

# MICHIGAN FARMER

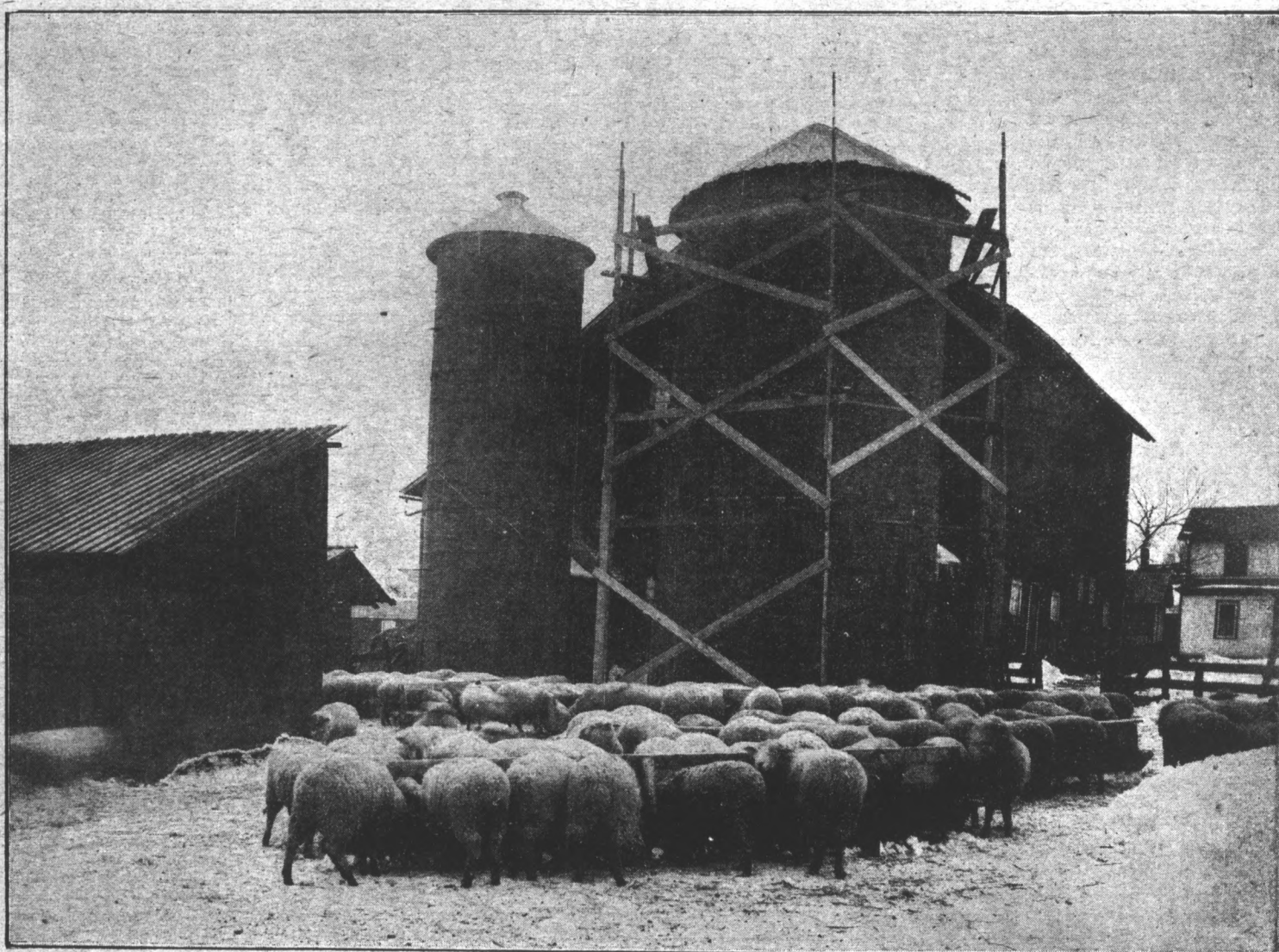
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## Marketing Surplus Feeds on Foot

WHILE it is true that "we cannot eat our cake and have it too," we can sell some of our surplus feeds on foot and keep much of the plant food they contain on the farm. This does not mean that every farmer can profitably go into the feeding business on a scale which necessitates the purchase of a large amount of feed. But many more farmers could market a surplus of home grown feeds "on foot" more advantageously than "on wheels."

A few head of fat stock can now be sold more advantageously by the small feeder through the local live stock shipping associations, which have

already been organized in so many Michigan communities. This makes small feeding ventures more attractive than ever before and should increase feeding on a small scale accordingly, to the benefit of the farms on which the feeding is done and of the farmer owning them. Indeed one of the hopeful signs of American agricultural production is that many thoughtful farmers have already decided that the immediate future is the proper time to restore the reserve stocks of plant foods taken from the land during the war and this they plan on doing partly through a program of judicious live stock feeding.



# The Michigan Farmer

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DETROIT, DECEMBER 4, 1920

## CURRENT COMMENT

### Horses on Michigan Farms

**H**ORSE breeding has been a neglected branch of the live stock industry on most Michigan farms during recent years. Evidently the average farmer has felt that the very general introduction of tractors on Michigan farms during recent years, and the equally general use of motor trucks for both city and country hauling would limit the demand for heavy horses in much the same way that the general introduction of the automobile did the demand for light harness horses. Consequently few colts have been raised on Michigan farms in recent years, the number apparently decreasing each year. Every reader appreciates this fact in a general way, but if any reader will review the situation in his own community and his observations in other communities, he will doubtless be surprised at the small number of young horses, and especially of weanling colts which are coming on to replace the needed horse stock on the farms of the community. Apparently most farmers have gotten the same idea at the same time regarding the outside market for good horses, and have overlooked the future farm market for necessary replacements of farm horses.

What is true in Michigan is evidently true in other states. The Illinois Agricultural Association has recently completed an investigation of the horse situation on Illinois farms. The result of this investigation shows that there is a present or prospective shortage of 100,000 horses on the farms of that state. This investigation, which covered thirty counties, or approximately one-third of the state, in which a horse census was taken on 26,450 farms, shows that horses are being reproduced at a rate which is less than four per cent of the horse population, while the annual loss is eleven per cent of the total. In the representative counties covered, only 7,297 colts were foaled in the quarter from April 1 to July 1. Allowing nothing for loss of colts, which Professor Mumford estimates would outnumber the colts foaled during the balance of the year, it would take the farmers of Illinois twenty-six and one-half years to replace their present horse power at the present rate of increase.

Obviously, the farmers of Illinois are producing scarcely more than one-third and certainly less than one-half the number of colts required to keep their present farm horse stock good. We believe the census figures for Michigan, which will soon be available, will show an even more startling situation, since horse production on Michigan farms would naturally be less during

the era of high-priced feeds, which has prevailed during recent years than would be the case in a strictly corn belt state where corn and oats are the principal staple farm products. This conclusion will also be borne out by observation in most communities and in the state at large.

Fortunately, mechanical power will be available to supplement the failing horse stock on our farms, but it cannot wholly replace it. Hence the outlook is good for the farmers who have had faith in the horse and have a few young ones coming on. The future prospect for horses is also worthy of the careful consideration of farmers who have good, big sound mares from which a good class of colts can be produced. Incidentally the present is a good time to buy horses which will be needed next year, as bargains are likely to be the exception rather than the rule when the true situation of the country's horse stock is revealed by the census report.

### Meeting the Emergency

**T**HE burden of readjustment has fallen heavily on American farmers. The market for their season's products produced at the peak of costs has fallen away below the cost of production in most cases. At the same time the credit situation is so strained that it is difficult to finance their business and meet their fixed seasonal expenses without selling their products on a bear market, which they believe to be unduly influenced in many cases by speculation.

As the inevitable result of deflation practically every other business is in a similar situation, with a resulting and growing condition of unemployment, which limits consumption and operates against a normally free movement of foodstuffs. Living and commodity costs have not yet declined in proportion to reductions in the basic market for foodstuffs and raw materials produced on the farms, but there is every evidence that this will quickly follow. Manufacturers and merchants are naturally reluctant to accept the losses entailed by this process but they will find themselves as helpless to prevent it as are the farmers whom it has first affected. Labor will also find it impossible to escape the effects of this readjustment process, and will ultimately have to bear its share of the burden.

How to meet the emergency is the foremost question in the minds of all. Retrenchment is the first remedy to be applied all along the line, with the result that the immediate difficulty is proportionately aggravated. Yet it is essential to getting business and private affairs back on a more normal basis. Relief is anxiously awaited from a variety of expedients. Perhaps the greatest hope of the farmers of the middle west is based on the possibility of remedial legislation by the congress, which is now assembling in regular session, through extension of agricultural credits and the arranging of credit with foreign nations which would enable them to buy our surplus food products which they badly need.

These and other possibilities may hasten the day of normal market conditions, but they hold little encouragement in the way of aid in meeting the immediately present emergency. They offer only prospective relief at best for a present situation. What, then, is the present remedy for the farmer? Obviously it is not the general dumping of his goods which the overloaded merchant is finding to be expedient for the reason that the farmers cannot sell their products in quantity to the ultimate consumer at any price as can the merchant. If the farmers dump to meet the present emergency it must be to the speculator, who is naturally cautious under present conditions and is also hampered by short-

ened credit, at a still further sacrifice in price.

The best solution for the present emergency is undoubtedly the gradual marketing of farm products, holding the surplus on the farms until needed for early consumption. To this end every farmer is warranted in using his credit so far as opportunity and its proper conservation permits, and selling his products gradually as needed for consumption, or as his immediately present needs make necessary. Such general policy on the part of the producers of foodstuffs will prevent still lower speculative prices and give the farmers the benefit of the reaction, rather than the speculators.

Fortunately there is at present a spirit of optimism among business men regarding the future outlook which is worthy of emulation on the part of farmers. It is a spirit which will prevent the present business depression from degenerating into a panic, and hasten the era of prosperity which close students of economy believe is ahead of us. By meeting the present emergency in the same spirit with which we met the war emergency, it can be most quickly and effectively surmounted. It is a time for the expression of optimism, rather than of discouragement.

### Rural Health Problems

**I**T is very easy for the folks living upon farms to ill-treat their bodies. A young farmer, ambitious to win success, exposed himself unduly while endeavoring to fill the ice house, and contracted a cold which resulted in leaving a widow and small boy to fight their battles alone. Hundreds and thousands of farm women pay very little attention to their own health until they are forced to do so by broken-down bodies. They do this often because, as they say, "the children and the family require every moment of their time." Their attitude is certainly one of unselfish devotion, yet it cannot be gained that by so doing they are contributing most to the happiness and richness of the lives of those in their families. The man and the woman who take good care of their bodies and encourage their children and others to do the same, are bound to be a more valuable asset to the community than if they neglected this vital matter. In order that the readers of this journal may profit by the best medical and sanitary advice that can be procured we have arranged with our very best doctors and sanitary engineers through the state department of health, to give in these columns weekly letters and to answer any questions on health that any of our readers may forward to us. These articles will start in next week's issue and will become a regular feature.

## News of the Week

Wednesday, November 24.

**T**HE committee on general organization of the League of Nations decides that no amendments to the league covenant will be approved at this session.—At their annual state conference, Michigan credit men express a general feeling that business conditions will soon show improvement.—The world wheat and rye crops show a slight increase over those of 1919.—The Illinois constitutional convention defeats a proposal to include an initiative and referendum.

Thursday, November 25.

**B**ROTHERS of former King Constantine of Greece, arrive in Athens and are escorted by large and enthusiastic crowds.—An agreement between the Russian Bolsheviks and the Turkish Nationalist forces embrace the freeing of India and Egypt from British control and the placing of Syria under Turkish rule.—Congress will be asked to investigate recent price drops on the commodity exchanges of the country.—Initial steps are taken by the public service com-

mission of Pennsylvania that may lead to state control of coal companies.

Friday, November 26.

**T**HE Russian Reds are reported to have defeated General Semenov on the eastern front and General Petlura, the Ukrainian leader.—President Wilson has been asked to accept the role of mediator between the Turkish Nationalist leader and the Armenians.—Rumania and Greece oppose the admission of Bulgaria into the League of Nations.—Gaston Chevrolet and Eddie O'Donnell, the famous automobile race drivers, are killed in an accident on the speedway at Los Angeles.

Saturday, November 27.

**I**T is announced that no attempt will be made at the coming session of congress to pass a peace resolution.—The people of Montenegro apparently are anxious for the restoration of the sovereignty.—Frederick Wallis, commissioner for the port of New York declares that the unusual number of immigrants coming to the United States furnish the gravest issue before (Continued on page 714).

### PROGRAM STATE ASSOCIATION OF FARMERS' CLUBS.

The following is the program arranged for the annual meeting of the Michigan State Association of Farmers' Clubs, to be held at Lansing, Michigan, December 7-8:

Tuesday Morning.

Presentation of credentials.  
Payment of dues.  
Registration.  
Appointment of committees.

Tuesday Afternoon.

Alfred Allen, Chairman, Mason.  
Music, Howard Allen, Oxford.  
Invocation.  
Music, Howard Allen, Oxford.  
Report of associational secretary, Mrs. I. R. Johnson, Rushton.  
Reading, Dewey Allen, Oxford.  
"Centralized Schools," Prof. W. D. Henderson, Extension Division U. of M., Ann Arbor.  
Reading, Dewey Allen, Oxford.  
"The Michigan Farm Bureau," B. A. Holden, Wixom, Chairman Organization Department, Michigan State Farm Bureau.  
Discussion.  
Music, Howard Allen, Oxford.

Tuesday Evening.

Banquet served by M. A. C. at Chamber of Commerce Building.  
Toastmaster, Edgar Burke, St. Johns.  
Round Table.  
President's address, Alfred Allen, Mason.  
"Church Federation for Rural Communities," W. A. Cutler, Grass Lake.  
"Some Problems of Church and State," Dr. John C. Willits, Lansing.  
Reading, Dewey Allen, Oxford.  
"What Michigan Women Want in Legislation," Mrs. Dora Stockman, of Lansing, Member State Board of Agriculture.  
"The Agricultural College—the Practical School of the Future," Dr. F. S. Kedzie, East Lansing, President of M. A. C.  
"The Farmer," Hon. J. N. McBride, Burton.  
Music for the evening will be furnished by M. A. C.

Wednesday Morning.

Music, Howard Allen, Oxford.  
Question box conducted by Vice-President Lee S. Noble, Oxford.  
"The Farmer as a Business Man," Hon. L. Whitney Watkins, Manchester, Member State Board of Agriculture.  
Reading, Dewey Allen, Oxford.  
"The Farmer's Legislative Program," Hon. A. B. Cook, Owosso, Chairman Federated Committee.  
Treasurer's report, Mrs. I. R. Johnson, Rushton.  
Report of committees.  
Election of officers.

Wednesday Afternoon.

Music, Howard Allen, Oxford.  
"New Phases of Home Economics Work," Miss May M. Person, East Lansing, Dean of Home Economics Department.  
Reading, Dewey Allen, Oxford.  
"Taxation and the Farmer," Hon. J. N. McBride, Burton.  
Reading, Dewey Allen, Oxford.  
Address, John C. Ketcham, Hastings, Master, Michigan State Grange.  
Music, Howard Allen, Oxford.  
Wednesday Evening.  
Music, Howard Allen, Oxford.  
"The Farmers' Strike," Forrest A. Lord, Mt. Clemens, Editor of The Business Farmer.  
Reading, Miss Dorothy Allen, Mason.  
Address, Alexander J. Groesbeck, Governor-elect of Michigan.  
Reading, Miss Dorothy Allen, Mason.  
Music, Howard Allen, Oxford.



# Annual Harvest for the Farm Woodlot

By F. H. Sanford

IN November, 1915, the following statement appeared in the Michigan Farmer: "Farmers can no more afford to keep unprofitable land than they can afford to keep unprofitable cows. Idle land which is not growing more valuable is like the boarder in the dairy herd." This fact was worthy of careful consideration five years ago, but it is doubly worth pondering over today. In these days of high costs of production, when it becomes a matter of business life and death to the farmer to know costs as well as selling values of his products, he cannot long carry idle land unless he does it as a matter of sentiment or as a pleasure or hobby.

The gradual awakening of producers of food products and other necessities that come from the soil, to the vital need of knowing what those products cost, is bringing about the use of more or less accurate systems of cost accounting. To the farmer who is not compelled by the income law to keep records, this need of knowing costs is even greater than to the neighbor who pays the income tax, because the margin between profit and loss is relatively narrower. "Land poor" is a common expression today and it is used as the excuse for failure, or near failure, much more often than it should be.

It is entirely safe to say that there is little or no drained land in southern Michigan but will yield its owner the savings bank rate of interest at least. The ordinary farm land which now lies idle or half idle, in the form of pastured woods, shaded pastures, etc., should be handled more efficiently as annual crop land or else be devoted to the growing of timber exclusively.

Half-way methods, or "straddle systems" of grass and timber production together fail to show adequate returns. If pasture is needed as well as timber it would be better practice to divide the field by a fence into two parts and encourage timber growth on one and clean-cut pasture the other. The growing together of two crops so utterly unlike in their requirements of soil, moisture, light and heat, is bound to result in failure, or at least distinct loss as compared to what either would produce if grown separately.

Granted that the owner realizes the truth of all this—what is the reason that he doesn't stop the old practice? It is simply that the notion of a crop, as he interprets it, means the harvest of one year's effort; and he doesn't seem to be able to realize that the production of a crop may take a generation instead of twelve months.

Unless the farm woodland owners soon begin to demand returns from every acre of their farms, they will be forced in many cases to sell land and decrease the acreage or else compel themselves to face a very disturbing and embarrassing fact that they are carrying idle useless land, from which they are receiving nothing except the pleasure once each year of paying a very certain tax.

Such a condition of affairs is not particularly aggravating to the man who never counts the cost of his farming operations, but to the one who strikes a balance now and then between his labor and acres on one hand, and his returns on the other, there is pretty apt to be a curiosity in his mind about the pay value of those acres.

THE man who operates one hundred and sixty acres of land, but who runs stock over fifty-five acres of it because it is neither plow land or woods, but a far too heavily shaded pasture, is losing in three ways:

First. He is making his stock run

many miles too far for the feed they are able to secure, and if such stock happens to be feeders, the feed they find usually fails to keep them in flesh.

Second. The shade-grown grass of the wooded pasture is too poor in quality as a feed.

Third. The timber of the pasture fails to make a normal annual growth while younger production is rendered impossible, due to the packing of the soil, to the removal of the leaf mulch and to the browsing off of every seedling that dares to show its head.

The rate of growth of trees standing in such a pasture is slowed down greatly because of the free motion of air over the ground which removes vast

stands of thin and scattered woods indefinitely. In fact, it often means something entirely different than that.

