. C. Gilts bred to Big Orange Model and 4 C. H's Defender. None better in State. Priced to sell. W. J. Hagelshaus, Augusta, Mich.

BIG Type Poland Chinas Up-to-date in breeding, B with size and quality. We like good ones and believe you do also. Have three choice gilts for sale, bred for April 7, 9, 10, respectively. Their sires at 18 months weighed 640 lbs., not fitted, and stood 40 in. tall, 73 in. long and on a 10 in. bone. They are bred to a great son of Mountain Giant. Write or come and see. You're always welcome. WESLEY HILE, R. 5 Ionia, Michigan.

ROYAL BRED GILTS

Dams sired by Michigan Cherry Col. Bred to Jack's Cherry King, No. 18238 son of the \$10,000 champion, Jack's Orion King 2nd, all high class stock, for prices. The Jennings Farms, R. 1, Bailey, Mich.

B. T. P. C. spring Boars all sold. One Oct 21st perfect as any pig in Michigan. Price \$125. Gilts ready Jan. 1. Bred to a good son of \$10,100 Harrison's Big Rob. Every pig recorded free.
JOHN D. WILEY, Schoolcraft, Mich.

L. T. P. C. Spring gilts ready to ship also fall B. T. P. C. pigs both sexes. P. R. ALEXANDER, R. F. D. 6, Albion, Mich., Bell phone 643F11.

B. T. P. C. Gilts sired by Big Giant and C's Orange. Bred to C's range and Col. Jack Jr. No better breeding to be had. L. L. Chamberlain, Marcellus, Mich.

Tamworths The great bacon breed. Some good registered gilts bred for March farrow, also fall pigs. W. H. WARNER, Concord, Mich.

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

SHEEP

Shropshires Registered ram lambs sired by Imp. Buttar. Also choice bred ewes. W. B. McQUILLAN, R. 7, Howell, Mich.

KIDS of Mich. You are the future farmers of the state. I am one of the best sheep breeders in the state. Let's get together that you may start your own flock of registered Shropshires now. A lot of kids have already done so, but I want more. I will buy your ram lambs and cooperate with you in every way. Write me for my proposition and prices. KOPEKON FARMS, S. L. Wing, Prop. Box A, Coldwater, Mich.

BUY A SHEEP

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

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

Registered Shropshire bred ewes 1 to 3 years old. Large, healthy, well floored representatives of this flock gave satisfaction in 15 states, last season rams all sold. C. Lemen, Dexter, Mich.

Cotswolds ewes bred to one of Canada's best rams, start right, buy good ones while they can be had. A. M. BORTEL, Britton, Mich.

HORSES

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

For Sale A black registered three year old Percheron Stallion weight 1700 lbs. broke to work. Julian A. Palmer, Camden, Michigan.

\$300.00 takes my 5 yr. old Registered Percheron Stallion if sold soon. He is a good one. R. H. COMSTOCK, Petoskey, Michigan.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Flat Feet.—My ten-year-old 1,500-lb. horse has very flat feet and his hoofs grow slowly. G. H., Sand Lake, Mich.—Apply wool-fat to hoofs daily, apply bar shoe with wide web. Keep hoofs moist.

Dropsy.—Following the summer and fall work my horse gets a bunch between his fore legs, but it is painless. S. G., Lenox, Mich.—Give him a teaspoonful of acetate of potash in feed twice a day and paint bunch with tincture of iodine every day or two.

Cows Fail to Come in Heat.—Have three cows, one came fresh 11 months ago, the other two six months ago. Since then none of them have been in heat. L. H. P., Batavia, Mich.—Give each cow 1 dr. of ground nux vomica and 1 dr. of ground capsicum at a dose in ground grain twice a day.

Weak Ligaments.—When my two and a half-year-old mare was running in lot, she slipped, since then she has had stifle trouble. F. E. W., Fenton, Mich.—Apply equal parts turpentine, aqua ammonia and raw linseed oil to stifle daily.

