

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

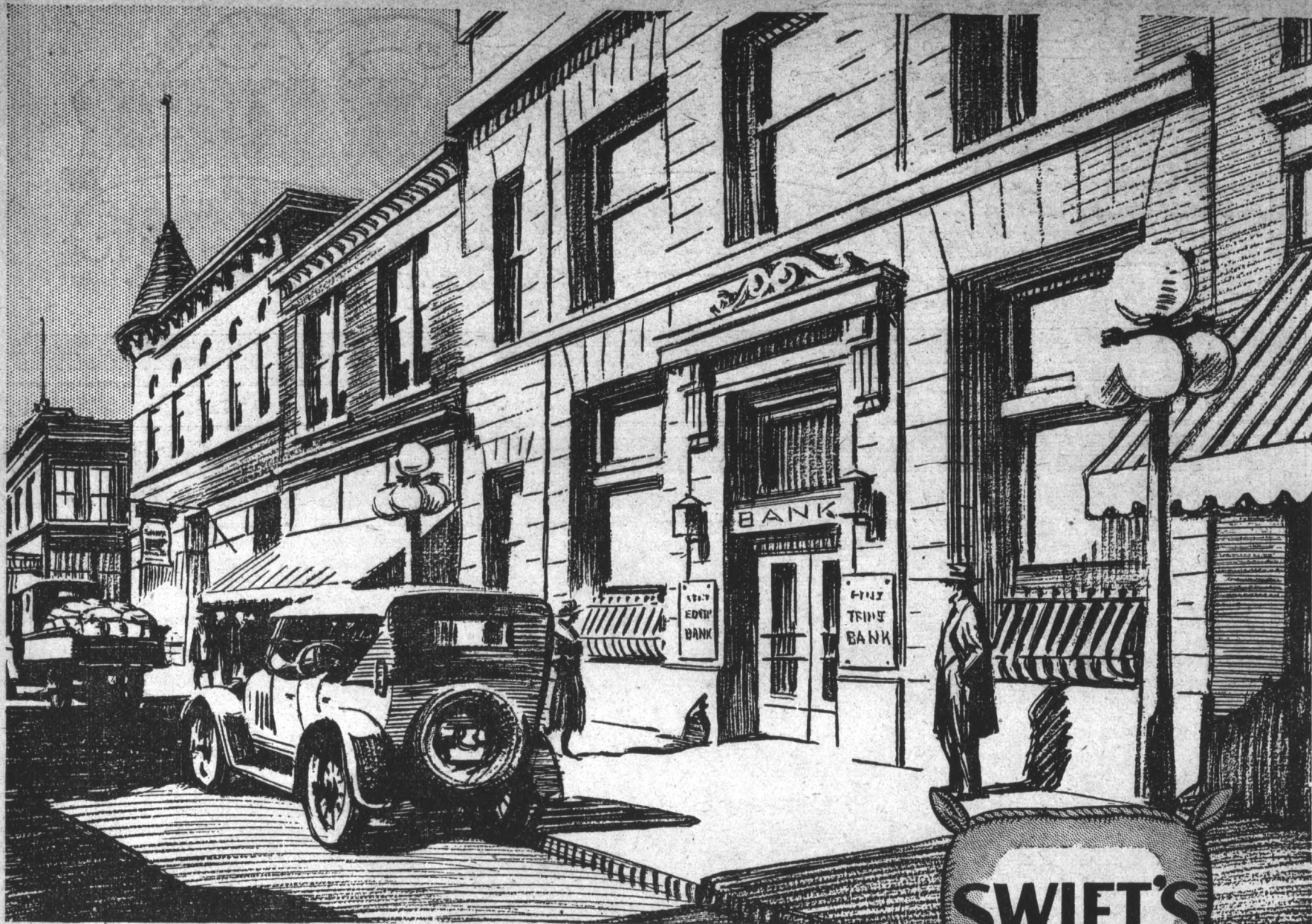
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Which bankers have the largest deposits from farmers—and why?

Observe any bank which carries a large amount of farmers' deposits—and invariably you will find a banker who is active in his co-operation with farmers to promote better farming methods.

You will find a banker who realizes that anything which benefits the farmer, which enables him to increase the yields per acre and to grow crops of better quality, increases the prosperity of his community and builds up bank deposits.

He is a banker who knows that good farming and the right fertilizers, rightly used, pay big dividends. He encourages the farmer to apply as much fertilizer per acre as can be used profitably.

The banker and the A. S. A.

He is in touch with the best agricultural thought of his state, as developed by the agricultural colleges, the experiment stations and the county agent, and he is working with them to help the farmers decide the right amounts of the right fertilizers for their particular crops and soils.

In turn, the Authorized Swift Agent—the man or firm or store selected by Swift & Company, after investigation, to supply the Swift's Red Steer Fertilizers required by your community—co-operates

with the farmer, the banker and the county agent to attain these same results.

He recommends Swift's Red Steer Fertilizers because he knows that "it pays to use them"—and because he knows that back of every bag he sells are the vast resources, the supplies of raw materials, the manufacturing skill, the chemical and agricultural knowledge, the reputation, of Swift & Company.

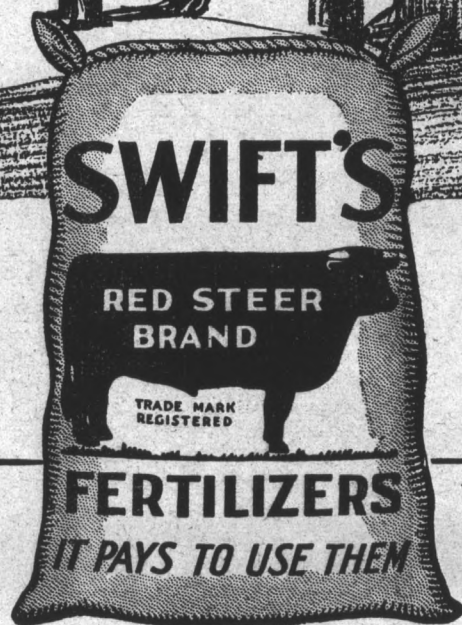
Fertilizers that are right

He knows that Swift's Red Steer Fertilizers are high in available plant food; that they contain the right elements for each crop; that they are accurately and uniformly mixed; and that when properly applied they will return the farmer's investment many times over.

Get acquainted with the Authorized Swift Agent in your town and work out with him and your banker your fertilizer problems and requirements for the present season.

Get acquainted with him now—it will pay you. If you cannot locate him readily, write our nearest sales division.

Swift & Company
FERTILIZER WORKS, DEPT. 41
Hammond, Ind.



A. S. A. says:

It's mighty important for every farmer to make plans to grow more per acre and per man—to make sure of a profit and to have money in the bank, or to be in good credit standing.

The wise thing for you to do is to plan to use Swift's Red Steer Fertilizers—to make sure of the largest yields and best quality crops.

As the Authorized Swift Agent I know the Swift recommendations. I also try to keep in touch with the work of the State Experiment Station. Come in—and we will decide the analysis for you to use to make the most profit.

asa
Authorized Swift Agent

"IT PAYS TO USE THEM"

DEVOTED
TO
MICHIGAN

VOLUME CLX.

MICHIGAN FARMER

AND LIVE STOCK JOURNAL
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A Practical Journal for the Rural Family

MICHIGAN SECTION THE CAPPER FARM PRESS

QUALITY
RELIABILITY
SERVICE

NUMBER

To Get Taxation On an Equal Basis

What Is Needed to Carry on Income Tax Amendment in Michigan

IN order to convert Michigan voters to the state income tax, a definite program must be laid down as to the nature of the proposed law and men must be elected to the state legislature pledged to carry out this program, in the opinion of Edward H. Ryder, professor of political science and history at M. A. C., and mayor of east Lansing.

Having been called upon to discuss the subject at meetings at various points in the state previous to the recent election, Professor Ryder was able to learn at first hand the objections of various classes of voters to the amendment that was proposed.

The chief weaknesses in the amendment seem to have been the lack of a provision abolishing the present general property tax and the general confusion regarding the type of exemptions that might be allowed. Most voters of the urban classes were inclined to be suspicious of any income tax. Some of the farmers, fearing that their taxes might be doubled if an income tax were made possible in addition to those already in existence, also proceeded to vote no.

Specific clauses might have been included in the amendment clearing up the doubtful points, but these would have been objectionable, declared Professor Ryder, since they would have cluttered up the constitution with matters properly belonging on the statute books. For this reason, along with the proposal of an amendment, candidates for the legislature must pledge themselves to work for certain ends in connection with it and for it, he held.

"Of course, it does not pay to put an income tax on all incomes," said the professor-mayor. "In the first place, it costs too much to collect. Besides, taxing of too small incomes may necessitate aid for individuals in order for them to live. It won't do to increase poverty merely to enrich the coffers of the state."

"The great question about the income tax is whether it should fall on the great mass of moderate incomes or on the higher incomes. The amendment specified a tax 'not to exceed four per cent.' People thought it was too low. What we need is a graduated tax similar to that of the federal government during the war. At that time sixty per cent was not found too high."

"What type of income is to be exempt presents a delicate problem, which must be solved by a process of evolution. In the end the tax will probably be levied in great part upon the income from intangible and non-landed property. In the past this type of property consisting of corporate excess, good will and the like, has escaped taxation because it could not be found."

"B. F. Burtless, secretary of the state tax commission, contends that

the commission has reached a high state of efficiency in taxing the corporations of the state. This is probably true insofar as it can be done under the present system. But property cannot be evaluated fairly unless income is taken into consideration. If one were to judge of the value of automobile properties in Lansing by the tangible assets in sight, the amount would be far below the market value of the stock of these companies."

"In order to get an accurate measure of a corporation's income, we must enforce a uniform system of accounting. We must know that a dollar of income in one set of books is worth the same as a dollar of income in another set."

"Opposition to the amendment on the part of city people seems to have been aimed directly against the income tax itself. In the country, many people were afraid that it might be added to the present property tax. A campaign of education is needed to overcome the prejudice that prevails against the income tax idea. Also, income tax laws must be simplified and their administration made more intelligent to convince people who have had unpleasant experiences in paying their federal income taxes."

"From the standpoint of the disinterested political scientist there are several strong arguments in favor of the adoption of an income tax by the state. Our present system was designed to meet agricultural conditions. In recent years, however, the state has become to a large extent industrial, with a great accumulation of capital. These industries have imposed upon the state new expenses in connection with the utilities commission, the workmen's compensation act, educational institutions and in a number of other ways. State expenses have increased enormously without a corresponding adaptation of the taxing system. The result is the burden falls abnormally upon the farmer and the small land-owner of the city."

"Along with the industrial development has been in the increased proportion of intangible property. We lay a tax of one-half on one per cent on a mortgage when it is filled, but it cannot be taxed thereafter no matter how long it is in existence. In the same way much intangible property of other types escapes taxation. It would be much easier to reach this kind of property with an income rather than with a property tax."

"I do not think the income tax will be applied to local government. There is no good reason why it should. If we can do away with the property tax for state purposes, we can do away with disputes over equalization. When it won't make any difference about valuations in the local units."—Henshaw.



Michigan Man Built First Harvester

While Hiram Moore Lacked Business Acumen, He Had Real Inventive Genius

By L. A. Chase

WHILE attending a meeting of the Michigan Pioneer and Historical Society at Mackinac Island, I learned from Mrs. J. H. Campbell, of Grand Rapids, that she was in possession of a collection of letters of Hiram Moore, of Kalamazoo county, relating to his invention of a machine for cutting, threshing, cleaning and sacking grain in one operation.

The letters consisted chiefly of correspondence between Hiram Moore



and Lucius Lyon, one time United States congressman from Michigan, and were formerly in possession of George W. Thayer, of Detroit. Stored in a barn with great quantities of other manuscripts and books, they had been salvaged after a portion of the letters had been destroyed in a fire which partially destroyed the barn which housed them. Mrs. Campbell, who was

very well acquainted with the Thayers, and whose interest in Michigan history was known to be keen, came into the possession of these salvaged letters and other manuscripts in 1916. After her return to Grand Rapids she made it possible for me to examine numerous letters of Mr. Moore's correspondence.

My interest being aroused I applied to Mr. H. A. Keller, president of the Agricultural History Society and Librarian of the McCormick Estate Library of Chicago, for such additional information as might be available in his collection. Mr. Keller responded most liberally with law reports and transcripts of court and congressional records bearing on Moore's invention. There is also some pertinent matter in the collections of the Michigan Pioneer and Historical Society. From these three sources, then, bits of information were gathered in which, when duly fitted together, are presented a pretty clear and consistent idea of the history and method of operation of the harvesting machine.

The brothers Moore seem to have

come to western Michigan in 1831, establishing themselves in Kalamazoo county. Hiram Moore purchased a considerable tract of land on Climax Prairie—one of those numerous deforested regions that attracted the settler in early Michigan when the dense forest still abounded elsewhere in the territory, and whose presence greatly diminished the labor of farm-making in the western wilderness.

There was a considerable number of New England Yankee farmers located in this region at this time, and they seem to have introduced into the Michigan wilderness both the New England Yankee inventiveness and New England aptitude for social reforms, for it was here that dwelt Moore, the inventor of the harvester, and Reed, the inventor of the spring-toothed harrow; and here, a few years later, was established the short-lived attempt at communistic agriculture in the shape of the "Alphadelphia Association," which sought to carry out the socialistic schemes of the French reformer, Fourier.

Just when Hiram Moore conceived

the idea of the harvesting machine is not thus far revealed; but his correspondence indicates that in 1835 he was making preparations for patenting the invention and the records of the United States Patent Office show that such a patent was issued to Hiram Moore, of Kalamazoo county and to John Hascall, a lawyer, associated with Moore in the early years of the project, on June 28, 1836.

In 1836, however, Moore's invention was not yet in completed form and eight years, or so, were required to perfect it. Meanwhile, Moore and Hascall being in moderate financial circumstances, had associated with them, for the purpose of marketing their harvester, Rix Robinson, a well-known fur-trader and pioneer of western Michigan, and Lucius Lyon, later a congressman from this state. In 1841 Hascall withdrew by assigning his interest to Lyon, and Robinson was not active in the enterprise, it appears. Moore insists in his letters that Hascall had no real share in the invention, although, it appears, he was reputed in some quarters to have had a part in it.

During the fourteen-year period that Moore's patent had to run, the invent-

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DETROIT, JANUARY 20, 1923

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

Farming is getting to be more of a business every day.

Anyone can go down hill, but it takes determination to make the up grade.

Cooperation and consolidation are essentials of business and farming efficiency.

It is the last part of the race which determines the winner; it is that little extra effort to do better which makes success in farming.

The consumption of wood products exceeds, by three times, the production of timber. How long can this process last?

It is when we are amidst troublesome times that other fields are most likely to look the greenest. At such times we should recall that "distance lends enchantment."

Should We Help Ourselves?

THE slogan of the day is better markets. All progressive business concerns are now giving their sales departments the maximum of consideration. The possibilities of placing goods in the hands of Fiji Islanders, Hottentots, Bushmen or Eskimos, are scanned with avidity by salesmen. This is true of those having to do with the sale of agricultural goods, no less than of other lines. This general tendency of selling goods at a distance may be observed in a more limited sense. We have here in Michigan an outstanding instance.

This particular case has to do with the production and the consumption of wheat. The practice is to ship much of the flour made of Michigan grown wheat to southern points while Michigan people eat flour manufactured from grain grown on western farms. Our normal consumption of flour requires that we import from the west considerable supplies. But there is no business sense in permitting the high quality flour made from our home-grown crop to leave the state.

Today we are complaining not only of high railroad rates, but also of the service which transportation companies are giving. Much of our traffic, however, could be saved if consumption areas were kept as closely as possible to production areas. Thus instead of shipping trainload after trainload of Michigan flour to the south

Atlantic states and then importing from Kansas, we should rather eat our own wheat and allow Kansas to ship directly to the Atlantic Coast. This would save car room, of which there has been such a shortage of late.

No group of people is in a better position to correct this situation than Michigan farmers. If they all insisted on being sold flour manufactured from Michigan-grown wheat, possibly only lightly blended with imported stock, over half of the 15,000,000 bushels of this grain annually grown here would be disposed of. Then local millers would not be to the expense of maintaining markets hundreds of miles away. They could deliver the bulk, at least, of their product right at their very door.

The cost of delivering wheat from surplus states is the measure of a real protection wall to Michigan wheat growers, unless this wall is lowered by forcing those who turn the wheat into flour to sell it at a high sales cost on distant markets. A general demand from Michigan farmers for the home-grown product would undoubtedly get for the growers a premium for their wheat and would not necessarily increase the cost of flour. Such an effort, we believe, is worth while.

Looking Both Ways

THIS month of January was named by the Romans in honor of one of their gods, named Janus. This was a two-faced god who could look backward as well as forward.

They named this month after Janus because they thought that this was the appropriate time of the year to look

both ways before starting another season of activities. Whether it has been because the Romans started this valuable custom or not, January is now almost universally used to make a record and inventory of the past and to start a new sheet upon which to pencil the future.

In business this practice is common, in fact, almost necessary. Inventories are taken, accounts settled, new stock brought in and new campaigns started. In farming it is intuitively and perhaps haphazardly done. Our agricultural practices would undoubtedly be improved if we went at it systematically. It would be of value as well as enlightening if each year we took an inventory of our stock and tools. If we were fair in figuring the depreciation on our tools we would come to the realization of the loss carelessness and neglect causes. In our farm crop and live stock operations we would find out if we are making headway or not.

In another way a study of the past will prove beneficial. The past contains the record of our experience and that of others who have gone before us. The past is valuable because upon it has been builded our present state of advancement and there is no doubt but what our civilization would have been on a much higher plane if we had heeded more the lessons those who have gone before have learned. Our future will be more certain and more profitable from every standpoint if we will plan it in accordance with the experiences of the past.

It will profit us all if we will use at least a part of this month playing the part of Janus and looking both ways before we proceed with the coming season.

A Pledge from the Publisher

By Senator Arthur Capper,
President, The Lawrence Publishing Company

I HAVE no higher ambition for The Michigan Farmer than that it may continue to hold the same place in the esteem and affection of the good people of Michigan that it has held during the many years of its existence. And I know only one way whereby that esteem may be held, and that is by deserving it.

As long as I have any influence upon the paper's destiny it shall continue to champion the welfare of the agriculture of the state. There is just one standard by which its policies will be judged: Is the thing proposed for the best interests of the farmers of Michigan? If the answer is "yes," the policy is adopted. If not, it is killed right there.

I knew the late M. J. Lawrence for a number of years and was familiar with his general ideas of what a farm paper should be. In the past year I have become acquainted with the excellent staff that he had gathered around him to serve his several publications, and I realize that it is their loyalty and devotion to a high ideal that has enabled The Michigan Farmer to render such high service to its readers and to the state. They are still in the saddle and will remain there, I hope, for years to come. And as long as they are there they will have no interest, political, business or economic, to serve other than the interests of their readers.

A Square Deal for the Farmer.

I believe that the business prosperity and the social well-being of America rest upon agricultural prosperity.

I believe that America can prosper in both an economic and a social way only when agriculture prospers.

And I believe that we are serving the highest interests of the nation as a whole when we advocate and fight for a square deal for the farmer.

While we shall continue to discuss problems of production, bringing to

our readers every method that science and experiment have tested and tried and proved, we realize that production is only half the battle; the problem of selling it at a profit still remains. New economic problems confront us every day, and the farm paper that is alive to its mission of service must be in the vanguard in their solution. This is not always easy. To find the truth and to tell it fearlessly, in this constantly shifting tide of economic struggles, is our ideal. No one knows better than we that our future depends absolutely on the degree to which we render this service to the farmers of Michigan.

We may not always be right, for we are human. But the columns of the paper are always open to carry the opinions of the folks who do not agree with the ideas we have expressed. We can not all agree, perhaps, but if we do not agree to what has been printed we certainly can do our bit in helping to form public sentiment.

The Home is Supreme.

A great deal of space in The Michigan Farmer will continue to be devoted to rural social conditions. We folks who make up the organization of this paper believe that a better and more satisfactory rural life is coming, which will return more in definite human values than the life we have known. Naturally some communities are leading with community center movements and the thousand and one things which make up better rural human relationships. We propose to tell about these in the future, as we have done in the past, in considerable detail.

And even more space will be devoted to the women and children. Farming is after all a life, not merely a business, and it is around the fireside that the larger and finer rewards of life are obtained. I have taken much pride in the purpose of this publication, which is devoted to the improve-

ment and betterment of the farmer, his family and his farm. With the farmer, perhaps to a greater extent than with any other class, the home is supreme. We hope to do our share in making the rural homes of Michigan a little brighter, a little better and a little happier because of our weekly visits.

These Are Our Ideals.

To be fearless in a championship of agriculture, to be interesting, to be helpful these are our ideals. I think they will be realized to even a greater extent in the coming years. I am mighty proud of the folks with whom I am associated on the Michigan Farmer. We have a fine organization in Detroit and all over the state. It is their work in the past years that has rooted The Michigan Farmer so firmly into the life and work of the agriculture of this state. Our mission is real service to the farmers of Michigan. With this as our ideal we go on into the future, secure in a belief in what the coming days will bring forth.

Underwear

MAYBE this is what you call a delicate subject. These silk undies things what some folks wear is delicate, but there ain't nothin' delicate about the red flannel ones I wear. They are good and healthy.

Now, I ain't offerin' no excuse for writin' about this, 'cause some of our most famous writers wrote about clothes and I want to be in keepin' with what the rest of the big bugs do. Only I ain't goin' to write about clothes in general, but am goin' to discuss them in detail. So I am goin'

to start with the nearest thing to me.

There ain't nothin' so close to a fellow as his underwear. It always stays right by you through thick and thin, and even with

such a close acquaintance it doesn't ever tell any secrets. It is so faithful that it helps protect you through a lot what you call stress and strain until it simply can't stand it no more and just gives out.

Now, your underwear ain't nothin' you ought to be ashamed of, 'cause it is sweet and clean. It's ourselves we ought to be ashamed of, 'cause this nice clean underwear gets so contaminated by bein' in what you call close contact with us that every month or oftener it has got to take a vacashun and get a good boilin' out.

Now, they say that women is afraid of different kinds of animals, but that ain't so, 'cause lots of them has got teddy bears auggin' them most all the time. Right here I want to tell you that Sophie don't wear such new-fangled stuff. She wears just plain underwear what ain't got no zoological name.

Underwear comes in differunt colors. Ladies like the pink kind but I like mine a little stronger, especially for winter. A real robust, healthy red is what I like, 'cause all you gotta do is look at it and it makes you warm. For summer I don't care what color it is as long as it ain't red, and the less color and less underwear the better I like it.

Sophie says it ain't nice to talk about such private matters, but I want you to know that I appreciate my underwear. It sticks right by me even if it is a disagreeable job and it don't make no fuss over it either. It does lots more for me than that celluloid collar I wear Sundays and don't make half the showin' of itself. Just 'cause of that I think my underwear is due what you call a little expresshun of gratitude.

HY SYCKLE.



Looking the Problem In the Face

Some Facts on the Forest Situation in Michigan

By J. C. DeCamp,

Assistant Professor of Forestry, M.A.C.

THEY say an ostrich, when danger approaches, buries his head in the sand and, seeing nothing of the havoc about him, believes himself safe. The original forests of white pine here in the lake states are estimated to have contained about 350,000,000,000 feet. Today, including the Norway, they contain less than 8,000,000,000.

Thirty years ago, the mills of the lake states were cutting 9,000,000,000 feet a year. Today, they are cutting less than 2,500,000,000. Old-timers in Michigan can remember when Michigan lumber supplied the markets of the middle west. In 1889, we cut 4,300,172,000 feet of timber. By 1919, thirty years later, our annual cut had dropped to 875,891,000 feet and we were importing timber into the state from long distances. Wisconsin was the only lake state in 1920 to produce more timber than she used and her surplus was less than one per cent.

Michigan white pine lands sold in 1866 for \$1.00 per acre (possibly eight cents per thousand feet). In 1905, the stumpage price was \$15 per thousand. Stands of hemlock in Michigan were sold for taxes in 1897. In 1900 the hemlock was bringing fifty cents per thousand. By 1912, the hemlock had gone to \$7.00. My grandfather, whose folks were pioneers over in Clinton county in the days when they had to haul their flour in ox-carts clear from the Detroit settlement, has told me of great piles of walnut logs burned to get space to put in his farm crops. And he lived to salvage walnut fence rails.