Rather it means the maximum production of timber of good form and value in the shortest possible time on the minimum of acreage at the least possible cost. Half-stocked acres of timber are just as expensive to produce to maturity as are fields of corn or potatoes where half the hills are missing. Half crops result where full yields should have come while the investment, tax and labor charges have continued in full.

## The Remedy.

Ten per cent of the average farm in Michigan should produce timber suffi-

that a heavy harvest has been removed and the stand is not yet normal or second, "over-ripe," which means that the stand is nearly even age and all over-mature.

In either case special plans of management are necessary since the desirable form is a "normal" all-age stand which the owner may handle by careful selection to meet his yearly needs.

In order to bring either the "under-ripe" or the "over-ripe" stand into a "normal" one, the owner should prepare for himself, or have prepared for him, a working plan covering the period of years necessary to place the woods in the normal or annual crop form.

With the stand of ripe or over-ripe timber the immediate need is one of careful harvesting. At present the kind of harvest will depend upon the kind of market available to the owner. If the State Farm Bureau provides a system of timber pool whereby woodland owners may market their products annually the problem of handling ripe stands of timber will be greatly simplified and forest conservation in Michigan will be splendidly encouraged. If, on the other hand, the timber market is left in the hands of speculators and timber jobbers the end of the five hundred thousand acres of hardwood farm forests of southern Michigan is in sight so far as marketable timber is concerned.

Given the possibility of an annual market for his surplus or annual crop of timber, the Michigan farmer will soon form the habit of cutting a few logs and other supplies from the timber each year or two as a regular form of revenue. And especially must he receive a true market value for this most important product before there is developed any incentive to management of the woodland on intensive and conservative lines.

Wholesale lumber prices have fallen forty per cent recently over prices of last May when the peak price was reached. Do not be misled by this statement as it is appearing in lumber journals and elsewhere; but rather take time to analyze the lumber market for the past five, ten or even twenty years, and then ask yourselves if you need to worry over a forty per cent drop.

## Wholesale Prices for Hardwood One-inch Stock.

Here are the figures on wholesale prices of manufactured one-inch lumber, first and second grade, as received on the Chicago, Bay City and Cincinnati markets since 1860:

| Year.             | First Quality Per M. | Second Quality Per M. |
|-------------------|----------------------|-----------------------|
| 1860 .....        | \$ 12.24             | \$ .....              |
| 1870 .....        | 24.89                | .....                 |
| 1880 .....        | 31.62                | .....                 |
| 1890 .....        | 33.07                | .....                 |
| 1900 .....        | 39.29                | 27.57                 |
| 1910 .....        | 49.17                | 35.61                 |
| 1915 .....        | 52.94                | 35.49                 |
| 1917 .....        | 56.00                | 38.92                 |
| 1919 .....        | 72.62                | 55.54                 |
| 1920 (April) .... | 178.82               | 123.80                |
| 1920 (Nov.) ....  | 123.50               | 85.50                 |

The November, 1920, prices are obtained from lumber trade journals quoting sale prices of Michigan hardwoods and are the averages of the following commercial species, viz., basswood, beech, birch, elm, hard maple and soft maple. Walnut and oaks are not averaged in to make the price, but are quoted by the Chicago market reports as much higher.

From a further reference to this table of prices you will see that the forty per cent drop in hardwood prices on first and second quality material from \$178.82 per thousand for first quality (Continued on page 692).



Under a plan of annual marketing of wood products, such a heavy cutting as the above at any one time would be as unnecessary as it is undesirable. The gradual removal of the ripe and overripe timber by the farmer himself and in such quantity only as he is able to handle in logs and fuel during each winter season, will assure him both annual revenue and fuel, as well as the best kind of natural restocking of the woods with young growth.



The "straddle system" of trying to grow grass and wood at the same time on land such as this, is daily being pronounced a failure. It is much better to cut the timber clean on half of it and keep the stock off the other half and give the timber every encouragement.

quantities of the moisture so important to rapid tree growth, and because of the demands for moisture made by the weeds, grasses, and sedges common to such shade.

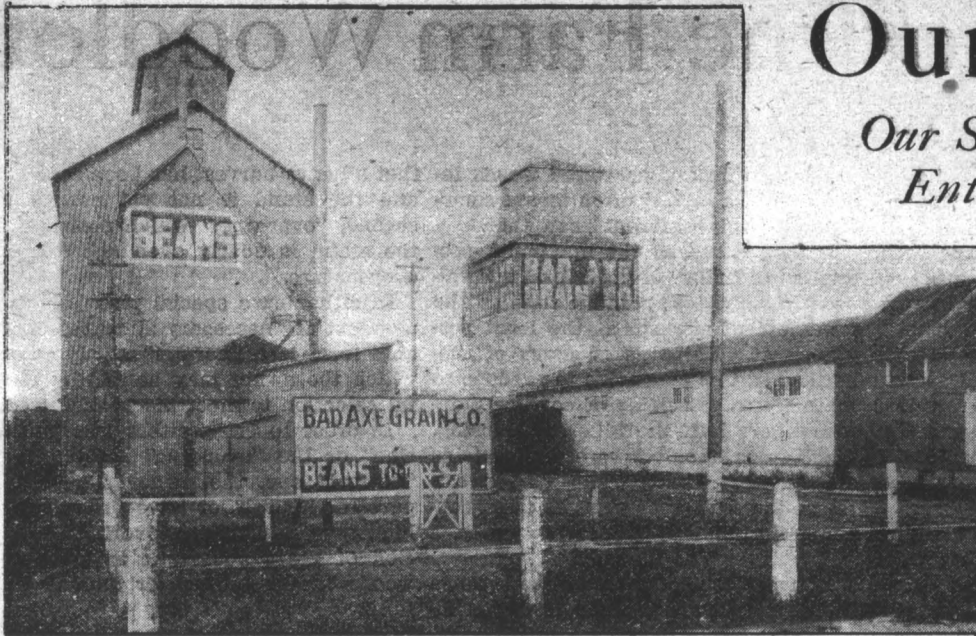
The gist of the expression, "Well you can't make woods and pasture grow together," has been remarked to the writer by dozens of farmers during the past summer so that this fact is not a discovery by any means, but rather a very common conclusion that is known thoroughly by most observing farmers.

It is very gratifying, to find that many owners are seriously thinking about this question while many are asking for a remedy. Conservation of timber may not mean the holding of

cient for the needs of that farm if efficiently handled. The farm of one hundred and sixty acres having sixteen acres of well stocked timber of mixed ages, should not want for fuel, posts or buildings and repair material. Such a farm woodland should be capable, under wise management, to produce from three hundred to five hundred board feet per acre of saw timber per year, with an average of two to five short cords of fuel to each thousand feet of saw timber or posts. A woods incapable of such a sustained annual yield could not be called well stocked. It would be in either one or the other of two general conditions. It would be:

First. "Under-ripe," which means





# Our County Farm

*Our Saginaw County Valley Correspondent  
Enthusiastic Agricultural Leaders During*

*Huge warehouses and large elevators give evidence of the productivity of the farms of Huron County.*

tive elevators in the county. There were seven or eight of these elevators, the directors and shareholders of whom were in all instances members of the farm bureau. To interest other farmers in these enterprises to take moderate amounts of stock in them, and give crop contracts to the elevators to handle their products, as well as to buy needful supplies, was the first big job of the bureau officials. Along with this work came the decision of the cooperative elevator associations to join the State Elevator Exchange, and proper action was taken on October 21 to bring this about. The farm bureau has made a remarkable beginning.

The cooperative elevator associations joining with the farm bureau were: The Farmers' and Producers' Elevator, Bad Axe, A. R. Thomas, manager; The Sebewaing Cooperative Association, Bach, F. M. Oehmke, manager; Farmers Cooperative Grain Company, Kinde, Henry Basler, manager; The Atwater Farmers' & Gleaners' Cooperative Grain Company, Atwater, James Walker, manager; Farmers' & Gleaners' Cooperative Elevator and Creamery, Elkton, C. L. Morse, manager; The Cooperative Elevator and Milling Association, Pigeon, H. J. Clabuesch, manager; The Farmers' Cooperative Company, Harbor Beach, Bert Ramsay, manager; Farmers' Cooperative Association, Port Hope, F. D. Bartlett, manager.

All but one of these successful associations had been in business for some time before the farm bureau movement was thought of, and thus brought in the local farm bureau well organized units situated at the leading shipping points, and around which strong locals may be created.

The new cooperative association at Port Hope, which was organized by Mr. Campbell, made a surprising record. From the time of the first meeting of interested farmers, to the date the corporation was formed and the directors and officers elected, was exactly three weeks. An elevator already established and doing a good business, was purchased outright for \$15,000, and operations quickly started.

## Cooperative Buying.

The next important work undertaken by the farm bureau officials was the buying and distributing of necessary supplies, which could be bought in carload lots, such as fertilizer and flour. To expedite the pooling of their orders for fertilizer for fall needs, the farmers of each township met in their town halls and decided upon their individual

WHEN I typed the story of the Tuscola County Farm Bureau last July, following a leisurely jaunt through that fertile region, I thought I had put down about all the really interesting things to be found in the Thumb of Michigan. But later, when I motored up into Huron county, just north of Tuscola, I met with still other features of farming, a great deal of scenery and some surprises. These features, and some sidelights on prosperous farming communities, I will weave into a story of this remarkable county—the Tip of the Thumb.

The outline of lower Michigan, bounded on three sides by the Great Lakes, is the almost perfect form of a human hand, with the thumb clearly defined by the shores of Lake Huron and Saginaw Bay. At the tip of the thumb is Huron county, a large, generally flat and rich agricultural country with a base forty-two miles long, and a shore line, sandy on its east and west coasts and very rocky on its northern tip, is quite one hundred miles long. Along its base are Tuscola and Sanilac counties, both different from Huron in natural features and some other things.

## Outstanding Impressions.

In my trip through Huron county in the last week of October, I was impressed with the fine roads, the average bigness of the farms, and the large number of pure-bred herds. In the matter of good roads Huron is easily in advance of its neighboring counties, due in a great measure to the almost unlimited supply of gravel, haulage thus being reduced to a minimum. Besides the main trunk highways connecting the towns and villages, many section line roads are improved with a hard gravel surface. Many of these roads have a natural clay or sand foundation, and were improved by grading and an application of fine gravel for a top surface, the material being dug out from small pits along the roads.

As I drove on these hard, smooth highways new and interesting things were not hard to find. On each side broad vistas opened up to view, dotted here and there by big new barns with silos, comfortable and even pretentious farm homes, and herds of pure-bred cattle, denoting a high state of prosperity. The thing most noticeable, however, was the total absence of heavy timber or even small woodlots, which render the landscape so attractive.

## Devastated by Forest Fires.

This want of native timber, except small clumps of scrubby second growth is due to the ravages of two terrific forest fires which swept the Thumb country forty and fifty years ago. The great fire of 1871 devastated a wide territory of rough woodland, leaving the ground strewn with slashings and which, in ten years of drying and decay, became a huge tinder box needing only a spark to set off into a raging

furnace of fire. This awful event occurred in the fall of 1881, and swept the country clean of every living thing, animal and bird life, as well as every tree, bush and flower. Nor did the villages escape, for Bad Axe, the county seat, was burned excepting the brick court house and one general store, and in other places not a vestige remained to mark the site of growing settlements.

Wonderful changes have taken place in Huron county since that fateful day. The country was swept so clean by the fire that, forgetting the loss of life, it proved a blessing in disguise. A tremendous amount of labor was saved in clearing the land, and today there remains little evidence of the catastrophe excepting the want of tall timber. This lends a peculiar aspect to the landscape to one familiar with big woods, rail fences, weather-beaten barns and other marks of antiquity in an old farming country. But the very difference is interesting to the landholder, inasmuch that with a field glass he can sweep the horizon and learn what his nearest neighbor a mile or so away is doing.

I have dwelt on this condition because it illustrates the perseverance and enterprise of a sturdy class of farmers. We must take off our hats to them. In less than two generations they have transformed a huge ash heap wild and forbidding, into as rich a farming country as is to be found in eastern Michigan. Of course, the soil in most parts of Huron was good and in some parts rich, but the fact remains that without an inestimable amount of labor and patient plodding, the county would not have developed as it has.

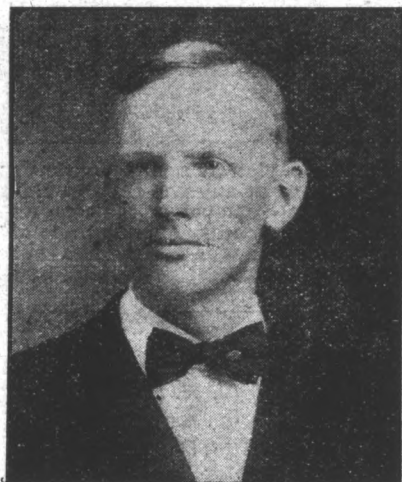
## The Farm Bureau.

During all this period up to the present year no concerted effort to organize the farmers had been attempted. There was no county agent to aid the farmers. Seven or eight cooperative elevators had been in successful operation, but they were operated for profit, for the benefit of the shareholders only. While cooperative in name they lacked an indefinite something to make them thoroughly mutual in character; and the farmers were ready for a big broad cooperative organization.

In June of this year, along came the State Farm Bureau, with James R. Campbell in the role of organizer, and started things going. In an incredibly short time, the farmers recognized that the organizer, in the language of the street, was a "wise guy." Born and brought up a farmer, gifted with an abundance of common sense and with a facility for expressing his views, guided by a broad experience as a farmer, business man and administrator, Mr. Campbell fits into the Huron county situation snugly. Indeed, it would be difficult to find a man whose ability and every act would dovetail

into the situation so perfectly. And, best of all, the farmers are with him. This accounts for the wonderful record made in membership—3,100.

After a rousing campaign the Huron County Farm Bureau was organized on June 19, with the following officers and executive committee: Earl C. McCarty, Bad Axe, president; A. B. Morgan, Elkton, vice-president; Gus A. Braun, Crandler Township, secretary-treasurer. John Hunt, Verona Township, Wm. Learman, Sigel Township, Otto Ponzan, Sebewaing, Theodore Primer, Sherman Township, and Frank Kinch,



James R. Campbell, County Agent.

Grindstone, with the officers, comprise the executive committee. For enterprise and willingness to aid in working out the many problems arising in a new organization of this kind, the above business farmers are well representative of the Huron county farmers.

## The First Big Job.

In getting the farm bureau organized for business a different plan was adopted than that generally followed in other places. The first effort was to bring into the bureau the existing coopera-



Carr Brothers & Co. Become Owners of this Promising Young Sire.



# Bureaus and Their Activities

## *Finds Good Roads, Prosperous Farmers, Fertile Fields and His Recent Tour of the Thumb District of Michigan*

requirements. Although it was a very busy season the attendance at these meetings was from one-third to two-thirds of the total membership in each township. The county agent attended many of these meetings and explained the value of fertilizer applied to the soil; and the result was that the pool amounted to 867½ tons of fertilizer for fall use.

About the time the first shipments of fertilizer arrived, members of the farm bureau began to inquire about the plans for buying flour. That work was taken up with the idea of getting a quality product for delivery some time in October. Orders for flour were pooled to the extent of 3,140 barrels. As this is a commodity the price of which for a period or season is not fixed, owing to the constantly fluctuating price of wheat, buying of it is what is termed an open market deal, and more or less speculative; and the local bureau was requested by the State Farm Bureau to make this purchase direct from the millers. By watching the market with a liberal order the local bureau bought at twenty-five cents per barrel under the market quotation for the day.

"So far," said Mr. Campbell, in our interview, "the work had had to do only with what the members wanted to buy, and it became evident that means must be provided to help them market what they had to sell. To sell grain and hay requires an elevator or warehouse, where the products can be graded and put in fit condition for the market. This, of course, requires capital. There are at present 3,103 members of our local bureau, which means \$31,030, one-half of which is paid to the State Farm Bureau, leaving \$15,515 for the year's work in Huron county. Now, if this fund were used to provide a market for grain, it would just about buy one elevator, and then there would be no capital with which to operate it.

"The only solution of this problem," continued Mr. Campbell, "is a local marketing organization of farm bureau members, financed and operated by themselves, with such supervision and assistance as they may request of the farm bureau. The average farmer realizes more than ever, I believe, the necessity of cooperating with his neighbor, and, with the neighbor of the same mind, this may readily be brought about.

### Transportation Facilities.

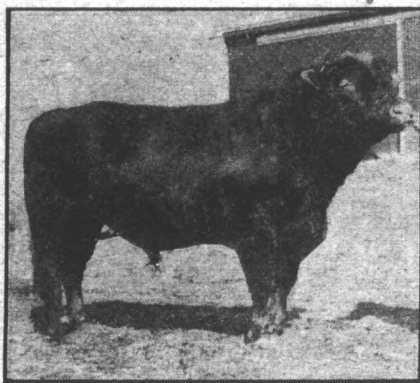
Although Huron county is situated out of the way in respect to communication from the east and north, it nevertheless has good shipping facilities south to Saginaw Valley and Detroit. Three different railroad systems traverse the county. The several lake ports

afford very limited shipping facilities, particularly to farm products, as water transportation along the shore has practically ceased. About the only port worthy the name is Harbor Beach, a thriving town which boasts one of the finest harbors on the lakes, and is a delightful summer resort.

Bad Axe, the metropolis of the Thumb, is a thriving town of about 2,200 inhabitants. Besides being a railroad center it is becoming a manufacturing point of some importance. Its three big elevators and a hay warehouse, with a completely equipped bean elevator, furnish a scene of activity along the railroad. Another industry is the chicory drying plant of the E. B. Muller Company, which handles from six thousand to eight thousand tons of this root crop each year. There is also a plant for producing powdered milk, and a factory making cement staves for silos. Other industries in the county include a milk condensary at Ubyly, and cooperative creameries at Ruth, Harbor Beach, Elkton and Pigeon.

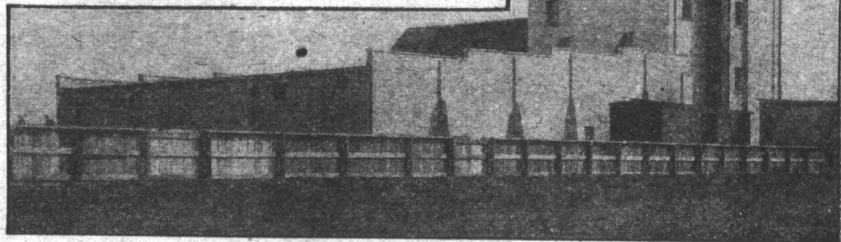
### Crops of Huron County.

The soil of the Thumb is of such varying quality and generally so rich, that any crop successfully grown in



The Head of Sam Pangborn's Herd.