Fungus Growth on Hock.—Last summer my horse became tangled in a smooth wire fence, cutting hind leg on fore part of hock. This wound never healed perfectly, but a bunch of proud-flesh formed on wound, which is now the size of a man's fist. The neck of bunch is not very wide. What treatment do you advise? J. L. R., Reed City, Mich.—In my practice I never hesitate to cut off such a fungus bunch, then dissolve 1 oz. of permanganate of potash in half a pint of water and with a brush cautiously paint sore two or three times a day. A dusting powder composed of powdered alum, oxide of zinc and boric acid is another very good remedy; it should be applied twice daily.

Shy Breeders.—Last summer I bred three grade heifers and had they gotten with calf they would have come fresh when two years old. For nine weeks after they were served I kept watch of them; none of them seemingly came in heat. Of course, I thought they were safely in calf. Two of these heifers were twins. Lately they seem to be in heat. Is it possible for them to be in calf? They were bred four months ago. J. B. J., Rochester, Mich.—Perhaps the heifers were with calf, since then aborted, and you failed to discover anything wrong with them. It occurs without causing much constitutional disturbance. All things considered, you had better breed them again, they are young and might perhaps carry next calf almost, if not full period. Twins are not considered as sure breeders as single heifers, and when one of the twins is male the heifer seldom breeds.

Warts on Teats.—I have a registered Jersey cow eight years old whose teats are so warty that I am unable to milk her. What is the remedy? G. P. M., Hemlock, Mich.—These are very troublesome, yet they may be greatly benefited or entirely removed by smearing them thickly with each milking with pure olive oil. If this fails cut off those that have necks and touch others with lunar caustic. They may now be oiled and the caustic repeated as demanded, to prevent their renewed growth. Scabby teats may be smeared with vaseline containing enough carbolic acid to give it an odor.

Worms.—Will you please tell me what remedy is best to use for worms in horses? E. B. W., Mendon, Mich.—Without knowing the variety of worm that is troubling your horse it is not possible to say which remedy should be prescribed. Carbon bisulphide is an excellent remedy, but it should be administered by a competent Vet. Turpentine is a good home remedy and by giving 2 ozs. in one quart of raw linseed oil (not boiled oil) you will obtain fairly good results, but santonin is perhaps the best known worm destroyer. One or two drams of santonin added to the regular physic ball usually brings away quite a few worms, but don't give this dose to mare with foal.

Open Joint.—About the first of October my six-year-old pacing horse cut hock open on barbed wire. Since then he has been lame and joint is not in good condition. One part of joint is very tender. Local Vets. fail to effect a cure. W. B. F., Lapeer, Mich.—Doubtless he will remain unsound, but by painting hock with tincture of iodine three times a week it will help him.

THIS BIG BOX CORONA WOOL FAT FREE



Cracked Hoofs Before and After Using Corona Wool Fat



Corona Heals Barb Wire Cuts Smoothly



Heals Galled and Sore Shoulders



For Sore Teats of Cows



Before and after a bad case of scratches

Just fill out and mail me coupon below and I will send you this FREE SAMPLE BOX OF CORONA WOOL FAT postpaid. Try it on any case of Galled or Sore Shoulders, Sore Neck, Collar Boils, barb wire or other Cuts, Wounds, Scratches, Split Hoofs, Sore and Contracted Feet, Sore Teats on Cows—and see for yourself the splendid results this new healing preparation gives. This is an absolutely free offer—I don't ask you to send a cent of money; I even pay the postage—I want you to prove its merits at my expense.



C. C. PHILLIPS The Corona Man

CORONA WOOL FAT

is not like any other salve or ointment you have ever used. It is made from the fatty secretions extracted from the skin and wool of sheep. Its base is one of the ingredients which nature has provided in the animal's body to heal inflamed tissues. It penetrates, but does not blister or cause the hair to fall out—it soothes, relieves—and reduces inflammation.