In 1920, the department here made a study of prices which were being paid for standing hardwood timber in Michigan. The farm wood-lot had been considered by many farmers as an encumbrance to the soil, to be removed as soon as he got money enough to blow out the stumps, or at best as a shade for his grazing stock, or a source of fuel for the winter. The

rapid rise in timber values caught many unaware and they were selling off valuable wood-lot timber for little or nothing. A summary of these prices is well worth repeating here, as indicative of growing scarcity of the local supply:

Average of prices paid by timber dealers in 1920 for standing hardwood

transported them bodily over to Cadillac. What remains of the town of Jennings is a few deserted shacks by the side of a beautiful little lake, surrounded by a wilderness of stumps and sandy soil that had grown wonderful timber but is too poor to support a farming community.

Another good example of what happens when the timber goes is the old town-site of Au Sable. Some years ago it put out some improvement



Cut-over Land in Iosco County Coming Back to Timber.

in Michigan: Sugar maple, \$17.36; soft maple, \$17.36; beech, \$13.28; basswood, \$20.18; white elm, \$18.37; ash, \$30.80; black walnut, \$41; white oak, \$26.30; red oak, \$22.72; cherry \$21; birch, \$13.28. The prices are per thousand feet, board measure.

A few years ago, Jennings was a flourishing mill town up in Missaukee county. Then they ran out of timber. This summer they took the whole town, what was worth transplanting, loaded the houses on trucks, specially constructed for that purpose, and

bonds, and built up a town that it was good to live in. When the improvement bonds matured in 1915, there was no town left to pay the bonds. Timber cut, land left barren, too poor for agricultural development, the fire of July, 1911, virtually wiped it off the map. Timber gone, there was nothing to rebuild for. Many an old mill town of Michigan is now only a blackened heap of fire-swept ruins to show for its former prosperity.

Michigan has been famous in the past for its wood-working industries. Furniture, veneer, tool-handle, vehicle, agricultural implement industries, one by one they have been following the timber. With the better grades of material no longer available and the heavy freight rates, they can no longer afford to ship the raw material in and must needs move south and west to the centers of timber production.

Saginaw plants reported in September 27 state that No. 3 basswood and months ahead, they were obliged to turn down orders because they could not get stocks to work from. Reports for the Menominee market on September 27 state that No. 3 basswood and No. 4 pine, stocks essential to many of our local industries, are almost impossible to obtain. The hardwood used in furniture is customarily seasoned six to nine months before sale. Furniture manufacturers are now competing in open market for stock with which to keep their factories going and are taking the material practically green from the saw. Reports to the American Lumberman for October 14, show basswood and birch very hard to get. The auto industry is demanding elm and the implement and wagon factories have bid the price of gum lumber up \$5.00 in ten days. The wagon people have been working on reserve stocks for the past two years, waiting for a decrease in timber prices, and depleted stocks are now forcing them back into a buying market.

What the consequences will amount to, it is hard to foresee, whether still higher prices to the consumer because of increased cost of raw material, or the loss of Michigan industries forced out of the state to get lower produc-

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Centralized Electric Current

Some Problems with Which Rural Customers are Faced

THE problem of providing rural customers with electric power and light is discussed by Mr. F. A. Newton, of the Hodenpyl, Hardy & Company, of Jackson, Michigan, in a letter to the State Department of Agriculture, which I have recently been permitted to see. Undoubtedly Mr. Newton's conclusions will be of interest to county agents and others who have been working on this problem.

Mr. Newton points out at the outset the necessity of determining what constitutes a rural customer, and he suggests mapping an area where rural conditions clearly obtain rather than defining a rural customer as one living outside the corporate limits of a city or village since urban conditions as related to power distribution often exist without as well as within such limits.

The cost of service cannot be expressed simply in terms of a rate per K. W. H., since the cost of service is not mainly the cost of furnishing the current to the rural consumer.

Nor does he approve of taking the city rate and adding thereto an additional charge to cover the cost of rural service. Rural service, he says, is essentially different from city service and should be rated on its own basis. The rural rate should include a charge for the service as such and a cost for the current used, and he would make such a rate as would encourage the use of electricity by the farmer once

he has such service. The rate should be fixed by the utility subject to the approval of the utilities commission of the state. The rural charge, where the installation is made by the consumer, should cover taxes, depreciation, and the maintenance of the investment, plus extra cost of reading meters, delivering bills, testing meters, etc.

The cost of rural extensions, he points out, will vary with the cost of material and the circumstances of each case. Tree-trimming, telephone interference, railroad crossings, etc., must be taken into account. The rural charge should be expressed rather in percentage of cost of line than in number of dollars per consumer, he says. Where the business received will justify the investment the utility will want to extend its lines into rural communities and here the utility will carry its own investment; but in most cases he thinks the farmers will have to carry the cost of the investment, rates being adjusted accordingly. The utility will not want to take a chance on the rates remaining high enough to cover the cost of the investment unless there is a long-term contract with the consumer. Such long-term contracts are unsatisfactory, he says. Mr. Newton thinks in most cases the farmer has the alternative of buying a private plant or making his own line extension to connect with an urban system.—L. C. C.

NATIONAL LIGHT KEROSENE Heat-Light Power

For Oil Lamps

Forty years ago the first National Light Kerosene was sold for oil lamps. It gave a steady white, bright light with a clear chimney and a clean wick. Almost immediately it lifted itself out of the ordinary Coal Oil class of oils and became famous as a Kerosene with no smoke or odor. People traveled miles out of their way to buy it.

Today National Light Kerosene is known as the highest quality Kerosene on the market.

For Oil Stoves

Use it in your oil stoves and heaters. No impurities to clog wick or burner. No smoke or odor to cause ill health.

For Incubators

Use it in your incubators, its uniform heat will hatch healthy chicks from every fertile egg. No poisonous fumes to clog egg shell pores when used in incubators or fumes to kill little chicks in the brooder.

For Tractors

Use it in your Tractor, it will develop more power than ordinary Coal Oil because every drop is consumed in the firing chamber, eliminating any chance of the unused portion diluting Lubricating oil in the crank case.

For Lighting Plants

Use National Light Kerosene for your Lighting Plant, Lanterns, every purpose where Kerosene is used you will find "National Light" more satisfactory and economical.

You can use a drum or more. Mail your order if your dealer cannot supply you and we will ship from one of our 96 Distributing Branches nearest to you.

Use En-ar-co Motor Oil; En-ar-co Gear Compound; White Rose Gasoline.

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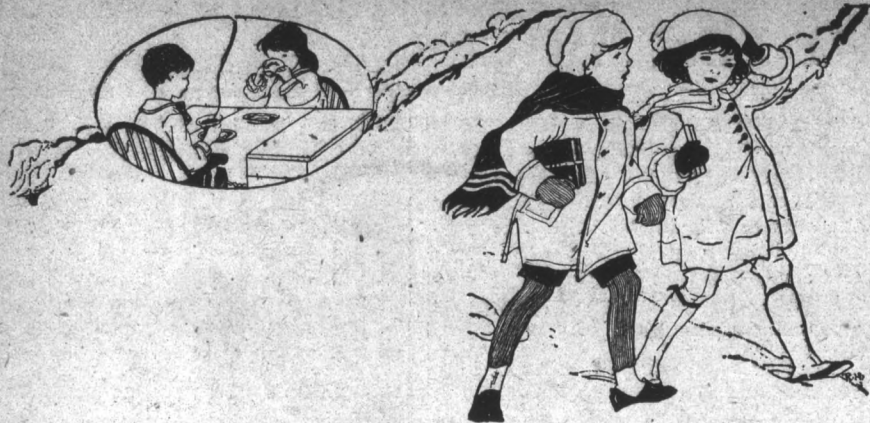
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Quote me on 55-gallon drums National Light Kerosene, advising nearest distributing point.

Name.....

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Off to school on a winter morning

—fresh and rosy—or pinched and chilly? That's a matter for Mother to decide.

Children, as well as grown-ups, need a hot mealtime beverage that is wholesome, invigorating, and free from harmful after-effects.

Coffee is known to be harmful—especially to children. That is why so many thoughtful mothers give their children delicious Postum. This pure cereal beverage gives needed warmth and comfort, has delightful flavor and aroma, and is free from anything that can injure the health of children or adults.

Your grocer sells Postum in two forms: Instant Postum (in tins) prepared instantly in the cup by the addition of boiling water. Postum Cereal (in packages) for those who prefer to make the drink while the meal is being prepared; made by boiling fully 20 minutes.

Postum
FOR HEALTH
"There's a Reason"

Made by Postum Cereal Company, Inc.
Battle Creek, Mich.



Service Department

TRESPASS CUTTING TIMBER.

What is the penalty for trespassing by cutting timber on another's land, in places twenty rods or more over line? Can complainant collect more than the market value of timber?—H. M.

The trespasser is liable to the owner in an action on the case. If the trespass was accidental, the trespasser in good faith believing that the land was his own he is liable only for the actual damage.—Rood.

AUCTIONEER'S WARRANTY.

I bought a piece of machinery at public auction. It was guaranteed by auctioneer to be in first-class condition. I paid for same and took it home. It proved to be in need of \$12 worth of repairs. Can the former owner be made to pay for repairs?—S. B.

The auctioneer's warranty is binding on the seller.—Rood.

LIABILITY FOR INJURY TO STOCK.

One of my neighbors threw some frozen potatoes in the public alley. My cows got out of the pasture and ate some of the potatoes and one choked to death. Can I make him pay for my cow? He refuses to do so.—D. L. W.

The statements indicate contributory negligence by the owner of the cow, which would bar recovery.—Rood.

DESTROYING WEEVIL IN BEANS.

Please tell me what to do to keep bugs out of my seed beans and yet not destroy the germination of the beans. The beans look the same as the white navy beans but they are called a thousand-from-one bean.—E. W. M.

The only practical way known for destroying weevil in grain is to treat with bisulphide of carbon. Place your beans in a tight room and expose them for two or three days to the fumes. One pound of bisulphide is sufficient for 100 bushels of beans. If you treat the beans at once, they will not be injured by the weevil so as to destroy them for seed. Bisulphide fumes are poisonous, so handle with great care.

TAXING BANK STOCK.

Is a farmer who holds stock in a local bank taxed for the stock? Does it not have to be given to the supervisor the same as personal property?—C. G.

Compiled laws of 1915, Sec. 4013 provides for taxation of the capital stock of all banks against the stock holders at their cash value after deducting the value of the real estate taxed to the banks. This looks like double taxation, since the banks also pay taxes on this residue. But what of it, the public needs the money.—Rood.

RATION FOR COWS.

Please prescribe a preparation for my cows. I have corn silage, corn fodder, clover hay. I have been feeding ground corn and oats mixed half and half with commercial milkmaker. Cottonseed can be bought for \$2.75. I also have rye meal.—W. O. M.

It would be difficult to recommend a better ration than you are now feeding. It has variety, a succulent food, and if fed in proper proportion and sufficient quantity it is a balanced ration and cows should do well on it.

If you will feed one pound of grain for every four pounds of milk produced, and give them all the silage and hay and corn fodder they will eat up clean, your cows ought to produce the maximum yields. The commercial milkmaker contains twenty-four per cent protein and when 100 pounds of this is mixed with 100 pounds of corn and oats, it will give you sufficient protein so there would be no need of feeding any oil meal or cottonseed meal.



Surprising "Come-Back"

"Veterinarians said, 'better kill, than try to cure so bad a case.' I had not used him for three months before I wrote for your free book. It is six months since I stopped treatment and there is not a mark of the trouble left. After I started treatment, I worked the horse and he was cured in about two months."—L. J. Cornwell, Watertown, N.Y.

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is Guaranteed by signed MONEY BACK contract to cure SPRAIN, Ringbone, Thorpin, or Shoulder, Knee, Ankle, Hoof and Tendon Disease. Write today for FREE 96-page Save-The-Horse BOOK—on how to locate, understand and treat 58 kinds of lameness; also sample Guarantee and expert veterinary advice—ALL FREE; no obligation; write today.

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and making them into FINE FUR COATS, FUR SETS, ROBES, ETC. Our Prices for doing this WORK are on a level with what the Farmers received for this year's crops. Our CATALOG is Free, it tells how you can be the Wearer of a Fine Fur Coat, etc., at the lowest prices quoted in years for Custom Fur Work. Address

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worth of common kerosene or coal oil will keep this Sunray lamp in operation for 30 hours. Produces 300 candle power of the purest, whitest and best light known to science. Nothing to wear; simple; safe; 15 Days' Trial

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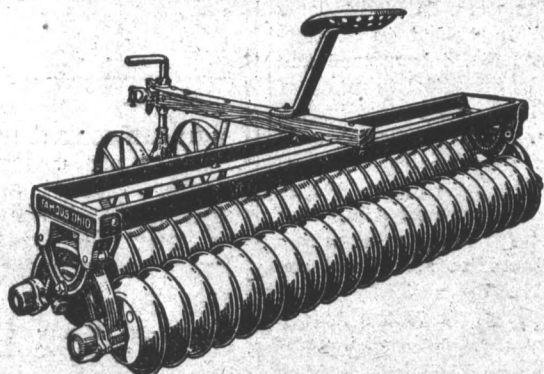
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Start using this tool to prevent winter killing on your wheat the minute it gets dry enough to go on this spring. Use it on every seed bed you make from your early oats to your fall wheat seeding.

Go over the growing crops with it whenever they are retarded by lumps or crusts.

Used in this way it will pay for itself twice in one year—first by the labor it will save—second by the increased crop that comes with better seed bed and tillage.

The price is lower per pound than you pay for good stove grates. You cannot save a cent by waiting and you will certainly lose many dollars.

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Opinions and Comment

from Michigan Farmer Readers

BELIEVES IN RECORDS.

THE sooner we get down to a careful analysis of our farming, the sooner will we farmers arrive at a basis of efficiency. Records of every transaction should be kept. An account should also be opened with each field and each kind of stock. The farmer should know whether a department of the farm is worth continuing. Of course, returns from some department may not show that it pays directly, but its indirect benefits may make it worth continuing. The only way, however, for the farmer to know the things necessary to guide him, is to keep books. So, brother farmers, let's not delay longer getting next to this business side of our profession.—Sam Hardy, Allegan County.

HIGH SCHOOL AGRICULTURAL WORK.

WHAT of the future of the high school agricultural work? I for one, believe thoroughly that the local high school is destined to become a real factor in building up the farming of every community.

Today we look to the county agent for much of the personal help needed to solve puzzling questions. This county man has worked faithfully and hard, and done much to help us out of difficulties. But when the demand grows beyond the ability of one man

to cover the county, as it already has in many instances, will we not turn more and more to the professor in the high school who has charge of the teaching of farm subjects. This man's relations with the young people, gained through class and laboratory work in the school, will make it possible for him to serve the agricultural community in a manner which has never before been possible for any other man. For this reason I am convinced that farmers in particular should be deeply concerned about the course of study being pursued in local schools.—R. S. Risdon.

APPRECIATES SERVICE.

WE farmers are pleased that the Michigan Farmer is giving a report on legislative work at Lansing. Some of us feel that our representative will guard our interests. But having definite knowledge of how things are progressing in the legislature, will give us a chance to render some assistance, should that be necessary—and we assume that at this session, at least, it will be necessary before the members make their home trip.

I for one, feel that these men should make a very determined effort to keep down taxes. Why the state should invest in Isle Royale for a state park at this time, is more than I can figure out. Looks like something else than working for the "dear public," prompts this scheme.—Roy Winster.

Looking the Problem in the Face

(Continued from page 69).

tion costs. It may be too late now to save our woodworking industries. Hardwood forests are not grown in a day. But it is not too late to take stock of our tomorrow.

We reached the peak of timber production here in Michigan in 1889. By 1909, we were going as far as Louisiana for our timber. The southern mills cut 16,000,000,000 feet of pine that year. They had virgin forests of 650,000,000,000 feet and today they have less than 139,000,000,000. A statement in the financial section of the Detroit News, date of September 26, says that due to depletion of supply, the southern mills can maintain present rate of production only for the next two or three years, after which we must look to the far west, with increased cost of production and transportation.

We retailed our Michigan timber, while it lasted, at \$15 to \$20 per thousand. With the depletion of our timber, the price rose until at \$25 to \$35 southern pine entered the market. In 1920, due to the depletion of the southern timber, the western pine dominated local markets at \$80 to \$85. Fifty per cent of the timber remaining in this country is in three Pacific Coast states and it costs us \$20 in freight alone to get it here. Last year, we shipped in red fir common boards from Seattle. But that didn't mean cheaper lumber prices. It meant that prices had gone up until the west could afford to ship east its poorer grades. That will be the story from now on: poorer grades of lumber at higher prices. Lumber consumers in Michigan are going to have to pay dear for being so far away from the source of supply. An instance of this, occurring during the past month, is suggestive of what we may expect:

During the week ending September 16, western pine, eight-inch boards, B and better grade, were quoted f. o. b. mills, Portland, Oregon, at \$84 per thousand. The same grade was re-

tailoring in Michigan at the time at \$200 per thousand. Similarly, No. 1 common, eight-inch southern pine boards which were selling f. o. b. mills, at Jacksonville, Florida, at \$38 per thousand, were costing the consumer in Michigan \$70. Retail dealers in Michigan are running short of stock. Mills, located in the timber, are piling stock in their yards. In between lies the problem of transportation.

The present forest policy in Michigan calls, I believe, for a planting of 4,000 acres per year for fifty years. Supervisor Schaaf's estimate for the planting alone was \$5.50. Costs of administration, fire protection, etc., will bring the expenditure up around \$50 per acre. Professor Watson, of the University of Michigan, in a recently published article, states that since the beginning of intensive management of state forests, in 1903, the state has only been able to plant about 11,000 acres out of total state forests of approximately 175,000. He estimates the final cost of reforesting Michigan's 12,000,000 acres of deforested, non-agricultural timberlands at roughly \$2,000,000,000 and concludes that the job is too big for the state to handle alone. But, if the state doesn't do it, who will?

Such are some of the forestry problems on which we are working today. They are not presented helplessly nor with pessimism, but as facts, however disagreeable, that need to be brought home to us. We of this department feel keenly the need of your cooperation in working out these problems. Talk them over in the home, in the store, at the grange, the farm bureau, the farmers' club and at school meetings. Can we afford to increase our planting policy? Can we afford to leave our lands waste? Will natural reproduction come in on the jackpine plains, if we keep the fires out? Can we change our taxation laws to induce more reforestation by private interests. Would legislative control of the lumber market help or hurt?



When To Do Your Thinking

Do your thinking about roofing *before* you buy it.

And buy the kind you can forget---you'll remember the name--once it's on your roof.

And when you buy, think first of toughness.

Toughness in somethings is a vice.

In roofing it is a primary virtue.

Therefore, see not how much roofing you can buy for a dollar, *but* how much toughness.

And watch for the roll with the mule's head on it.

It's more than tough---it's toughest.

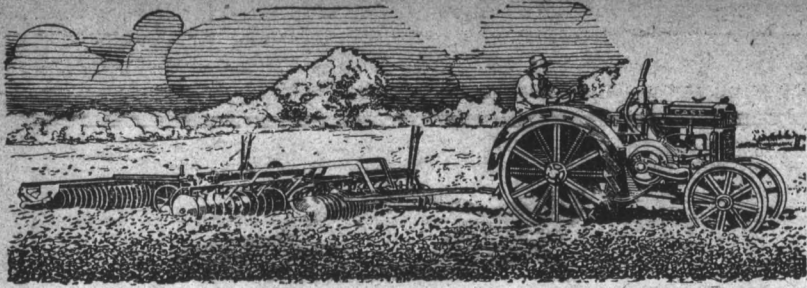
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They are practical, well adapted to all drawbar and belt work on a farm, and easily operated by farmers.

They have well balanced, steady running engines of the most efficient type, built to stand up under strenuous work and with ample reserve power. A simple carburetor and specially designed manifolds with heat control enable Case engines to operate with extreme economy on low grade fuels.

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A new oil lamp that gives an amazingly brilliant, soft, white light, even better than gas or electricity, has been tested by the U. S. Government and 35 leading universities and found to be superior to 10 ordinary oil lamps. It burns without odor, smoke or noise—no pumping up, is simple, clean, safe. Burns 94% air and 6% common kerosene (coal oil).

The inventor is offering to send a lamp on 10 days' FREE trial, or even to give one FREE to the first user in each locality who will help introduce it. Write today for full particulars. Also ask us to explain how you can get the agency and without experience or money make \$250 to \$500 per month. Address

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Capital Comment

By Our Lansing Correspondent

THE outstanding feature of the second week's work at the lawmakers' headquarters was the great array of bills that were shot in to the reading clerk. They came in rapid succession and the presiding officers as rapidly passed them on to the various committees. That the house members are not devoid of humor is shown by a resolution introduced and cleverly written, directing a certain member, whose business is making cigars, to present one cigar to each member of the house. A sense of humor is a great balancer and as legislators are human it may come in very handy before the serious business of this session is over with.

Taxation Bills.

A total of sixty-eight bills have been introduced to date, many of them centering around the question of taxation reform. It is quite generally agreed that real estate has been paying, heretofore, an altogether unjust proportion of tax. A rich state with the great diversity of prospering industries of which Michigan boasts, should be able to take care of its running expenses without burdening anyone if the costs were equitably distributed. It is this problem of rightly spreading the tax levy over the real estate, the personal property and the industry of the state, that promises to act for a spell as a brain teaser for a

hundred or so of the best heads in the state.

The committee of inquiry into taxation, appointed two years ago, and headed by George Lord, has labored earnestly and faithfully and the report which it has presented sheds much light on the subject of taxation, and will offer many leads for the legislators to follow in their attempts to deal out justice to the citizens of Michigan.

Next to the volume of bills providing new methods of raising money, come the numerous appropriation bills providing ways of spending it. Most of the state institutions are asking for funds in excess of the recommendations of the administrative board, and in excess, we believe, of what they expect to get. Practically all of these requests no doubt should be, and will be liberally pared. The Michigan Farmer and the farmers of Michigan stand for a curbing of state expenditures to the point where it hurts a little if necessary, rather than for having the finest public institutions roads and parks in the land at the risk of losing our financial equilibrium.

We would suggest to our readers that they keep posted on the progress of legislative events and by acting in groups through their farmers' clubs, granges, gleaners and farm bureaus, let their representatives at the capital know where they stand.

Doings at Washington

By Our Washington Correspondent

CAPPER'S LIVE STOCK FINANCING BILL.

SENATOR CAPPER'S live stock financing bill, after some revisions were made, was reported out by the senate banking and currency committee. The title of the bill has been changed from "The Rural Credits" to "The Federal Agricultural Credits" act. Its provisions have been broadened somewhat to meet the needs of the general farmer as well as those of the cattlemen.

The formation of privately financed agricultural credits corporations with a minimum capitalization of \$250,000, under the supervision of the comptroller of the currency, is authorized in the bill. Paper secured by warehouse receipts covering readily marketable and non-perishable products, or by chattel mortgages upon live stock which are being fattened for market, may be discounted or purchased with a maturity not exceeding nine months. Paper secured by chattel mortgage upon maturing and breeding live stock and dairy herds may be discounted or purchased with a maturity not exceeding three years.

SUPPLY OF HORSES SHORT.

THE present production and demands indicate that the supply of horses in this country is soon to run short. The colt production figures compiled by the department of agriculture show that less than one colt for each fifteen head of horses and mules on farms in the corn belt was produced in 1922, whereas the production of one colt per year for nine or ten head of horses and mules now on farms is required to meet the existing demand for horses in cities, and on the farms of the corn belt states and in the east and south.

It is suggested that cheap horses and cheap feed have been unfavorable to the use of the tractor, but with

higher feed costs and higher prices for horses, due to a scarcity, there will be a larger turning from horse to tractor farming.

ON TAX-EXEMPT BONDS.

THE proposed submission of a constitutional amendment prohibiting the issuing of tax-exempt bonds and other securities, has been brought to life again by a letter submitted to the house from Secretary of the Treasury Mellon in support of this proposition. Secretary Mellon argues that tax-exempt privilege, with the facility it gives to borrowing, leads in many cases to unnecessary or wasteful public expenditures, which is bringing about a menacing increase in the debts of the states and nation. He believed that the continued issuance of tax-free securities saved nothing to the taxpayers of the states and that in the long run it brings heavier taxes.

THE MICHIGAN EGG-LAYING CONTEST.