Michigan can be grown with profit there. The soil more generally is a rich clay with clay loam in streaks, and sand in places with good gravel. The western and northwest townships have the best land and there I observed evidences of real prosperity of the farmers. In those townships near the Huron shore farming land is less valuable, and is used as pasturage to a great extent. It was in these parts that I found some of the finest herds of Shorthorns that I had ever seen. In fact, Huron county is well stocked with pure-bred Shorthorns, Herefords and Holsteins, some of their owners saying that were it not for high-grade stock they would not care to farm anywhere. Holsteins are the predominating breed, with Shorthorns and Herefords about



equally divided. Farmers do not go in for hogs as a business, though nearly all raise a few for their own use. This is also the situation regarding poultry.

In reference to crops, hay and sugar beets lead, with oats, beans, rye and barley following in order. Sugar beets were a big crop this year, the farmers were busy hauling them to the weighing stations or direct to the factory. I passed hundreds of heavy loads, often in strings of six or eight wagons. A few loads of chicory were also seen on the way to the dry-kiln at Bad Axe. Beans were a good average crop this year, but at the fall price around \$4.00 per hundred few farmers were marketing them.

One drawback to large average yields of grain crops is the reluctance of farmers to use pedigreed seeds, and is a situation due to lack of information on this important subject. But Huron county until lately did not have a county agent or anyone else to instruct the farmers. This year there were a few fields of College Success oats and Wisconsin Six barley tried out with gratifying results.

The growing of sweet clover is a highly profitable business near Fillion. At one place there is a tract of one thousand acres and many farmers have large fields of it. Alfalfa has been tried out in various parts of the county, but only in certain places has a good catch been obtained. It is more successful in the southwestern townships, especially around Owendale. Potatoes have been found a profitable crop, too, the largest yields being along the northeastern shore of Lake Huron, and near Kinde. At Port Hope there will be about one hundred carloads to ship out this fall.

### What Leaders Are Doing.

James R. Campbell, county agent, is a farmer with a business education, supplemented by a broad experience in handling men. His early life was spent on his father's farm in Clinton county, where he attended the district school and later was graduated from the M. A. C. In 1909 he was an instructor at the college, and then enlisted in the Coast Artillery Corps, U. S. A., in which service he remained five years. In 1911 he was commissioned first lieutenant, and in 1914 resigned his commission and returned to the home farm comprising two hundred and eighty acres, which he sold in 1919.

While engaged in farming he served as first president of the Clinton County Farm Bureau. In the early spring of the present year he came to Huron county as organizer and, after the county organization had been effected, was persuaded to remain in charge of the county work. "The good roads of Huron county," he said, "sold me on the proposition to stay with these enterprising people."

Mr. Campbell's big job at present is lining up the cooperative elevators with the farm bureau, and the formation of new ones where needed. He is also interested in getting the several live stock shipping associations, situated at Grindstone, Kinde, Pigeon and Bad Axe, to join the farm bureau.

In my circuit of Huron county I met and talked with a number of leading farmers, but none of them impressed me in quite the way that Earl C. McCarty, of Colfax township, did. In conversation with Mr. McCarty it was easy to be seen why he was chosen president of the local farm bureau. He is a big business farmer and has a wonderful grasp of the farm bureau situation in his county, and its success is due in large measure to his foresight and wise policies of administration.

Mr. McCarty believes that the use of pedigreed seeds is one of the most important things to promote in Huron county. A start was made this year with a distribution of 3,000 bushels of College Success oats, 1,500 bushels of Robust beans, and 1,000 bushels of sweet clover, and the fields thus planted were inspected by state inspectors.

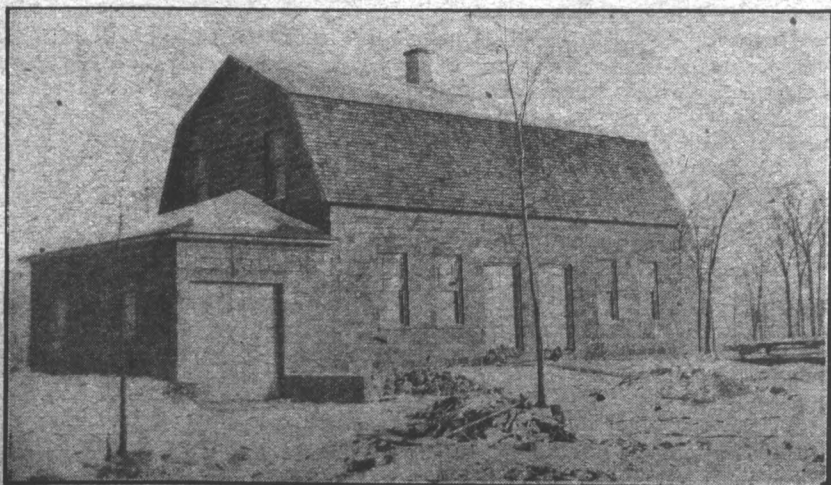
The McCarty farm comprises two hundred and eighty-five acres, of which fifty acres were this year in oats, thirty-five acres in corn, ten in beans, fifteen in barley and twenty acres in sweet clover, with the remainder in pasture. The farm is noted for its fine herd of pure-bred Herefords, there being seventy head registered.

William H. McCarty is another farmer whom it was a pleasure to meet. The farm property comprises two hundred and forty acres devoted to general farming. In the present year fifty acres were in corn, twenty acres in hay, twenty in oats, twenty in rye and eight bushels in beans, with about one hundred acres to pasture. Mr. McCarty makes a specialty of pure-bred Herefords, having sixty head of registered stock, and forty-five head of Oxford sheep. Mr. and Mrs. McCarty reside on this highly productive farm situated seven miles west of Bad Axe.

John Hunt, member of the executive committee, is an enterprising farmer who, with his son, operates a fine farm of three hundred and forty acres in Verona township, six miles east of the county seat. It is Mr. Hunt's belief that the most important work now before the local farm bureau, is lining up the cooperative elevator associations with the bureau, and the getting of individual crop contracts with them. He is president of the Farmers' and Producers' Elevator at Bad Axe, and is in a position to know the advantages of the elevators joining with the progressive farm bureau.

A general farming plan is followed on the Hunt farm, and this year forty acres were devoted to hay, twenty-seven acres to Worthy oats, thirteen acres to barley, twelve acres to wheat and a few acres to beans. The remainder of the farm, about one hundred acres, was in pasture. Mr. Hunt and his two sons are enthusiastic breeders of Holsteins. They have thirty-two head of pure registered stock.

William Learman, whose large farm of four hundred acres is thirteen miles east of Bad Axe, is another active member of the executive committee. At the time I called there he was busy dressing hogs for market, but he gave (Continued on page 710).



Honey House, Bee Cellar and Shop of David Running, or Fillion.



# News of the Agricultural World

## NATIONAL GRANGE HOLDS ANNUAL SESSION.

**A**BOUT twelve thousand members were given the seventh degree in the double initiation classes at the annual session of the National Grange held at Boston.

Twenty-nine states were represented by state masters and their wives speaking in their representative capacity for nearly a million active or other members of the Order. These members organized into subordinate Granges, holding regular monthly or more frequent gatherings, and the county and state Granges, compose one of the strong constructive forces in America for better communities, better farm life and better agricultural conditions.

The annual address of the Master of the National Grange, Sherman J. Lowell, of Fredonia, New York, was delivered at the first afternoon session.

"We are certainly glad to come to this great historic city of Boston, on the three hundredth anniversary of our Americanism," said the Worthy Master in opening this address, "and we are willing that Massachusetts should have the glory of the occasion, if she will admit that we helped a little."

After discussing the growth and condition of the Order, which was shown to be active and prosperous, the Worthy Master discussed taxation, the condition of agriculture, Americanism, the necessity of Grange unity, and the legislative work of the Grange.

"There is but one equitable form of taxation," he said in discussing the Nolan bill (the one per cent land tax) and all single tax proposals, "and that is when every form of wealth pays its just proportion of taxes. Another equally erroneous idea is that of a heavy tax on all unimproved land holdings, for if this were done and they were all forced on the market by reason of such tax (which is the intent) it would cause the depreciation of farm lands fifty per cent. There is no more just tax than an income tax, for it is never a charge against anyone who has not the means to pay."

"Since the war," he said, discussing the condition of agriculture, "great changes have taken place to the disadvantage of agriculture. We could name many laws and rulings of our national government (not to mention state enactments) that have proven of injury to us. We have searched faithfully to find one such law or ruling to our advantage and have failed to find it."

"We have rejoiced that labor has been enabled to secure a much higher rate of wage, but we little expected that they would turn and demand cheaper food from us without first ascertaining the cost of production and discovering that we were not taking too large a margin of profit. As your spokesmen, we feel the Grange should still be liberal, and notify all interests that we are willing to sit down and have a fair understanding of values; the farmer receiving the same pay for the same hours' work as others receive, no more, no less, but that this is the last call. If no attention is paid to this by bankers, manufacturers, railroad and labor organizations, and the government continues to use its great power to import raw material free of duty to reduce costs, as a possible expedient the Grange will be forced to join other organizations in the movement to fix the price of foods. There is no threat in this, we will have been driven to it to preserve our agriculture."

His definition of Americanism was

"Carry on that which was founded here three hundred years ago." "America is safe," he said, "as long as we continue to inculcate lessons of fraternity, unity and patriotism."

State masters' and national officers' reports indicated good growth during the year, with 382 new Granges, and twenty-nine reorganized Granges having been granted charters during the year. Extension work was reported in nearly every Grange state.

A splendid program of entertainment was put on by the Massachusetts Grangers, including an exhibit of New England agricultural products in which all New England State Granges participated, highly educational and showing agricultural possibilities and achievements of high order. Trips to Plymouth and Concord, a New England turkey dinner by Somerville Grange near Boston, an inspection of Boston Harbor by boat, addresses by Vice-President-Elect Coolidge, Lieutenant-Governor Cox, and Mayor Andrew J. Peters, splendid music, fine degree work, and real New England hospitality marked the sessions.

## REFRIGERATOR CAR SERVICE FOR MICHIGAN.

**S**HIPPERS of potatoes, apples and small truck face a serious situation this winter in the shortage of refrigerator cars. There are approximately six thousand cars of potatoes and hundreds of cars of apples to move in this state. The traffic department of the Michigan State Farm Bureau has been besieged with calls for help from cooperative societies from all over the state. Many of these it has been able to help, pooling their requirements and going to the railroads with the total cars needed in hand. But despite efforts along this line, it is going to be necessary for cooperative associations to move a lot of their potatoes in box cars, lined for protection from the cold. Lining a car costs approximately \$80, and is an expensive proposition for any organization to undertake.

The traffic department in conference with Mr. H. O. Halstead, superintendent of car service of the Pere Marquette Railway, and Carl Stewart of the State Public Utilities Commission, has secured an endorsement of a plan to have cars lined for shipment returned to the shipper, if he makes request with the local agent and divisional freight agent, giving car number, consignee and destination. Mr. Halstead said that the Pere Marquette was willing to put this into operation in this state. To become effective on all railroads in the state, the plan will have to become an order by the public utilities commission. To be workable outside of the state, (and much of the potato crop of Michigan does move outside), the matter will have to be taken up with the inter-state commerce commission. The traffic department is taking up this plan with these bodies respectively.

Michigan is furnished refrigerator cars very largely by the Fruit Growers' Express Company, owned privately, which moves perishable crops for many parts of the country besides Michigan. Florida needed 75,000 cars in November and calls for 11,500 in the first three weeks of December to move its fruit crop. Since Florida has a prior contract with the Fruit Growers' Express to move its crop, it gets the first service and Michigan farmers are suffering from a lack of equipment. The Fruit Growers' Express is understood to have no contract with any Michigan railway at the present time. Therefore the railways of this state are de-

pended largely upon their own refrigerators and those which they can obtain from foreign lines. No Michigan railroad owns its own refrigerator except the Michigan Central, Big Four and the Grand Trunk. The Michigan Central has a bigger crop of apples in New York to move than it has of apples and potatoes in Michigan, and consequently much of its equipment must be used for that state. The Big Four supplies its lines in Ohio, Indiana and Illinois, as well as in Michigan, making it possible for Michigan farmers to obtain only a small part of their available supply. The same situation exists in regard to the Grand Trunk, whose lines extend through Pennsylvania, New Jersey, New York, Indiana and Illinois.

Some of the trouble in getting cars is due to the fact that cooperative managers did not anticipate their needs far enough ahead of time and place their orders for cars early. Railroads are required to furnish cars in the order in which they are requested. A thousand dollar fine stares them in the face if they break the law. Cooperative associations and private shippers who have looked farthest in the future have been able to secure the best service.

## DAIRYMEN LOSE BIG CUSTOMER.

**T**HE Dairymen's League of New York state, a farmers' organization, has been informed that the largest milk purchasing company in the United States will not buy any more milk this year.

The foreign exchange situation has discouraged exports, and many warehouses are filled with condensed and evaporated milk.

## SILOS, FARM LIGHTING PLANTS AND TRACTORS.

**T**HROUGH the aid of an efficient corps of crop reporters, the cooperating crops reporting service was able to make a very accurate estimate of the number of silos, lighting plants and tractors in use on the farms of the state of Michigan. Each reporter was asked to report the actual number of each on the farms in his immediate vicinity, and to give the number of farms included. By this method accurate information was obtained for 30,847 farms, or practically fifteen per cent of all of the farms in the state. As reports were received from various localities in every county the results are considered representative of the state as a whole, and by a system of county ratios the total number for the state was thus determined.

The computed number of silos is 82,375, or practically forty per cent of the farms have silos. Silos have been steadily growing in popularity, not only in the best corn sections of the state, but in those sections where corn does not always mature. Recent experiments in the use of sunflowers for silage in the upper peninsula may increase the demand for silos in that region. A recent estimate for Wisconsin places the number in that state at 75,500.

The number of individual electric farm-lighting plants is approximately 8,675, and of individual gas lighting systems is 13,390. In addition to the individual electric plants, many farmers in some counties are able to secure electric current from public power and transmission plants. The installation of electric plants on farms began in recent years and the number is increasing rapidly. The installa-

tion and growth in number of the gas systems began a number of years earlier. These plants are mainly of the gasoline and acetylene types.

The development of tractors suitable for Michigan farms and the great scarcity and high cost of farm labor in recent years have supplied the real impetus to the tractor industry in this state. A remarkably large number were sold during and since the war. The total number at the present time is 20,350, or about one for each ten farms in the state.

## FRANCE RATIOS CREDITS.

**T**HE French government has instructed the banks to tighten up on credits, and as a result the cost of living in France has already ceased its upward flight, if it is not actually starting downward. The government's word to the banks, the newspapers say, was not to cut off credits, but to ration them, supporting honest firms in temporary need, but denying further credit to speculators, for whom new loans would be only an encouragement to maintain high prices.

## ILLINOIS FARMERS NOT RAISING HORSES.

**A** SURVEY of 32,515 Illinois farms in forty-three counties shows a total horse population of 238,546. Of that number, 45,412 were designated as brood mares, and from that number of mares, only 8,918 colts were foaled during the quarter ending July 1, 1920.

The significance of these figures can best be appreciated when it is realized that at the present rate of breeding, it will take twenty-seven years to replace the horse stock now on Illinois farms. If it is assumed that the average age of a horse is thirteen years, then it becomes clear that horse breeding must be resumed on a basis twice as extensive as at present, or a shortage of good farm horses is inevitable.

## GERMAN NITROGEN PLANT FOR UNITED STATES.

**T**HE German Aniline Syndicate is preparing to erect nitrogen plants in the United States and Japan, and directors of the syndicate have already opened negotiations with those governments, says the Zeitung am Mittag.

## ENGLISH FARMERS COMING TO ONTARIO.

**I**N a recent interview Hon. Manning Doherty, Provincial Minister of Agriculture, who has spent some time in England, says Ontario may expect an influx of from 5,000 to 10,000 immigrant farmers from England and Scotland, the first batch of one hundred and fifty having been booked to arrive about March 1 of next year. The minister stated that owing to the excessive prices asked for farm lands in England and Scotland many farmers fairly well supplied with cash have expressed a willingness to come to Ontario.

"I would rather have 5,000 good men than 15,000 unsuitable men," said Hon. Mr. Doherty. "I instructed the Ontario representatives who will obtain these men that they must send only a good class of men, and that they must not act in the capacity of 'boomsters.' We do not want men that are chance to become successful."



# A Square Deal for Boys and Girls

*Give the Pupils of Our Rural Schools a Chance to Make the Most of Their Talents—By G. O. Stewart*

A COUNTY superintendent of schools recently voiced a growing sentiment when he said, "If farmers find it worth while to heat water for their cows, to cook feed for their hogs, and to make coffee for themselves when lunching in the fields or in the woods, why is it not just as much worth while to provide something warm for the boys' and girls' school lunch?" "In the schools of our county where hot lunches have been served, the children have benefited both physically and mentally. They are also learning something of food principles, cooking, serving and table etiquette where the right teacher is on the job."

The hot lunch has come to be recognized in many rural schools, as well as in the high schools of the cities and towns, as an essential part of the school program. The preparing and serving of the one hot dish supplementary to the cold lunch brought from home will easily simplify the problem of providing school children with adequate food.

First of all, let us make an analysis of the meals consumed by many children during the school year.

1. The breakfast is eaten hastily in order to catch the school wagon or to have sufficient time for the long walk with a few minutes to spare for play before school begins.

2. After a long morning of exercise and study, a growing child is ready for a good, nourishing meal. Instead, he sits down to a cold lunch that frequently consists of inadequate and partly frozen foods, while the family at home is enjoying a good, hot meal. Such food is not conducive to mental activity—it is, to a great degree, the cause of many cases of malnutrition, which leads to backwardness in work among school children. Upon proper food depends the development of a sound body and healthy mind.

3. What is the situation in the evening? This tired, hungry child returns, repeating the journey of the morning, and often helps with the chores before supper time. Though he is hungry he should not eat before meal time. The supper was planned for the men folks of the family and in accordance with the food served to them for dinner. The one who should be considered the most has been forgotten in this plan. Seemingly he eats a big meal but is it the right kind of food to make up for the lack in his cold school lunch, and is it in suitable form to be readily digested so that it will not interfere with his necessary rest at night? When

this is repeated day after day, the effect upon the child's health is apparent, though it is often unknowingly attributed to some other cause.

Are the other members of the family equal sufferers with the child? Decidedly not! After they have hustled the little folks off, they go back and eat their breakfast in peace and quiet. At noon the family enjoys the biggest and best meal of the day while the younger members at school are having a cold

lunch club in the high schools of small communities, and in rural schools where paid supervision is not practicable.