I Want To Show You At My Expense

What CORONA will do for quarter cracks, sand cracks, split hoofs, corns, hard and contracted feet, mud fever, scratches, grease heel, sore shoulders, cuts, wounds, boils, caked udders, sore teats, sore neck—in fact, any and all kinds of flesh wounds on any animal.

I know that once you try it you will never be without it again. You will say as thousands of other users do that CORONA is, without a doubt, the best remedy of its kind ever placed on the market.

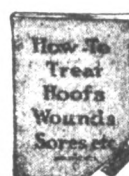
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Just fill out the coupon and mail it to me today. I will send you the free sample box together with my valuable new booklet "HOW TO TREAT WOUNDS, ETC." CORONA WOOL FAT is sold by leading blacksmiths, druggists, harness and hardware dealers. We also manufacture Corona Distemper Cure for Horses and Cows—Corona Balm for household use.

C. C. PHILLIPS, President

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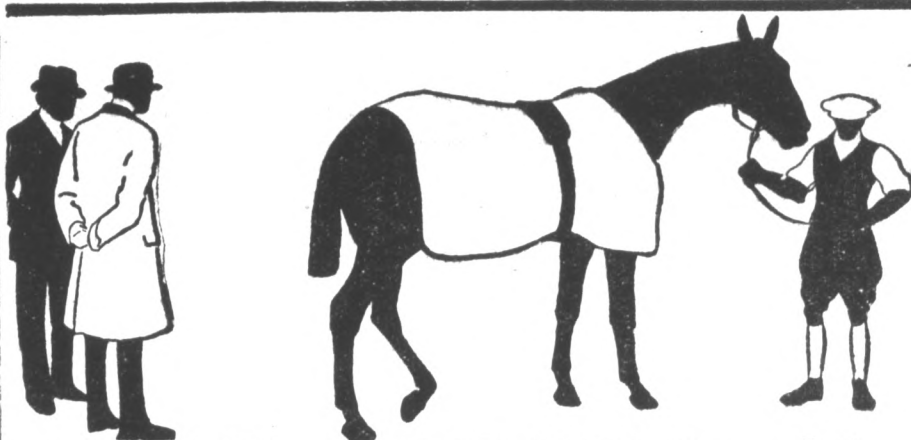
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NOTE:—If desired we will mail you, in addition to the free sample, a regular 8-ounce or 20-ounce package of Corona and you can pay the postmaster when received. Mark X opposite size package wanted.

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No matter how old the case, how lame the horse, or what other treatment failed, try

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HORSES

BELGIAN DRAFT HORSES

We have the best and largest herd in the world to select from, with Grand Champions heading our herd.

We won more premiums at the International Belgian Horse Show, Waterloo, Iowa, 1919 than any other breeder or exhibitor, competing against 25 exhibitors from Iowa, 3 from Indiana, 1 from Illinois and 1 from Canada.

We have sold 4 winners at the International Belgian Horse Show to an Iowa breeder. Those horses winning again at the International Live Stock Show at Chicago the same year.

We are listing mares of Iowa breeders and breeders from other states, to be bred to our Rubia 8004, whose offspring won at both Internationals this year, taking some of the highest honors in stallion and mare classes.

We can sell you a carload of stallions and mares or just one of either sex.

We invite your inspection and will meet you at any of the railroad stations if you will write us in time.

Come to Burt, Michigan, via Grand Trunk Railway or to St. Charles, Michigan, via the Michigan Central Railroad.

We are in the market for Registered Belgian Draft Colts

Owosso Sugar Company
Prairie Farm

ALICIA, Saginaw County, MICHIGAN

Percherons for sale 21 head Sevier 1900 at head of herd. He is 42 months old, carries a 14 inch bone, weighs 2500 in farm condition. Young stock for sale. CHAS. OSGOOD & SONS, MENDON, MICHIGAN.