THE last report shows that the Leghorns have given up first place in favor of the Wyandottes. The Evergreen Poultry Farm Wyandottes now lead with a total production of 386 eggs. Next come the Leghorns belonging to E. D. Shaw, of South Haven, which held first place for a long time are third with 364 eggs. The Plymouth Rocks belonging to W. H. B. Kent, of Cazenovia, N. Y., rank fourth with 354 eggs to their credit.

All the different classes show an increase in the production percentage. The Wyandottes hold the lead with a 43.3 per cent production. The Barred Rocks come next with a 41.6 per cent production. The Ancona class made another big jump in their production in the past week by increasing it from 23.2 per cent last week to 35.7 per cent.



What's under the rubber?

—hidden weakness or rugged strength?

Get the inside story before you buy your boots

There's nothing mysterious about the wear of a boot—

You get just as much wear out of it as the maker builds into it.

What's built under the smooth rubber surface? Is it rugged strength or hidden weakness?

In the illustrations below we're making just as plain as diagrams can, what's "under the rubber" in a "U. S." Boot.

We've picked out the four points where boots get the hardest wear—ankle, back of the heel, instep and sole.

Notice the strong reinforcements built into U. S. Boots at every one of these points!

We've been making rubber footwear for 75 years. We don't just buy rubber—we actually produce on our own plantations the finest grade that

can be grown. Our factories are manned by the most experienced boot makers in the country—craftsmen who know the importance of painstaking care. And we're proud of the results—and of the satisfaction farmers take in them.

Other Footwear in the big "U. S." line—
all built to give the utmost service

You'll find every type of rubber footwear in the big U. S. line. There's the U. S. Walrus, the famous all-rubber overshoe—the U. S. lace Bootee, a rubber workshoe for spring and fall—U. S. Arctics and Rubbers—all styles and sizes for the whole family. Look for the "U. S." trademark whenever you buy—the honor mark of the oldest rubber organization in the world.



THE ANKLE—Here the "U. S." Boot has an extra "collar" that runs all the way round the leg, and on top of that is vulcanized a heavy side-stay.



THE INSTEP—A series of graduated reinforcing layers in the instep combines unusual flexibility with surprising strength.

United States Rubber Company



BACK OF THE HEEL—Eleven layers of heavy duck and highest grade rubber make this one of the strongest points of the whole boot.

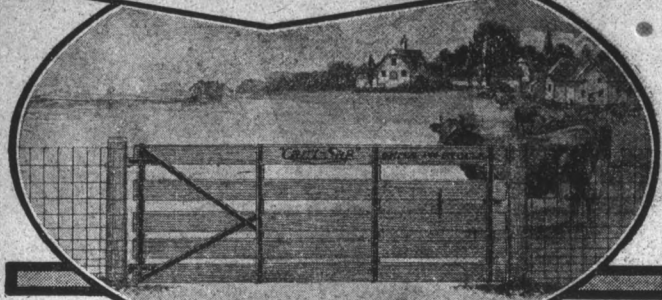


Extra heavy flange sole

THE SOLE—A thick, single layer of the finest, toughest high-grade rubber. Its flange shape means extra protection and wear. A rugged outside foxing unites the sole and the upper into one solid piece.

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"Can't-Sag" Gates



Good Enough
to Use
Anywhere

Cheap Enough
to Use
Everywhere

Cost Less Than All Wood— Last 5 Times as Long

Every landowner will save money by having a free copy of my big new book of Can't-Sag Gates. Shows a full line of these strong, sag-proof gates of wood and steel built in the world's largest gate factory for less than you can build clumsy, all wood gates at home. Can't-Sag Gates have no wood joints to rot, no nails to rust or pull out. Every board is double bolted between four pairs of angle steel uprights. They always hang plumb and trim. They can't sag, warp, or twist out of shape. The steel and wood construction makes them flexible. They give under pressure but don't break. Top hinge is self-locking when gate is closed. Hogs can't root them off hinges. Elevating attachment can be furnished to let small stock pass under.

I'll Furnish Complete Gates or Just the Steels
My free Gate Book shows complete Can't-Sag Gates painted, ready to hang with your name or name of your farm, or "No Hunting" sign lettered on boards. Or, if you prefer I'll furnish everything but the boards and you can build your own Can't-Sag Gates at home and save still more money.

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H. F. Firestone, Pres. Firestone
Tire & Rubber Co., Akron, O.
Reservations and Farms of the
United States Government.

Invent's First Harvester

(Continued from page 67).

or busied himself with improving it miles per hour, according to its in- and securing its manufacture, first at ventor.

Rochester, New York, and later at Schoolcraft, Battle Creek, and perhaps elsewhere in Michigan. Moore was constantly in straightened financial circumstances, frequently calling upon Lyon for advances of cash, and in ill-health, spending many long weeks in bed. All this delayed the perfection and marketing of the harvester, and as the time for the expiration of the patent approached, the inventor had little tangible to show for his exertions and his deprivations.

In the late forties and early fifties strenuous efforts were made by Moore and his friends to gain from congress an extension of his patent, and even the Michigan legislature exerted itself in his behalf through a memorial to congress. But Moore's application became involved in the controversy between Obed Hussey and Cyrus McCormick and their friends, over similar patent difficulties and extensions, and all seem to have been shelved together. Later on (in 1860) Hiram Moore was granted a patent for a seed drill on which he seems to have been working as far back as 1845, and an extension of patent for this machine was granted in 1873.

Just how did Moore's harvesting machine operate? Here again, by putting odds and ends of information from several sources together, it is possible to form a pretty clear picture of the device and its working. A number of machines—apparently at least a half-dozen—were constructed and put into operation. The later machines were considerably larger than the earlier. They were horse-drawn, twelve or sixteen horses being required for their propulsion.

The essential parts of the machine, whose outside dimensions are given by Moore for the later ones as seventeen by fifteen feet—included a toothed sickle or cutting-bar seven, ten, twelve and fourteen feet successively in length oscillated by a crank operated from the gearing connected with the drive-wheels; a revolving cylinder with rake-teeth in its surface and later a revolving reel to press the straw against the cutting edge of the sickle and to carry the heads after cutting over to the revolving apron to be carried thence to the threshing cylinder; a revolving screen which separated the straw from the grain after leaving the threshing cylinder; a revolving fan to clean the grain; a concave trough that received the grain after screening, in which operated a screw conveyor that conducted the grain to the elevator, whence it was delivered into boxes or sacks. At the front of the machine on one side was a dividing finger to separate the standing grain from that to be cut. This was cruder in construction than that invented about the same time by McCormick. The cutting and associated mechanism was adjustable to varying heights so as to permit removing only the heads of the standing grain. The threshing cylinder operated in a concave, both apparently provided with teeth. The drive-wheels were large, said to have been seven feet in diameter.

The harvester required one man to operate it forward, one to attend to the grain as delivered from the elevator, one rider for each four horses used to draw the machine, and a contingent of attendants to remove the sacked or boxed grain to the granary or barn.

All accounts agree that "Moore and Hascall's harvesting machine"—to give it its usual designation—did its work very well. It cut twenty or more acres of grain per day, moving forward at the rate of two and one-half

Moore claimed to be able to save four-fifths in the cost of harvesting wheat in Michigan. He estimated the cost, by the methods then in use at about \$3.50 per acre. He claimed to be able to harvest wheat at \$1.00 per acre and that there would be a saving of two and one-half bushels of wheat per acre that was commonly lost by methods then in use.

The ultimate failure of the enterprise seems to have been due to natural and economic conditions which Moore had not thoroughly taken into consideration or had closed his eyes against. There was relatively little prairie land in Michigan and Moore conceded that his machine was not adapted to rough and cut-over land. The climate was moist in summer—or likely so to be, and the machine would work well only in dry weather—a feature which made it well adapted for the western wheat states later on. According to Moore's figures his harvester cost \$500—too large a sum for the pioneer farmers of Michigan to pay, even if it had all the advantages which were claimed for it; and it required many horses to operate it—too many for a sparsely settled and poor frontier farming community to provide for each farmer in it.

An acquaintance of Moore states that, when he first beheld one of the new McCormick reapers working in a field in western Michigan, he foresaw the doom of his own invention, since the reaper did not operate under the disadvantages just indicated. He himself seems to have regarded conditions for success better in Wisconsin than in Michigan, and he purchased at one time 1,900 acres of land, he tells us, beyond Lake Michigan for the purpose of producing wheat in his own way. About 1852, he appears to have sold his farm on the Kalamazoo and to have removed to Wisconsin where he died at a date which I have not been able to learn.

Gradually his machines went out of use in Michigan, but it is affirmed that one of them, being shipped to California around the "Horn," gave rise to the widespread use of the harvester on the Pacific coast. Moore himself seems to have suffered the fate that attends those inventors who possess mechanical genius unrelated to financial resources and sound business sagacity. Yet both for what he achieved and for what he tried to achieve his memory deserves to be held in honor along with other benefactors of mankind, and particularly by the people of Michigan where he labored, suffered, triumphed and failed.

OPPOSE TRUTH-IN-FABRIC BILL.

DELEGATIONS of woolen manufacturers, clothing manufacturers and jobbers are in Washington in opposition to the truth in fabric, or woven wool fabrics, bill. They are making strenuous efforts to prevent action on the bill. As the bill is now on the senate calendar, they are button-holing senators to induce them to oppose the bill. A statement has been issued indicating that twenty-seven senators favor the bill, twenty-five are opposed and thirty-nine on the fence.

Home economists figure that the farm kitchen ought to be at least 175 square feet in area. It should be well-lighted, well-painted, and have a lot of table space.

J. G. (Jamie) Wells, a recent graduate of Missouri Agricultural College, has been appointed dairy extension specialist for the Michigan College of Agriculture. This appointment became effective January 1.

A "BLUE RIBBON" COUNTRY

CANADA

At the International Live Stock Show at Chicago, December, 1922, exhibits from CANADA were awarded the following prizes:

Grand Championship and First Prize for Hard Red Spring Wheat. In this class Canadian exhibits won 19 prizes out of a total of 25 awarded.

Grand Championship and First prize for Oats, winning 24 out of 35 prizes awarded.

First, 2nd, 3rd and 4th prizes for Peas, winning 4 out of 5 prizes awarded.

Grand Championship and First Prize for Rye; first prize for two-rowed Barley.

Grand Championship and Sweepstakes for Clydesdale Senior Stallion; 1st prize for Clydesdale 4 and 6 horse teams; 1st prize for Clydesdale Mares 3 years and under.

Championship for Galloway Steers; twelve 1st and 2nd prizes for Sheep. Many other prizes for Grains, Fodders and Live-stock.

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A HANDY rack for the workshop can easily be made by taking a six-inch board—any length—bore holes at different intervals through center of board just large enough that the bulk of a clothespin will fit hole firmly. Afterward the heads of pins can be



A Handy Rack For the Workshop.

sawed off in the back side of board. Small tools, such as files, chisels, bits, etc., can be slipped easily between the jaws of the pins that are firmly held. This is also a handy rack for the kitchen to hold large spoons, paring knives, etc.—L. B. Reber.

CROP SPECIALISTS TO JUDGE GRAIN SHOW.

TWO well-known experts from the M. A. C., Professor Putnam, of the farm crops department, and Dwain Rainey, crop specialist, have been engaged by the Saginaw County Grain Growers' Association, to judge the first annual county grain show, January 18-20. The show rooms will be at the southwest corner of Genesee and Weadock avenues.—M.

FARMERS' FRUIT MARKET OPENS.

THIRTY carloads of fruit and vegetables on the Chicago market were handled by the Farmers' Cooperative Company on January 4, the opening day of the Federated Fruit Growers, Inc. One hundred and thirty other cooperative companies opened at the same time in market centers in all sections of the country, according to the titanic plans of the national cooperative organization of producers designed to reduce wastage and inefficiency in the marketing of perishables. The passing of the eight carloads of apples, twelve carloads of celery, and ten of potatoes through the hands of the company in one day brought to a realization the dreams of orchardists and gardeners for the last quarter of a century.

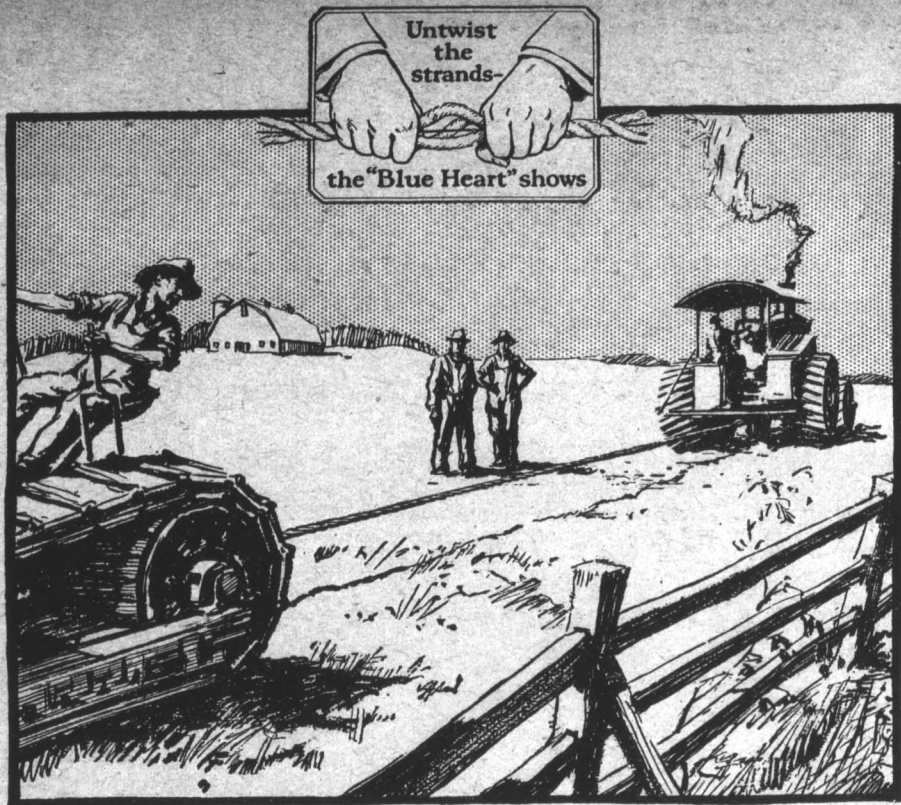
Membership in the new organization will be mainly through associations and exchanges. Only true cooperative associations are admitted.

Primarily the products will be distributed in carload lots. The thirty carloads of fruit and vegetables marketed in Chicago the first day of business for the new association were sold in carlots to South Water street merchants. It is impractical, the company officials say, for the organization to market for isolated small growers as individuals.—Mills.

SAGINAW COUNTY BOYS WIN AT INTERNATIONAL.

HOLLY HUBBELL, Thomas township boy, won eleventh place for his exhibit of ten ears of flint corn at the Chicago International Show, according to information received from Lansing.

The display of flint corn from Saginaw county competed with exhibits from southern Michigan, the eastern half of South Dakota, Southern Minnesota, Northern Iowa, Southern Wisconsin, Connecticut and Rhode Island. The variety of corn has been grown on the Hubbell farms for a score of years, and the owner has been urged to have his seed crop certified because of its purity. Flint corn is especially adapted for the territory north of Saginaw and Bay City, where the growing season is somewhat shorter than in the southern counties of the state.—Mills.



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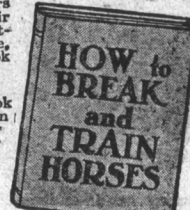
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News From Cloverland

By L. A. Chase

FAIR OFFICIALS GET TOGETHER.

THE secretaries and presidents of the county fair associations in the Upper Peninsula will hold a meeting at Marquette on February 20 for the purpose of discussing the various aspects of the problem of producing a good agricultural fair, as related to advertising, exhibits and attractions, etc. Sault Ste. Marie, Ontario, will also be represented at this meeting.

To prepare our farmers for the season's land-clearing operations, eighty-three preliminary meetings were held last winter, and thirty-eight land-clearing schools were held during the summer which, it is estimated, were attended by 10,000 farmers, and 2,800 certificates were granted to farmers who actually took part in these schools.

CLOVERSEED DOES NOT MATURE WELL.

LITTLE cloverseed is raised in the Upper Peninsula in spite of the name "Cloverland" that is often applied to this territory. Rains in the harvest season are said to be the chief deterrent. In a recent Michigan Crop Report only Menominee county made a showing as to cloverseed production. This is the most southerly county in the peninsula. The average yield in this county was high, however, amounting to 3.5 bushels per acre, while that for the entire state was 1.6 bushels.

On the other hand, the quality of the apples produced in the Upper Peninsula for the most part ranged high, last season. In Baraga county the quality was 95 per cent; in Chippewa, 70; in Delta, 70; in Dickinson, 93; in Gogebic, 95; in Houghton, 90; in Iron, 90; in Luce, 70; in Marquette, 89; in Menominee, 94; in Ontonagon, 95; in Schoolcraft, 76, making an average of 89 per cent for the peninsula, while the average for the whole state was 74 per cent. It has long been recognized that apples do very well in this territory, especially if certain well-adapted varieties are selected.

CONDITION OF WINTER CROPS.

THE Michigan Crop Report for December gives the condition of winter wheat and rye in the various counties of the Upper Peninsula reporting. The results are as follows: Baraga, 98 per cent; Chippewa, 92; Delta, 88; Dickinson, 98; Gogebic, 88; Houghton, 92; Keweenaw, 98; Luce, 99; Mackinac, 98; Menominee, 98; the percentage for the district as a whole being 95. The district's acreage is rated at 106 per cent of last year. Rye had a condition of 89 per cent in Alger county; 99 in Baraga; 69 in Chippewa; 86 in Delta; 99 in Dickinson, 89 in Gogebic; 88 in Houghton; 100 in Keweenaw; 99 in Luce; 99 in Mackinac; 97 in Marquette; 108 in Menominee; the average condition being 95 per cent and the acreage 98 per cent of last year.

GETTING BETTER ACQUAINTED.

THE increasing tendency of Lower Peninsula people to visit the Upper Peninsula during the summer season is indicated by statistics recently collected relating to the passage of automobiles over the ferry at the Straits of Mackinac. In 1918 there were 700 automobiles transported at this point; in 1919 the figure had risen to 1,600; in 1920, to 3,472; in 1921, to 4,731; and in 1922, to 9,326.

NEARLY ATTAINED LAND-CLEARING GOAL.

M. L. F. LIVINGSTON, in charge of land-clearing work of the Michigan Agricultural College in Michigan, has made a canvass of the results of land-clearing operations in the Upper Peninsula the past year. Information was secured through the schools, the supervisors, the county agricultural agents, business men and through a farm to farm investigation, and in some sections by the land-clearing extension workers themselves. The aggregate returns fell some 8,000 acres short of the predicted goal of 60,000 acres, but the total of 52,000 acres realized is claimed to be four times that of any preceding year.

In Delta county 6,000 acres were cleared, exceeding the achievement of any other county. In Alger county the acres cleared per farm were 15.8 which excelled the results in any other county. In Gogebic county 5.1 acres were cleared per farm, which puts this county in second place. In Iron county 4.4 acres were cleared per farm.

To help effect the grand result there were shipped into the peninsula, last year, twenty-one carloads of salvaged picric acid from government stocks. This amounted to 504,000 pounds and at government prices is said to have saved our farmers \$55,440. Nine carloads of commercial explosives were also imported into this region, last year, amounting to 198,000 pounds, which resulted also in large savings to the purchasers through the practice of pooling small orders and ordering in carlots.

CHAMPION GRAPES-SPOIL CONCORD MARKET.

THE fruit growers in the Lawton grape district in Van Buren county have found that the Champion grapes spoil the market for the Concord. Usually during the grape-growing season the market starts out strongly and maintains its prices until the Champions are shipped. This variety looks very much like the Concord and is often sold by retailers as such, but although this grape has a very good appearance its flavor is not good and consumers become disappointed. In some cases the prices drop from twenty-five to forty per cent during the Champion season and it takes the first pickings of Concord at low prices to regain the consumer's confidence. The fruit growers in the grape growing sections are being urged to pull out their Champions, as it is estimated that they will make just as much money as they are now making without this variety in their vineyard.

REGARDING IMMIGRATION.

THE Farm Bureau Federation favors the proposition to determine the admissibility of aliens at the port of embarkation.

Secretary of Labor James J. Davis disapproves of any plan to let down the bars of immigration because of the supposed need for labor. He favors the plan of selective immigration, which would allow only the most desirable classes of aliens to enter the United States. He believes that many of the problems of immigration would be eliminated if the work of examination now done at Ellis Island could be cared for at the point of embarkation.

It pays to protect sheep from winter winds and rains. Any rough, inexpensive shelter will serve.



Developing Our Markets

By Increasing the Consumptive Demand

By Verne E. Church

FROM my several years' experience as a fruit grower and twenty years devoted to the gathering of weather and crop statistics, I am gradually inclining to the opinion that our market problem is one of under-consumption rather than over-production, and that quality holds the key to the whole situation. If every apple of Michigan's twelve million bushel crop this year had been utilized, each individual in this state alone would have only one and one-half apples per day. I suspect some families would have used their entire annual quota within a month if it had been converted into liquid form. That is what appetite will do. Cultivate a desire for good fruit and people will buy, both in fresh form and in tin cans. If Michigan's cherry crop this year reached a bushel per tree, or more than twice the production reported for 1909 and three times that reported for 1919, each individual would have to consume only eight quarts during the entire year to entirely utilize this crop within the state.

However, we may not hope for even this limited consumption when Grand Traverse counties delicious sweet

cherries cannot be found on the hotel tables of Traverse City in season, when only California oranges are obtainable in the hotels of Hart and Shelby on the same days that the canning plants are turning away loads of cherries because of inability to handle them; when four leading restaurants in Benton Harbor could produce nothing but oranges, grape fruit and bananas in mid-September when carloads and boatloads of peaches, grapes, pears and apples were being shipped from that city daily, and when ten grocers in Lansing could not find a single Michigan apple in their stores around the middle of September, 1922.

I am quite sure that Michigan's canning factories could amply supply the state's population with canned goods, but I am reliably informed that more than three-fourths of those found on the shelves of our stores come from other states. Is it not about time that we started a campaign for "Grown in Michigan, Canned in Michigan, Eaten in Michigan?" Patriotism and loyalty to our nation is glorious, but should we not also hold allegiance to our own state, to its citizens.

Asparagus in Home Garden

Some Practical Hints on this Popular Garden Perennial

By H. F. Grinstead

ANY soil that is fit to produce other vegetables will answer for asparagus, though a light sandy loam is best. The preparation of soil should be thorough, and a liberal application of stable manure given where it is obtainable. If stable manure is not to be had, commercial fertilizer at the rate of 1,000 pounds to the acre and in the proportion of 150 pounds of nitrate of soda, 500 pounds of acid phosphate, sixteen per cent, and 200 pounds of muriate of potash will give good results. In addition to manure, 300 pounds of common salt should be applied. If commercial fertilizer is used, the salt is not necessary.

Doubtless the best and most economical way to begin with asparagus is to grow your own roots from seed. A little time would be gained by buying year-old roots from a nursery, but the selection would not be so good. In early spring, sow the seed in drills fifteen to thirty inches apart, depending on whether to be cultivated by hand or with horse. The seed should be planted an inch apart in the row and later thinned so the plants will stand three inches apart.

Clean cultivation should be given the seedlings, and the following year they should be transplanted in rows. When setting roots, whether from the nursery or your own growing, lay off a furrow with plow, making the rows three feet apart, and set the roots in the bottom of the furrow and cover with two inches of soil. Gradually work the soil in as the shoots begin to grow till the ground is level. One long row in the garden is to be preferred to a bed as was once the practice. If more than a row is desired, lay off another three feet from the first, or a little nearer if space is limited. Asparagus should be planted along one side of the garden where it will not be in the way of plowing each

year. In the south the roots may be transplanted in fall, though spring is best in northern latitudes. Possibly as good results may be had by planting the seed eight or ten inches apart in the row and thinning to the proper distance without transplanting, though it would not allow the selection of strong roots as the first plan would.

The first year after the roots are set, good cultivation should be given, and some crop like beans planted between the rows. Every spring the ground should be disced thoroughly or harrowed before the shoots put up. For home use it is as well to leave the ground level. The crowns of the asparagus will then be four or five inches beneath the surface, and when cutting shoots the cut is made just under the ground after the shoot shows three inches or more above. If perfectly white shoots are desired, however, which is frequently the case when marketing, a ridge of earth should be thrown over the plants early in spring, and the shoots cut several inches below the surface as quick as they show the tip above ground.