The hot lunch club, to be successful, should have the cooperation and support of the entire community. The school board and the parents are most intimately concerned with this project, but such organizations as the Parent-Teachers' Associations, the Farm Bureau Locals, the Grange, the Farmers'

the community. Food materials may be contributed by the different pupils, credit being given at market prices for the foodstuffs furnished. Should the club wish to make outright purchases of food materials, a blanket charge of ten to fifteen cents per week may be made to each child. In the latter case, purchases may be made from the club members. For example, a bushel of potatoes may be secured from some boy or girl who drives to school and has extra products to dispose of.

## Only Simple Equipment Needed.

A good plan is to have each member of the club furnish his own cup, plate, spoon and fork. These are kept in a cupboard at the school. Dish towels are brought from home by the pupils or are purchased by the club. There should be:

1. A two or three-burner oil stove. Stoves may be rented if necessary for the winter season. They will also be useful in community affairs.

2. A small table or its equivalent. If space does not permit the placing of a stationary table, one can be made which may be hooked against the wall when not in use. This is made possible by attaching the table to the wall by means of hinges. The legs are also placed on hinges, thus allowing them to lie back against the table when it is folded against the wall. Such a table is shown in illustration.

3. Dishes for work in preparing food: Large kettle and cover, long-handled spoon, measuring cup, measuring spoons, quart measure, tablespoon, fork, paring knives, can opener, vegetable brush and potato masher.

A teakettle, an oven and a few baking pans are useful, but not necessary at first.

4. Cleaning equipment: Dish pans, dish towels, dish cloths, soap and cleanser.

5. Staple supplies.

The school cupboard should be stocked with a small supply of staples which may be secured from proceeds of a social, such as: Flour, rice, cornstarch, cocoa, sugar, salt, spice, soda, soap and scouring powder.

An "emergency shelf" is a wise precaution against the mishaps that may sometimes occur. Upon this shelf may be kept some home-canned vegetables, soup mixtures, baked beans and other foods that may be prepared quickly.

## Suggested Plan for Conducting the Work.

The success of the school lunch depends on a well worked out plan. The (Continued on page 705).



The Children Line up to Receive their Portions.

lunch. Usually the family dinner includes the fruits and vegetables of the day's dietary. These foods that are so necessary for bodily growth and health the child misses. The evening meal is almost universally made up of the "left-overs," which means many fried foods.

Considering some of these things and that the child eats more than one-fourth of his meals at school, it is worth while and effort to establish the custom of serving one hot dish in the school lunch.

## Ways and Means.

In some city high schools it requires a paid supervisor to direct the work. Lunches or the warm portions of lunches, are served, not only to those pupils who live at long distances from the school, but to all other students who wish to take advantage of a warm meal at minimum cost.

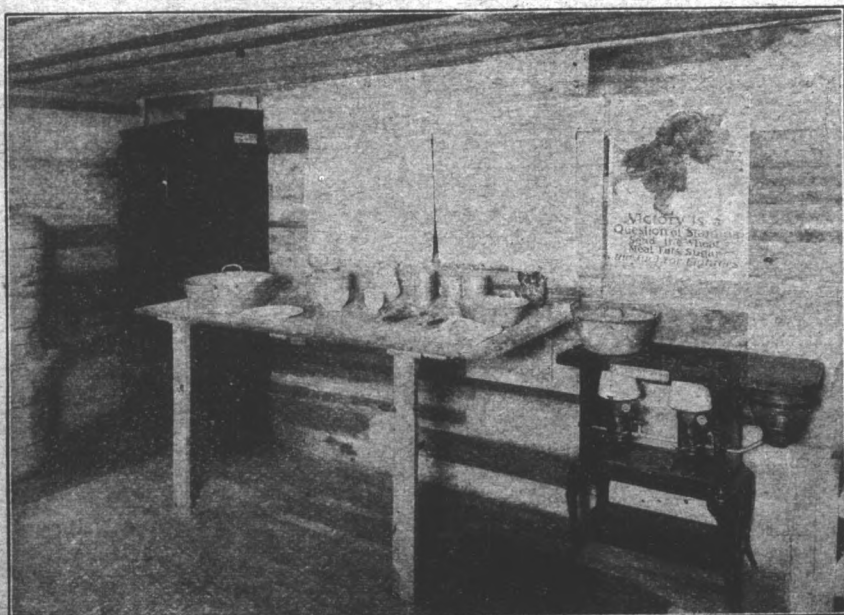
The purpose of this article is to help and assist teachers, parents and school boards to successfully plan the hot

Clubs, and the various Ladies' Aid Societies should be made to feel a vital interest in the undertaking.

## How to Provide a Hot Lunch.

The equipment for providing hot lunches may be obtained in any of these ways: The Parent-Teachers' Association or Ladies' Aid Society may donate it; the school board may finance it, a part at least; interested patrons may donate it; the school may give an entertainment or box supper, the proceeds to be used for purchasing the necessary equipment; a shower may be given and many of the utensils supplied. If a table and cupboards are needed, the larger boys can make them out of dry goods boxes or old desks. The fireless cooker should be made as a part of the equipment and directions for making it can be secured of the Boys' and Girls' Club Department, Michigan Agricultural College, East Lansing, Michigan.

The daily lunch supplies may be obtained by the method best suited to



This Hinged Table Folds Against the Wall when Not in Use.



Meal Time in a School where Hot Lunches Are Served.



# Squinting at National Farm Affairs

*Our Washington Correspondent Finds Much to Interest Farmer Readers*

THE addresses and discussions at the second annual meeting of the American Farm Bureau Federation, which convenes in Indianapolis, December 6-9, will be devoted very largely to two subjects—economics and legislation.

It will be the purpose of the federation to determine by this large assembly of representative farmers from thirty-seven states, the attitude organized agriculture will assume toward pending and proposed national legislation and government policies affecting agriculture and industry. Among the more important matters that will be discussed, according to the Washington representatives, are the proposed repeal of the excess profits tax and new sales taxes; additional laws to make bank credits more readily available to the farmer; rail, waterway and highway transportation problems and the measures suggested for their relief; foreign trade programs; collective bargaining, a protective tariff on certain agricultural products, and the extension of further credits to European governments to enable them to purchase American farm products in larger quantities. These questions will be discussed in conjunction with the plan of the American Farm Bureau Federation for the formation of a national policy for agriculture. Governor W. P. G. Harding, of the federal reserve board, and Former Congressman A. L. Lever, author of the Lever Food Control act, will speak at this meeting and will discuss certain new plans in which they have been interested for more efficient commodity financing.

The Farm Bureau Federation Washington representatives are referring to the report of the present condition of the railroads, just issued, as bearing out their claims made last summer, that the inability of the roads to move farm products and other commodities as promptly as needed, was only fifty per cent due to the shortage of cars, the other fifty per cent being due to inefficiency of the labor and management. The figures show that the railroads carried more freight in the last few months than ever before, with practically no increase in number of cars, and fewer men employed, the Pennsylvania System alone reducing its force to the extent of ten thousand men. The desire of the management to make good under the present system of ownership and operation, and the discharge of many employees are recognized as factors in spurring up both the managers and men to greater efficiency.

THE talk of price fixing and farmers' strikes unless the producers get what they ask for, indulged in by certain radical speakers at the farmers' conferences, is not taken seriously by farmers, the real farm folks, who come to Washington. They say the idea that the prices of farm products can be held up to war-time levels by resolutions, threats and propaganda in times of falling prices and credit deflation is absurd. All are favorable to any practical plan whereby crops can be marketed throughout the year in an orderly way; but they see no good results can be gained, and real harm, in the wild, unguarded talk of irresponsible persons who assume to represent the farmers and speak for them. Dr. T. C. Atkeson's assertion that "incorrect diagnosis and uneconomic remedies always do more harm than good," seems to meet the approval of many producing farmers, and they are ready to agree with him, that "what we

should do is to get at fundamentals, with a more thorough knowledge of conditions and of past experience, and then seek to prevent, if humanely possible, the long period of depression, which post Civil War experience and history indicates is to be feared." There is a strong feeling of confidence among farmers that the efforts of the American Farm Bureau Federation in working out a cooperative system of wheat handling will result in more efficient marketing methods and better prices for all staple farm crops. They realize, however, that this system cannot be developed in a week or month, and will ask congress to do its utmost to relieve the present deplorable situation.

It is not probable that a great deal of new legislation except the passage of the appropriation bills will be attempted at the coming session of the sixty-sixth congress. There were carried over from last spring's session, however, a number of important bills that will be very prominently before congress this winter.

The Kenyon packer regulation bill is now on the calendar as unfinished business of the senate, and Senator Kenyon, who recently held a conference with Senator Kendrick and other senators friendly to the proposed measure, declares that it "shall not be set aside until it has been acted upon in the senate." If an attempt is made to sidetrack the bill for any other measure, Senator Kenyon will force a vote upon its displacement and thereby put the senators on record for or against it.

WHEN the Cummins-Esch bill returning the railroads to private ownership was passed last winter, the anti-strike clause was rejected, owing to opposition in the house. It is announced that Senator A. B. Cummins,

chairman of the senate interstate commerce committee, will make an attempt to have this provision restored to the railroad act. His plan of compulsory arbitration, he believes, would give the railroad employees a more favorable settlement of their wage difficulties than they now receive, and would prove more advantageous to them than the strike. It would eliminate all danger of tying up the railroads by strikes, and is therefore a matter in which both the farmers and city people have a mutual interest.

Senator Cummins is also quoted as being strongly in favor of the French-Capper truth-in-fabric bill, and will use his influence toward having congress enact this bill during the short session.

It is evident that the fabrics branding bill will have a much larger following in congress than was in sight last spring, and a much larger public sentiment in its favor.

There will be an increase of forty-eight members in the house of representatives, making a total of 483, if the new apportionment bill which Congressman Seigel, of New York City, will introduce in the short term, becomes a law. Owing to the increase in population in the cities and falling off in the country population in many states, this reapportionment scheme, if successful, will reduce considerably the relative number and influence of the rural representation. An effort will be made to rush the Seigel bill through this session, as there will be a much stronger opposition to any increase in the number of representatives, in the next congress.

When the farmer and the city consumer compare notes it is difficult for them to understand why there is such a wide spread between the farm price and the city retail price of farm products, and it is suggested that this is a

matter which might well engage the attention of the farm organizations. For months the papers have been filled with reports of falling farm prices. Nearly all the farm products except eggs have slumped to low records. Live stock prices have ranged much lower than during the war period, nevertheless the retail prices of meats are little if any below war prices. The Federal Department of Labor announces a decline of only three per cent in food prices during the month ending October 15, while the fall in prices in New York City and several other large cities was only one per cent as compared with the high figures of the month previous.

A SERIES of hearings are being held before the interstate commerce commission on the reconsignment and diversion rules, which will compel shippers to pay additional charges for the diversion of cars and cause them much serious trouble and expense in shipping perishable products. Florida shippers testify that they will be hurt badly by these rules. There will be 57,000 carloads of fruits and vegetables shipped out of Florida this year. Unless those rules are suspended it will mean the loss of distant markets and a vast reduction of farm production in Florida. Florida fruits and vegetables will be in the luxury class. A large delegation of fruit growers from West Virginia and several other states filed a vigorous protest against the new rules, asserting that if freight charges are increased any further they will be compelled to suspend the growing of fruit. It was shown at the hearings that the operation of the diversion and reconsignment rules will prove detrimental to the interests of the railroads by reducing the quantity of perishable products to be hauled to market.

One of the packing house firms of Chicago has filed in the supreme court of the District of Columbia a plan for the disposal of their stock yards independent of the other packers. They will surrender to the court their capital stock holdings and resign all offices in all of the stock yards and terminal companies. It is claimed by the company that this will comply with the decree ordering the packers to dispose of their interest in the stock yards, and they claim that live stock producers will be given first opportunity to acquire the yards. A member of this company says it is their wish that the matter be settled soon, and as the holdings could not be disposed of at this time because of the financial situation, they had suggested that all their capital stock be surrendered at once and cancelled and other certificates be issued in the name of some trust company to be designated as trustee to hold the stock until it can be sold to interests outside of the packing industry.

The Federal Department of Agriculture is planning to send out market reports to the farmers of the country by wireless. The trial service will be offered to a few counties near Washington. In the beginning messages will be sent out from the Bureau of Standards station to private licensed operators who will distribute the bulletins to the farmers in the nearby territory. It is planned, however, to erect seventeen wireless plants throughout the country. These stations will be situated so as to cover the various agricultural regions. Twice a day they will receive for immediate release a summarized report of market conditions and quotations at market centers and shipping points.—E. E. REYNOLDS.

## The Farm Woodlot

(Continued from page 687).

and \$123.80 for second quality to \$123.50 and \$85.50 respectively, still leaves a very wide gap to the prices being offered this fall by the local timber buyers. In fact, the prices offered by the jobbers and timber buyers to farm timber owners are not materially increased over pre-war prices, but the table will again show you how the hardwood wholesale prices have behaved during the same period. In 1917 the first and second qualities were \$56 and \$38.92 respectively, while present month quotations are more than twice as much.

Again, do not take the tale told now by the timber buyer too seriously. He is telling you that the prices are falling and that you should sell before they go to the bottom, etc.

Such stuff is also bunk because he knows and you know that the scarcity of all kinds of timber will tend to adjust the price. Let the demand fix the price rather than the jobber, and timber land owners need not fear of having to give their holdings away. Especially now, when prices are fluctuating—do not accept the "lump sum" offer of the timber buyer in any form. If he is afraid of a straight per thousand basis of buying at somewhere near the actual value of the stumpage—let him wait a year till you are more certain of the value yourself.

We all believe there are better days ahead for the practicing of conservative, safe and sane forestry in our Michigan woodlands, and that this better time will be hastened by the force

of the organization of farmers themselves by cooperative action.

If the timber resources of the Michigan woodlot is not to be frisked away in the next ten or fifteen years by the eager timber buyer and speculator, the owners must make up and prepare to handle it as a timber crop and build a market that will use the annual yield at real and genuine market prices which are the actual value prices plus the jobber and speculator profits of today. With a safe and sane cooperation system in working order there is no reason why the fifty-five acres of shaded pasture above mentioned should not be changed by a simple woodland working plan into acres of woodland, working at one hundred per cent efficiency in the production of valuable hardwoods and the balance of thirty-nine acres of good rich land capable of producing the best crops on the farm be set to work.

There is more practice than theory to the above suggestion as many of the best and keenest thinking farmers are now putting their woodlands into producing shape. And as soon as local bureaus and agricultural agents understand the vital need of sustained timber production on the Michigan farms and the assurance of regular and safe financial returns they will grab the problem with both hands and it will "go across." The only danger is delay. When the present stand of timber is gone the time for action will be over. Let's have some vision and foresight now and save a heap of regrets in the next generation.



## Ventilating Farm Buildings

By Harley M. Ward

VENTILATING the principal farm buildings becomes a source of added profit in that it contributes to the health and well-being of live stock, by keeping their living quarters well supplied with pure fresh air. It preserves the contents of the buildings, such as grain, hay, etc., by preventing the molding and rotting which comes from dampness and foul, moist air; and it prolongs the life of the building itself by preventing this dampness which in time, gets into the frame work of the building, causing it to gradually but surely rot away. In recent years there has been a marked tendency towards better and warmer methods of farm building construction. In this development, however, the one mistake has been made of not providing any means of ventilation where the inside air can be maintained pure and fresh at all times and at an even temperature.

There are few barns properly ventilated, although every experienced dairyman is awake to the importance of this matter. In fact, in passing through the country, even in the dairy sections, one may have to pass a half dozen or more barns before he finds one in which a

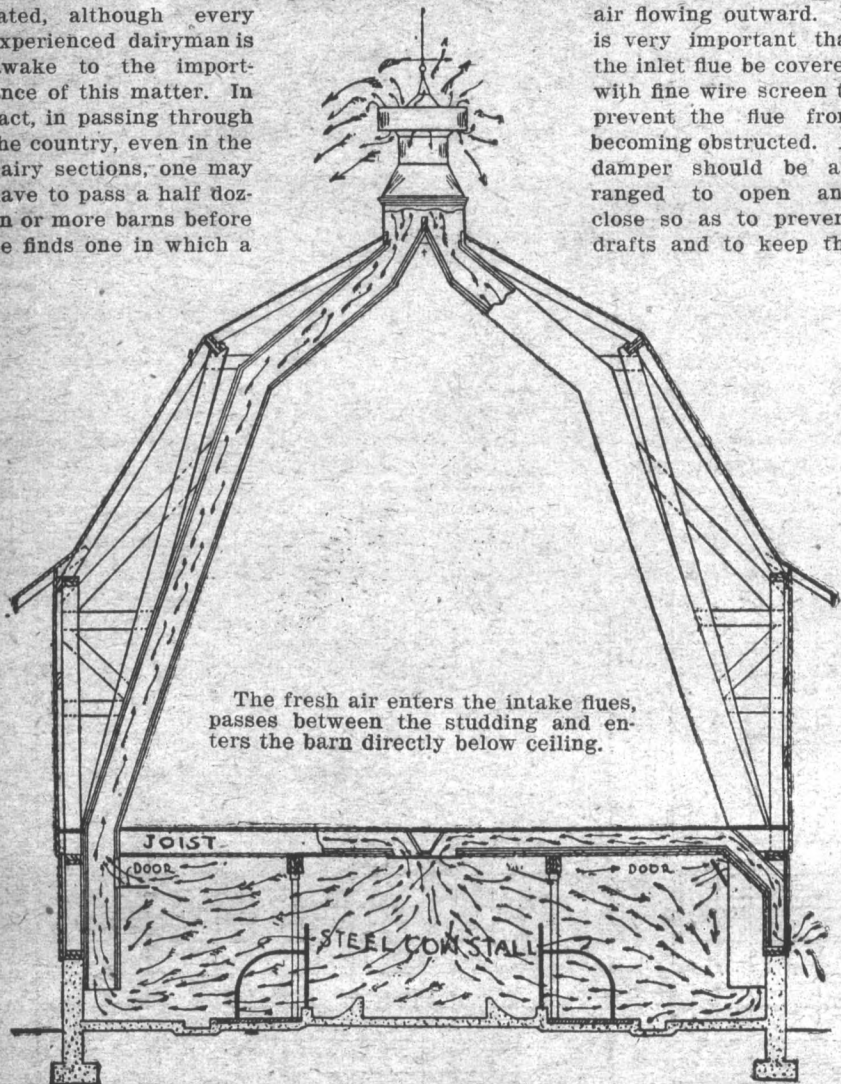
space between, or still better, constructed of permanent material with insulation or air spaces.

The efficiency of this system of ventilation depends on the location, size and straightness of the intake flues and outlet flues, practically air-tight, non-conducting walls and ceiling and good tight doors and windows.