Black reg. percheron mare 4 yrs. old wt. 1900 Sired by an international champion with foal. JOHN LONGNECKER, Montague, Mich.

For Sale Black Percheron Stallion, 8 yrs. old, 1900 lbs. good foal getter and good worker. H. WINKEL, Coopers, Mich.

For Sale or Exchange For Cattle

One black imported Percheron Stallion nine years old and sound. One black imported Belgian, sound and a good breeder. One black Percheron six year old. One gray six year old. One four year old Shire horse and one three old Shire horse. All harness broke and right. Price \$250 to \$600.

F. G. Knapp,

Hudson, Mich.

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Wednesday afternoon, February 18.

WHEAT.

The wheat market at Detroit is steady and there is fair demand from millers. The market has shown firmness for several days owing to a small change in the immediate future. Present quotations are as follows:

No. 1 red	2.50
No. 1 mixed	2.48
No. 1 white	2.48
No. 2 red	2.45
No. 3 red	2.42

CORN.

Corn had a short spell of weakness early today followed by a quick advance. The decision of the railroad men not to strike was good news for the trade as it looked like a suspension of business if transportation got any worse. Bears think there will now be an increase in receipts that will bring prices down. There is a general belief that there is plenty of corn in the country. It was expected to come out in January, but the farmers held on and now the movement is expected to materialize. It is said that growers are now willing to market their surplus and dealers feel that if the expected volume of corn comes forward it must be within a short time. The Detroit market is not well supplied with corn and there is an active demand. Present prices are as follows:

No. 3	1.53
No. 3 yellow	1.56
No. 4 yellow	1.53
No. 5 yellow	1.47
No. 6 yellow	1.45

OATS.

Oats are scarce on the Detroit market and there is a general feeling that the cereal is good property owing to small supplies and an active demand for home use. Foreigners have been good buyers of oats and rye, notwithstanding the low price of foreign money. Present prices are:

No. 2 white	.95
No. 3 white	.94
No. 4 white	.93

RYE.

This cereal is in good demand and firm at \$1.64 per bushel for Cash No. 2 rye.

BARLEY.

There is not much activity in the demand for barley and prices are holding at \$2.90@3 on the Detroit market.

BEANS.

The bean market is dull throughout, with the situation as a whole decidedly easy in tone under continued absence of material consumptive demand, lack of export outlet, and the unsettled condition of foreign exchange. Extremely difficult trucking conditions have also a serious effect on the situation. In the absence of important business, quotations are merely nominal; the outlook is uncertain, and receivers as a rule show no disposition to take on lines of good beyond quantities sufficient to take care of immediate needs. At New York choice hand-picked pea beans are quoted at \$7.75@8; red kidneys \$14.75. At Detroit choice hand-picked pea beans are quoted at \$6.75 per cwt.

SEEDS.

There have been only slight changes in the seed situation. Present quotations on the Detroit market are as follows: Prime red clover \$35.25; alsike \$35; timothy \$6.80.

FEEDS.

The condition in the feed market remain about the same as last week. Present prices at Detroit are as follows: Bran \$51; standard middlings \$54; fine middlings \$59; coarse corn meal \$64; cracked corn \$65; corn and oat chop \$55@56 per ton in 100-pound sacks.

HAY.

The hay market at Detroit remains firm at the following values: No. 1 timothy \$33.50@34; standard and light mixed \$32.50@33; No. 2 timothy at \$31.50@32; No. 2 timothy \$27@29; No. 1 mixed \$31.50@32; No. 1 clover \$31.50@32; rye straw \$13.50@14; wheat and oat straw \$13.50@14 per ton.

FLOUR.

Present quotations at Detroit are, per barrel in jobbing lots: Fancy spring wheat flour \$15@15.50; fancy winter wheat patent \$13.50@14; second patent \$13.50@14; straight \$11@11.75.

POTATOES.