No shoots should be cut from roots the first year they are transplanted, but they should be allowed to grow and kept well fertilized so as to produce a good crop next year. The second year, not so much should be cut as in succeeding years. Given proper care a bed or row of asparagus will produce profitably for fifteen to twenty years. It should be cultivated every year during the cutting season, and should be supplied with manure. When the cutting season is over it should be harrowed, and at this time it is best to apply the manure. The tops should be allowed to grow and remain until spring in order to hold the snow, and prevent blowing of soil. The tops are sometimes cut off to destroy insect enemies.

Burpee's Seeds Grow



Burpee's Annual

The Leading American Seed Catalog

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CANADIAN CROPS TO BE SOLD BY WEIGHT.

ON and after January 1, 1923, grains, vegetables and seeds in Canada will be sold only by weight, according to the American Consulate at London. Hitherto, corn, wheat, barley, oats, maize, dried peas, dried beans, linseed, potatoes, and the seed of grass, clover, vetches, swedes, turnips, rape, cabbages, kale, mangels, beets, etc., have been sold by the quarter, which is a variable quantity depending on the material. For instance, a quarter of maize is 480 pounds; one of wheat, 504 pounds; oats may be either 304, 320 or 336 pounds, barley may be either 400, 448 or 416 pounds; in each case according to the country of origin.

FIGHTING ANTHRAX.

IN the United States the number of deaths of persons from anthrax contracted in places where it might be prevented by disinfection, is comparatively low. During the eight years up to and including 1917, there were 222 deaths caused by this disease, and only twenty-five to thirty per cent of them were of persons, such as wool workers and tannery employes, who might have been protected by treating the raw materials. Farmers and dock workers who handle wool, hides and hair brought into the country can not be protected in this way.

About twenty per cent of the deaths just mentioned were of farmers who in most cases contracted the disease as a result of skinning animals that died of an ailment at the time unknown. The farmer may protect himself by not attempting to salvage the hides of animals that have died from unknown causes.

In the past there have been occasional newspaper stories of men who have contracted anthrax through the medium of the shaving brush. As the brushes made of horsehair are said to be the most dangerous in this respect, brush manufacturers have voluntarily agreed to use no more horse hair in the making of shaving brushes.

THE PUBLIC SCHOOL.

WE have recently observed, or at least had called to our attention American Education Week, and why, ask some, an Education Week? A study of the following will probably answer the question.

Comparative percentage of illiteracy of the United States and foreign countries is as follows:

Germany	2
Denmark	2
Switzerland	5
Norway	1.0
Sweden	1.0
England	1.8
United States	6.0

The census of 1920 shows that the United States has nearly 5,000,000 people unable to read and write. Of this number 3,000,000 are whites, 1,200,000 of them native born. Michigan has 85,000 adults, or four per cent of her voting population, unable to read and write. The term illiterate in this connection means without any schooling and should not be confused with the army test, which means "lack of ability to read newspapers and to write letters." Held to the army test, which is really a true standard, 24.9 per cent of men between twenty-one and thirty-one years of age drawn for military service were classed as illiterates. It hardly seems possible, but is proven by the army tests that Michigan, with a voting population of 2,215,436 in 1920 had 551,644 voters "unable to read newspapers and write letters." Emphasis during American Education Week was placed on the question, "Is the degree of literate ability that we have been accepting too low to guarantee the stability of our democracy?" —E. V. Root, County Commissioner of Schools of Van Buren County.



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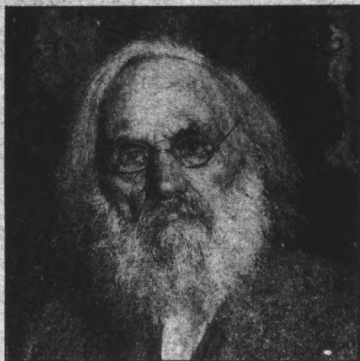
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WORLD EVENTS IN PICTURES



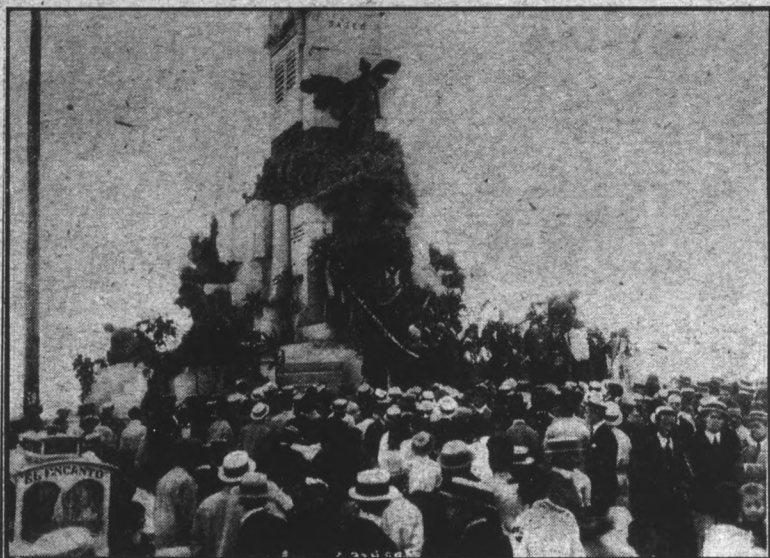
Dr. Wm. Gates, president of Maya Society, records Quiche Indian tongue by means of a "wave writer" and force of the breath.



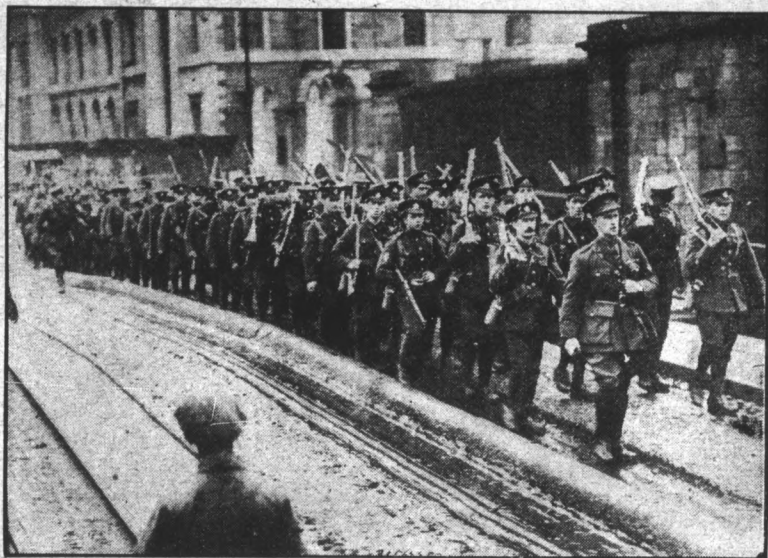
Veteran of the Oregon trail, 92 years young, was host to non-agenarians in New York.



Attorney-general Harry L. Daugherty's family had their first reunion in many years, at Washington, D. C., this past Xmas season.



On Cuban Memorial Day thousands paid homage to Antonio Maceo, hero of the Cuban revolution, and hundreds of school children carried roses to the foot of the monument dedicated to him.



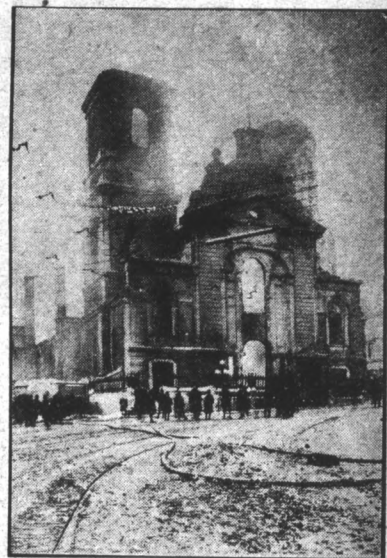
The last of the British soldiers have marched down the Northwall, Dublin, ready to embark for England, bag and baggage, the end of the English military occupation of Erin.



A typical view of Mosul—the bone of contention between Turkey and Great Britain.



The inhabitants of Coquimbo, Chile, started bravely at the tragic task of restoring order after the chaos left by the earthquake and tidal wave which swept the Chilean coast.



Priceless art treasures were lost when Notre Dame, Quebec, was destroyed by fire.



This photo just received from Lausanne shows the entire Russian Soviet delegation to the Near East Conference in session in that Swiss city.



Henry A. Dix, founder of the firm of Henry A. Dix & Sons Co., at the wish of his wife turned the million-dollar business over to its four hundred employees.

THE CROSS-CUT —By Courtney Ryley Cooper

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"Then let's get headquarters in a hurry. You know Captain Lee, don't you? You do the talking. Tell him to get hold of this fellow Barnham and pinch him, and then send him up to Ohadi in care of Pete Carr or some other good officer. We've got a lot of things to say to him."

The message went through. Then the two sheriffs rose and looked at their revolvers.

"Now for the tough one." Bardwell made the remark, and Mason smiled grimly. Fairchild rose and went to him.

"May I go along?"

"Yes, but not the girl. Not this time."

Anita did not demur. She moved to the big rocker beside the old base burner and curled up in it. Fairchild walked to her side.

"You won't run away," he begged.

"I? Why?"

"Oh—I don't know. It—it just seems too good to be true!"

She laughed and pulled her cap from her head, allowing her wavy, brown hair to fall about her shoulders, and over her face. Through it she smiled up at him, and there was something in that smile which made Fairchild's heart beat faster than ever.

"I'll be right here," she answered and with that assurance, he followed the other two men out into the night.

Far down the street, where the rather bleak outlines of the hotel showed bleaker than ever in the frigid night, a light was gleaming in a second-story window. Mason turned to his fellow sheriff.

"He usually stays there. That must be him—waiting for the kid."

"Then we'd better hurry—before somebody springs the news."

The three entered, to pass the drowsy night clerk, examine the register and to find that their conjecture had been correct. Tiptoeing, they went to the door and knocked. A high-pitched voice came from within.

"That you, Maurice?"

Fairchild answered in the best imitation he could give.

"Yes. I've got Anita with me."

Steps, then the door opened. For just a second, Squint Rodaine stared at them in ghastly, sickly fashion. Then he moved back into the room, still facing them.

"What's the idea of this?" came his forced query. Fairchild stepped forward.

"Simply to tell you that everything's blown up as far as you're concerned, Mr. Rodaine."

"You needn't be so dramatic about

it. You act like I'd committed a murder! What've I done that you should—?"

"Just a minute. I wouldn't try to act innocent. For one thing, I happened to be in the same house with you one night when you showed Crazy Laura, your wife, how to make people immortal. And we'll probably learn a few more things about your character when we've gotten back there and interviewed—"

He stopped his accusations to leap forward, clutching wildly. But in vain.

It ain't going to be hard to find that rattler!"

When Honor Triumphs. CHAPTER XXV.

FAIRCHILD felt the logic of the remark and ceased his worriment. Quietly, as though nothing had happened, the three men went down the stairs, passed the sleeping night clerk and headed back to the sheriff's office, where waited Anita and Harry, who had completed his last duties in regard to the chalky-faced Maurice Rodaine.

No Place to Tie Old Ned

By Al. Rice

O, the hitching post is missing,
From the street it's gone away
And the motor cars are hissing
Where we tied him yesterday.
So we move along and ramble
To another place instead,
'Round the town we, looking, amble
For a place to tie Old Ned.

There's no place to park securely,
With a rope around the neck;
So we stand around demurely
While we hold him by the check.
And we buy our goods by proxy;
For we have to watch the sled,
With the horses feelin' foxy
And no place to tie Old Ned.

O, the tie-shed's full of flivvers
Where we used to park the team,
Where the horses bit the slivers
From the tie-rails' wooden beam,
Cars to rent and buy and borrow
Have pre-empted all the shed,
And we turn away in sorrow,
With no place to tie Old Ned.

For a hitching-post we hanker
Like a Chinaman for dope—
Ned has got to have an anchor
That is fastened to a rope,
Or he goes to escapading—
Straight for home he takes the sled,
While we're left to do our trading
With no place to tie Old Ned.

With a lunge, Squint Rodaine had turned, then springing high from the floor, had seemed to double in the air as he crashed through the big pane of the window and out to the twenty-foot plunge which awaited him. Blocked by the form of Fairchild, the two sheriffs sought in vain to use the guns which they had drawn from their holsters. Hurriedly they gained the window, but already the form of Rodaine had unrolled itself from the snow bank into which it had fallen, dived beneath the protection of the low coping which ran above the first-floor windows of the hotel, skirted the building in safety and whirled into the alley that lay beyond. Squint Rodaine was gone. Frantically, Fairchild turned for the door, but a big hand stopped him.

"Let him go—let him think he's gotten away," said grizzled Sheriff Mason. "He ain't got a chance. There's snow everywhere—and we can trail him like a hound dawg trailing a rabbit. And I think I know where he's bound for. Whatever that was you said about Crazy Laura hit awful close to home.

The telephone jangled. It was Denver. Mason talked a moment over the wire, then turned to his fellow officer.

"They've got Barnham. He was in his office, evidently waiting for a call from here. What's more, he had close to a million dollars in currency strapped around him. Pete Carr's bringing him and the boodle up to Ohadi on the morning train. Guess we'd better stir up some horses now and chase along, hadn't we?"

"Yes, and get a gentle one for me," cautioned Harry. "It's been eight years since I've sit on the 'urricane deck of a 'orse!"

"That goes for me too," laughed Fairchild.

"And me—I like automobiles better," Anita was twisting her long hair into a braid, to be once more shoved under her cap. Fairchild looked at her with a new sense of proprietorship.

"You're not going to be warm enough!"

"Oh, yes, I will."

"But—"

"I'll end the argument," boomed old

Sheriff Mason, dragging a heavy fur coat from a closet. "If she gets cold in this—I'm crazy."

There was little chance. In fact, the only difficulty was to find the girl herself, once she and the great coat were on the back of a saddle horse. The start was made. Slowly the five figures circled the hotel and into the alley, to follow the tracks in the snow to a barn far at the edge of town. They looked within. A horse and saddle were missing, and the tracks in the snow pointed the way they had gone. There was nothing necessary but to follow.

A detour, then the tracks led the way to the Ohadi road, and behind them came the pursuers, heads down against the wind, horses snorting and coughing as they forced their way through the big drifts, each following one another for the protection it afforded. A long, silent, cold-gripped two hours—then finally the lights of Ohadi.

But even then the trail was not difficult. The little town was asleep; hardly a track showed in the streets beyond the hoofprints of a horse leading up the principal thoroughfare and on out to the Georgeville road. Onward, until before them was the bleak, rat-ridden old roadhouse which formed Laura's home, and a light was gleaming within.

Silently the pursuers dismounted and started forward, only to stop short. A scream had come to them, faint in the bluster of the storm, the racking scream of a woman in a tempest of anger. Suddenly the light seemed to bob about in the old house; it showed first at the window—then another—as though some one were running from room to room. Once two gaunt shadows stood forth—of a crouching woman, one hand extended in the air, as she whirled the lamp before her for an instant and brought herself between its rays and those who watched.

Again the chase and then the scream, louder than ever, accompanied by streaking red flame which spread across the top floor like wind-blown spray. Shadows weaved before the windows, while the flames seemed to reach out and enwrap every portion of the upper floor. The staggering figure of a man with the blaze all about him was visible; then a woman who rushed past him. Groping as though blinded, the burning form of the man weaved a moment before a window, clawing in a futile attempt to open it, the flames, which seemed to leap from every portion of his body enwrapping him. Slowly, a torch-like, stricken thing, he sank out of sight, and as the pursuers outside rushed forward, the figure of a

AL ACRES—Slim Goes to the City Without His Evening Clothes

—By Frank R. Leet.



woman appeared on the old veranda, half naked, shrieking, carrying something tightly locked in her arms, and plunged down the steps into the snow. Fairchild, circling far to one side, caught her, and with all his strength resisted her squirming efforts until Harry and Bardwell had come to his assistance. It was Crazy Laura, the contents of her arms now showing in the light of the flames as they licked every window of the upper portion of the house—five heavy, sheepskin-bound books of the ledger type, wrapped tight in a grasp that not even Harry could loosen.

"Don't take them from me!" the insane woman screamed. "He tried it, didn't he? And where's he now—up there burning! He hit me—and I threw the lamp at him! He wanted my books—he wanted to take them away from me—but I wouldn't let him. And you can't have them—hear me—let go of my arm—let go!"

She bit at them. She twisted and butted them with her gray head. She screamed and squirmed—at last to weaken. Slowly Harry forced her arms aside and took from them the precious contents—whatever they might be. Grimly old Sheriff Mason wrapped her in his coat and led her to a horse, there to force her to mount and ride with him into town! The house—with Squint Rodaine—was gone. Already the flame was breaking through the roof in a dozen places. It would be ashes before the antiquated fire department of the little town of Ohadi could reach there.

Back in the office of Sheriff Bardwell the books were opened, and Fairchild uttered an exclamation.

"Harry! Didn't she talk about her books at the coroner's inquest?"

"Yeh. That's them. Them's her dairy."

"Diary," Anita corrected. "Everybody knows about that—she writes everything down in there. And the funny part about it, they say, is that when she is writing, her mind is straight and she knows what she's done and tells about it. They've tried her out."

Fairchild was leaning forward.

"See if there's any entry along early in July—about the time of the inquest."

Bardwell turned the closely written pages, with their items set forth with a slight margin and a double line dividing them from the events tabulated above. At last he stopped.

"Testified today at the inquest," he read. "I lied. Rody made me do it. I never saw anybody quarreling. Besides, I did it myself."

"What's she mean—did it herself?" the sheriff looked up. "Guess we'll have to go 'way back for that."

"First let's see how accurate the thing is," Fairchild interrupted. "See if there's an item under November 9 of this year."

The sheriff searched, then read:

"I dug a grave tonight. It was not filled. The immortal thing left me. I knew it would. Rody had come and told me to dig a grave and put it in there. I did. We filled it with quicklime. Then we went upstairs and it was gone. I do not understand it. If Rody wanted me to kill him, why didn't he say so. I will kill if Rody will be good to me. I've killed before for him."

"Still referring to somebody she's killed," cut in Anita. "I wonder if it could be possible—"

"I've just thought of the date!" Harry broke in excitedly. "It was along about June 7, 1892. I'm sure it was around there."

The old books were mulled over, one after the other. At last Bardwell leaned forward and pointed to a certain page.

"Here's an item under May 28. It says: 'Rody has been at me again! He wants me to fix things so that the three men in the Blue Poppy mine will

get caught in there by a cave-in.'" The sheriff looked up. "This seems to read a little better than the other stuff. It's not so jagged. Don't guess she was as much off her nut then as she is now. Let's see. Where's the place? Oh, yes: 'If I'll help him, I can have half, and we'll live together again, and he'll be good to me and I can have the boy. I know what it's all about. He wants to get the mine without Sissie Larsen having anything to do with it. Sissie has cemented up the hole he drilled into the pay ore and hasn't told Fairchild about it, because he thinks Rody will go partnerships with him and help him buy it. But Rody won't do it. He wants that extra money for me. He told me so. Rody is good to me sometimes. He kisses me and makes over me just like he did the night our boy was born. But that's when he wants me to do something. If he'll keep his promise I'll fix the mine so they won't get out. Then we can buy it at public sale or from the heirs; and Rody and I will live together again.'"

"The poor old soul," there was aching sympathy in Anita Richmond's voice. "I—I can't help it if she was willing to kill people. The poor old thing was crazy."

"Yes, and she's 'ad us bloody near crazy too. Maybe there's another entry."

"I'm coming to it. It's along in June. The date's blurred. Listen: 'I did what Rody wanted me to. I sneaked into the mine and planted dynamite in the timbers. I wanted to wait until the third man was there, but I couldn't. Fairchild and Larsen were fussing. Fairchild had learned about the hole and wanted to know what Larsen had found. Finally Larsen pulled a gun and shot Fairchild. He fell, and I knew he was dead. Then Larsen bent over him, and when he did I hit him—on the head with a single-jack hammer. Then I set off the charge. Nobody will ever know how it happened unless they find the bullet or the gun. I don't care if they do. Rody wanted me to do it.'"

Fairchild started to speak, but the sheriff stopped him.

"Wait, here's another item:

"'I failed. I didn't kill either of them. They got out somehow and drove out of town tonight. Rody is mad at me. He won't come near me. And I'm so lonesome for him!'"

"The explanation!" Fairchild almost shouted it as he seized the book and read it again. "Sheriff, I've got to make a confession. My father always thought that he had killed a man. Not that he told me—but I could guess it easily enough, from other things that happened. When he came to, he found a single-jack hammer lying beside him, and Larsen's body across him. Couldn't he naturally believe that he had killed him while in a daze? He was afraid of Rodaine—that Rodaine would get up a lynching party and string him up. Harry here and Mrs. Howard helped him out of town. And this is the explanation!"

Bardwell smiled quizzically.

"It looks like there's going to be a lot of explanations. What time was it when you were trapped in that mine, Harkins?"

"Along about the first of November."

The sheriff turned to the page. It was there—the story of Crazy Laura and her descent into the Blue Poppy mine, and again the charge of dynamite which wrecked the tunnel. With a little sigh, Bardwell closed the book and looked out at the dawn, forcing its way through the blinding snow.

"Yes, I guess we'll find a lot of things in this old book," came at last. "But I think right now that the best thing any of us can find is a little sleep."

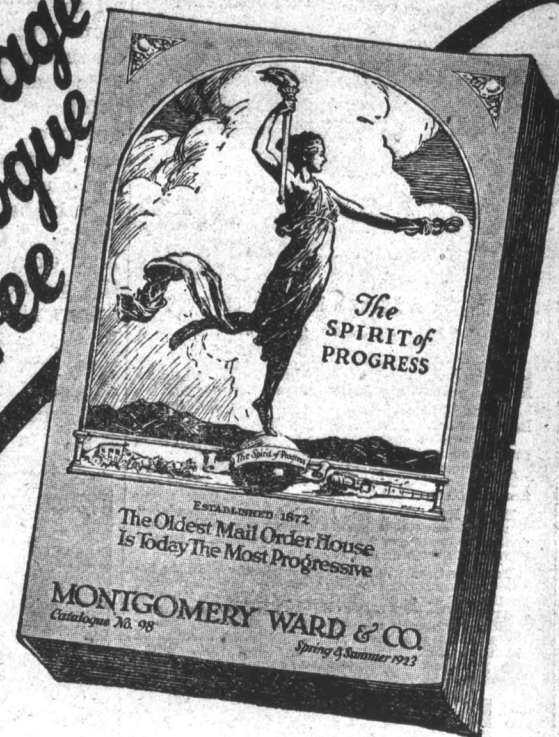
Rest—rest for five wearied persons, but the rest of contentment and peace. And late in the afternoon, three of

(Continued on page 83).

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The Runaway Boy

Our Weekly Sermon—By N. A. McCune

THE parable of the Prodigal Son has been called the greatest of all the parables. Archbishop Trent calls it "the pearl and crown of all the parables," and Grotius, the famous Dutch scholar, says of it, "Amid all the parables of Christ this one surely is remarkable, as full of feeling and painted with the fairest colors." There are two short parables preceding the one on the prodigal son, those of the lost sheep and the lost coin. Here is a valuable remark on them: "The Parable of the Lost Sheep and the Lost Coin form a pair, and represent the bewildered sinner and the unconscious sinner, while the story of the Prodigal Son forms an exquisite picture of the sinner who deliberately chooses his own path, and deliberately turns back to ask his Father's forgiveness. In the first parable one out of

a hundred is lost and restored, in the second one out of ten, and in the third one out of two."



One never can forget Christ's picture of the strayed and homesick lad; the companions who carouse with him, as long as he has

money, but who promptly leave him as soon as he has spent everything; the lonely and forlorn looking for work, and the being sent to feed pigs, an occupation that was considered by Jews as the lowest of the low; the agonies of remorse, the biting of memory, and finally the resolve, "I will arise and go;" the old father standing at the gate looking down the road at evening, and seeing what looks like a familiar form; his running to meet his boy, and his full and free forgiveness. One never forgets this, once it has been impressed on his imagination.