The fresh air enters the intake flues, passes between the studding, and enters the barn directly below the ceiling or near the center. As in any natural or automatic system of ventilation, no provision can be made to warm the incoming air except the heat supplied from the bodies of the animals. The fresh air brought in must, therefore, be warmed by mixing with the warm air of the barn at the ceiling before it is breathed by the cattle.

These fresh-air intakes are located at intervals along the side of the barn wall. The minimum length of the flue

must be three feet to guard against air flowing outward. It is very important that the inlet flue be covered with fine wire screen to prevent the flue from becoming obstructed. A damper should be arranged to open and close so as to prevent drafts and to keep the



proper system of ventilation is installed.

Barn ventilation is necessary to regulate temperature, to remove moisture and manure odors, and to provide pure air. Air once breathed is as harmful to animals when breathed a second time, as it is to human beings. We are all familiar with the evil effects that a poorly ventilated room has on the general vigor of a human body. The effect on animals is similar.

Our most popular system of ventilation was devised by the late Professor F. H. King. For it the barn must be tight and warm. One thickness of boards will not do, for the following reason: Ventilation is for the purpose of not only carrying out poisonous gases and letting in pure air, but of carrying out moisture as well. A cow, it is said, will give off about seven pounds of moisture from her system every day. If the barn has only a single thickness of boarding, the outside wall will be cold and this moisture will condense in the shape of frost on the outside wall. To prevent this the walls must at least be doubled, with an air

stable from becoming too cold during severe weather.

Foul air flues are made of either galvanized iron, or of paper and lumber. The design of these flues is of the greatest importance to the success of the King system of ventilation. They should be as straight as possible, for every turn or bend reduces the carrying capacity of the flue. It should rise above the highest part of the building in order to receive the full force of the wind, for the velocity of the wind makes the flue draw.

The location of the outlet flues is important. They should not be too close to the heads of any of the animals, as all foul air passes directly by these animals and is breathed by them. The outlet flue should not be near the door where the opening of a door would break the drawing action of the flue.

The following, taken from King's Physics of Agriculture, will be found of service in computing the size of inlet and outlet flues: For horses, 71 cubic feet per animal; for cows, 56 cubic feet per animal; for swine, 23.2

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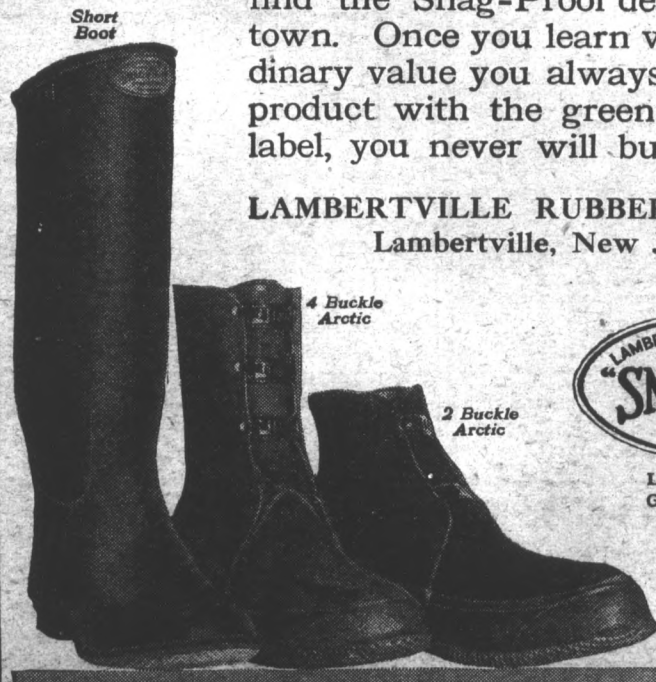


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cubic feet per animal; for sheep, 15.3 where live stock is being housed, through the curtain or passing just under the partition.

In poultry houses, with the open fronts, the ventilation should be by a flue from a stable at the rate of 250. fowl air drainage rather than circulation. By having a partition or curtain come down from the top to just below the roosts the warm air that is heated by their bodies is retained, but the foul air, which is heavier than pure air because of the impurities it contains, drops to the floor and drains off through the open front, pure air enough to take its place coming in

## A History of Potato Marketing

The Following Charts Show the Trend of Prices Under the Influence of Heavy and Light Supplies

WHEN to sell his crop is the perplexing problem of every potato grower. Unlike a grain crop, it cannot be carried over but must be sold within the year. In the latitude of central and northern Michigan, climatic conditions make it difficult for the average farmer to market and ship during the cold winter months, so that his time of marketing is largely limited to a period of thirty or sixty days immediately following the digging, or the alternative of storing until spring. The latter course has a number of disadvantages. It ties up his income for another six months; it subjects him to the natural loss due to shrinkage, and possible losses from freezing and rot; and it necessitates more or less additional handling which is costly. The only advantage is the possibility of an improved price.

No one can foretell the future, and the only hint that we have on which to

level of the supply. When there is an over-production, the price will ordinarily go to low levels, consumption will be stimulated but not always to the extent that the entire crop is consumed. In such cases the second grade seldom finds a market and instead of reaching the market at all, they are fed to live stock on the farms.

It is interesting to study the history of potato prices over a period of years. For this purpose the ten-year period, 1909 to 1918 inclusive, has been selected as it happens to contain the five largest potato crops on record in the United States, except that of the present year which was exceeded only by that of 1914. The first chart shows the price curve for each of these years of large production, beginning with July 1 prior to the harvesting and continuing through until the following July.

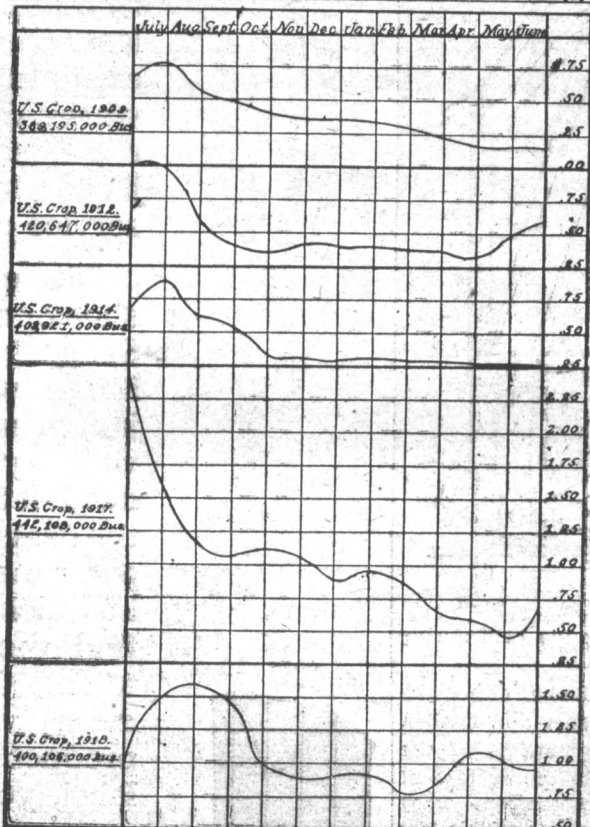
In each instance it will be noted that the price was relatively high during

the tendency for the price to rule relatively high in July and August is quite plainly discernible.

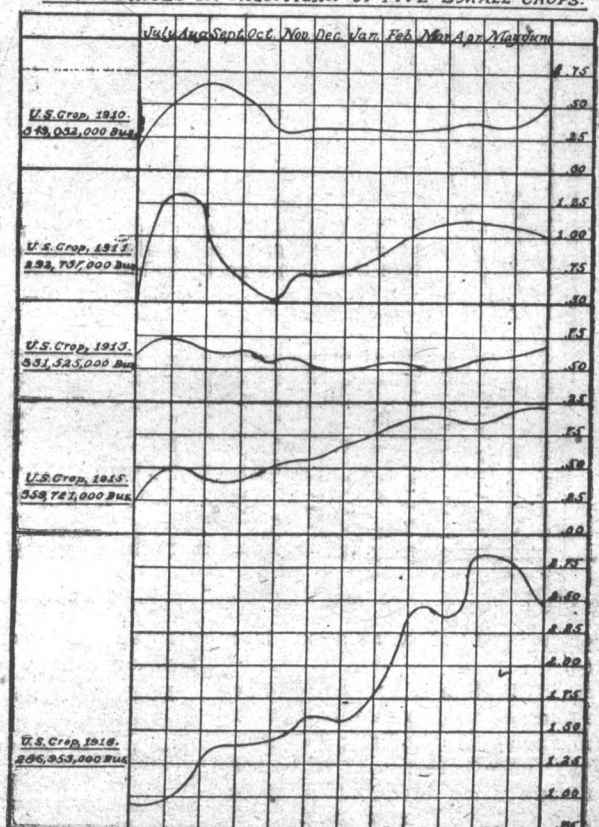
The conclusion to be drawn from the charts are that, in years of large production, the chances for profit in holding until spring are very remote; that, in years of normal production, the cost of carrying over the crop, including interest, extra handling, shrinkage, and losses from freezing and rot will probably offset this advance, or, in other words, the advance will be nearly in accord with the carrying charge; and that, when the crop is relatively small, the chances for realizing a satisfactory profit through holding until spring are reasonably sure.

Michigan prices are used in the illustrations because it is thought they will be of greater interest to Michigan growers. The United States prices for same results, and the curves are nat-

POTATO PRICES IN MICHIGAN OF FIVE LARGEST CROPS.



POTATO PRICES IN MICHIGAN OF FIVE SMALL CROPS.



base an opinion must be found in a study of past performances. It is obvious that a crop that must be disposed of within the year, and one that is not generally subject to export or import to any material extent, must necessarily suffer a wide range of prices according to the volume of it. The exports or imports of potatoes in any year seldom exceed one or two per cent of the total crop, and often nearly offset each other. Hence they may be omitted from any general discussion. As nearly as can be estimated, the normal consumption of potatoes in the United States is approximately 375,000,000 bushels. When the crop falls considerably short of this figure, the price will rise until the demand of the consuming public is cut down to the

July or August, and in some cases both months, when only early potatoes are available. It will also be noted that in every case the early spring price was lower than the price at or following the digging season. The year of greatest decline was that of 1914 when the banner crop was grown.

The second chart shows the price curves for the other five years of the same ten-year period, all of which were subnormal crops. Three of these years show a distinct upward tendency from digging time throughout the remainder of the market year, while the other two remain nearly stationary in price. As might be expected, the greatest advance occurred in the year of smallest production, that of 1916. In each of the four years other than 1916

usually more uniform and emphasize to a greater degree the influence of production on the price. The Michigan production is omitted from the charts, as the production of any state has no particular bearing on the price except as it goes toward making up the total production of the country as a whole.

The November estimate for the 1920 potato crop of the United States was 421,252,000 bushels, slightly larger than the 1912 crop, and only exceeded by the 1914 crop. While this enormous crop is 63,451,000 bushels more than the 1919 crop, the increase in production over last year in the five leading states, which includes Maine, New York, Michigan, Wisconsin and Minnesota, is only 9,803,000 bushels. This

(Continued on page 711).



## Upper Peninsula News

By L. A. Chase

WHETHER or not the farmers of upper Michigan get training in accounting methods in one of the accounting schools being established by the extension department of the Michigan Agricultural College, depends upon the desires of the farmers themselves and the attitude of our county agents. This is the word that comes to me from Mr. H. M. Eliot, Farm Management Demonstrator of the college. Such schools will be held in any county having a county agent, if there is a demand for them, writes Mr. Eliot. They will be held if any community, grange, club or organization should take the matter up with their county agent. In case isolated farmers in counties with no county agent want to attend one of these schools, they may write Mr. Eliot, he states, and he will refer them to the nearest county agent where there is an accounting school. Twenty-five men are sufficient to bring the establishment of such a school in any one county. In addition, Mr. Eliot is ready to furnish account books to any individual who is interested in their use and in advising them as to their use.

The membership of the Dickinson County Farm Bureau to the middle of November is four hundred and four, with only sixteen farmers of those solicited, refusing to join, according to Agricultural Agent Miller. Directors of the bureau have been chosen and also a delegate to the State Farm Bureau. The directors have chosen A. B. Hansen, of Quinnesec, as secretary-treasurer and manager. The farm bureau has now taken over the marketing association, and it is announced that potatoes henceforth can be shipped through the bureau. On the basis of prices for potatoes at the Cadillac Exchange, the local price of potatoes figures out about ninety-eight cents per bushel net to the Dickinson county farmer. The car situation is stated to be bad. The bureau is ordering a car of TNT. Various locals are ordering cars of feed, salt and seed.

ONE small stream in the upper peninsula—perhaps it may as well remain unnamed—still contain grayling—this highly prized fish apparently having become extinct elsewhere in the state. The question of using the local supply for the purpose of restocking the AuSable and other once famous grayling streams of the southern peninsula has been raised, but in the opinion of President Hunsaker, of the Michigan Fish Commission, just presented to the Upper Peninsula Development Bureau, the only hope of preserving the fish from total extinction

in Michigan, lies in maintaining it in its present restricted habitat. The commission will eventually, it is indicated, locate a field station on the site of its present haunts to assist the work of propagation. Dr. John Lowe, of the Northern State Normal School, is making a reconnaissance of the fish resources of this district, but the undertaking is a large one. South Michigan sportsmen and tourists will be grateful for any results obtained by the Upper Peninsula Development Bureau, the Michigan Fish Commission, fish experts and private agencies in maintaining the high reputation of this region, now maintained for two centuries and a half, as one of the choicest fishing areas of the country.

Menominee county tried, this spring, to organize the boy scout movement in the rural as well as in the urban districts. While the county is now without a county scout master, there is much activity in scout circles in the smaller communities as well as the county metropolis. Commissioner Muma states that there are some six hundred boy scouts, and two hundred campfire girls in Menominee county.

L. B. Benjamin, county agricultural agent of Baraga county, estimates the yield of potatoes in his county as 50,000 bushels, with an exported surplus of 28,000 bushels. Baraga is less developed agriculturally than several other upper peninsula counties. Agricultural Agent L. R. Walker, of Marquette county, puts the potato yield in his county at 300,000 bushels, one-third of which is to be exported. Mr. Kunze's estimate for Chippewa county is for a yield of 50,000 bushels, with 5,000 bushels exportable. These are the figures turned into the Upper Peninsula Development Bureau. There are several other important potato-producing counties to be heard from.

There is serious talk of converting a brewery at Escanaba into a pea-canning factory. Judging by such reports as have come my way, this project should not fail for lack of raw material. Belgian colonists in Delta county, of which Escanaba is the county seat, are stated to have introduced a pea of excellent quality, and I have heard of large yields near Big Bay de Noc and elsewhere, the lack of a good local market apparently being the most serious handicap in this department of agriculture. The Carpenter-Cook Company operates a pea-canning factory at Menominee in the next county to the southward, and other factories have been projected for Chippewa and Ontonagon counties, but so far without result, I understand. Abundant moisture, a prolonged growing period, and



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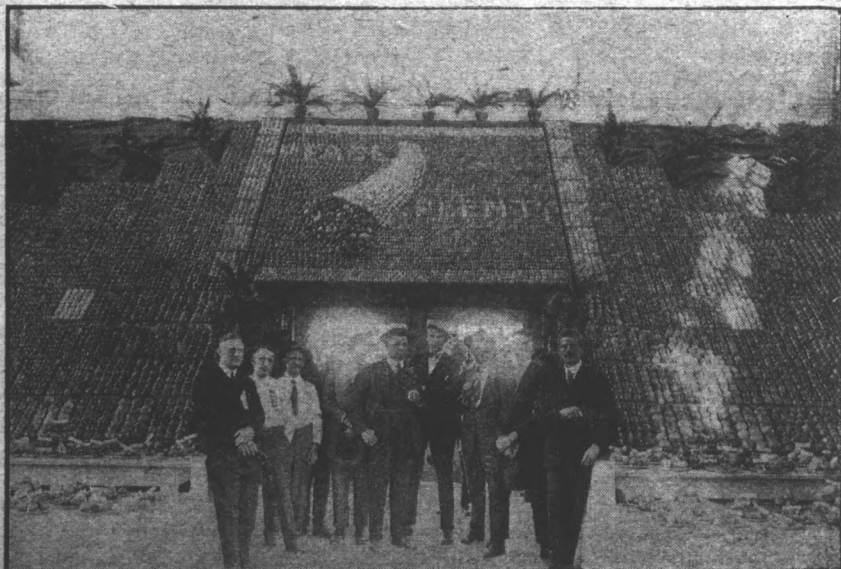
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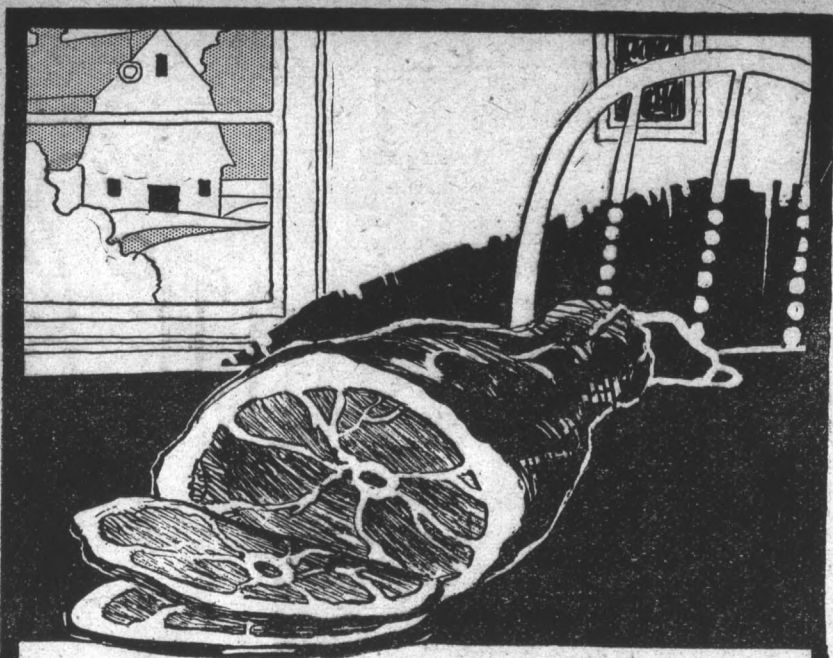
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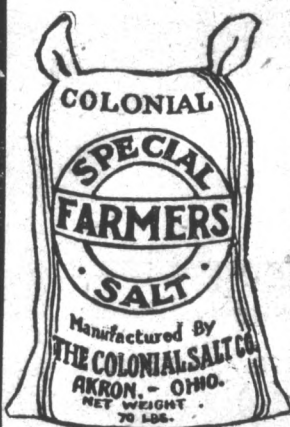
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more sunlight and twilight than obtains in more southerly latitudes help the quality of the product, it is fairly claimed, of north Michigan peas. The belief in the future of the industry does not seem fanciful.