At New York buyers have been quite active and have bought considerable stock to be delivered as soon as conditions improve. Sellers have been asking slightly higher prices and quotations have advanced, but the market lacks strength and prices are irregular with values not well defined. Maine stock is quoted at \$4@4.75 per 100-pound sack; New York, round whites \$4@4.60 per 100-pound sack. At Detroit, the Michigan round white stock, in 150-pound sacks is quoted at \$6.25@6.50 per sack.

HIDES.

Present quotations for hides at Detroit are as follows: No. 1 cured calf 70c; No. 1 green calf 65c; No. 1 cured kip 40c; No. 1 green kip 37c; No. 1 cured hides 30c; No. 1 green hides 27c; No. 1 green bulls 18c; No. 1 cured bulls 22c; No. 1 horsehides \$10; No. 2 horsehides \$9; sheep pelts 50c@3.50.

EGGS.

The demand for eggs is active and consumers are taking all offerings of fresh eggs as fast as they arrive. Michigan eggs are not arriving in sufficient lots to have any effect. The bulk of fresh eggs coming from southern and western points. Present prices at Detroit are 53@54c per dozen for fresh eggs.

CHEESE.

Receipts of cheese have increased and prices are somewhat lower than those of a week ago. Present quotations are as follows: Michigan flats, new make 30½@31c; New York flats June make 33c; Michigan single daisies 32c; Wisconsin twins 30c; domestic block Swiss 39@40c per pound.

BUTTER.

The demand and supply show little change and the market is quiet. Present prices at Detroit are as follows: Fresh creamery 57½@58½c; fresh

creamery, in one-pound prints 58@59c per pound.

POULTRY.

Poultry is not arriving in sufficient volume to meet the requirements of consumers and the tone of the market is firm, with all offerings promptly taken. Buyers have been active all the week and receipts have been coming in slowly. Present quotations at Detroit are: Spring chickens large 35@36c; Leghorns 32@33c; hens 36@38c; small hens 34@35c; roosters 23@24c; geese 30@35c; ducks 40@45c; turkeys 44@45c per pound.

WOOL.

All factors have worked to create a dull market for wool at Boston the past week. The excessive offerings of medium and crossbreds by auction have had the logical depressing influence. In addition the heavy snow storm and its aftermath of demoralization to traffic have intensified the situation. The untoward freight situation is another element to add difficulty to shipment of wool and accordingly to militate against operations. The turnover at the auction sales has been a small percentage of the offerings, while business in the open market has been limited. The position of manufacturers in regard to medium wools is still obscure to the trade, which also holds back business.

Receipts and shipments of wool indicate how business has paid tribute to the elements since the heavy storm of a week ago Thursday. The movement of wool to and from Boston has been almost nil, the auto-trucking crippled as well as the railroads. The Chamber of Commerce, on at least two days, has failed to report any receipts of wool at this port. A little wool transhipped by water from New York constitutes the total of arrivals of foreign staple for the week. The effect of the snow storm is only temporary, but the railroad freight situation is continuing serious to the trade.

Growers seem determined to hold for 75 cents in the territory-wool sections. The unfavorable range conditions have caused growers to begin "feeding" their flocks about a month earlier than usual this winter, a serious matter, considering the high cost

of feed, while other expenses of the sheepmen are correspondingly high. The growers are insistent that they cannot afford to sell their clips below 75 cents, and as eastern dealers are backward about operating at this level the outlook is for much conservatism. It is stated that the demands of growers are high enough to balk dealers, not only on buying unshorn clips, but the shorn wool.

ONIONS.

At Detroit the supplies are light. Demand and movement slow and market dull. Quality and condition of shipments generally good. Sales to jobbers of yellow varieties in 100-pound sacks are reported at \$6 for large stock and \$5.25@5.50 for small.

ADRIAN MARKET REPORT.