THE boys who become modern prodigals are very numerous. One can scarcely pick up a paper without finding an account of some youthful derelict who has committed robbery or killed some one. Modern lads are traveling into the "far country" in great numbers. And they go in for riotous living, as far as their means allow. When they do not have the means they often secure it by foul means. In short, there is a breakdown in moral restraint. The causes of this are many. One might describe it as the modern mania to throw off restraint. It is by no means confined to the young. People who have lived together for forty years suddenly get miffed and one sues for divorce. Thousands of children are involved in the divorce courts every year. A well-known writer speaks of our "consecutive polygamy." One can hardly expect young folk to be more restrained than their elders. Further, fiction that is widely read has a powerful influence on the minds of the young. In much of recent fiction the moral restraints are poohpoohed, as one would make light of the fears of a child. Women are represented as living with men, unmarried, and being received at the same time in good society. God is not reckoned as a probability, even, to say nothing of a certainty.

Articles appear in the magazines at times on woman's present status. One woman will complain that because she has a family she is unable to "live her life," as she would have liked to do, and she resents the conventionalities that tie her to husband or child. All this and volumes more cannot but have an influence on the young man of

sixteen, eighteen, who thinks he has grown up and knows more than his father ever thought of. A fellow is awfully hard up who cannot spend one or two nights a week out, without any questions being asked, and who does not have plenty of money for cigarettes and the movies.

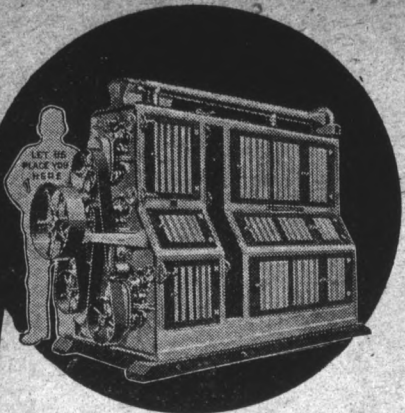
NOW, there is more to it than the prodigal son. There is also the prodigal father. Were the prodigal dads to be suddenly reformed, the growing crop of juvenile prodigals would be immensely reduced. Put it this way: A certain man had two sons. And he said unto the younger, "Boy, I am very busy these days, I have no time to tell you a story to-night. Your mother will do that." And it came to pass that the father was out every night, and he never taught his little boy anything about the Bible. And when the boy was much grown, he fell into a very serious trouble, so that the hands of the law were laid on him. And he disgraced his family, while his mother was broken-hearted. And the father was alarmed and he said, "I have sinned before heaven and against my son. I will take him back again, and I will give him time, yes, I will even be a chum to him, and he shall no more go wrong." And the father did so, and even went camping with his younger son, and read the same books that his boy read.

Not long ago I read the story of a boy who did what the prodigal of old did. He went into the far country. He went to the city, to have a good time, and took some of his father's money with him. The mother telephoned the father, and the father telegraphed the police in the city. When the boy got off the train he was met by a truant officer, who was a past master at his job. That night the boy stayed at his house. The next day they went to see the sights. They visited the courts where young fellows were being tried, some of them for serious crimes. They went to the great city jail and saw young boys who were herded with old criminals. Then they climaxed it all by visiting the morgue. When the would-be prodigal looked on the cold faces of the unknown dead, he began to cry. "I want to go home," he said. That afternoon the father arrived. The kindly truant officer had a talk with him, on the side. The father did not upbraid the boy, nor threaten him, for he well knew that he himself had been a fool, and he was man enough to say so.

THAT was the beginning of a new chapter in the life of both son and father. They spent the next summer's vacation together, in the woods, and the boy learned that his dad was a pretty good sport, after all. Moreover, they had confidential talks. When the boy asked his father a question about some of the mysteries of life, the father did not put him off, or tell him he was too young to ask such questions. He gave him the very best answer he could. The boy never attempted again to be a prodigal. Could all such fathers have such an experience there would be new chapters written in the lives of America's boys in the next ten years. A man of my acquaintance said the other day, "I make it a rule to stay at home at least one night a week, to play with my youngsters. I wouldn't miss it for anything."

SUNDAY SCHOOL LESSON FOR JANUARY 21.

SUBJECT:—The Prodigal Son.
LESSON:—Luke 15.
GOLDEN TEXT:—There is joy in the presence of the angels of God over one sinner that repenteth.



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The Cross-Cut

them were gathered in the old-fashioned parlor of Mother Howard's boarding house, waiting for the return of that dignitary from a sudden mission upon which Anita Richmond had sent her, involving a trip to the old Richmond mansion. Harry turned away from his place at the window.

"The district attorney 'ad a long talk with Barnham," he announced, "and 'e's figured out a wye for all the stock-olders in the Silver Queen to get what's coming to them. As it is, they's about a 'unnerd thousand short some-eres."

Fairchild looked up.

"What's the scheme?"

"To call a meeting of the stock-olders and transfer all the money over to a special fund to buy Blue Poppy stock. We'll 'ave to raise money any-way to work the mine like we ought to. And it'd cost something. You al-ways 'ave to underwrite that sort of thing. I sort of like it, even if we'd 'ave to sell stock a little below par. It'd keep Ohadi from getting a bad name and all that."

"I think so too," Anita Richmond laughed. "It suits me fine."

Fairchild looked down at her and smiled.

"I guess that's the answer," he said. "Of course that doesn't include the Rodaine stock. In other words, we give a lot of disappointed stockholders par value for about ninety cents on the dollar. But Farrell can look after all that. He's got to have something to keep him busy as attorney for the company."

A step on the veranda, and Mother Howard entered, a package under her arm, which she placed in Anita's lap. The girl looked up at the man who stood beside her.

"I promised," she said, "that I'd tell you about the Denver road."

He leaned close.

"That isn't all you promised—just before I left you this morning," came

his whispered voice, and Harry at the window, doubled in laughter.

"Why didn't you speak it all out?" he gurgled. "I 'eard every word."

Anita's eyes snapped.

"Well, I don't guess that's any worse than me standing behind the folding doors listening to you and Mother Howard gushing like a couple of sick doves!"

"That 'olds me," announced Harry. "That 'olds me. I ain't got a word to sye!"

Anita laughed.

"Persons who live in glass houses, you know. But about this explanation. I'm going to ask a hypothetical question. Suppose you and your family were in the clutches of persons who were always trying to get you into a position where you'd be more at their mercy. And suppose an old friend of the family wanted to make the family a present and called up from Denver for you to come on down and get it—not for yourself, but just to have around in case of need. Then suppose you went to Denver, got the valuable present and then, just when you were getting up speed to make the first grade on Lookout, you heard a shot behind you and looked around to see the sheriff coming. And if he caught you, it'd mean a lot of work and the worst kind of gossip, and maybe you'd have to go to jail for breaking laws and everything like that? In a case of that kind, what'd you do?"

"Run to beat blazes!" blurted out Harry.

"And that's just what she did," added Fairchild. "I know because I saw her."

Anita was unwrapping the package. "And seeing that I did run," she added with a laugh, "and got away with it, who would like to share in what remains of one beautiful bottle of Manhattan cocktails?"

There was not one dissenting voice.

THE END.

Rural Health

By Dr. C. H. Lerrigo

PILES AND CANCER.

In a recent issue you state that persons with bleeding piles should consult a doctor so as to guard against cancer. Do you think that bleeding piles indicates cancer? What is a cure?—F. A.

There are many cases of bleeding piles about which there is no suspicion of cancer, and I would not even venture to say that it leads to cancer, for piles is among the commonest of complaints. But it does often happen that people suffering from early cancer of the rectum let the trouble run on until too late to do anything, thinking that it is no more than piles. For that reason alone I think no case of piles should be neglected.

It is also true that piles, once the condition is chronic, can never be cured by any form of home treatment, and this is also a good reason for examination by a doctor.

FEET HAVE BAD ODOR.

Is there any remedy for sweating feet that also have a bad odor?—Mrs. E. W. M.

One must make sure that this is not a condition due to faulty elimination of the kidneys. If the trouble is strictly local it may be remedied by bathing the feet every night in warm water to which has been added a teaspoonful of boracic acid powder for each pint. Once or twice a week a few drops of formaldehyde may be used instead of

the powder. It is necessary to wear fresh, clean hose every day and to keep extra pairs of shoes so that it will be possible to have shoes thoroughly aired after each time they are worn. Keep the nitrogenous foods to a minimum and be sure to drink plenty of fresh water.

A CURE FOR THUMB SUCKING.

Please tell me how to keep a boy of fifteen months from thumb sucking.—Mother.

The best way is to make a splint of light material that will reach from upper arm to wrist and keep him from bending his elbow. This can be taken off when needed and will give him perfect freedom in his play while absolutely keeping his hands from his mouth.

CANNOT SWALLOW.

Please tell me what causes the muscles in the gullet to contract when one is eating. Pain is very severe. One has no control over the food being swallowed and it will neither go down or come up.—J. D. McG.

I think your trouble is cardiospasm which is due to an irritability of the cardiac end of the stomach. This cannot be cured by ordinary remedies but a competent doctor can relieve you completely by a course of treatment which includes the passing of sounds at intervals along the course of the esophagus.



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Woman's Interests

Child's Knitted Sweater

By Gracia Shull

THIS simple, comfy little garment needs no illustration. It is a snug little sweater for use throughout the winter and until late spring or early summer. It is designed for a tot of from three to five years, but by employing heavier needles and increasing the length it may be made to fit a child of any size. Use four skeins of zephyr good grade four-fold yarn for a small child. Any color desired may be used. No. 4 amber knitting needles are employed.

To Make: Cast on 72 stitches. (The number of stitches employed must be divisible by four). Next work one inch of ribbing of knit 1, purl 1 for the border of the garment.

After the first row, always slip the commencing stitch of each row.

Change now to the pattern, made this way: First, Second and Third Rows.—* knit 2, purl 2, repeat from * to the length of the row.

Fourth Row.—Knit plain. Repeat the design one to four until twelve inches of the pattern have been made.

Cast off all the stitches except 14 at the end of row. The casting off should be loosely done that the sweater may slip on easily over the head as this is a "slip on" garment.

Knit four and one-half or five inches

plain on the 14 stitches to form the shoulder for one side of the garment. Cast off.

This completes one-half of the sweater.

Proceed in like manner for the other half.

Now place the halves together with a shoulder piece for each side. With a crochet hook slip-stitch the side seams together, beginning at the bottom to join the seams and leave sufficient room at the top for the armholes. The shoulder pieces are next sewn in position.

Edge.—Around the neck work a row of * chain 2, treble crochet 1 around with angora wool, preferably white. Use bone hook.

Over the row of spaces work open shells, * 5 trebles in hole separated by 1 st between trebles. Ch 4, single crochet 1 in next hole, ch . Repeat from * around.

Cover the trebles with picot loops. Work this same design around armholes and bottom of sweater.

Crochet 3 chains of sufficient length and run through spaces around neck and armholes.

Finish ends of chains with fluffy angora tassels. This completes the garment.

Household Service

Use this Department to Help Solve Your Household Problems. Address all Letters to Martha Cole, Michigan Farmer, Detroit, Mich.

CONCRETE WASH TUBS.

We certainly have enjoyed your farm paper so much. I want some stationary tubs to wash in. Can you tell me the amount of cement and gravel you would need and how to put the hard smooth finish on?—Mrs. M. B. M.

I would suggest that for the materials to be used for this tub a proportion of one part cement to two parts of sand, in which the largest particles are not over a quarter-inch in diameter be used. This should be mixed two or three times as much as would ordinarily be done, and put into forms rather wet so that it will fill more completely. The addition of about one pound of lime to each ten pounds of cement will also make it more smooth and water tight. The surface can then be painted with a mixture of cement and water mixed to a consistency of thick cream, before this is put on the surface it is well to see that the surface is well wet so that the water will not remove the paint. After this has had time to set it should be kept wet or moist for a period of a week or more. A little lime can be added to this surface water. With this treatment it would scarcely be necessary to use any other surface finish, however, if desired a finer grade of cement paint or a special cement and water can be used for a surface finish.

Suggestions are not requested concerning the type of laundry tub, but it has been the writer's experience that the ordinary tub set on a stand is more desirable in many respects than a stationary tub, provided with casters so that it can be easily moved about and also provided a stand is built for each tub.

In a particular case which I have in mind the stand was built of ordinary two by two-inch legs spaced just far enough apart so that the lower rim of the tub would project over the outside

of these legs. Openings were made in the bottom of the tubs and hose connections were soldered on and hose pieces attached. The hose was then provided with a wire hook with which it was hooked over the end of the tub, the tub is drained by simply lowering the hose, if a drain is provided in the cellar floor. This answers very satisfactorily and is inexpensive.

The best advantage this tub has over stationary tubs is that it is possible to work entirely around the group of tubs and washing machine.—Musselman.

A HANDY DEVICE.

I SAVED myself lots of worry and made my work much easier when I took the latch off from the door leading from the kitchen to the woodshed. To close and hold the door shut I fastened a screweye in the upper corner of the door and tied a stout cord (about five feet long) in it. I then made a pulley by fastening a picture hook into the door casing opposite the screweye. Put an empty spool on the picture hook and draw the cord over this with a weight on the end.—A Subscriber.



A new idea in winter and spring millinery is the painted hat. Oilcloth covers the brim of the hat, while the decorations are paintings in oils so that no rain can spoil the artist's work.

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Comments on the Contests

By Martha Cole

HELLO, folks! as the Household Editor told you last week, I am on the job to read your contest letters, and help you in solving your home problems.

The postman brought in a goodly number of "homey" farm pictures this week. I greatly enjoyed studying them and really think this picture contest was a good way to get acquainted and serve quite as an introduction for us. I might not remember your name when I meet you, but I feel sure I would recognize the lady in the overalls on the way to the berry patch, or the lady feeding the chickens out by the barn.

Because of the lack of contrast between the light and shadow in some of the pictures it would not be possible to reproduce them on this page, even though the subject matter be good. It also takes some time for our engraver to make cuts for these pictures, so the prize winners will not appear until next week. The winners are: First, Mrs. R. H. E., Decatur, Michigan; second and third, Mrs. J. H. H., Cedar Springs, and Mrs. E. G., Capac, Michigan; fourth and fifth, Mrs. L. S., Halfway, Michigan, and Mrs. G. V. Ellsworth, Michigan.

This picture contest proved so successful that I believe we will have to have a baby picture contest some time. Watch for a future announcement of it.

Our contest this next week will be the "Contents of the School Lunch Basket." Send us a letter on how you solve this problem which comes before the mother five days a week. Tell about some of the little dainties and methods of disguising plain food to tempt the appetites of the youngsters. For first prize we will give an aluminum preserving kettle; the second prize will be an aluminum frying pan, while the third, fourth and fifth prizes will be aluminum sauce pans.

Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan, before January 26.

MAKE YOUR OWN YEAST CAKES.

THIS yeast cake recipe has always proven out. I have just finished making over two hundred of them and when yeast cakes are so high it helps to cut down expenses where a family makes eight or ten loaves twice a week, and yeast cakes cost nine and ten cents per package, and only five in a package.

Put a pint of good strong hops in half a gallon of water and let it boil a half hour. Have one quart of flour in a jar and strain the boiling hop water on the flour, stirring it well. Set it in a cool place and when it is cool enough to bear your finger in, pour in one teacupful of good yeast to start it, and put it in a warm place until it rises. When light stir it down, and continue this until fermentation ceases, which will be in about two days. Stir in enough cornmeal so you can handle it, roll out the desired thickness and cut into cakes. Put them onto a board with paper on and turn often until dry, in a warm, not hot, place. If used three months after making they will be as good as when first made.—Mrs. W. P. O.

ROUTINE.

ROUTINE is often called dull and uninteresting but it need not be so. The creation of a routine is an art requiring ingenuity and experiment. After it is perfected, the sense of responsibility is eased. One may slip into a routine and feel in a natural

element like a fish in water. The subconscious mind seems to do the work and while the trained hands are busy going through their accustomed motions, one's thoughts, as free as birds, may be up and a thousand miles away.

Routine is a great saver of time and nervous energy. It is simply doing things in a regular way which, oft-repeated, makes of work an easy-running mechanism. Just as a mechanism is composed of nicely adjusted parts, so is work made up of many details. It is by paying close attention to these details for a while that the routine, by which work swings easily, rhythmically along is established.

Take any piece of work you have to do and think it over. Then arrange the details into what seems to be the smoothest working order. Make a list of them and do your work in the order written with the list before you if that is necessary to fix the routine. After a few times of following the list as you work you know it and that way of doing the thing has become a habit. This method of dissecting a job simplifies work surprisingly. With such a procedure in mind one goes steadily to work without wasting any time in wondering where to begin or what to do next in hesitating or making false moves.

If you can find the rhythm that beats everywhere in life, even in the doing of the simplest task, and let your motions swing in time, then, indeed, labor becomes, not drudgery, but a rare and tireless joy. This is getting into the spirit of your work and glorifying it, no matter how humble it may seem, with the light of your own personality.—Alice A. Keen.

CRUDE OIL TO KILL RATS.

THERE is a remedy for the rat nuisance—one that is cheap and effectual. If crude oil (petroleum) is placed in the runs, the rats will leave the vicinity. If they are caught in their runs, so that they have to breathe the fumes for an hour or more they will be poisoned. Meat that contains petroleum can be used as bait to catch this offensive rodent. Experiments proved that rats which ate meat treated with crude oil died in fifteen minutes.

Ships, from time immemorial, have been infested with rats, and to these carriers of merchandise the rats owe their dissemination. The rats were formerly particularly destructive to cargoes of silk cocoons; but so effective is the crude oil remedy that one ship which had been carrying sugar, and as a consequence, whose bilge water was sweet and particularly attractive to rats, has been entirely rid of them. The remedy was applied after one cargo had been practically destroyed. The crude oil was added to the bilge water.

The gases produced by the evaporation of the crude oil are very inflammable when present in large quantities, but the amount necessary to use about barn or outbuildings would not endanger the property.—M. A. C.



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ALWAYS USE

CALUMET

The Economy BAKING POWDER



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Contains over 100 Actual Samples

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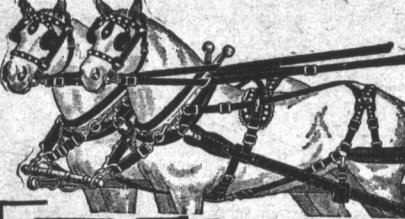
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HEALING and ANTISEPTIC



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Mention The Michigan Farmer When Writing Advertisers

Boys' and Girls' Department

Found In Our Letter Box

Letters from Pals Found in the Correspondence Corner

Dear Uncle Frank:

I didn't write you since I received your letter. It was a nice letter. I thank you for it.

We had a Christmas dinner in school and we gave each other presents. We also had a pretty Christmas tree there. Now we have a week's vacation. It is wintry this week, although I had fun sliding down hill.

On Christmas Day we had a children's entertainment in the church. I had to speak there, too. We got a box of candy and a book there.

I will have to close now or my letter will be too long.—Your niece, Magdalena Yntema, Bryan Center, Mich.

I think it was nice to have a community Christmas. It's fun sliding down hill, but how about climbing up?

Dear Uncle Frank:

I am a young Holland girl. I am only thirteen years old. I was eleven when I came here, so don't count my mistakes.

I will try to tell you something about my trip on the boat.

I liked it the first day pretty well, but before another day most of them were seasick, but I was not. One other big family went on the boat when we did. We lived right next to them in our town, so we knew them pretty well. The man had some meat in his room, so lots of rats came down there for meat. One day my sister was in the room with a scissors. She saw a rat and cut his tail off. That rat started to blow and she got scared of him, I tell you.

That same night a cat and a rat came after the meat and met each other on the man's knee. They had a great fight and the man awoke and started to squeal just like a pig. We heard him but when we got in his room he was gone.

If you want me to tell you more about my trip here is my address, Diena Nieuwenhuis, Kalamazoo, Michigan, R. 1.

You do very well for being in this country only two years. I am sure we would be glad to hear from you again.

Dear Uncle Frank:

How goes it with you already yet? In school we've formed a hiking club. For every hundred miles we hike we get a medal and when we've hiked out the season the one who has the most medals gets a prize. I've hiked twenty-four miles and we only organized two weeks before Christmas vacation. We also have a singing club, called a chorus club. We all chorus together, see? One night just before Christmas we went carolling, that is visiting the unfortunates and singing Christmas songs to cheer them up.

Goodness, how I rattle on. I'll close now. From your niece, Au Revolv, Mea Amigo. Bonnie Gillness, Sutton's Bay, Mich.

Yep, Santa called. Your club activities are interesting. Also yours is a rattling good letter. Please translate the ending of it for me. It must be something good.

Dear Uncle Frank:

I am a little girl twelve years old, but small for my age. My little eight-year-old sister is as large as I am. I

have another sister and brother.

Uncle Frank, do you want to know how to keep from getting the whooping cough? When we started to school last fall many of the scholars had the whooping cough. None of us children had had it and we don't want to get it because we might have to stay out of school for weeks.

You have heard of the noted doctor who makes his patients say, "Every day, in every way, I'm growing better and better." We didn't want to say that because we didn't have the whooping cough yet. So on the way to school we sang, over and over: I'm not going to get the whooping cough.

I'm not going to get the whooping cough, I'm not, going to get the whooping cough.

I think we sang it to the tune "The Old Cow Died." It's been four months and we haven't got it yet.

From your little friend, Evelyn Batten, Gallen, Mich.

I really think that whooping up on the singing did help the whooping cough. That "better and better" saying we should all practice. It helps.

Dear Uncle Frank:

Hi! Uncle Frank, I have thirteen uncles, which is an unlucky number. So it is good I have you to get me off the unlucky spot.

One night when we were milking, a cat was upstairs in the barn and he jumped into the feed box and came down the feed chute. Then I had to dig all the oats out to get the cat. He looked awful surprised to see light again.

I went to town the other day to have a tooth filled. It didn't hurt much.

My fingers are getting tired so I will have to quit. Your eleven-year-old nephew Raymond Aslakson, Holton, Mich., R. 2.

Glad to help you break up that unlucky number. I bet the thought of having that tooth filled hurt more than the actual filling of it.

Dear Uncle Frank:

This is the first time I have written to you and I suppose this letter will strike the waste basket.

I am twelve years old and in the sixth grade. I have light brown hair and medium brown eyes. I am about five feet tall. I used to have white hair, so with my brown eyes, I was quite a combination. Don't you think so, too?

We are printing a paper in our school and the children chose me for editor-in-chief. I do not like the job very well.

I think the pictures of you are very comical, especially the one which Dorothy Pinnon drew. It would remind a person of an old retired farmer who was loafing around and couldn't find a toothpick.

My letter is getting long, so goodbye for awhile.—A little niece, Helen Smith, St. Johns, Mich., R. F.

Once in a while letters do not strike the waste basket. This was one of the times. You got the right impression of Dorothy's picture because I am often looking for a toothpick.



Breckenridge Guernsey Calf Club: Lowell Young, Lester Burlingame, Bonnie Westall, Clifton Randall, Wilson Randall, Lloyd Shankel, C. Coleman.



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How delightful it is to have seasonable fruit grown in your own garden, freshly picked and served in your own home. Strawberries and other small fruits are easy to raise. Produce quickly. Keep you healthy. Make you good money easily. Baldwin's Big Berry Plant Farms, personally conducted by himself, produce healthy, northern grown, new ground berry plants. Standard varieties and everbearing strawberries, raspberries, blackberries, dewberries, grapes—all well known. Packed and shipped with care. Freshly dug. True to name. The money-making kind.

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GOOD SEEDS

Grown From Select Stock—None Better—53 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. Big free catalogue has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses.

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\$3.45

Khaki Shirts, 2 pockets and flaps, all sizes \$1.25

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For CUTS And WOUNDS

on man or beast, you will find Corona Wool Fat soothes the pain almost instantly and heals very quickly, often without leaving a scar. Can't be beat for Sore Shoulders Collar Boils Caked Udders Scratches Cracked Hoofs Rope Burns Barb Wire Cuts Sore Teats Sore of Any Kind, Etc.

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is one of the best remedies you can use. Made from the fatty secretions extracted from the wool and skin of sheep. Will not smart nor blister. "A friend in need" both in the home and barn—a REAL first aid. Sold by Druggists, Blacksmiths and Harness Dealers. If you can't supply write us.

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Strawberry Plants for sale, 15 standard varieties. Prices right. 1000 Dunlap \$2.50; Gibson \$4.50; the Wonderful Howard No. 17, \$8; Raspberries, Grape Plants, Asparagus, Currant and Gooseberries. Send for price list. Compare prices with others. Order now. Sawyer Nurseries, Box 108, Sawyer, Mich.