A shipment of two barrels of apples from Elsie, Clinton county, to Marquette on Lake Superior shore this fall, cost \$3.33 in freight charges. It is not claimed that there was an overcharge, but it is claimed that the northern portion of the state is a long distance from the lower portions. Taking the extremes, there is a difference of some six degrees of latitude between the south line of Branch county and the north shore of Keweenaw. It is farther from Houghton to Detroit than from Detroit to Washington, D. C. And Ironwood is farther yet. Most Michigan people do not realize this until they begin to travel. Although there is excellent train and water service between the peninsulas, distance hampers the free interchange of products. Most upper peninsula centers of population are lake ports or near them. We need more coastwise traffic between the ports of the two peninsulas. Fruit could be loaded at Benton Harbor, South Haven, Muskegon and other Lake Michigan points, and unloaded at Escanaba, Manistique, the Soo, Marquette, Houghton or Ashland (the port of the Gogebic towns). Then, if, say, the South Haven Fruit Exchange would establish a terminal agency at any of these points, the large local demand for fruit could be satisfied at probably more reasonable prices than now obtain, because of economies in handling and better grading. Either of these arrangements can be effected without the other.

Word comes from Lansing that the geological survey has completed its detailed survey of the limestone formation from the Garden Peninsula eastward to and including Drummond Island, with the exception of the St. Ignace region. This places the survey on the south side of the upper peninsula. The limestone underlies most of the eastern half of the northern peninsula, in contradistinction to the western half, where the bed rock is igneous in character and contains the immensely valuable deposits of iron and copper. But this limestone area, because of the character of the underlying rock is in many places very fertile, and would be more so if artificial drainage on a large scale could be introduced at certain points. In any case the deposits of limestone afford nearly pure calcium carbonate for our furnaces and for fertilizer, dolomite for rock construction, and some of the finest marble in the world.

A L'Anse concern is getting out a new style, heavy logging sleigh, made necessary by the use of tractors in logging operations. The common type of sleigh is said to be too light for the tractor method of logging. Although several saw-mills of the district have closed down because of adverse conditions in the lumber trade, one hears no reports of a cessation of winter logging this winter. The logging season is now begun, and the supply of lumberjacks is stated to be unusually plentiful this season, attributable to the industrial slow-down in the large cities which has sent many workers back to the woods. Ironwood expects ten million to twelve million feet of maple, birch, basswood, elm, ash, pine and hemlock will be cut and hauled to the mill there. Railroads and tractors will do the hauling. Labor is ample, says the "Globe."

THE Chippewa county board of supervisors has created a commission to investigate the commission form of county government. This puts the county in line with several southern Michigan counties who are interested in the same constitutional change. The supervisor system of county administration, derived from our New York

and New England forebears, has become so thoroughly ingrained in our governmental practice that it undoubtedly requires a good deal of persuasion to change it.

The Ironwood News-Record notes a project to acquire 35.7 acres of land on the Lake Superior shore of Gogebic county for a county park. The matter is now before the board of supervisors. Gogebic county has fifty miles of shore-line, it is stated, and the proposed acquisition represents the most eligible site on the lake. The newly completed Lake Superior road from Ironwood reaches the shore close to the park.

A new sheep ranch of sixteen hundred acres has been opened up between Cedar River and Daggett, Menominee county. This is pioneer work in bringing unused cut-over land into service.

Houghton reports a shipment of twenty-two silver foxes to stock a fox farm some two miles east of that place. The stated value of the animals is \$25,000. The animals came from Grand Traverse and Grand Rapids ranches, says the Calumet News. A Prince Edward Island man is in charge of the Houghton ranch. Upper Michigan climatic conditions are said to favor a high quality of fur.

#### TO IMPROVE SUGAR BEETS.

OLDSMAR, Florida, has been selected by representatives of the United States Department of Agriculture as the place to begin work at once for the production of the highest grade sugar beet seed.

The method of operation is to plant high-grade sugar beet seed at Oldsmar in November and December, and produce strong healthy plants, which will be shipped to Michigan and other great sugar beet states. There these plants will be grown to maturity for the purpose of producing home-grown sugar beet seed. It is believed that plants can be propagated in Florida during the winter season and shipped north in time for setting out in the fields early in the spring, giving the plants the full summer season up north in which to mature their seeds, in other words, two continuous growing seasons. The experts from Washington hope that this method will result in the production of seed as good or better than can be obtained abroad. The United States sugar beet growers and factories have imported hundreds of thousands of dollars' worth of seed from foreign countries. The plan now is to make the United States produce its own seed, keeping all of this money at home and placing the big American beet sugar industry on a sounder foundation than ever before.

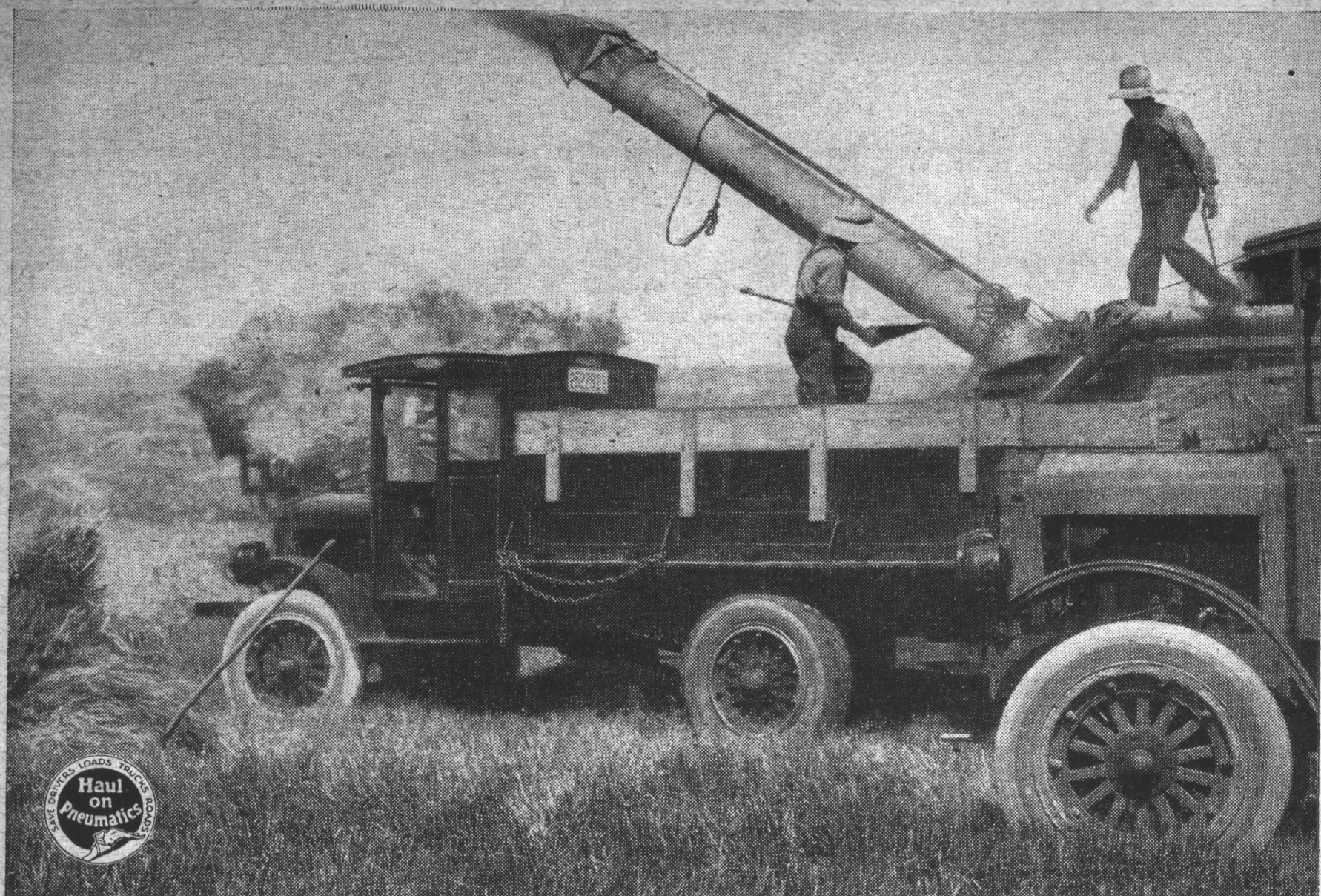
#### BEAT THE HIGH COST OF MACHINERY.

DO you have any machinery out in the weather? Drop the work you had planned for today and put it under cover. This part of the equipment for farming costs more today than ever before in history. This makes necessary greater care if we will avoid excessive cost. The machines which we buy today are much more intricate and complicated and thus more damaged by weathering than those of previous years. One-eighth of the total investment saved each year your machinery is properly cared for, is a very conservative estimate.

The added satisfaction and saving in operating tight-fitting, smooth-running machinery needs no argument for its proof. No machine can stand out in the weather and then operate efficiently the following season.







Copyright 1920, by The Goodyear Tire &amp; Rubber Co.

*"The big Goodyear Cord Tires on our two motor trucks are helping us to reduce the high cost of farming. These pneumatics travel anywhere in the fields and, during threshing, enabled us to dispense with eight teams and eight drivers. We had had to pay the drivers of these teams up to \$8 a day, in addition to the cost of the teams and the outfits. Also we have sold pasture and bought farm land in place of it. There are many other savings—of labor, time and money. Due to the quickness of the big Goodyear Cord Tires, we now can make more hay while the sun shines."—M. W. Bever, Farmer, Colby, Kansas, Rural Route No. 1*

IT is everywhere observable, as above, that the traction, cushioning and activity of Goodyear Cord Tires on motor trucks, effect large savings for farmers.

This traction overcomes handicaps of soft, slippery going, of weather and of grade which formerly caused hauling delay and added expense in all kinds of farming.

This cushioning safeguards loads liable to injury, shrinkage or waste when unduly jarred, and thus enables the sale of full quantity and quality at best prices.

This activity permits entirely economical hauling to and from motorized machinery, and by bringing more selling points within hauling range, often reduces marketing costs.

All these virtues of the big pneumatics are made most practical by Goodyear Cord construction which sinews them with unusual strength and endurance.

Farmers' reports on motorization and pneumatics will be mailed to anyone interested, by The Goodyear Tire & Rubber Company, Akron, Ohio, or Los Angeles, California.

# GOODYEAR



# CORD TIRES



# One hundred and ninety-eight



The quality and service of the Willard automotive battery is clearly shown by the accompanying list of 198 passenger cars and motor trucks, whose makers have adopted Willard as standard equipment. 167 of these cars and trucks, made by battery-wise manufacturers, now use the Still Better Willard, the only battery with Threaded Rubber Insulation.

|                 |                |                |                 |                 |               |               |
|-----------------|----------------|----------------|-----------------|-----------------|---------------|---------------|
| *Acason         | *Brockway      | *Diamond T     | Huffman         | Metz            | Piedmont      | *Studebaker   |
| *Acme           | *Buffalo       | *Dixie Flyer   | *Hupmobile      | Miller          | *Pierce-Arrow | *Stutz        |
| *Advance        | *Buick (E)     | *Dodge         | *Hurlburt       | *Mitchell (E)   | *Premier      | *Sunbeam      |
| Rumley          | Canadian       | *Dorris        | *Independent    | Moore           | *Preston      | *Tarkington   |
| *All American   | Briscoe        | Elcar          | *Indiana        | *Murray         | *R & V        | *Thomart      |
| *Allis Chalmers | *Cannonball    | *Elgin (E)     | *International  | *Napoleon       | Knight        | Tiffin        |
| *American       | *Capitol       | *F. W. D.      | *Jordon (E)     | *Nash           | *Rainier      | *Titan        |
| *American       | Carroll        | *Fargo         | *Kissel (E)     | *Nelson         | *Renault      | *Tow Motor    |
| Beauty          | *Case (E)      | *Fergus        | *Koehler        | *Nelson &       | Reo           | *Transport    |
| *American       | Champion       | *Ferris        | *L. M. C. (E)   | LeMoon          | *ReVere       | *Traylor      |
| LaFrance        | *Chevrolet (E) | *Franklin      | *Lancia         | *Noble          | *Riddle       | *Ultimate     |
| Anderson        | *Clydesdale    | *Fulton        | *Landa          | Noma            | *Rock Falls   | *Ursus        |
| *Apex           | *Cole          | *G. M. C.      | *Lewis-Hall     | *Northway       | *Rowe         | *Velie        |
| Apperson        | *Collier       | Gardner        | *Lexington      | Norwalk         | *Sayers       | *Vim          |
| *Armleder       | *Colonial      | *Garford       | *Louverne       | *Ogren          | *Selden       | Vogue         |
| *Atterbury      | *Comet         | *Giant         | *M. H. C.       | *Old Hickory    | *Service      | *Vulcan       |
| Auburn          | *Commerce      | *Glide         | *McFarlan       | *Oldsmobile (E) | *Shelby       | *Ward         |
| *Austin         | *Commodore     | Grant          | *McLaughlin (E) | Olympian        | *Signal       | LaFrance      |
| *Avery          | *Corliss       | *Great Western | *Madison        | *Oneida         | *Singer       | *Ware         |
| *"B. E. L."     | *Crawford (E)  | *H. C. S.      | Maibohm         | *Oshkosh        | *Southern     | *Westcott (E) |
| *Bacon          | *Cunningham    | *Hahn          | *Marmon         | *Paige-Detroit  | *Standard     | *White        |
| Barrie          | Curtiss        | *Hatfield      | *Master         | (E)             | *Standard 8   | *Wills        |
| *Bell           | *Daniels       | *Hawkeye       | *Menges         | *Parker         | *Stanley      | *Wilson       |
| *Bessemer       | *Dart          | *Haynes        | *Menominee      | Paterson        | Stanwood      | *Winther      |
| Bethlehem       | Davis          | *Henney        | *Mercedes       | *Peerless       | *Stearns-     | Merwin        |
| *Betz           | Day-Elder      | *Highway       | *Mercer         | *Peugeot        | Knight (E)    | *Winton       |
| *Bour-Davis (E) | *Denby         | *Holmes        | *Merrit         | *Phianna        | *Sterling     | *Wolverine    |
| *Braddon        | *Dependable    | *Holt          | Meteor          |                 | Stewart       |               |

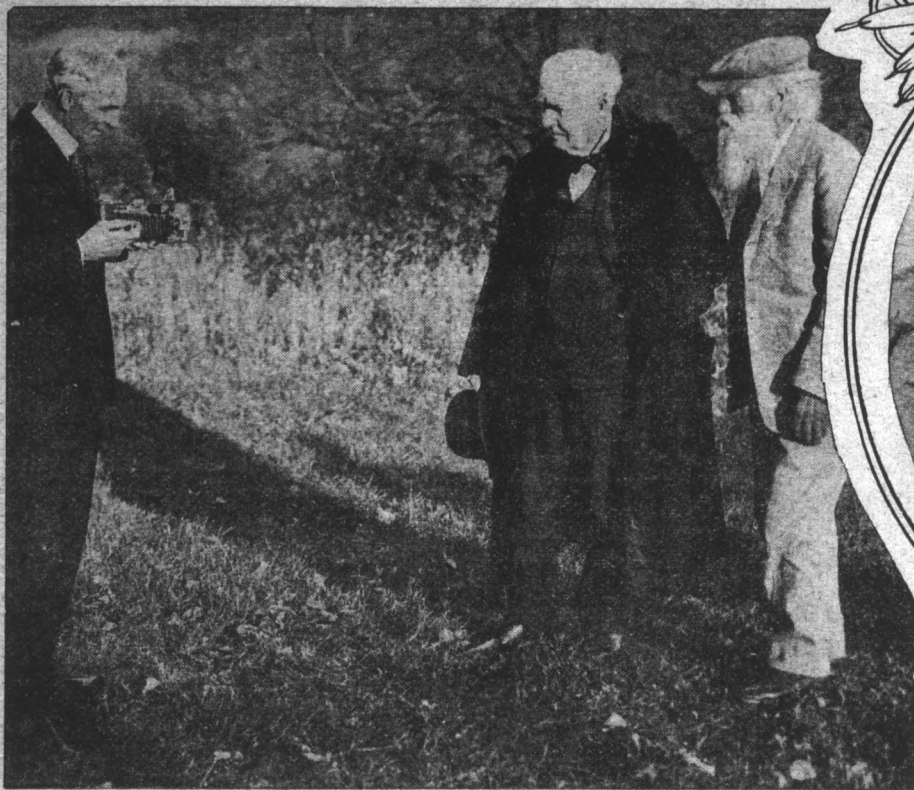
\*THREADED RUBBER INSULATION.  
(E) FOR EXPORT.

WILLARD STORAGE BATTERY COMPANY  
Cleveland, Ohio

# Willard STORAGE BATTERY



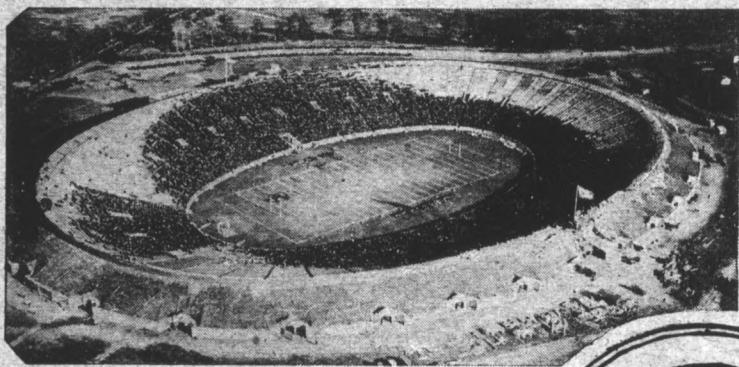
# WORLD EVENTS IN PICTURES



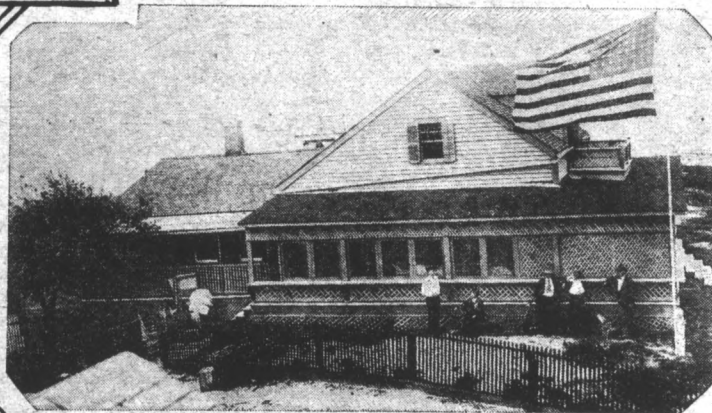
Mr. Ford takes a picture of Thomas A. Edison, electrical wizard, and John Burrows, noted naturalist, at their annual reunion.