The following prices are quoted by the Community Market February 14:

Apples, green, per cwt \$3.50; do, red per cwt \$4; beans, choice hand-picked, per cwt \$7; butterfat 63c; butter (packing stock only) 30c; cabbage, Holland, per ton \$100; carrots, table, per bushel \$1; carrots (large and coarse), per bushel 35; cream, butterfat, per lb 63c; eggs, henry, white, 58c; eggs, gathered, white 50c; eggs, fresh brown 50c; honey, comb, per pound 32c; honey, extracted, pound 23c; hogs, 100@160 lbs 17c; do 160@200 lbs 16c; do 250 lbs up 14c; lambs per pound 15@20c; maple syrup, per gallon \$2.25; maple sugar, per pound 30c; mutton 10@12c; onions, dry, per cwt \$4.80; rabbits, under 5 lbs, 8c; rabbits, tame, over 5 lbs 10c; potatoes, No. 1, per cwt \$4; potatoes, No. 2, per cwt \$2; turnips, table size, per bushel \$1.75; do large, per bushel 35c; veal, dressed, 100@140 lbs 24c; do dressed, 80@100 lbs 18c.

Live Poultry.—Cocks, 12c; capons 7 lbs. and over, per pound 38c; ducks, white, 30c; heavy geese 26c; guineas, young, per dozen \$5; hens, ordinary 27c; pigeons, per dozen \$1.25; turkeys over 9 lbs 36c; turkeys, poor 22c.

Green Hides.—Heavy steers, 60 lbs and up, per pound 24c; heavy cows, 60 lbs and up 23c; bulls, under 60 lbs 25c; bulls, 60 lbs and over 16c; kips 15 to 25 lbs, 35c; kips, long haired 25c; calf skins, 8 to 15 lbs 50c; deacons 6 to 8 lbs each \$2.50; horse hides large \$10; do small \$8; sheep pelts, according to fleece \$1@2.

Wool.—Delaines, per pound 65c; half-bloods, 60c; three-eighths 55c; quarter-bloods 50c; common rough and braid 40c.

WANT BETTER TRANSPORTATION SERVICE.

James R. Howard, president of the American Farm Bureau Federation, and J. G. Brown, president of the Indiana Farm Bureau Federation, visited Washington recently and took up the matter of car shortage with the officials of the United States Railroad Administration.

The tonnage for the last few months, they were told, has been the heaviest in the history of the roads. But in spite of that and various other influences the officials insisted that shipping conditions are improving. Severe winter weather in most parts of the country has militated against the operation of trains and also against prompt unloading at terminals.

OAKLAND FARM BUREAU ELECTS OFFICERS.

The annual meeting of the Oakland County Farm Bureau was held last Saturday. Officers elected were: Bert A. Holden, of Wixom, president; Geo. W. Gunn, Goodson, vice-president; Burton J. Coryell, of Birmingham; Burton Bunn, New Hudson; Claude Owen, of Ortonville, executive committeemen for two-year term; Fred Weaver, of Rochester, Daniel Matthews, of Walled Lake, and Lee Noble, of Oxford, executive committeemen for one-year term. The secretary-treasurer will be chosen this week by the executive committee. A constitution patterned after the Michigan State Farm Bureau was adopted. Plans for an elaborate cooperative marketing program to extend over the county and link up with the state organization were endorsed.

Live Stock Market Service

BUFFALO

On today's (Wednesday's) market, medium and heavy hogs sold at \$15.50@16, and other grades at \$16.25@16.50 per cwt; lambs went at \$22 and calves at \$23.50.

DETROIT

Cattle.

Market 25@50c higher. Best heavy steers \$11.00@11.75. Best handy wt bu steers 10.00@10.50. Mixed steers and heifers 9.00@9.50. Handy light butchers 8.50@8.75. Light butchers 7.75@8.25. Best cows 9.00. Butcher cows 7.50@8.50. Cutters 6.25@6.50. Canners 5.50@6.00. Best heavy bulls 9.00@9.75. Bologna bulls 8.00@8.50. Stock bulls 6.75@7.50. Milkers and springers \$6.50@12.50.