The Merry Circle

By Uncle Frank

WITH the announcement of the winners in this issue, we start the mailing of the first Merry Circle buttons and membership cards. Over 175 boys and girls who tried in this Read-and-Win Contest will get the buttons for having their answers correct. These buttons will be mailed out in accordance with the post office directions and I am anxious to learn how they reach their destination. So, it would please me greatly if those who get the buttons would write me if they get them in good shape and if they liked them.

While a great many got the answers to the contest correct, many others

Winter Sport Contest

NOW is the time when most boys and girls are out getting rosy cheeks and good health while enjoying the winter sports. Each has his preference and I think it would be interesting to learn what sports are preferred and why. So this week the contest will be on My Favorite Winter Sport. Please tell about it in two hundred words or less. Tell why you like it and about some of the good times you have had.

Send all letters to Uncle Frank, Michigan Farmer, Detroit, Michigan, so they will get there before January 26. Two pencil boxes, three pocket pencils and five Michigan Farmer world maps will be distributed to the writers of the ten best papers. All worth-while papers will get for their writers a Merry Circle button and membership card.

failed to do so. Others got the correct information but failed to observe the rules of the contest. Some still give their answers in sentence form; others still write out the questions and then give the answers, although all through the contests, I have given the correct answers just as I would like to have them.

THE PRIZE WINNERS.

HERE are the lucky ten for our Read-and-Win Contest of January 6. Beside the prizes they receive they will also get Merry Circle buttons and membership cards.

Pencil Box.

Fern M. Funderburg, Mesick, Mich., R. F. D. 2.

Genevieve Greek, Waldron, Mich.

Pocket Pencils.

Maryellen Evans, Fenwick, Mich., R. F. D. 1, Box 66.

Melva Rendel, Britton, Mich.

Herman Walt, Jr., Reese, Mich., R. 4.

Maps.

Ruth Ackerson, Goodrich, Mich.

Leonard Finkler, Coopersville, Mich., R. F. D. 2.

Nina Maxine Hover, Akron, Mich.

Harriett Hall, Burr Oak, Mich., R. F. D. 2 care J. Andrews.

Leona Oldenburg, Mendon, Mich., R. F. D. 2.

THE ANSWERS.

Here are the correct replies to the Read-and-Win Contest questions answered January 6:

1. To be born, grow fat and be killed—28-28.
2. Twenty per cent—28-28.
3. 513—26-26.
4. Twisted hay—24-24.
5. 150,000 pounds—11-11.
6. Hot graham gems or Boston Brown bread—20-20.
7. For doing good—18-18.
8. No—7-7.
9. Producing more than is consumed—13-13.
10. Light loams—5-5.

HOMELITE

The PORTABLE Electric Light and Power Plant



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32 volt HOMELITE without batteries

\$178

F.O.S. East Orange, New Jersey

Complete with batteries, \$245

Weights only 100 lbs
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Write today for full particulars of this wonderful work and money saver

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Attractive proposition to live dealers



Make the First Cost the Only Cost

The value of a good silo reaches its greatest height in a Kalamazoo Glazed Tile Silo because the superior quality of Kalamazoo Tile means perfect ensilage. Stock raising and dairying are by far the most profitable types of farming, and silage is unquestionably the most economical feed for livestock and dairy cattle.



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Our Glazed Tile silos are everlasting—decay-proof, storm-proof, vermin-proof; will not burn or blow down; save repair and paint bills. Three dead air spaces make perfect insulation against cold, heat, dampness. Kalamazoo Tile is made from selected quality clay in our own plant located in the center of the finest tile clay district. Our Wood Stave Silos have stood the test of 30 years. We are America's pioneer silo builders. All Kalamazoo Silos are fitted with continuous door frames of galvanized angle steel. Send for our free book of silo information.

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40 ACRES, 20 acres cleared, 4 room frame loan productive soil close to school and good resort lake. Price \$1000.00 with \$300.00 down, must be sold within 60 days. Write or wire, W. F. Umphrey, Ewart, Michigan.

Wanted To hear from owner of land for sale O. K. HAWLEY, Baldwin, Wisconsin

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80 Acres Improved \$5 per acre \$1000 cash. 160 acres improved \$67.50 per acre \$1000 cash. THE ALLEN COUNTY INVESTMENT CO., Iola, Kansas.

Farms Wanted Give full description and cash price. Quick sales. Leaderbrand Sales Agency, B-40, Cimarron, Kansas

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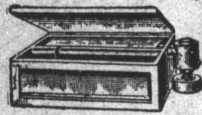
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Dept. 11, Detroit, Mich. Canadian Address: Windsor, Ont.

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Des Moines Incubator Co. 363 Second St., Des Moines, Ia.

Poultry

PROLAPSE OF THE OVIDUCT.

I have trouble with my S. C. W. Leghorn pullets. When a hen has just laid an egg, the egg-sack comes out, then the other hens pick at it until they pull inwards out of hen and kill her. Hens have mangels every day, mash composed of bran, middlings, cornmeal, ground oats and beef scraps, with half pound of salt to 100 pounds of mash. Pullets seem to take a long time to mature. It seems to be the largest hens that go like this. Lost a number last winter and a few through the summer this same way. Don't find any intestinal worms. Can it be any inherited weakness of the parent stock?—R. H. F.

A prolapse of the oviduct occurs most often among old hens that are heavy layers. Constipation is a cause but it may occur from straining to lay a large egg even when the care of the flock is ideal. The protruding parts



Gilbert Waldo Likes to Help Mother Feed the Chickens.

may be cleansed and rubbed gently with vaseline and replaced. Then feed the hen on soft feed. A dose of olive oil is helpful.

Sometimes the parts will not stay in place and in such cases I think it is best to use the hen for food at once before infection occurs. When the oviduct first protrudes the bird is probably perfectly healthy and suitable for food.

LEG WEAKNESS.

Can you tell me what is the matter with my young poultry? They are weak in their legs, they hang around two or three days then die. They don't eat at all.—J. W.

When young poultry have leg weakness it is usually due to faulty methods of management. Sometimes it comes from a general weakness brought on by chilling or overheating or possibly overcrowding in brooder. The lack of a balanced ration may cause leg weakness. Keeping young chicks too long on a dry board floor is often responsible. Rapidly growing cockerels sometimes develop leg weakness because their weight seems to outgrow their strength. The prevention of such cases consists in providing plenty of range and a balanced ration.

When chickens die it always pays to perform a postmortem to find the condition of the internal organs.

THE BEST BROILERS.

Please inform me as to the most profitable breed of poultry to be raised for the resort market in July, what kind of feed to be fed. At what time should the chicks be hatched?—D. B.

The Plymouth Rocks, Wyandottes and Rhode Island Reds or Whites are

very satisfactory breeds to produce early broilers and friers. These breeds grow rapidly and can often be made to reach a weight of about two pounds when close to eight weeks of age. Of course, the feeding methods have a direct influence on the growth and it pays to breed from early maturing and early feathering stock.

Raising early broilers simply means starting the chicks as usual and following with scratch grain and a growing mash until nearly ready for market. Many breeders find it pays to fatten broilers for a week or ten days on a sloppy mash of sour milk and cornmeal. The birds are confined to reduce the exercise. It will pay very well to use the commercial growing mashes which are advertised for the rapid growth of chickens.

Broilers to be sold by July 1 should be hatched not later than about the middle of May. The earliest broilers that reach the city markets bring the best prices and they are usually hatched in March and April.

HENS WITH COLDS.

Will you kindly tell what is wrong with some of my chickens, which are running at the nostrils and the throats seem to be filled with mucus, and they sneeze. Please tell me what to do for them at once before they die.—W. S.

Your birds have colds which must be treated promptly to avoid cases of roup. Colds are caused by draughts or dampness in the poultry house, exposure on the range in rain and windstorms, lack of a balanced ration to build up the resistance and crowding together in the corners of the houses instead of roosting.

I think feeding plenty of hard corn to the pullets in the fall furnishes them with a little fat and seems to cut down the colds in a flock. When birds have colds, remove the mucus from the nostrils with tissue paper. Then wash the head with a dilute solution of some commercial coal tar dip according to directions. Rubbing the head and nostrils with camphorated vaseline will often cure slight colds. When there are colds in the flock it pays to color the drinking water a deep red with permanganate of potassium. Injecting a little potassium permanganate solution in the nostrils with a medicine dropper will sometimes cure a cold. The best method is to locate the cause of the colds and remove it as soon as possible.

FACTS ABOUT GEESE.

I have in the last few years tried to raise geese, but with very little success. The first thing is trouble with infertile eggs, and then those that are fertile and hatch out, are hard to raise. Most of them die when they begin to get feathers. I assume this is due to improper feed. The general impression in this neighborhood is to feed very little grain to the old geese during the winter, and to keep them as thin as possible. This is believed to be a remedy for infertile eggs. I can hardly believe this, as I have tried it with no noticeable effect. Could you give me some pointers along these lines and geese raising in general?—E. F.

Goose eggs may be lacking in fertility because of an unsatisfactory gander. In such cases a new gander may be the remedy. It pays to mate geese in the fall as later matings may not produce fertile eggs the first year.

I think geese need some grain and should not be allowed to become too thin or too fat. Either condition may impair the fertility of the eggs produced. Geese do not thrive the best

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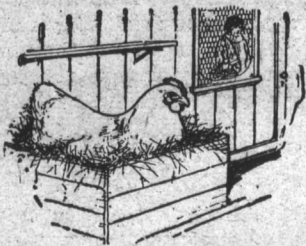
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on whole grains because of the limited development of their crops. A mash made of equal parts of bran, cornmeal and ground oats by weight is good for geese. This is supplemented by mangels and various vegetables and green feeds.

Fresh tender grass is a good first feed for goslings. At the beginning of the third day a moist mash of two-thirds wheat middlings and one-third cornmeal is satisfactory. Some breeders are successful by giving the goslings stale bread which is moistened with milk and squeezed dry. When a week old they are given a grass range as geese are naturally grass eaters, and plenty of green feed in the ration is more important than grain.

POULTRY MATINGS.

Would you please advise me what is the proper length of time to keep cockerels with hens in order to be sure the eggs would hatch and how many hens should be given each cockerel?—E. E.

It is best to have the cockerel with the hens about ten days before the eggs are saved for hatching. With the heavy breeds about ten hens to a cockerel will be all right. With Leghorns the ration can be about fifteen to one. The ratio can be slightly increased when the birds are on free range. The age and vigor of the male bird is also a factor to consider.

LUMP UNDER EYE.

I have two hens that are healthy, their combs are very red, and in good apparent health, only for a growth of very hard flesh under each of one of their eyes. Am using salve, also have bathed them, but perhaps you can give me some remedy for reducing this lump.—E. J. K.

The lump under the eye is apt to be caused by a form of roup. A slight cold has caused the nostril to become sealed and the fluid has backed up near the eye, forming a lump which may contain a hard, cheese-like pus. Often this lump can be lanced and the accumulation removed. Then use a strong disinfectant on the wound and healing will result. Sometimes two or three openings of the wound will be necessary to remove the accumulated material and encourage healing. Individual treatment of a bird requires time and patience. Whether it pays or not depends on the value of the bird and the time available for the work.

DIZZY ROOSTERS.

I have two nice Rhode Island Red cocks that act as if they got dizzy or had a fit. They have a fair appetite and will crow at times, but keep their bill down close to their neck most of the time and part of the time clear down under them between their legs. Then they have a spell or act as if they had a fit and will keel over then get up and walk around as if they felt rather foolish.—R. W. A.

Dizziness in fowls may be caused by poisonous materials absorbed from the intestinal tract, injuries to the head, or possibly by intestinal worms. A dose of half a teaspoonful of epsom salts for each bird may improve the condition of the digestive tract.

Fowls are also subject to epilepsy and also inflammation of the spinal marrow. Both troubles may show symptoms similar to those who have described. I think the trouble you describe is due to some form of food poisoning and the epsom salts and careful feeding methods may improve their condition.

If you suspect the presence of internal parasites try powdered pomegranate root bark. The dose is a teaspoonful for fifty birds. It can be mixed in a moist mash. Single birds can be given a dose of twenty drops of turpentine mixed with twenty drops of olive oil. Two hours later give a tablespoonful of castor oil.



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Additional Poultry Ads. on Page 95.

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Dairy Farming

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SO serious has become the question of a pure milk supply for Calais, France, that that city has inaugurated a project for the establishment of a municipal dairy, with a dairy farm in connection. The plan contemplates a thoroughly modern installation, and the milk will be examined day by day by special apparatus to be secured. Means will be provided for determining the percentages of fat and of acidity, and in case the quality should be inferior to that prescribed for very young babies by the directing physician of the municipal health clinic, the feeding of the cows will be changed according to such orders as he may give in that regard.

of bran along with other feeds two weeks previous to freshening. As the cow approaches freshening reduce the other feeds, whatever they may be, and gradually increase the bran. In a few days the cow will relish having the ration dampened. A great deal of trouble may be averted at freshening time if dairymen would follow the above practice.—L. C. Reynolds.

STABLING THE DAIRY HERD.

DAIRYMEN practice different methods in handling the dairy herd during the winter months. Some confine their cows to the stable continuously, while others follow the practice of turning their cows out daily for exercise. I have practiced both methods, but I am convinced that turning the cows out once or twice daily for a short time gives the best results.

Up till four years ago I practiced keeping my cows stabled, a greater portion of the time during the winter months. I had thought that it increased production cost to expose the herd to cold weather, especially if stabled in a warm basement barn. However, after following the practice of close stabling for a number of years I am convinced that there are certain evils which follow the practice.

Constitutional vitality and milk production suffer from close confinement for any length of time. I have found this to be true in handling my dairy herd. While my stable is spacious, well-lighted, ventilated and kept in a sanitary condition, my dairy cows showed the effects of this treatment at the milk pail.

I practice turning my cows out for a short time twice daily, morning and night. If the weather is severe I do not allow them to be out only long enough to get what water they want to drink, and while the stables are being cleaned. If the weather is mild I allow them to stay out from thirty minutes to one hour.

I do not consider it an advisable practice to overdo this matter of outdoor exercise. The cows should not be turned out in the morning and exposed to the cold chilling winds for several hours. About sixty per cent of the food consumed by a dairy cow is used in her maintenance. It is too expensive to attempt to warm the barnyard through the dairy cows. To produce maximum returns for food consumed she must be well cared for.—Leo.

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WHEAT bran is extremely valuable in the ration for dairy cows and is relished by them. When it is fed in limited quantities to cows producing a large flow of milk, there is less danger of the animals going "off feed."

Bran is highly palatable. It is quite bulky and, when added to the ration, assists digestion and keeps entire digestive system in good working condition. When a ration is compounded from concentrated feeds, such as cornmeal, finely ground oats and cottonseed meal, it is advisable to lighten the ration by adding a liberal amount of bran.

Heavy producing cows on a dry ration with limited succulent matter need, in addition some kind of feed having a laxative effect upon digestion. From my experience in feeding dairy cows under varied conditions I consider bran a most excellent feed for this purpose. Cows confined to stables during winter should receive a liberal feed of bran daily to preserve the digestive system and promote food assimilation.

Dairymen should not, however, look upon bran as an economic source of protein, carbohydrates, or fat. Many a dairyman has reduced his profits from his herd by going to the extreme of feeding too liberally of bran, thinking that if a little is good more is better. Bran, like other feeds, should be fed judiciously to add bulk, palatability and mineral matter to the ration.

Cows freshening in the winter should be taught to eat bran mash. This can easily be accomplished by beginning to feed a limited amount

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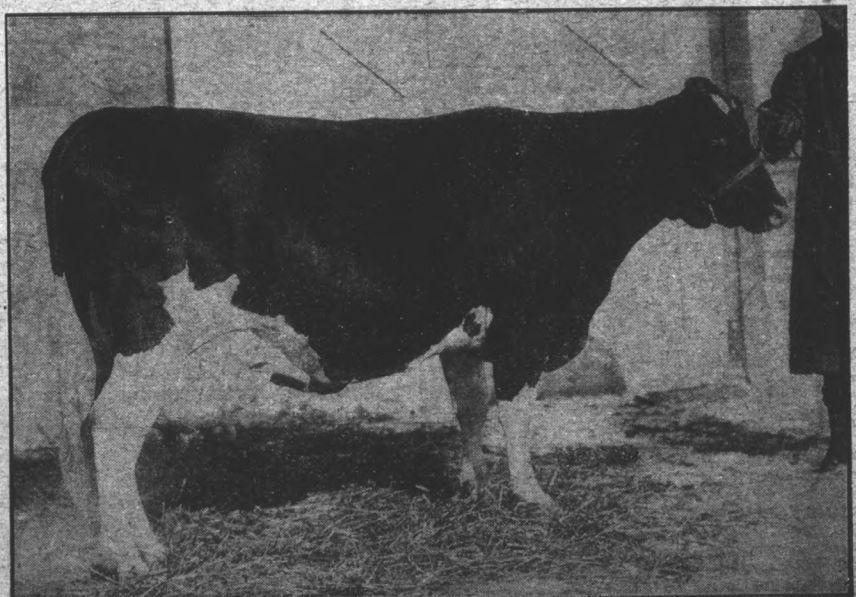
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What a Wealth of Dairy Possibilities Has Resulted from Close Study of Dairy Cows. Here we Have a New American Butter Champion. She is May Walker Ollie Homestead.

FIGHTING FOR HUMAN LIFE THROUGH THE DAIRY COW.

SEVEN million dollars is being spent annually in the suppression of tuberculosis among cattle in the United States, according to Dr. A. E. Wright, assistant chief of the tuberculosis eradication division of the National Department of Agriculture.

"This campaign against bovine tuberculosis is an important factor in the national effort to stamp out the 'white plague' among human beings," said W. A. Fraser. "In the war on the disease among humans, the elimination of sources of origin is being considered as well as the effect of healthful environment and wholesome conditions of living.

Dr. Wright says in a recent report that the department of agriculture had a waiting list of 85,000 farmers in the United States who had asked to have their herds tested and, on that date, there were 227,000 herds containing 2,718,000 cattle under supervision. The complete eradication of bovine tuberculosis, Dr. Wright declares, is becoming hopeful.

Dr. Wright's note of optimism is encouraging to those who are directing the campaign against the malady as it affects humans. When all the cattle of the country are free from the dis-

ease, one source of human infection will have been removed. The drive against tuberculosis is, generally speaking, under the supervision of the National Tuberculosis Association with which 1,200 affiliated organizations cooperate. The death rate from the disease in 1922, according to expert estimates, was around 100,000, which is 7,000 less than in 1921 and 22,000 less than in 1920. The complete eradication of the disease among human beings is also becoming hopeful.

WISCONSIN GOES IN SECOND PLACE.

I SEE in the Michigan Farmer that a Wisconsin Holstein cow gave birth to a calf weighing 128 pounds. I have a Holstein cow which gave birth to a calf weighing 147 pounds. I think this is one of the largest calves on record.

A few years ago at the Michigan Agricultural College the smallest calf that they had was thirty-five pounds from an Ayrshire, and the largest was 135 pounds from a Shorthorn cow. Since then they have reported a calf weighing 145 pounds from a Holstein cow. I should like to hear, through the Michigan Farmer from other breeders.—Lee C. Walker, Hunters Creek.

Francisco Farm Notes

By P. P. Pope

Culling the Farm Flock.

WE read the other night that it was better to have little and get much than to have much and get little, or something like that; which, being interpreted, meant that it was better to have a limited number of fowls that could be well cared for than to have the poultry house overcrowded with the accompanying bad results.

Then and there I reached around and patted myself on the back because I had just recently finished culling the flock. We had put it off a little longer than we ought to, as a matter of convenience.

We do not specialize in poultry culture out on Francisco Farm, but we do keep a fair-sized farm flock, and we do not think any farm is living up to its opportunities without one. It is very easy, however, for these side lines, through inefficient management, to develop an overhead expense sufficient to counteract all the profits.

It is the early hatched pullets and the younger hens that can be expected to shell out the eggs when they are high in price, therefore they should have every opportunity to do their best. We have picked out all the old hens, the late hatched pullets, and the cockerels, except those that are to be kept for breeding purposes, and sent them to the dressing-rooms where they are prepared to serve the greatest purpose in life of which they are capable. The result is an attractive flock of uniform color, age and size, with four square feet of floor space for each bird. And eggs? Yes, a few of them every day.

Corn Shocks.

Yes, they are still out in the field. A hundred or more of them. Many farmers in Michigan feel that it is a rather shiftless practice to have the shocks of corn left in the field after winter sets in.

We share this feeling to a certain extent, but being raised in a corn and cattle feeding section, where it is the common practice to haul the corn directly from the fields to the feed lot, the feeling of slackness does not sink in very deep.

Readers no doubt know by this time that we do not believe in expending a dollar to save thirty cents, and also,

that as we have to pay for all the work on the farm except what we do ourselves, we look upon time as money.

In connection with the corn shocks we feel that there is no great loss without a greater gain. There is a loss in the feeding value of the fodder to be sure, but to offset this the labor is distributed over a longer period, there is winter work for the otherwise idle hands, and idle horses, and the freshly husked corn, I am convinced, is more palatable to the stock. We aim to keep a few days' supply ahead in case of bad weather, or other most pressing work, but speaking in a general way, some corn is being hauled from the field each day, the ears husked out for the hogs and the fodder fed to the cattle.

More Light.

We spent one of these very short days on the feed grinder. A feed grinder in the neighborhood is a handy thing. At the mill the price has been reduced to fifteen cents per hundred pounds for grinding barley and oats. We put through a ton and a half in less time than we could have taken it to the mill and back. The outlay was one dollar for gas.

We finished early and belted to the buzz saw. Too soon the shades of night fell thick and threatened to halt the work before the day was done. We turned the switch another notch and presto, there was light. The staccato song of the buzz saw continued for another hour, and the tractor with a headlight had scored another point.

SEEDS TO BLAME FOR SPOTTED LEAVES.

LEAF spot in cucumbers is transmitted from one crop to another through the seed, according to recent findings of the Florida Experiment Station. It can be controlled by treating the seed before planting, with corrosive sublimate solution. After dipping the seed in the solution, it is rinsed in clean water and spread out to dry.—M.

What teeth will you wear in 1930—your's or some store's? It pays to care, and to take care.

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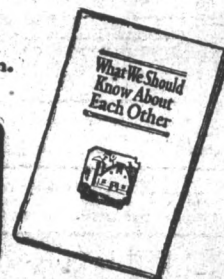
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"I am a herdsman for the Jameson Estate and I am having difficulty to convince the manager of the value of KOW-KARE. We are troubled with abortion, retained afterbirth, and barrenness, all of which I can prevent with KOW-KARE and I have had 100% results with barrenness, never in sixteen years with several thousand cows in several states failed to get cows with calf after three months' continuous use. I have used about a ton of your product and some Garget Remedy as well as Bag Balm. My father used KOW-KARE when I was very young and never had a case of abortion, and only one case of retained afterbirth in over twenty years."

That KOW-KARE can and does accomplish such wonderful results is not strange. The medicinal properties of the remedy build up and put into healthy operation the digestive and genital organs. It is in these organs that most diseases of cows are centered—and it is these same organs that regulate the flow of milk.

During the months of winter feeding the milk-making functions need outside support.

BOOK FREE



KOW-KARE furnishes this help. Just a tablespoonful in the feed twice a day for one week in each month will show a big increase in the yield of milk. The use of KOW-KARE before and after calving assures more robust cows and healthier calves.

We have a thirty-two page book that tells just what to do in case of cow illness. It is called "The Home Cow Doctor" and is yours for the asking. Thousands of cow owners ask for it each year.

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Your correspondence and inspection are invited.

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Registered Aberdeen-Angus cattle. Two bulls from eight to eleven months old. One a show bull, large and growthy. Priced reasonable. Inquire of F. J. WILBER, Clio, Mich.

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Another crop of calves. Choice bull calves \$75, their breeding and records will please you. **J. M. WILLIAMS**, No. Adams, Mich.

Guernsey's—One fine 13 mo. old bull ready for service, and some good growthy bull calves 4 mo. old sired by a grandson of Imp. King of the May and from good producing dams. Clean herd. Priced moderately. **MEADOW-GOLD GUERNSEY FARM**, R. 8, St. Johns, Mich.

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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.