Anthony Fokker, inventor of Fokker monoplane, acknowledged as fastest military pursuit plane.



Aerial photograph showing in remarkable detail the huge Yale bowl at New Haven during the football game between Yale and Brown Universities.



Summer cottage at Point Isabel, Tex., where President-elect and Mrs. Harding spent recent vacation.



Leon Trotsky, minister of war of Soviet Russia, is here shown making an inspection tour just before he started the great drive against Gen. Wrangel's forces in Southern Russia.



Philosopher and mystic poet of India, after witnessing the Yale-Princeton foot ball game, says there is no calm in America.



These women are leading in the organization of the Women's Bank of Philadelphia which will make a special effort to aid women who want to go into business.



# THE VOICE OF THE PACK

By EDISON MARSHALL

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First there had been brown hills, and here and there great heaps of stone. The brush had been rather scrubby, and the trees somewhat sickly and brown. But now, as the men mounted higher, they were coming into open forest. The trees stood one and one, perfect, dark-limbed, and only the carpet of their needles lay between. The change was evidenced in the streams too. They were faster, whiter with foam, and the noise of their falling waters carried farther through the still woods. The road followed the long shoulder of a ridge, an easy grade of perhaps six per cent, but Dan counted ridges sloping off until he was tired.

By now the smaller wild things of the mountains began to present themselves a breathless instant beside the road. These little people have an actual purpose in the hills other than to furnish food for the larger forest creatures. They give a note of sociability, of companionship, that is sorely needed to dull the edge of the utter, stark lonesomeness and severity that is the usual tone of the mountains. The fact that they all live under the snow in winter is one reason why this season is especially dreadful to the spirit.

Every tree trunk seemed to have its chipmunks, and they all appeared to be suffering from the same delusion. They all were afflicted with the idea that the car was trying to cut off their retreat, and only by crossing the road in front of it could they save themselves. This idea is a particularly prevalent one with wild animals; and it is the same instinct that makes a domestic cow almost invariably cross the road in front of a motorist. And it also explains why certain cowardly animals, such as the wolf or cougar, will sometimes seemingly without a cause on earth, make a desperate charge on a hunter. They think their retreat is cut off, and they have to fight. Again and again the chipmunks crossed at the risk of their lives. Sometimes the two men saw those big, flat-footed rabbits that are especially constructed for moving about in the winter snows, and more than once the grouse rose with a whirl and beat of wings.

Every mile was an added delight to Dan. Not even wine could have brought a brighter sparkle to his eyes. He had begun to experience a vague sort of excitement, an emotion that was almost kin to exultation, over the constant stir and movement of the forest life. He didn't know that a bird dog feels the same when it gets to the uplands where the quail are hiding. He had no acquaintance with bird dogs

whatever. He hadn't remembered that he had qualities in common with them—a long line of ancestors who had lived by hunting.

Once, as they stopped the car to fill the radiator from a mountain stream, Lennox looked at him with sudden curiosity. "You are getting a thrill out of this, aren't you?" he asked wonderingly.

It was a curious tone. Perhaps it was a hopeful one, too. He spoke as if he hardly understood.

"A thrill!" Dan echoed. He spoke as a man speaks in the presence of some great wonder. "Good Heavens, I never saw anything like it in my life."

"In this very stream," the mountaineer told him joyously, "you may occasionally catch trout that weigh three pounds."

But as he got back into the car, the look of interest died out of Lennox's eyes. Of course, any man would be somewhat excited by his first glimpse of the wilderness. It was not that he had inherited any of the traits of his grandfather. It was absurd to hope that he had. And he would soon get tired of the silences and want to go back to his cities. He told his thought—that it would all soon grow old to him; and Dan turned almost in anger.

"You don't know," he said. "I didn't know myself, how I would feel about it. I'm never going to leave the hills again."

"You don't mean that."

"But I do." He tried to speak further but he coughed instead. "But I couldn't if I wanted to. That cough tells you why, I guess."

"You mean to say—" Silas Lennox turned in amazement. "You mean that you're a— a goner? That you've given up hope of recovering?"

"That's the impression I meant to convey. I've got a little over four months—though I don't see that I'm any weaker than I was when the doctor said I had six months. Those four will take me all through the fall and the early winter. And I hope you won't feel that you've been imposed upon—to have a dying man on your hands."

"It isn't that." Silas Lennox threw his car into gear and started up the long grade. And he drove clear to the top of it and into another glen before he spoke again. Then he pointed to what looked to Dan like a brown streak that melted into the thick brush. "That was a deer," he said slowly. "Just a glimpse, but your grandfather could have got him between the eyes. Most like as not, though, he'd have let him go. He never killed except when he

needed meat. But that—as you say—ain't the impression I'm trying to convey."

He seemed to be groping for words. "What is it, Mr. Lennox?" Dan asked.

"Instead of being sorry, I'm mighty glad you've come," Lennox told him. "It's not that I expect you to be like your grandfather. You haven't had his chance. But it's always the way of true men, the world over, to come back to their own kind to die. That deer we just saw—he's your people, and so are all these ranchers that grub their lives out of the forests—they are your people, too. The bears and the elk, and even the porcupines. Though you likely won't care for 'em, it's almost as if they were your grandfather's own folks. And you couldn't have pleased the old man's old friends any better, or done more for his memory, than to come back to his own land for your last days."

There were great depths of meaning in the simple words. There were significances, such as the love that the mountain men have for their own land, that came but dimly to Dan's perceptions. The words were strange, yet Dan intuitively understood. It was as if a prodigal son had returned at last, and although his birthright was squandered and he came only to die, the people of his home would give him kindness and forgiveness, even though they could not give him their respect.

## CHAPTER IV.

THE Lennox home was a typical mountain ranch-house—square, solid, comforting in storm and wind. Bill was out to the gate when the car drove up. He was a son of his father, a strong man in body and personality. He, too, had heard of the elder Failing, and he opened his eyes when he saw the slender youth that was his grandson. And he led the way into the white-walled living-room.

The shadows of twilight were just falling; and Bill had already lighted a fire in the fireplace to remove the chill that always descends with the mountain night. The whole long room was ruddy and cheerful in its glare. At once the elder Lennox drew a chair close to it for Dan.

"You must be chilly and worn-out from the long ride," he suggested quietly. He spoke in the tone a strong man invariably uses toward an invalid. But while a moment before Dan had welcomed the sight of the leaping, life-giving flames, he felt a curious resentment at the words.

"I'm not cold," he said. "It's hardly

dark yet. I'd sooner go outdoors and look around."

The elder man regarded him curiously, perhaps with the faintest glimmer of admiration. "You'd better wait till tomorrow, Dan," he replied. "Bill will have supper soon, anyway. Tomorrow we'll walk up the ridge and I'll see if I can show you a deer. You don't want to overdo too much, right at first."

"But, good Heavens! I'm not going to try to spare myself while I'm here. It's too late for that."

"Of course—but sit down now, anyway. I'm sorry that Snowbird isn't here."

"Snowbird is—"

"My daughter. My boy, she can make a biscuit! That's not her name, of course, but we've always called her that. She got tired of keeping house and is working this summer. Poor Bill has to keep house for her, and no wonder he's eager to take the stock down to the lower levels. I only wish he hadn't brought 'em up this spring at all; I've lost dozens from the coyotes."

"But a coyote can't kill cattle—"

"It can if it has hydrophobia, a common thing in the varmints this time of year. But as I say, Bill will take the stock down next season, and then Snowbird's work will be through, and she'll come back here."

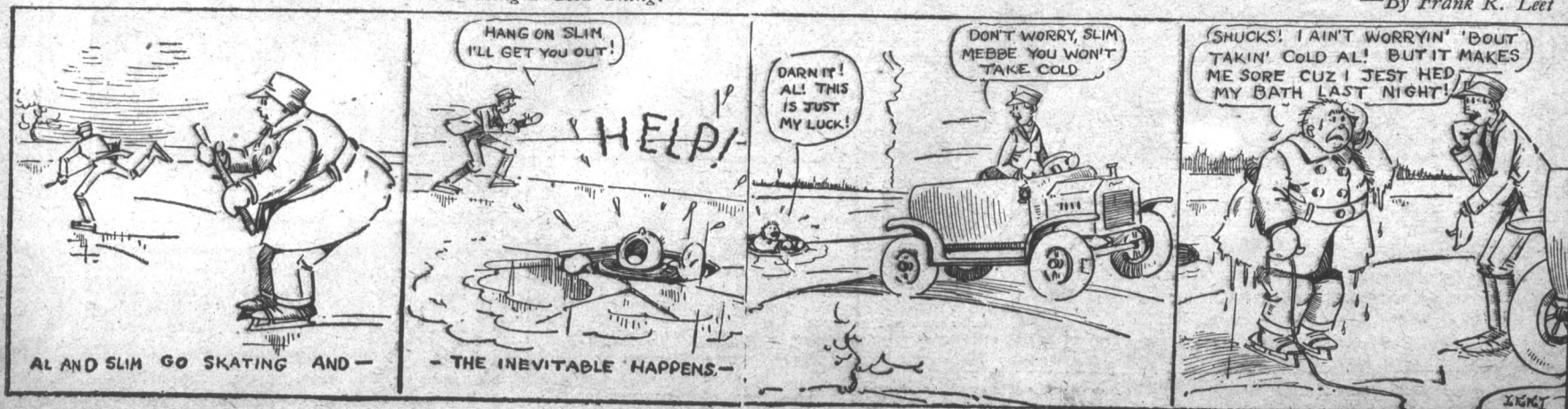
"Then she's down in the valley?"

"Far from it. She's a mountain girl if one ever lived. Perhaps you don't know the recent policy of the forest service to hire women when they can be obtained. It was a policy started in wartimes and kept up now because it is economical and efficient. She and a girl from college have a cabin not five miles from here on old Bald Mountain, and they're doing lookout duty."

Don wondered intensely what lookout duty might be. His thoughts went back to his early study of forestry. "You see, Dan," Lennox said in explanation, "the government loses thousands of dollars every year by forest fire. A fire can be stopped easily if it is seen soon after it starts. But let it burn awhile, in this dry season, and it's a terror—a wall of flame that races through the forests and can hardly be stopped. And maybe you don't realize how enormous this region is—literally hundreds of miles across. We're the last outpost—there are four cabins, if you can find them, in the first seventy miles back to town. So they have to put lookouts on the high points, and now they're coming to the use of aeroplanes so they can keep even a better watch. All summer and until the rains come in the fall, they have to guard every minute, and even then some-

AL ACRES—Slim Does Not Believe in Overdoing a Good Thing.

—By Frank R. Lee





times the fires get away from them. And one of the first things a forester learns, Dan, is to be careful with fire."

"Is that the way they are started—from the carelessness of campers?"

"Partly. There's an old rule in the hills: put out every fire before you leave it. Be careful with the cigar butts, too—even the coals of a pipe. But, of course, the lightning starts many fires, and, I regret to say, hundreds of them are also started with matches."

"But why on earth—"

"It doesn't make very good sense, does it? Well, one reason is that certain stockmen think that a burned forest makes good range—that the under-vegetation that springs up when the trees are burned makes good feed for stock. And you must know, too, that there are two kinds of men in the mountains. One kind—the real mountain man, such as your grandfather was—lives just as well, just as clean as the ranchers in the valley. Some of this kind are trappers or herders. But there's another class, too—the most unbelievably shiftless, ignorant people in America. They have a few acres to raise crops, and they kill deer for their hides, and most of all they make their living fighting forest fires. A fire means work for every hill-billy in the region—often five or six dollars a day and better food than they're used to. Moreover, they can loaf on the job, put in claims for extra hours, and make what to them is a fortune."

"You'll see a few of the breed before—before your visit here is ended. There's a family of 'em not three miles away—and that's real neighborly in the mountains—by the name of Cranston. Bert Cranston traps a little and makes moonshine; you'll probably see plenty of him before the trip is over. Sometime I'll tell you of a little difficulty that I had with him once. You needn't worry about him coming to this house; he's already received his instructions in that matter."

"But I see I'm getting all tangled up in my traces. Snowbird and a girl friend from college got jobs this summer as lookouts—all through the forest service they are hiring women for the work. They are more vigilant than men, less inclined to take chances, and work cheaper. These two girls have a cabin near a spring, and they cook their own food, and are making what is big wages in the mountains. I'm rather hoping she'll drop over for a few minutes tonight."

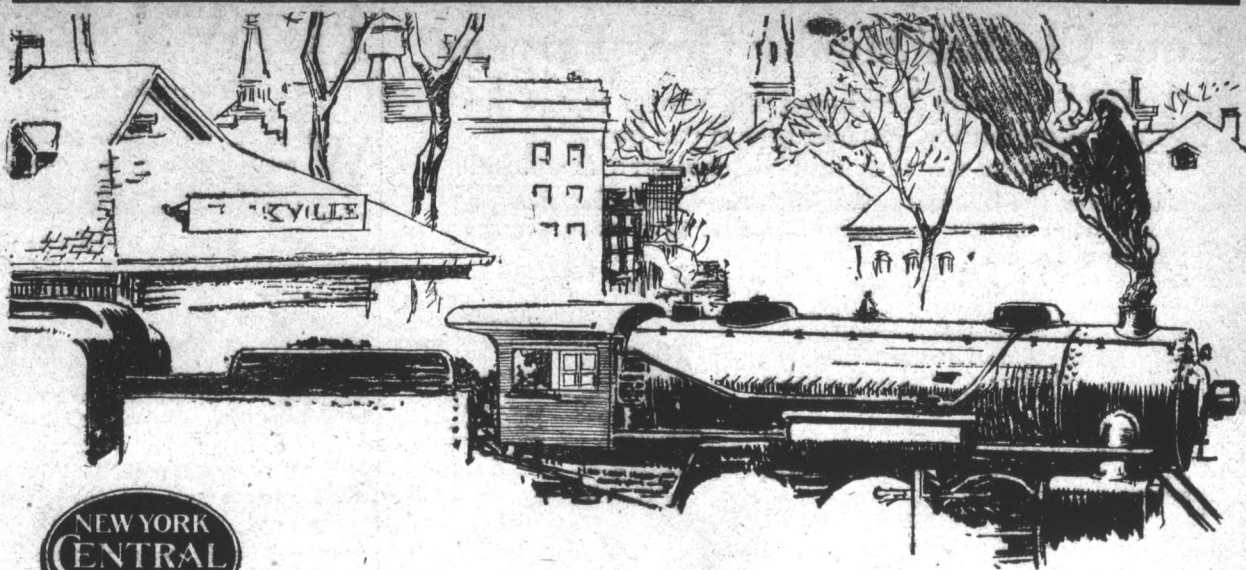
"Good Lord—does she travel over these hills in the darkness?"

The mountaineer laughed—a delighted sound that came somewhat curiously from the bearded lips of the stern, dark man. "Dan, I'll swear she's afraid of nothing that walks the face of the earth—and it isn't because she hasn't had experiences either. She's a dead shot with a pistol, for one thing. She's physically strong, and every muscle is hard as nails. She used to have Shag, too—the best dog in all these mountains. She's a mountain girl, I tell you; whoever wins her has got to be able to tame her!" The mountaineer laughed again. "I sent her to school, of course, but there was only one boy she'd look at—the athletic coach! And it wasn't his fault that he didn't follow her back to the mountains."

The call to supper came them, and Dan got his first sight of mountain food. There were potatoes, newly dug, mountain vegetables that were crisp and cold, a steak of peculiar shape, and a great bowl of purple berries to be eaten with sugar and cream. Dan's appetite was not as a rule particularly good. But evidently the long ride had affected him. He simply didn't have the moral courage to refuse when the elder Lennox heaped his plate.

"Good Heavens, I can't eat all that," he said, as it was passed to him. But

(Continued on next page).



## Your Community

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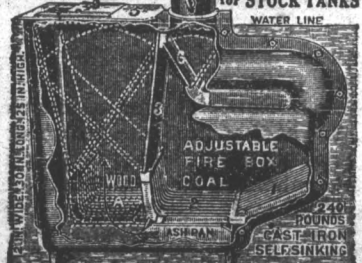
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## How Strong Are You?

Our Weekly Sermon—By N. A. McCune

**WATCH**, stand firm in the faith, church workers? I hear a reader say—play the man, be strong!" I think if Saint Paul were alive today he would attend foot ball and base ball games. He might not, but I am inclined to think he would, for he constantly refers to the great games of his day. These were the Roman games of running and wrestling. He also makes frequent reference to the military. Tradition says he was afflicted with some incurable malady. But at heart he loved the strenuous life. And in that we are like him. The strong man draws out our admiration every time.

An educator was discussing the traits of boys, and he remarked that the average boy would rather shake hands with the champion heavy-weight pugilist of the world than he would with a university president, whereupon another educator spoke up and said that the average boy's dad would do the same thing. Lincoln's early successes in politics were due to the fact that he would out-wrestle any opponent. The greatest long distance runner known was not a Roman athlete of Paul's time, but Ernst Mensen, who died in 1844. This man's feats are almost unbelievable. He was a Norwegian. He ran an average of one hundred and twenty-five miles a day for two weeks, in one race, between Paris and Moscow. He had to swim thirteen large rivers on the way. He ran from Munich to Southern Greece in twenty-four days. The distance was two thousand sixty miles, and hence he averaged eighty-six miles a day.

**AND** as Paul loved the athletes whose sinewy bodies he had seen so frequently at the Greek and Roman games, he often compared the Christian athlete to that. He said that all men who are followers of Christ, the world's giant, ought to have some athletic qualities. "Watch, stand firm in the faith, play the man, be strong." The word "watch" literally means, to keep awake. No athlete who is bilious or stupid can hope to win. He must be on the alert, when the starting signal is given. Most of us sleep a good deal of the time. We sleep in politics, and permit a small circle of men to dominate the parties. We are asleep in the conditions which surround our children. We sleep not only in our pews in church, but we allow the entire church machinery to become clogged. "Keep awake!"