Veal Calves.

Market steady. Best \$21.00@22.00. Others 8.00@18.00.

Sheep and Lambs.

Sheep steady and lambs 50c lower. Best lambs \$20.00@20.50. Fair lambs 18.00@19.00. Light to common 15.00@16.00. Fair to good sheep 12.00@14.00. Market dull. Culls 6.00@8.50.

Hogs.

Mixed hogs \$14.25@14.75. Pigs 15.50@15.75.

CHICAGO.

Estimated receipts today are 14,000; holdover 16,056. Market 10@20c lower; heavy hogs slow. Bulk of sales at \$13.75@14.40; tops \$14.60; heavy 250 lbs up medium, good and choice \$13.60

@14; medium 200 to 250 lbs, medium, good and choice \$13.90@14.40; light 150 to 200 lbs, common, medium, good and choice \$14.25@14.60; light lights 130 to 150 lbs, medium, good and choice \$13.75@14.25; heavy packing sows 250 lbs up, smooth \$12.50@13.25; packing sows, 200 lbs up rough \$12@12.50; pigs 130 lbs down, medium, good and choice \$13@14.

Cattle.

Estimated receipts today are 4,000. Market is slow, mostly steady. Beef steers, medium and heavy weight 1100 lbs up, choice and prime \$14@16.25; do medium and good \$11.50@14; do common \$9@11.50; light weight 1100 lbs down, good and choice \$12@15.25; do common and medium \$8.50@12; butcher cattle, heifers, common, medium, good and choice \$6.50@13; cows, common, medium, good and choice at \$6.50@11.75; bulls, bologna and beef \$7@10.75; canners and cutters, cows and heifers \$5@6.50; do canner steers at \$6.25@7.75; veal calves, light and handyweight, medium, good and choice \$15.75@17.25; feeder steers, common, medium, good and choice \$7.50@11.50; stocker steers, common, medium, good and choice \$6.75@10.25; stocker cows and heifers, common, medium, good and choice \$6.75@9; do calves, common, medium, good and choice \$7.75@11.

Sheep and Lambs.

Estimated receipts today are 10,000. Market steady. Lambs 84 lbs down, medium, good, choice and prime \$18@21.25; do culls and common \$14.50@17.75; spring lambs, medium, good, choice and prime \$15@19; ewes, medium, good and choice \$11@13.75; ewes culls and common \$6@10.50; yearling wethers, medium, good and choice at \$16.50@18.

NATIONAL FARM BUREAU BECOMES A REALITY.

THE secretary of the American Farm Bureau Federation announces that nineteen states have so far ratified the constitution of the national organization and issues a call for a meeting of directors and members of the executive committee to be held at the La Salle Hotel, Chicago, March 3.

Under the provisions of the constitution as adopted at the organization meeting last November each state that has ratified the constitution of the national organization is entitled to one regular voting delegate and an additional delegate for each twenty thousand members or major portion thereof, affiliated with the State Federation of County Farm Bureaus.

The following states have ratified the constitution of the American Farm Bureau Federation: Indiana, New York, Vermont, New Jersey, Georgia, West Virginia, Illinois, Iowa, Kentucky, Missouri, California, Colorado, Ohio, Nebraska, Wyoming, Minnesota, Louisiana, Michigan and Massachusetts.

Thus the national organization becomes a going concern. At the time of the organization meeting last November only one or two states were in a position for ratification measures. Others either had membership campaigns under way or in contemplation to start at an early date; and as ratification included the election of directors the latter could not very well be done until the campaigns were concluded so the states might ascertain their proper quota of directors according to state-wide membership.

Needless to say, the approaching meeting in Chicago on March 3 will be an important one. Numerous matters of business will come under consideration, but the prime work of the meeting will be to work out a definite constructive program of activities for the ensuing year.