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FOR SALE Registered Holstein bull ready for service from good A. R. O. dams. Well grown, good individuals, nicely marked. Write for prices and pedigrees. Federal accredited herd. **Geo. D. Clarke**, R. 2, Ithaca, Mich.

\$50 a year gets daughter of Hazellet Idleaze. His two nearest dams average 36 lbs. butter, 536 lb. milk 7 days, age 43 months. Herd Federal tested. **M. L. McLAULIN**, Redford, Mich.

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

FOR SALE: Jersey bulls ready for service. All cows Register of Merit. Accredited herd. **SMITH AND PARKER**, R. 4, Howell, Mich.

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Registered Jersey cattle young bulls, for sale. Herd accredited. **J. L. OARTEY**, Lake Odessa, Mich.

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also the Aberdeen-Angus Herd Bull, Blackbird Brandon 2nd, No. 247885. Both of these bulls are now five years of age. Each has sired winning steers for us at the Chicago International.

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in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil.

We can please you in richly bred cattle with quality at farmers' prices. **Geo. E. BURDICK**, Mgr. Branch County Farm, Coldwater, Mich.

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Special offer on several bulls at Farmers' prices. Suitable for grading up purposes where beef is required. Also several high class herd headers of the best of breeding.

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Central Mich. Shorthorn Breeders' Assn offer for sale both milk and beef breeding, all ages. Write **M. E. MILLER**, Sec'y, Greenville, Mich.

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and spring boars. Some real herd prospects sired by O. C. K. Col. 2nd. All Col. of Sangamo and Diamond Joe. Priced to sell. Fall pigs either sex. Write for description and prices. **W. C. TAYLOR**, Milan, Mich.

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DUROC-JERSEYS Do you want a good Pathfinder boar pig? **E. D. HEYDENBERG**, Wayland, Mich.

DUROC-JERSEYS Spring Boars **CAREY U. EDMONDS**, Hastings, Mich.

A Page for Live Stock Men

News Gleaned by Field Editor P. P. Pope

BEAMER'S BABY BEEVES.

DOWN at the state line in the southeast corner of Lenawee county starts the trail of the field editor. The new year had been ushered in; the big soft snow flakes fall thick and fast, and stay right on the windshield where they light; the wiper is kept busy clearing the vision.

The first stop occurs near Blissfield, in the heart of one of the best feeding sections in this, or any other, state, and at the well equipped feeding plant of E. A. Beamer.

Here we found Mr. Beamer just returned from a dehorning act at a neighboring farm. They had put about half a hundred heads through the guillotine in a couple of hours. You see, Mr. Beamer is efficient at a number of things besides presiding at long sessions of the Tri-state Cooperative Shippers' Association, and directing to a successful conclusion, big cooperative business ventures that in the face of boycotts and other difficulties have, at times, seemed impossible. But that is another story.

We found a beautiful bunch of calves contentedly lapping away at the feed bunks, eighty odd head of them. About a score of them were Angus, the rest were pure-bred Herefords. They came from the Springer ranch in New Mexico.

Mr. E. R. Porter, a brother-in-law and a neighbor of Mr. Beamer, has on feed a similar lot. There are also a few lots of S. M. S. yearlings near by which we will endeavor to see at a later date. Our plans also include a more detailed description of the feeding operations in this territory, together with some pictures of these good cattle.

WITT BROTHERS—HOG MEN.

WITT BROTHERS raise lots of hogs. They breed hogs, feed hogs, and sell hogs. The hog of their choice is the Big Type Poland China. They have some good farms down near Jasper and another over the state line in Ohio.

I stopped at the farm of the brother known as "Felix" and after draining the radiator of his tractor we went to look at the hogs. He told me that most of their hogs were over at the other place; but they seemed to turn out from every nook and corner regardless.

Among these were a senior boar that is good all over, and one of the thousand pound kind; a couple of younger

boars with hot blood and a promising future; big roomy brood sows, and a lot of good gilts, and fall pigs too numerous to mention. Time would not permit a complete inspection, but I saw enough to assure me that when their sale occurs in Adrian on February 17 the hogs that find new homes will be the kind that spells progress.

BELAND & BELAND—SHORT-HORNS.

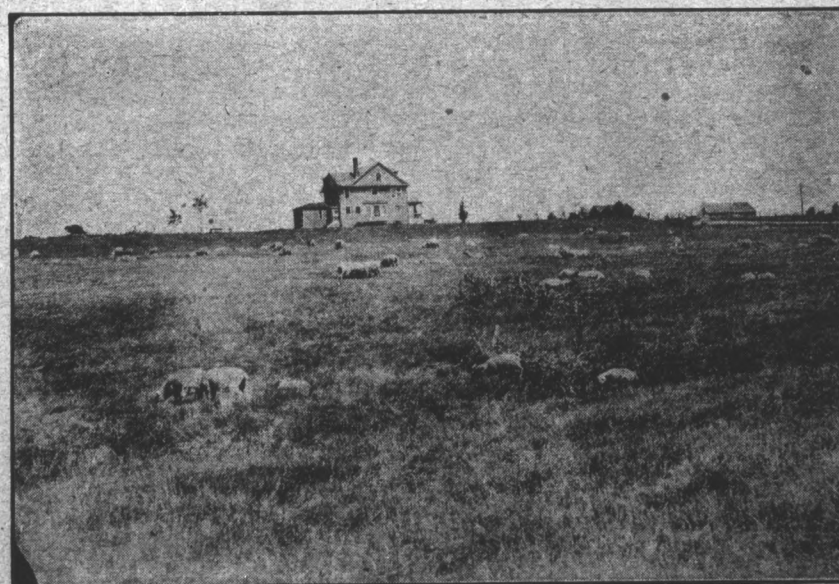
A COUPLE of miles east of Tecumseh lies the Davidson farm, long known as a Shorthorn breeding ground. In the early days Mr. Davidson bred good Shorthorns with milking ability and milked them. His son-in-law, Mr. Hall, later took up the work and for many years the firm of Davidson & Hall has been known for its good milking Shorthorns.

Not satisfied that the good work should stop here, a son-in-law of Mr. Hall's, Clare Beland by name, who owns the farm adjoining, together with the enthusiastic support of his good wife, is carrying on. They are working under the firm name of Beland & Beland.

I arrived just in time to help Mr. Beland and "Laddie" (that's the dog) drive an acre or so of lambs back the lane to the corn field. Mrs. Beland joined us at the barns for a squint at the cattle. They have a newly purchased herd bull of pleasing type and conformation, that promises to develop extreme size. Their crop of fall calves are a uniform lot, all males, and, in the yards, were found a group of comely matrons chewing their cud and carrying good udders. Some of them were descended from the original Davidson stock, some from prominent Ohio herds, and one low-down, smooth, dark roan, "Young Mary," that they had recently landed on the high bid at one of the association sales at Lansing. There is no question about the appeal to the general farmer that comes from the big, rugged cow of smooth bodily conformation that swings a good milkable udder.

MARKETS DEMAND BIG PORKERS.

THE market hog, which the butcher and packer are demanding to meet their fresh meat trade, is around the 200-pound mark, not much above or below this weight. There is a marked increase in the consumption of this young, tender, lean pork meat. It competes with young chicken in gratifying taste to the consumer.—M.



Sheep Pasturing on the Luxuriant Growth of Mixed Grasses on the Experiment Station Farms at Chatham.

"EDGAR OF DALMENY" REPEATS.

NOT wholly unlike the accomplishment of "Blue Bell," the famous cross-bred heifer, who was the supreme champion at all of the great live stock expositions in the British Isles for two years, is the recent accomplishment of "Heather Hero of Wildwood," another son of the great Aberdeen Angus sire, "Edgar of Dalmeny." "Blue Bell," the famous cross-bred daughter of "Edgar of Dalmeny," was for two years grand champion at the fat stock shows of Britain. She was the first yearling to win the Smithfield honors in the history of that show. And so this cross-bred heifer, the daughter of "Edgar of Dalmeny," goes down in live stock history as having attained one of the greatest fat show records of modern times.

And now to the credit of "Edgar of Dalmeny" goes another mark of distinction. At the fat stock show held in Detroit on December 11-12-13, the first premium for grand champion steer was awarded to "Heather Hero of Wildwood," a half brother to the famous "Blue Bell." The opinion of the judges was that it was the best animal ever seen on the Detroit market.

Eighty cents a pound, the highest price ever paid in Michigan, bought this "Doddie" steer from W. E. Scripps. The animal weighed 1,590 pounds, was five months old and dressed out at 67.1 per cent, a mark not far below the world's record.

Veterinary.

CONDUCTED BY DR. W. C. FAIR.

Advice through this column is given free to our subscribers. Letters should state fully the history and symptoms of each case and give name and address of the writer. Initials only are published. When a reply by mail is requested the service becomes private practice and \$1 must be enclosed.

Difficult Churning.—I have a Durham cow, seemingly healthy, due to freshen next spring, which is fed corn fodder, hay, potatoes, and has clean water to drink. The last two times I churned the butter-fat would not separate from the buttermilk. Mrs. R. M. Brutus, Mich.—Difficult churning is usually caused by one or more of the following factors: Cream is too cold, cream from cows nearly dry, cream too thin, that is less than twenty per cent of butter-fat. Your cream may not be sour enough, too much cream in the churn, and improper agitation of the cream may prevent churning it into butter in thirty or forty minutes. The proper richness of cream is from thirty to thirty-five per cent butter-fat and I might say that the temperature of the churning should be from fifty-six to sixty-two degrees Fahrenheit, depending somewhat on the time of the year, the richness of the cream and acidity of the cream. Doubtless your cream is not rich enough, and perhaps too cold while churning. Cream from a fresh cow mixed with what you get from above cow might help you out of your trouble.

Foot-Sore.—Have a mare that will weigh 1,500 pounds which has been doing heavy work on hard gravel road. Her front feet are contracted. Have removed shoes and shall not work her this winter. What can be done for her? C. S. W., Concord, Mich.—Clip hair of pastern, apply one part powdered cantharides and five parts lard every two weeks. This treatment will stimulate a more healthy growth of horn, besides it will have a tendency to expand her heels. If you will apply lanolin to front hoofs it will soften them.

Malignant Tumor.—I have a horse that was troubled with warts, which we cut off; since then the wounds have refused to heal. What shall I apply? G. R., Flint, Mich.—Heat a piece of iron to white heat, burn raw sore, then apply equal parts iodoform and boric acid daily.

Infectious Ophthalmia.—My cows are troubled with sore eyes, the eye is first inflamed, then eyeball covers with a film or scum. Our local veterinarian has prescribed for them, but his treatment has failed to help the eyes. Subscriber, Wayne Co.—Blow equal parts of calomel and boric acid into eyes once a day. Keep the cattle in a clean darkened stable.

Fair View Stock Farm

Sells 40

Big Type Poland Chinas

Consisting of Tried Sows, Fall Yearling, Spring Gilts and 5 Choice Fall Boars

THURSDAY, FEBRUARY 1, 1923

At the Farm in Basement Barn Regardless of Weather.

Most of this offering is bred to Hover's Liberator and Tuscola Clansman. Tuscola Clansman was 1st prize pig at Mich. State Fair and his wife was Grand Champion. He is a great boar and a litter sired by him will start you in the hog business. Write today for catalog. It describes them all.

Auctioneers: Wm. Waffle, Coldwater, John Hoffman, Hudson

Field Men: P. P. POPE, Michigan Farmer, WESLEY HILE, American Swine Herd, E. R. LEONARD, National Poland China Journal

DORUS HOVER, Akron, Mich.

HOGS

Durocs Prolific, big bone, best breeding, \$10 to \$15. Write for description. Satisfaction or money back. B. E. RIES, Hillsdale, Mich.

BIG TYPE CHESTER WHITES

The prize winner kind from the best prize winner bloodlines. Early developers, ready for market at six months old. I have started more breeders on the road to success than any man living. I want to place one hog in each community to advertise my herd. Write for agency and my plan. G. S. BENJAMIN, R. F. D. 10, Portland, Mich.

Chesters We are sold out of Boars. Choice spring pigs. For immediate shipment of spring pigs, write WEBER BROS., Royal Oak, Mich., 10 ml. and Ridge Rds., Phone 406.

CHESTER WHITES

Boars all sold. Bred sow sale March 8th. FRED L. BODIMER, Reese, Mich.

Chester Whites. Choice spring gilts bred to Giant, 2nd prize boar at State Fair. Also fall gilts. LUCIAN HILL, Tekonsha, Mich.

CHESTER WHITES Bred sows and gilts, summer boars and fall gilts C.O.D. ALBERT DORR, Clinton, Mich.

Registered O.I.C. Boars

O. I. C. 50 last spring pigs either sex not akin. Big, growthy stock, recorded free, 1/2 mile west of Depot, Citrus, Phone. OTTO B. SCHULZE, Nashville, Mich.

O. I. C. & Chester White Swine strictly big type with quality. The kind that grow large. A few spring pigs either sex. Newman's Stock Farm, R. 4, Marlette, Mich.

O.I.C.'s Spring pigs. Pairs not akin. Also July, August, and Sept. pigs. MILO H. PET. ERSON, Elmhurst Farm, Ionia, Mich. Citiz. Phone

O. I. C. 20 large growthy gilts farrow in Mar. also fall boar pigs. CLOVER LEAF STOCK FARM, Monroe, Mich.

O. I. C. GILTS bred for April farrow at reasonable prices. C. J. THOMPSON, Rockford, Mich.

O.I.C.'s 10 sows bred for early spring litters. 17 sows open for fall breeding 1-10 mo. old. Extra good boar. Stock shipped on approval. FRED W. KENNEDY, R. 2, Plymouth, Mich.

O. I. C. GILTS bred for March and April farrow. H. W. MANN, Dansville, Mich.

O.I.C. Bred gilts and boars all sold. Am taking orders for fall and spring pigs. A. J. BARKER & SON, Belmont, Mich.

Spring Boars Now Ready To Ship H. O. SWARTZ, Schoolcraft, Mich.

L. T. Poland Chinas spring boars and bred sows at reasonable prices, also fall pigs either sex of popular blood lines. Aberdeen-Angus bulls. Heifers and Cows that are show winners. Write or come. E. A. CLARK, R. 3, St. Louis, Mich.

Lone Maple Farm L. T. P. C. March Boars and gilts represented. F. R. Davis & Son, R. 3, Belding, Mich.

Large Type Poles. Spring boars and gilts, sired by Michigan Liberator and Big Cheaters. Immured by double treatment. Also fall pigs both sexes. George F. Aldrich, R. 6, Ionia, Michigan

LARGE TYPE P. C.

Largest in Mich. Pig ready to ship, why not order from the herd that has given so many their start in the hog business. The kind that makes good, they have quality as well as size. W. E. LIVINGSTON, Parma, Mich.

LARGE TYPE P. C.

As good as they grow. Fall pigs either sex. Bred sows for sale sired by the Wolverine. M. & W's Orange, B's Clansman, Alaska and Black Buster. Cholera immune. Sale February 21st. N. F. BORNOR, Parma, Mich.

L. T. P. C.

Choice Gilts \$25 to \$40. Boars \$30. Fall Pigs \$15. HART AND CLINE, Address F. T. HART, St. Louis, Mich.

Francisco Farm Poland Chinas

Spring gilts sired by a grandson of National Grand Champion Sow and bred to a grandson of National Grand Champion boar. Now ready to ship. P. P. POPE, Mt. Pleasant, Mich.

Leonard's Big Type P. C. gilts sired by Leonard's Liberator and Orange Clansman and fall Pigs at bargain Prices. E. R. LEONARD, St. Louis, Mich

Boars at Half Price From Mich. Pioneer herd of Big Type Poland Chinas. We have been breeding them big for 30 years. Our hogs represent the blood lines of Giant Buster, The Clansman, Liberator, The Yankee, Big Bob, etc. Write for what you want. JNO. O. BUTLER, Portland, Mich

Large Type Poland China BRED SOW SALE

FEBRUARY 22, 1923

Write for Catalogue

A. A. FELDKAMP, Manchester, Mich.

B. T. P. C. gilts sired by Big Bob son of World Champion and Peter Pan, he sold \$1,075 cash, also fall pigs. O. E. Gairant, Eaton Rapids, Mich.

Big Type P. C. some very choice boars double immune, out 100 lb. sire and mammoth sows from Iowa's greatest herds. E. J. Mathewson, Burr Oak, Mich.

BIG TYPE POLANDS

spring boars all sold, fall pigs either sex at farmers' prices. Tuscola Clansman is our young herd sire. First prize pig at Mich. State Fair. Litter from him will improve your herd. Public sale Feb. 1. Write today for catalog. DORUS HOVER, Akron, Mich.

L.T.P.C. Gilts bred or open, two good boars left. They have always made good, and will again. Write for my plan of selling. M. M. PATRICK, Gd. Ledge, Mich.

Walnut Alley Big Type P. C. gilts now ready to ship they are bred to the best boar I have seen this fall. A. D. GREGORY, R. 3, Ionia, Mich.

Big Type Poland Chinas

G. A. BAUMGARDNER, R. 2, Middleville, Mich.

Additional Stock Ads. on Page 95

CLASSIFIED ADVERTISING

This classified advertising department is established for the convenience of Michigan farmers. Small advertisements bring best results, under classified headings. Try it for want ads and for advertising miscellaneous articles for sale or exchange. Poultry advertising will be run in this department at classified rates, or in display columns at commercial rates. Rates 8 cents a word, each insertion, on orders for less than four insertions; for four or more consecutive insertions 6 cents a word. Count as a word each abbreviation, initial or number. No display type or illustrations admitted. Remittances must accompany order. Real estate and live stock advertising have separate departments and are not accepted as classified. Minimum charge, 10 words.

MISCELLANEOUS

TO INTRODUCE our old mellow and sweet flavored Kentucky Smoking and Chewing Tobacco, we will sell you 10 lbs very best 3-year-old mild smoking for \$1.65; 10 lbs. very best Turkey and Green River mixed for \$2.00; 10 lbs. very best 3-year-old chewing for \$3.25. A genuine \$1.00 French Briar pipe Free with every order. Satisfaction guaranteed. Send no money. Pay for tobacco and postage on delivery, Kentucky Tobacco Co., Box 622, Owensboro, Ky.

SILVER FOXES. We are making very special prices on nineteen twenty-two pups if bargained for now. Our stock is very best quality, all pedigreed and registered. Victory foxes are Good foxes. Buy now, pay later, save one-third. Volman & Hughes, Muskegon, Michigan.

HOMESPUN TOBACCO. Chewing: 5 Pounds, \$1.75; 10 pounds, \$3; 20 pounds, \$5. Smoking: 5 Pounds, \$1.25; 10 pounds, \$2; 20 pounds, \$3.50. Send no money, pay when received. Co-operative Tobacco Growers, Paducah, Kentucky.

HOMESPUN TOBACCO. Smoking—5 lbs., \$1.25; 10 lbs., \$2.00; 20 lbs., \$3.00. Chewing—5 lbs., \$1.75; 10 lbs., \$3.00. Furnish free recipe for preparing. Send no money. Pay when received. O'Connor Smokehouse, Mayfield, Ky.

HOMESPUN SMOKING TOBACCO. Mild and mellow—10 lbs. \$1.75; 20 lbs. \$3.00; delivery guaranteed. We furnish free recipe for preparing. Smoking Tobacco Exchange, Sedalia, Kentucky.

KENTUCKY TOBACCO Three year old leaf. Pay for tobacco and postage when received. Chewing 5 lbs. \$1.65; smoking 10 lbs. \$1.50. Farmers' Grange, Dills, Hawesville, Ky.

NATURAL LEAF TOBACCO. Chewing: 5 Pounds, \$1.75; 10 pounds, \$3; 20 pounds, \$5. Smoking: 5 Pounds, \$1.25; 10 pounds, \$2. Pay when received. Tobacco Growers Union, Paducah, Ky.

INOCULATE your Alfalfa, Sweet Clover, Soy bean with best pure culture bacteria. Guaranteed. Bush-size postpaid 90c. E. E. Basil Sweet Clover Grower Latty, Ohio.

FOR SALE. Millions of Strawberry and other plants Standard varieties. Everbearing Strawberries, Raspberries and Blackberries; Asparagus roots, Shrubs, Roses, etc. Alexander Co., Nurseries, McClure, Ill.

COAL BURNING BROODER STOVES.—Real ones; none better. They'll save your hatch. Guaranteed. 30 days trial. Prices way down. Folder free. Geo. Wettschurack, Lafayette, Ind.

GLADIOLI DAHLIA BULBS. Choice named varieties. Postpaid. 20c dozen up. Catalogue Free. Reno East, North Adam, Michigan.

DOGS

GERMAN Shepherd. Alredales, Collies; Old English Shepherd dogs; Puppies; 10c illustrated instructive list. W. R. Watson, Box 35, Macon, Mo.

POULTRY

DON'T BUY CHICKS & HATCHING EGGS UNTIL you get our catalog and prices on Barred Rocks, White Leg, Anconas. Write today. Discount on early orders. Model Poultry Farm & Hatchery, R. 4, Zeeland, Mich.

BUFF ORPINGTONS. Barred Rocks, Young White Leghorns, Guineas. Illustrations. Fenner Bailey, Montgomery, Mich.

GET EVERGREEN POULTRY FARM'S cheap prices on pure bred poultry, chickens, turkeys, ducks, geese, guineas, baby chicks best laying strain. Illustrated catalog free. Evergreen Poultry Farm Hatcheries, Hammon, Iowa.

MANY VARIETIES pure bred poultry, baby chicks and pigeons at low prices. 100 page book in colors describes them. Mailed for 5 cents. Frank Foy, Box 9, Clinton, Iowa.

SILVER LACED and White Wyandotte Cockerels, \$3.00, two for \$5.00. Extra choice, \$5.00 each. Satisfaction Guaranteed. C. W. Browning, R. 2, Portland, Mich.

MICHIGAN'S Best Giant Bronze Large vigorous birds from America's best strains. Both utility and fancy. Furnish unrelated stock. N. Evalyn Ramsdell, Ionia, Mich.

HATCHING EGGS WANTED. We can use your output in any of the odd breeds such as Houdans, Polish, Cornish, W. Minorcas. Write us at once. Chick Hatchery, Dept. 6, Shelbyville, Ill.

GESE—Toulouse, African, Emden, DUCKS—Pekin, Rouen, Runner, Muscovy. Price reasonable. John Hass, Bettendorf, Iowa.

RHODE ISLAND REDS. R. C. Large fancy cockerels and pullets at \$3 each. Burt Sisson, Imlay City, Mich.

PULLETS for Sale—Three to five pounds. Good Stock. Reds, Barred White, Rocks. Thirty cents a pound. Edward A. Brooks, R. 6, Milford, Mich.

THOROUGHbred BUFF ORPINGTON COCKERELS \$3 and \$5. T. E. Chesnut, St. Joe Road, Lansing, Mich.

SINGLE COMB BUFF Leghorn Cockerels, \$2.00 each by express, your expense. Satisfaction guaranteed. Fred Packer, Fosters, Mich., R. 1.

68 VARIETIES Fine pure bred chickens, ducks, geese, turkeys, stock eggs, chicks. Large catalog 5c. A. A. ZIEMER, Austin, Minn.

A FEW Fine Light Brahma Cockerels left. \$4.00 each. Mrs. E. B. Willis, Reading, Mich.

GIANT BRONZE TURKEYS Large Type. Ward A. Strauch, Corunna, Mich.

FINE LARGE Bourbon Red Turkeys. Archie D. Ives, R. 3, Rockford, Mich.

200 GIANT S.C. Black Minorca cockerels none better \$2.25 each. Mike Schaefer, R. 1, Essexville, Mich.

PEAFOWLS, Pheasants, Bantams, Pigeons, Guinea Pigs. John Hass, Bettendorf, Iowa.

BABY CHICKS

CHICKS GUARANTEED—Healthy, sturdy thriving chicks. Flocks that are mated with Michigan Agricultural College cockerels, Barred Rocks, S. C. Anconas, White and Brown Leghorns, pullets and breeding cockerels. Safe arrival, postage paid, catalog free. Fairview Hatchery and Poultry Farms, Route 2, Zeeland, Mich.

CUSTOM HATCHING. four cents per egg. Ship us your eggs, chicks hatched and returned parcel post prepaid. Satisfactory hatch guaranteed. Now contracting space for spring hatching. Akron Hatchery, Akron, Mich.

QUALITY CHICKS AND EGGS—25,000 Standard Bred Breeders, 12 varieties. Best laying strains. Incubate 15,000 eggs daily. Catalog free. Reasonable prices. Free live delivery. Missouri Poultry Farms, Columbia, Mo.

WHITE LEGHORN CHICKS from pedigreed cockerels direct from Hollywood Farms, every breeder personally selected by Prof. Foreman of M. A. O. Quantity Limited. Quality the very best. Circular free. Maple Haven Farm, R. 5, Jackson, Mich.

BABY CHICKS—Barred Plymouth Rocks and S. C. White Leghorns. Send for catalogue. Snowflake Poultry Farm and Hatchery, Route 5, Middleville, Michigan.

BABY CHICKS bargain prices. Barred Rocks, White and Brown Leghorn. Guarantee full 100% alive, free delivery. Hillview Poultry Farm Hatchery, R. 12, Holland, Mich.

CHICKS—English strain S. C. White Leghorns that lay and pay. Order early. Write for free catalogue and price list. Honorable Farm & Hatchery, 145 S. Elm St., Zeeland, Mich.

BABY CHICKS from heavy egg producing strain. Barren and young S. C. W. Leghorns closely culled. 100% alive. Circular free. Montella Hatchery, Route 1, Holland, Mich.

BABY CHICKS. 15 Leading varieties. 2 1/2 Million for 1923. The kind that lay early. Large, vigorous, fluffy kind. Lowest prices. Send for large catalog. D. T. Farrow Chickeries, Peoria, Ill.

SELECTED CHICKS from best strains at living prices. All popular varieties. First hatch in January. Hatching eggs. Write for circular and price list. Litchfield Hatchery, Litchfield, Mich.

QUALITY CHICKS for delivery each week after March 1st. S. C. White and Brown Leghorns. 100% live delivery. Catalog free. Standard Hatchery, Box B, Zeeland, Mich.

STERLING QUALITY CHICKS from 14 Varieties. Pure Bred Certified Stock. Prices Right. P. F. Clardy, Mammoth Hatchery, Highland View Poultry Farm, Box 6, Ethel, Mo.

BABY CHICKS—Six leading varieties. Write your wants. Special prices on large, advance orders. Free catalog. H. H. Pierce, Jerome, Mich.

CHICKS: Low prices for pure bred stock. S. C. English Whites, Browns, Anconas and Barred Rocks Catalogue free. Free delivery. Bos. Hatchery, Zeeland, R. 2, Mich. (Formerly Fairview Hatchery).

CHICKS. From free range selected flocks bred to lay. All popular varieties. Prices right. Send for catalogue. 100% delivery guaranteed. Homer Hatchery, Homer, Michigan.

HELP WANTED

WANTED—Reliable man on 150 acre farm, 30 miles from Detroit. Must be capable of taking charge and going ahead with work as owner is away all day. Six registered Holsteins and three horses to take care of. Can use single man or married man if wife will assist with housework. All year round job. State wages wanted and experience. E. S. VanDalsen, Salem, Mich.

REPRESENTATIVES WANTED. To represent large farm selling organization, previous selling experience not necessary; should own auto, must be honest and willing to work; for such men we have an excellent proposition. State full qualifications in first letter, and give references. Michigan Farm Agency, 628 Ford Bldg., Detroit, Mich.

WE PAY \$200 monthly salary and furnish rig and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X 685, Springfield, Illinois.

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, January 16.

Wheat.

Detroit.—No. 2 red \$1.36; No. 2 mixed \$1.34; No. 2 white \$1.34.
Chicago.—No. 2 hard at \$1.21½@1.22½; May \$1.21½.
Toledo.—Cash \$1.38@1.40.

Corn.

Detroit.—Cash No. 2 at 78c; No. 3 yellow 77c.
Chicago.—No. 2 mixed 72½@73½c; No. 2 yellow 72½@73½c.

Oats.

Detroit.—Cash No. 2 white 50½c; No. 3, 49c.
Chicago.—No. 2 white 45½@47½c; No. 3 white 43½@45c.

Beans.

Detroit.—Immediate and prompt shipment \$8.
Chicago.—Choice hand-picked Michigan beans \$8.10@8.15; red kidneys at \$8.25.

Rye.

Detroit.—Cash No. 2, 92c.
Chicago.—88½c.

Seeds.

Detroit.—Prime red clover cash at \$13.30; March \$13.45; alsike at \$10.65; timothy \$3.30.
Toledo.—Prime red clover cash at \$13.50; alsike \$10.75; timothy, new at \$3.30; old \$3.35.

Hay.

Detroit.—No. 1 timothy \$16.50@17; standard \$16@16.50; light mixed \$16@16.50; No. 2 timothy \$14@15; No. 1 clover \$14.50@15; rye straw \$11.50@12; wheat and oat straw \$11@11.50 per ton in carlots.

Feeds.

Bran \$34@34.50; standard middlings \$33@34; fine do at \$35; cracked corn \$35.50@36; coarse cornmeal \$34; chop \$29.50@30 per ton in 100-lb sacks.

Fruit.

Apples.—Jonathans \$4.50 per bbl; Kings at \$5@5.25; Northern Spies at \$4@5; Baldwins \$4.50@5.

WHEAT

Wheat is not disappearing into consumptive channels as rapidly as a month ago and the market has lost some of its snap. Receipts at primary markets have declined in the last three weeks but are more than 50 per cent below normal for this season of the year. The visible supply has increased practically every week in the last two months and the total gain is over 25 per cent.

CORN

Corn receipts have been fairly uniform for the last five weeks but the country turned off the spout on the recent break and lighter arrivals are expected in the immediate future. Consuming regions in many cases are outbidding the central markets in the surplus states while the distributing demand at terminals continues gratifying.

OATS

Oats prices are trailing other grains. Receipts are above normal for this season of the year but they are insufficient to take care of the demand, compelling slight withdrawals from the visible supply. Clearances for export have dropped off sharply in the last month.

FEEDS

The mill feed market was easier last week as interior stocks are heavy and country demand is light. Production has declined but is still at a liberal rate. Cottonseed meal declined about \$1.50 as a result of light demand from both range and feeding districts. Linseed meal has held at most points but offerings are equal to the requirements. Corn feeds have advanced in price.

POULTRY AND EGGS

Egg receipts have expanded noticeably in the last month, reflecting the increase in production in the southwest where weather conditions favor further enlargement in the lay. The recent drop in prices probably discounted the increased production for a while as the rate of distribution has been accelerated but the season trend of values is downward.

Detroit.—Eggs fresh candled and graded 39@41c; storage 27@30c.

Live poultry, heavy springers 20@21c; light springers 17c; heavy hens 23c; light hens 17@20c; roosters 15c; geese 15@18c; ducks 18@23c; turkeys 22c per pound.

POTATOES

Potato markets revived slightly last week as shipments were of only normal volume and a steady demand was reported at consuming centers. The movement from the eighteen leading late shipping states is over 12,000 cars behind last season to the same date. Prices on northern sacked round whites are quoted at 80c@81.15 in the leading markets, and 62@67c f. o. b. shipping points.

BEANS

The bean market advanced again last week with the choice hand-picked whites quoted at \$8.15@8.25 per 100 pounds f. o. b. Michigan at the close of the week. Red kidneys at the close of the week were in about the same notch, or around \$8.25. Elevators have fair supplies but farmers have sold for the most part, with tax time accelerating the movement from first hands. Demand is quiet as the price is getting so high that wholesale grocers are disposed to buy only from hand to mouth.

BUTTER

The butter market regained its stride last week and advances of one to two cents per pound occurred at the leading markets. Receipts declined slightly while the demand broadened as stocks of many distributors were allowed to run low during the holiday period. As a result, much larger withdrawals from storage stocks were necessary and the tension in the market because of its strong statistical position was increased.

Prices on 92-score fresh butter were as follows: Chicago 52c; New York 53c. In Detroit fresh creamery in tubs sells for 48½@49c.

Holsteins.—January 24, Henney & Leopard, Lake Odessa, Mich.

STRAWBERRY PLANTS

\$3.50 Per Thousand, and up. Our strong, healthy, tremendous bearing plants guarantee big crops of luscious berries. Best varieties for all kinds of soils. Many new varieties such as Eaton, Sun Special, Premier, Marvel, and Cooper. The world's greatest new Everbearing Strawberry CHAMPION. Full line of Raspberries, Blackberries and Asparagus. Greatly Reduced Prices. Our customers are making up to \$1200.00 per acre from small fruits. Large stock of good Grape Plants. Beautiful new color catalog free. Write Today BRIDGMAN NURSERY CO., Box 25, Bridgman, Michigan.

My Engine Will Do the Work of 6

Write now for facts about this wonder engine. Same engine gives 14 to 6 H. P. Gasoline or kerosene, portable, light and free from vibration. No cranking. Pumps, saws, grinds and does all chores. Plenty of power for every purpose. Easy to operate. Low Factory Price -- Special Offer. Price now lower than before war. Tremendous value. Write at once for catalog and special offer on this amazing engine. The Edwards Motor Co., 319 Main St., Springfield, O.

SAW YOUR OWN LUMBER
with a Howell Portable Saw Mill. Turn your standing timber into high price building lumber at the mere cost of sawing. Big demand for lumber, lath and shingles. Keep your engine busy the year round making Big Money in Custom Sawing for your neighbors. Howell saw mills are made in several sizes suitable for tractors of any size. Also Edgers, Planers, Lath and Shingle machines. Write for free Catalog, B-8.
R. R. HOWELL & CO., Mfrs. Minneapolis, Minn.

Live Stock Market Service

Wednesday, January 17.

DETROIT

Forty cars on Pere Marquette did not arrive in time for sale today.

Cattle.

Receipts 127. Market steady.
Best steers \$ 8.75@ 9.00
Handyweight butchers ... 7.75@ 8.50
Mixed steers and heifers 6.50@ 7.25
Handy light butchers ... 6.00@ 6.75
Light butchers 4.50@ 5.25
Best cows 5.50@ 6.00
Butcher cows 4.50@ 5.00
Common cows 3.00@ 3.50
Canners 2.25@ 2.75
Choice bulls 5.00@ 5.75
Bologna bulls 4.50@ 5.00
Stock bulls 3.50@ 4.25
Feeders 6.00@ 6.50
Stockers 4.75@ 6.00
Milkers and springers ... \$ 40@85.00

Veal Calves.

Receipts 318. Market strong.
Best \$14.00@14.50
Others 7.00@13.50

Sheep and Lambs.

Receipts 1,424. Market strong.
Best lambs \$13.75@14.25
Fair lambs 12.50@13.25
Light to common 9.00@11.75
Fair to good sheep 6.50@ 7.75
Culls and common 2.00@ 3.75
Yearlings 10.00@12.00

Hogs.

Receipts 940. Market steady.
Mixed hogs \$ 8.60
Pigs 9.00
Roughs 7.10
Stags 4.50@ 5.00
Light yorkers 8.85

CHICAGO

Hogs.

Estimated receipts today are 21,000; holdover 22,712. Market is slow and steady with Tuesday's close. Bulk of sales \$7.80@8.35; tops \$8.50; heavy 250 lbs up \$7.90@8.10; medium 200 to 250 lbs \$8@8.30; light 150 to 200 lbs \$8.25@8.50; light lights 130 to 150 lbs at \$8.25@8.50; heavy packing sows 250 lbs up \$7.15@7.50; packing sows 200 lbs up \$6.80@7.15; pigs 130 lbs down \$7.75@8.25.

Cattle.

Estimated receipts today are 14,000. Beef steers and butchering she stock weak to 25c lower; other classes are

about steady. Beef steers medium and heavy weight 1100 lbs up at \$11.25@12.50; do medium and good \$7.85@11.25; do common \$6.50@7.85; light weight 1100 lbs down \$9.50@12; do \$6.25@9.50; butcher cattle heifers at \$4.50@10.40; cows \$3.65@7.85; bulls bologna and beef \$4.50@6.75; canners and cutters cows and heifers at \$2.75@3.65; do canner steers \$3.50@4.40; veal calves light and handyweight at \$8.50@11.75; feeder steers \$6.25@8; stocker steers at \$4.50@7.85; stocker cows and heifers \$3.50@5.50.

Sheep and Lambs.

Estimated receipts today are 13,000. Fat lambs strong and pending higher; Feeders steady; sheep 25c higher. Lambs 84 lbs down at \$12.75@14.75; do culls and common at \$9.50@12.75; spring lambs \$9.25@13; ewes \$5@8; ewes cull and common \$3.50@6; yearling wethers \$12.75@14.85.

BUFFALO

Cattle.

Receipts ten cars. The market is steady. Prime shipping steers \$9.50@10; good to choice shipping steers at \$8.75@9.25; heavy fat medium quality \$8.50@9; medium to good at \$8@8.50; light native yearlings of fancy quality \$10@10.50; medium to good \$9@9.50; best handy steers \$8@8.50; plain at \$7@7.50; handy steers and heifers at \$7@7.50; western heifers \$6.75@7.25; light Michigan butchering heifers at \$7@7.25; best fat cows \$6@6.50; medium to good \$4.50@5.50; cutters \$3.25@4.25; canners good weight \$2.25@2.50; common and old rams at \$1.25@1.50; best heavy bulls \$5.50@6; heavy bologna bulls \$4.75@5.25; common bulls \$4.50@4.55; best feeders \$7@8; medium feeders at \$6@6.50; stockers good \$5.50@6; light common at \$4@5; best milkers and springers \$6@8; common and medium \$35@45. Calves steady; tops at \$14.50.

Hogs.

Receipts 20 cars. Market is strong and steady. Medium and heavy \$8.50@8.75; yorkers and pigs \$9.40@9.50.

Sheep and Lambs.

Receipts 20 cars. Market is steady. Top lambs \$14.75; yearlings at \$11@12; wethers \$9@9.50; ewes \$7@8.

THE FARM BUSINESS OUTLOOK.

IN spite of the ruction between France and Germany, developments last week were not entirely discouraging. No special let-down in domestic trade followed the holidays and industrial activity has been maintained. Wool and cotton mills appear to be running at greater than a normal rate, auto makers are starting the new year at a faster pace than in December, the steel mills are operating at eighty to eighty-five per cent of capacity, or about the same as during the last few months, railroads are in the market for large quantities of new equipment, and freight car loadings for the last week reported upon set a new record for the corresponding period.

The markets took the European events better than expected. Cotton reached a new high for the season, wheat prices ignored the news to some extent, and hog prices were well maintained. Sterling exchange did not even shiver, but rose before the close of the week almost to the highest point reached in 1922. Apparently the feeling is developing that there is a prospect of some kind of settlement of the German situation before many months that will stick.

German marks plunged to a new low of over 10,000 to a dollar. Total circulation of marks is well over the trillion mark and increasing ten to fifteen per cent each week, but reduced to dollars at current rates of exchange, a trillion marks are only worth \$100,000,000. This shows the difficulty Germany has in making purchases of any consequence of wheat, rye, cotton, pork and lard in this country and of making sizable payments on reparations.

Another angle of great importance is attracting some attention. German bonds issued to pay for the war, most of which were sold to German citizens, are payable in marks. While heavy taxes have not been levied in Germany the depreciation of the currency has practically annihilated the value of these war obligations and indirectly the German people have been paying rapidly for the war. If the paper currency is repudiated, or its valuation greatly reduced, one or the other of which appears inevitable, Germany will emerge with its war debt practically paid by these losses in values of government bonds suffered by its citizens, and, therefore, in position to make reasonable payments on its reparations obligations as soon as productive enterprise can be restored to normal.

COMING LIVE STOCK SALES.

Chester Whites.—March 8, Alexander & Bodimer, Vassar.

Poland Chinas.—February 1, Doris Hoyer, Akron; February 17, Witt Bros., Adrian; February 27, J. E. Mygrants, St. Johns; February 28, Charles Wetzel & Sons, Ithaca; March 1, Archie Ward, Breckenridge.

Shorthorns and O. I. C's.—January 23, at 1:00 p. m., Claxton & Dieck, Swartz Creek.

Poland Chinas.—February 16, E. J. Mathewson, Burr Oak.

Duroc-Jersey.—January 24, Thos. Underhill & Son and Maple Hill Farms, at Fair Grounds, Northville.

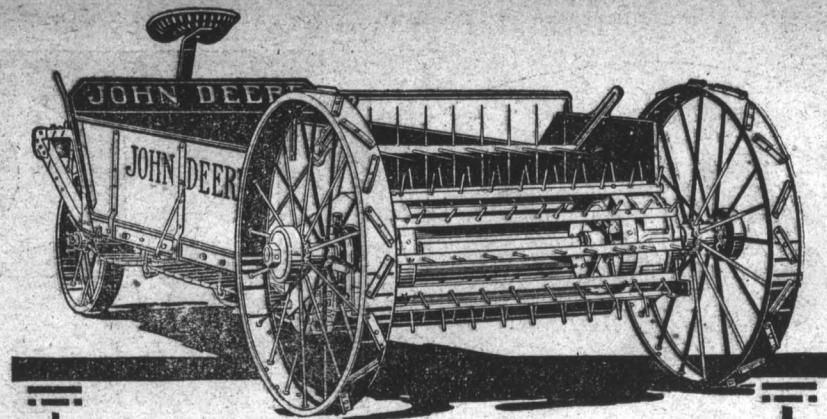
Poland Chinas, Shorthorns, Percherons and Sheep.—February 6, J. M. Hicks & Sons, Williamston, Mich.

Duroc-Jersey.—February 2 at 1:00 p. m., St. Joseph County Duroc Association, Centerville, J. W. Fletcher, secretary.

Duroc-Jersey.—February 9, J. C. Barney, Coldwater, Mich.

Shorthorns.—February 2, Michigan Shorthorn Breeders' Association, at M. A. C., East Lansing.

We all gain when we consider mutual interests instead of selfish ones.



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SHORTHORN

SHOW and SALE

Michigan Shorthorn Breeders Association

AT

M. A. C. East Lansing, Michigan

Friday, February 2, 1923

Show 9:00 A. M. Sale 1:00 P. M.

30 Females

11 Bulls

Consignors

John Lessiters' Sons,
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L. C. Kelly,
W. B. Kelly,
Mich. Agr'l. College,
P. P. Pope,
Robert Booth,
F. S. Postal,
O. Hampton and Son,
Bedell and Wheatlake,
R. W. Weinberg,
H. E. Hartwell,

Clarkston, Michigan
Carland,
Ewart,
Charlotte,
Plymouth,
Ypsilanti,
East Lansing,
Mt. Pleasant,
Owosso,
Evart,
Leslie,
Big Rapids,
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Williamston,

Every animal guaranteed. Tuberculin tested and sold subject to 60 days' retest.

If you want good Shorthorns with fancy pedigrees.

DO NOT MISS THIS OPPORTUNITY

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Auctioneers: Hutton & Adams

Write for Catalogue

W. E. J. Edwards, Sec't.

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BABY CHICKS from good selected heavy laying flocks of T. B. S.C. White Leghorns, Sheppard Anconas and Barred Rocks. SUMMIT HATCHERY, Byron Center, Mich.

White Leghorn BABY CHICKS of superior quality, from our own breeding pens exclusively. Safe arrival guaranteed. Circular free. THE MARION HATCHERY, R. 6, Marion, Ohio

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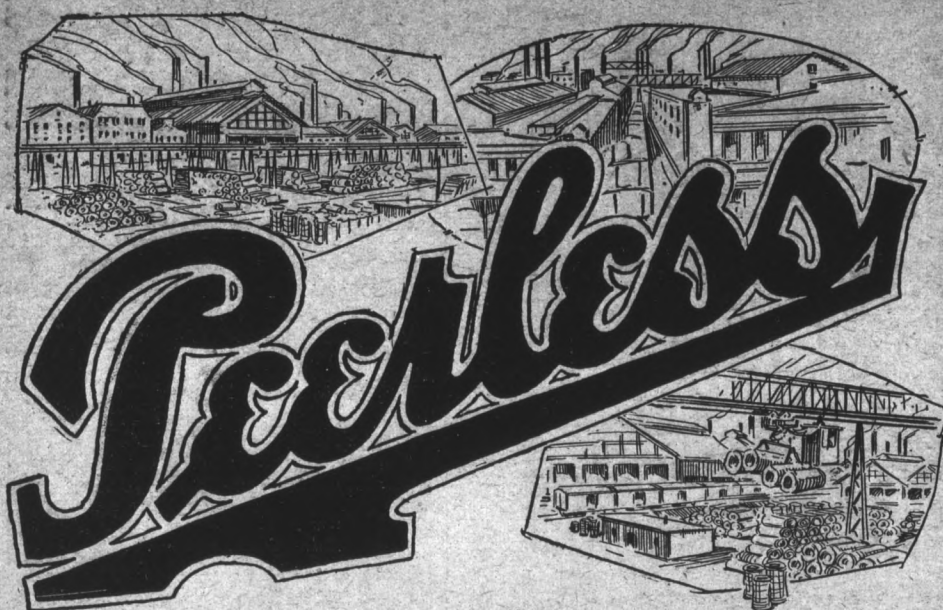
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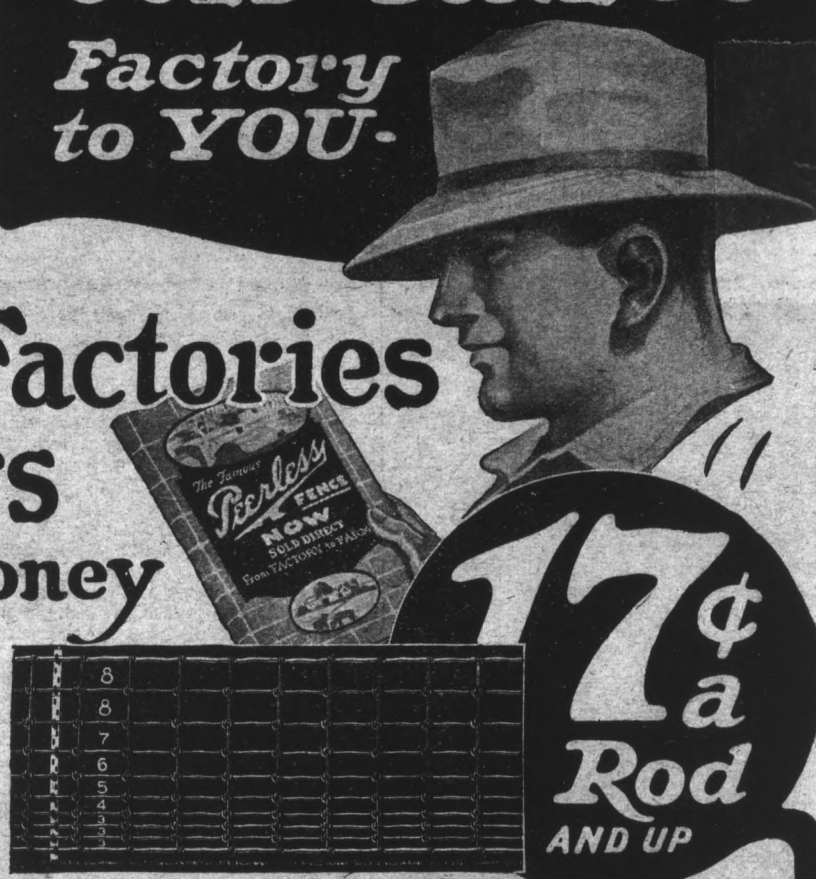
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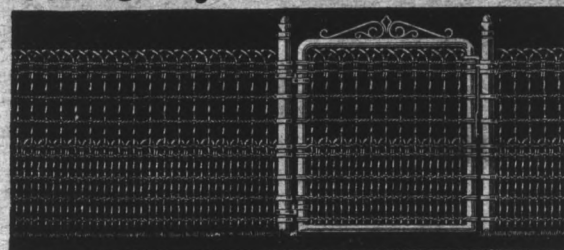
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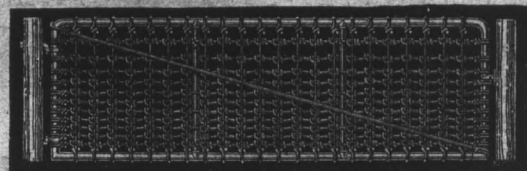
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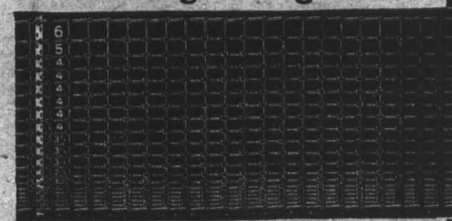


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