MEETING OF POTATO PRODUCERS.

(Continued from page 276).

those which passed inspection, nothing in the way of certification has been done. The question arises in this connection as to whether or not potato growers in this state would be interested in this line of work. We have reached the point where there is a considerable quantity of good seed in the state. The demand for seed this year has been very great. If we undertake work of this sort, would it be done through a state association, through the Michigan Potato Growers' Exchange, or through some other agency? This line of work, in addition to benefiting a good many growers, also helps to advertise the state if properly conducted. How can Michigan best advertise herself if she attempts to carry on certification work? In Wisconsin the state legislature appropriates four thousand dollars annually for the work of the State Potato Growers' Association. Should an effort be made along this line in this state? The time will soon come, and has already come with a good many men, when they will realize that the educational work is just as important as the selling of the crop. It is to be hoped that many growers throughout the state will send in their opinions along these lines so that the committee may be helped in coming to a proper conclusion of what is to the best interest of all concerned, and act accordingly. Address all communications to the office of C. W. Waid, Extension Specialist, East Lansing, Michigan.



Milk Record on One Cow Must Prove Larro Guarantee

Pick out one cow—any cow you choose—and let the gain in her milk-yield prove the Larro guarantee.

First carefully record the milk production of the cow for a week. Next begin to give her Larro (slowly at first, allowing her a week to gradually make the change) and after that make another record of her production—comparing the total with the figure established before you started feeding Larro!

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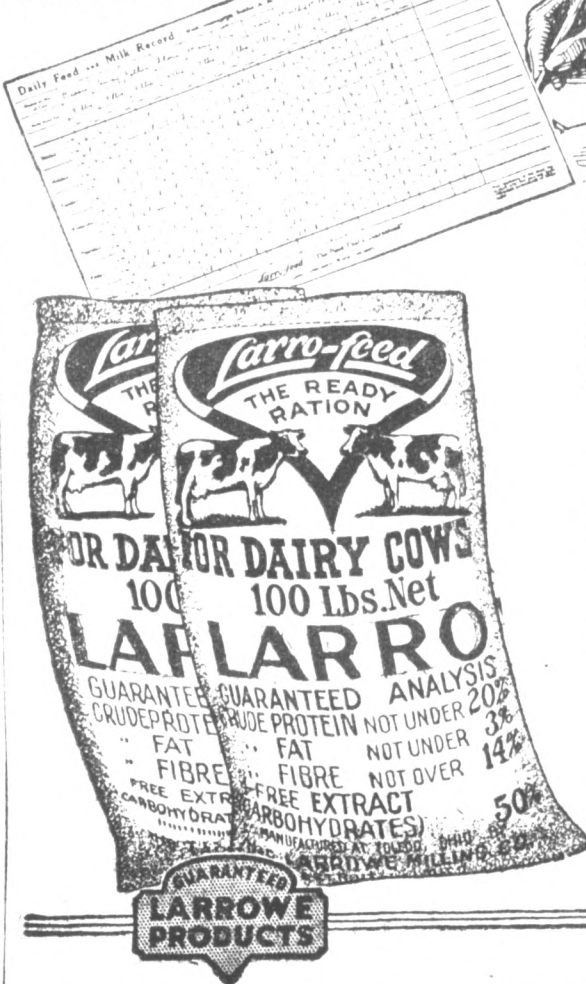


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You get more milk with Larro because it isn't a one-sided ration, but a nutritious balanced food.

The protein is there—in just the proportion to maintain the highest possible milk flow over a long period, and the carbohydrates are there too, and the other necessary elements—all the ingredients scientifically mixed by automatic machinery with just one purpose in view, to produce milk pail results.

The cows like Larro because it's palatable—tastes so good—and it's so digestible that an unusually high percentage is utilized in actual milk production.

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Remember that in starting to feed Larro you are certain of bigger profits—a sure increase in your milk production exactly according to the terms of the Larro guarantee.

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