As for being strong, that is part of our business. Wouldn't it be splendid if the strong people, the virile and forward-looking people of the community commonly gathered at the church? If you came into a strange town, you would ask for the church directory, as that is where the strong folks are listed. Would it not be magnificent if our children unconsciously came to see that the fine people, the broad people, God, "They that wait upon the Lord the big men of the community were all

himself a bite of the tender steak—the others laughed and told him to take heart. He took heart. It was a singular thing, but at that first bite his sudden confidence in his gustatory ability almost overwhelmed him. All his life he had avoided meat. His mother had always been convinced that such a delicate child as he had been could not properly digest it. But all at once he decided to forego his mother's philosophy for good and all. There was certainly nothing to be gained by following them any longer. So he cut

**TAKE** the great movements of history. See if they were not prompted by religious folk. There are the Crusades. Thousands of the brave, the chivalrous of Europe, started for the Holy Sepulchre at Jerusalem, to rescue it out of the hands of the Moslems. They were the religious people of their day. Here is Christina Forsyth, called the "loneliest woman in the world." For thirty years she toiled among a wild, black tribe of eastern Africa, never seeing a white face, save when some missionary visited her. She remained at her post until seventy-two. Would you call her one of the strong? Beside her the modern be-rugged, be-powdered society woman is like an ant hill beside Pike's Peak. A while back, I met a preacher. He is a strong man. Paul would have been enthusiastic over him. He is so strong that I slept with him a few nights, hoping that thereby some of his strength might possibly pass over into me. He has a circuit in Michigan, in a difficult field. He preached thrice each Sunday, and usually walked to his churches, a distance of twenty-seven miles. In addition to that he was attending college in a distant city, going thither each Monday morning, and returning Friday night. They doubled his salary, as well they might. Would he not qualify, under this text? And here is Paul himself. He tells others to be strong, and he is the finest of examples of strength. For thirty years he has no roof he calls his own. He is ever on the wing, sometimes at great bodily danger. When it is all over he can say, "I have finished my course." That is, he had run the race, and won.

But Paul is always particular to state that he does not do this in his own strength. No man does, and no man can. It has to be done on borrowed strength. Most great enterprises are carried forward on borrowed strength. The interurban car goes by, carrying a heavy human cargo. But the interurban borrows all its strength and speed from the electric wire overhead. A slender pole carries the current without which the car would be dead. Once I stood beside vast engines that pumped the water for a great city. But without the steam pipes that brought the power from the boilers, those engines would have been but so much scrap iron. And so, our strength is borrowed. It comes of God. It comes through faith in a good and powerful God. "They that wait upon the Lord shall renew their strength."

## The Voice of the Pack

(Continued from preceding page). himself a bite of the tender steak—the others laughed and told him to take heart. He took heart. It was a singular thing, but at that first bite his sudden confidence in his gustatory ability almost overwhelmed him. All his life he had avoided meat. His mother had always been convinced that such a delicate child as he had been could not properly digest it. But all at once he decided to forego his mother's philosophy for good and all. There was certainly nothing to be gained by following them any longer. So he cut



that he liked the venison. And both seemed boyishly eager to test his reaction to the great, wild huckleberries that were the dessert of the simple meal. He tried them with much ceremony.

Their flavor really surprised him. They had a tang, a fragrance that was quite unlike anything he had ever tasted, yet which brought a curious flood of dim, half-understood memories. It seemed to him that always he had stood on the hillsides, picking these berries as they grew, and staining his lips with them. But at once he pushed the thoughts out of his mind, thinking that his imagination was playing tricks upon him. And soon after this, Lennox led him out of the house for his first glimpse of the hills in the darkness.

They walked together out to the gate, across the first of the wide pastures where, at certain seasons, Lennox kept his cattle; and at last they came out upon the tree-covered ridge. The moon was just rising. They could see it casting a curious glint over the very tips of the pines. But it couldn't get down between them. They stood too close, too tall and thick for that. And for a moment, Dan's only sensation was one of silence.

"You have to stand still a moment, to really know anything," Lennox told him.

They both stood still. Dan was as motionless as that day in the park, long weeks before, when the squirrel had climbed over his shoulder. The first effect was a sensation that the silence was deepening around them. It wasn't really true. It was simply that he had become aware of the little continuous sounds of which usually he was unconscious and they tended to accentuate the hush of the night. He heard his watch ticking in his pocket, the whispered stir of his own breathing, and he was quite certain that he could hear the fevered beat of his own heart in his breast. But then slowly he began to become aware of other sounds, so faint and indistinct that he really could not be sure that he heard them. There was a faint rustle and stir, as of the tops of the pine trees far away. Possibly he heard the wind, too, the faintest whisper in the world through the underbrush. And finally, most wonderful of all, he began to hear one by one, over the ridge on which he stood, little whispered sounds of living creatures stirring in the thickets. He knew, just as all mountaineers know, that the wilderness about him was stirring and pulsing with life. Some of the sounds were quite clear—an occasional stir of a pebble or the crack of a twig, and some, like the faintest twitching of leaves in the brush not ten feet distant, could only be guessed at.

"What is making the sounds?" he asked.

He didn't know it, at the time, but Lennox turned quickly toward him. It wasn't that the question had surprised the mountaineer. Rather it was the tone in which Dan had spoken. It was perfectly cool, perfectly self-contained.

"The one right close is a chipmunk. I don't know what the others are; no one ever does know. Perhaps ground squirrels, or rabbits, or birds, and maybe even one of those harmless old black bears who is curious about the house. The bears have more curiosity than they can well carry around, and they say they'll sometimes come up and put their front feet on a window sill of a house, and peer through the window. They must think men are the craziest things. And of course it might be a coyote—and a mad one at that. I guess I told you that they're subject to rabies at this time of year. I'll confess I'd rather have it be anything else. And tell me—can you smell anything?"

"Good Lord, Lennox! I can smell all kinds of things."

"I'm glad. Some men can't. No one

can enjoy the woods if he can't smell. Part of the smells are of flowers, and part of balsam, and God only knows what the others are. They are just the wilderness—"

Dan could not only perceive the smells and sounds, but he felt that they were leaving an imprint on the very fiber of his soul. He knew one thing. He knew he could never forget his first introduction to the mountain night. The whole scene moved him in strange, deep ways in which he had never been stirred before; it left him exultant and, in deep wells of his nature far below the usual currents of excitement, a little excited too. And all the time he had that indefinable sense of familiarity, a knowledge that this was his own land, and after a long, long time of wandering in far places, he had come back to it.

Then both of them were startled out of their reflections by the clear, unmistakable sound of footsteps on the ridge. Both of them turned, and Lennox laughed softly in the darkness. "My daughter," he said. "I knew she would not be afraid to come."

(Continued next week.)

#### INVENTIVENESS OF ANIMALS.

BY MARK MEREDITH.

THE mole decapitates the earthworms in its larder, with the result that they cannot crawl away; the Greek Eagle lets the tortoise fall from a height on the stones below, with the result that the almost invulnerable carapace is broken; the sea-swift has little material wherewith to build its nest on the walls of the caves. It makes one of consolidated saliva—the well-known edible bird's nest; the thrush breaks the snail shells on its anvil in the wood. When they are dealing with animals endowed with well-developed brains it might be quite legitimate to think of an intelligently appreciative awareness of the agency exhibited. But what is to be said of the poorly endowed New Guinea fish, called Kuptus, where the male fastens the double bunch of eggs to a hook on the top of his head and carries them there till they hatch; or of Darwin's Chilean frog, Rhinoderma, a creature with a very witless brain, where the male rears his family in his croaking sacs? Inventive indeed; but intelligently so.

#### Sunshine Hollow Items.

By Rube Rubicon

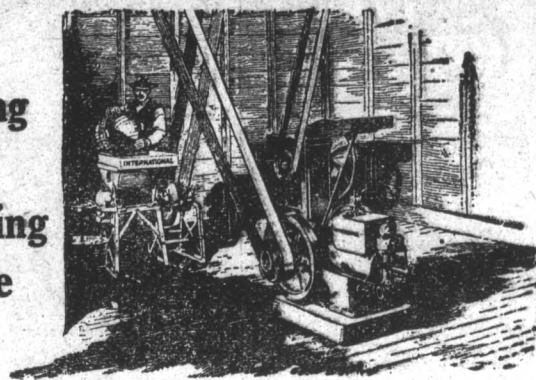
When Flora Wacker, our promising vocalist, stands beside the phonograph and sings, folks can't tell which is going. The machine is a cheap little 1900 model they picked up at the second-hand store. Most of the records are just about worn out and sound like they had been whizzing around so long they were awfully tired. Flora sings in the choir because the congregation get along better with the music when she isn't too close.

When Tommy Fisher and Julia Goosen were married her folks kicked up a great rumpus and said Tommy wasn't worthy of marrying a Goosen. Now Tommy has made a payment on a house, has two lively kids and gets a boost in his pay about every six months. The Goosens are sorry they made such a fuss and would like it mighty well if Tommy and Julia would come back and help run the farm.

At the school meeting Morgan Peabody asked Dorothy Tuttle if he could see her home. Dorothy told him she thought he could get a very nice view from the top of the flag pole. Morgan is always trying to take Dorothy to a dance. Dorothy says Morgan is just good enough dancer to get off people's feet after he steps on them and that's about all.

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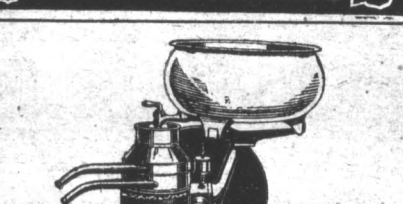
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# Our Boys' and Girls' Department

## Jersey Cattle for Boys and Girls

*This is the First of a Series of Breed Studies Prepared by the Leading Advocates of the Respective Breeds Exclusively for the Michigan Farm Boys and Girls—By R. M. Gow*

IN your lesson books, when new words are used, they are printed at the top of the lesson. As I am to use some words which may be new to you, and some of them big ones, too, I am putting them at the beginning of my lesson on the Jersey cow.

They are: Character-istics, En-viron-ment, Eco-nom-ic Pro-duction, Per-sist-en-cy, Re-sist-i-bil-i-ty, Ac-cred-it-ed, A-dapt-a-bil-i-ty, Ma-tu-ri-ty, Pre-po-ten-cy.

These big words are often used by breeders of cattle, and I am going to try to show you what they mean.

If you will look at the map of England in your atlas you will find at the bottom of the map a stretch of water called the English Channel, and most maps take in a little bit of France on the southern side of the channel. In a wide bay which runs into the land of France between Normandy and Brittany, at the eastern side of which is a big headland with the city of Cherbourg at the top of it, you will see a group of little islands, probably mere dots on your map. These are called the Channel Islands, and, although close to the coast of France, they are part of the British Empire. They never were a part of France politically, having belonged to the ancient Duchy of Normandy, and became part of the Norman Kingdom of England, remaining part of the British Empire ever since. There are four larger islands and two exceedingly tiny ones, the larger ones being named Jersey, Guernsey, Alderney and Sark. Jersey is the largest, but only measures about eleven by seven and one-half miles. From the islands of Guernsey and Alderney the Guernsey breed of cattle has been brought to this country, and from the Island of Jersey has been brought the Jersey breed, both breeds being often referred to as the "Channel Island breeds," and of all breeds of cattle in common use they give the richest milk.

Although Jersey is such a very little island, discoveries of ancient skeletons and stone tools show that it was inhabited by men seventeen thousand years ago. It is a very beautiful island, and has been known as a health resort ever since the days of the ancient Romans. It is an intensively cultivated spot of earth; that is, every foot of land has something planted on it, and then two crops are gathered in the year. Although it is known all over the world on account of its cattle, strange to say, cattle are not the principal product of the island, but potatoes and tomatoes are. This little island is also noteworthy from the fact that it has given its name to one of the states of the American Union—New Jersey; and you young people should not fall into what we fear is a very common error in thinking that Jersey cattle come from New Jersey, and not originally from old Jersey.

The cattle on the Island of Jersey have been known since many, many years ago as producers of very rich milk, and this induced stock fanciers to bring them over to England and then to this country. Some animals of the breed were brought to Massachusetts as long ago as 1850. For over

two hundred years the breed has been kept strictly pure on the island by very stringent laws, and this means that the characteristics of these cattle have become "fixed," that is to say, their conformation, their colors, their faculty of yielding rich milk, and their other qualities are pretty certainly passed along to their descendants. You know that wild animals are all very much alike. The type has become "fixed," as it is called, by ages of reproduction under natural conditions; but our domestic animals are the products of man's cooperation with and control of nature's methods; they are not perfectly "fixed" by natural selection; and consequently are more subject to fluctuation, and changes can be quite easily brought about by man when raising them. The longer any breed of cattle has been kept pure under the same environment—that means the way they live, their surroundings and conditions—the more fixed or constant do their characteristics become.

One of the characteristics of Jersey cattle—that is, one of the things that is most sure to be found in them—is the faculty of economic production, especially as producers of butter-fat, that part of milk which largely goes to the

any other breed. There are more accredited Jersey herds—herds which the United States government guarantees to be free from tuberculosis—than any other breed, notwithstanding that there are breeds of cattle which are much larger in number than the Jersey is in this country.

The Jersey, too, shows great adaptability; that is, she easily suits herself to different climates, different feeds, and very different places all over this continent. She comes to early maturity; that is, she grows up quick and in a little while the Jersey calf is a heifer and the heifer a cow earning money for her owner. Yet this early maturity does not bring with it short life, for Jersey cows are known to have kept on giving milk and having calves for twenty, twenty-one, twenty-two, twenty-three and even twenty-four years.

The fixed characteristics already explained have a great deal to do with what is called prepotency; that is, Jerseys are almost sure to hand on to their offspring the qualities of their parents and grandparents. If this did not happen more or less with all breeds used by men, there would be no use in the work of the breeder, whose aim



Mr. Gow's Idea of How to Keep Boys on the Farm.

making of butter. Some great public tests made in this country have proved that the Jersey cow requires less feed to produce a pound of butter than any of the breeds which have competed against her, and this is economic production.

Another characteristic of the Jersey is what is called persistency—sticking to it—which is that she will continue giving milk from the time her calf is born right on for a year, or nearly so; of course, not as much milk at the end as she gave at the beginning, but, although falling off from month to month, yet keeping up her yield to a considerable degree until she is dried off. Then she has another calf and so starts off again for another year or so.

The Jersey in her native land, spending most of her time out of doors, as the weather there is never either very hot or very cold, is one of the healthiest of breeds; therefore she possesses resistibility to disease. She is found, according to general experience in this country, more resistant to and less subject to tuberculosis, that disease so common and so dreaded in cattle, than

it is not only to keep the blood of the various breeds of domestic animals pure, but to get the animals better and better from generation to generation.

I have already said that Jersey milk is very rich. A good many thousand Jersey cows have been tested for a year, and their milk is found to average 5.37 per cent fat; that is to say, in every hundred pounds of Jersey milk there is five and thirty-seven hundredths pounds of butter-fat, (and butter-fat is eighty per cent or more of the butter on our tables). But fat is not the only ingredient of milk which is very valuable. The casein which forms the curd is also one of our best foods, and when the casein and the fat in Jersey milk are added it amounts to 14.11 per cent; that is, in every hundred pounds of Jersey milk there are over fourteen pounds of the best and richest food known. No other breed of cattle shows such a high percentage of food value in its milk as does the Jersey. When you remember that children cannot grow up strong in mind and body without milk, cheese or butter in their diet every day, you will see



how important it is to get the best milk.

Another thing in the Jersey that appeals to a great many people, and certainly to young people, is her beauty. The little Jersey calves are very cute and cunning, with their deer-like faces and bright eyes, and a great many boys and girls that we know of are very pleased and proud when they own a Jersey calf to take care of and watch until it grows up to be a cow.

We have many stories of boys and girls who have done some wonderful things with Jerseys. Down in Virginia a fourteen-year-old girl was left with her two little brothers when her father and mother died of the "flu," and she held the little family together and kept on with their Jersey cows, she herself carrying the milk to the creamery every morning before going to school. She now has six pure-bred Jersey cows. The Jersey held this little family together and enabled them to live in

their own home, to go to school and grow up, instead of having to go to the orphan asylum.

There are many boys' and girls' Jersey Calf Clubs throughout the country. These are organizations or societies of boys and girls who buy Jersey calves with money advanced by banks, on monthly payment notes, raise the calves and meet the cost of the calves by sales of animals, of their progeny, or of their production. Many thousands of children find profit and enjoyment in these calf clubs.

The Jersey Scouts is a society of boys and girls, already numbering three hundred and twenty-five members. Any boy or girl under sixteen who owns a pure-bred Jersey is eligible to membership by signing an application. Members are furnished with a certificate of membership and a button by the American Jersey Cattle Club, and there is nothing to pay.

## Square Deal for Boys and Girls

(Continued from page 691).

daily round of duties must be reduced to a system. The teacher and children should work out the plan together but when the machinery is once set in motion it should require but little of the teacher's time and effort. She should not attempt to do the work herself. If she did, the real educational value would be lost. The benefits derived by the club members from the serving of the hot lunch will depend upon its management. It is best to allow all pupils to share in the duties, privileges and the good times, making it a big "family affair."

There are three types of work carried on by the club. These are cooking, housekeeping and book-keeping. The club should be divided into two groups, A and B. The work will rotate for a period of two weeks. During this time each group has an opportunity to perform each type of work. This rotation continues through the season.

First Week.—Group A, cooking and book-keeping. Group B, housekeeping.

Second Week.—Group A, Housekeeping. Group B, Cooking, book-keeping.

The duties of groups and names of pupils in each group should be posted in a conspicuous place. The older children should be chosen as leaders of groups during the first few weeks. The work should be so divided that the other school work of pupils will be interrupted as little as possible.

### Duties of Cooks.

1. Plan the lunches, with aid of the teacher.
2. Prepare the food.
3. Serve the luncheon dish.
4. Apportion the supplies to be furnished by the members. Members should be notified well in advance and care should be taken that the materials assigned are convenient for the member to bring. As far as possible, let the amount of material brought per week equal the cost of lunches for the week.
5. Keep a careful account of the food furnished by the children.
6. Balance the weekly account of each club member.
7. Keep an accurate record of the cost of the recipes prepared.

Some clubs find that the secretary-treasurer acting as auditor for the entire year works very satisfactorily. She must necessarily secure all data from the group acting as cooks.

### Duties of Housekeepers.

1. Keep the school room clean and orderly.
2. Place the dishes on the serving table ready for the noon meal.
3. Have the dishwasher hot.
4. Wash and replace the dishes on the shelves.

5. Assist in the serving if the club members are seated at tables.

### Planning the Lunch.

Lunches should be planned in advance. (1) to simplify the work; (2) to save time; (3) to help the mothers in packing the lunch brought from home. A lunch plan for two weeks is suggested below. Add to this each week the plan for a new week and by that means keep your menu in advance. Pupils should take home a list of the lunches for the coming week so that their mothers will know what to put in the lunch basket to combine well with the lunch served at school. Note that only hot foods are suggested. Milk and vegetables are always included where possible. Here is a suggestive menu for two weeks:

#### First Week.

- Monday.—Cocoa.  
Tuesday.—Texas hash.  
Wednesday.—Baked potatoes.  
Thursday.—Bean soup.  
Friday.—Creamed eggs.

#### Second Week.

- Monday.—Tomato soup.  
Tuesday.—Creamed potatoes.  
Wednesday.—Potato loaf.  
Thursday.—Cocoa.  
Friday.—Apple tapioca.

### Preparing a Typical Hot Dish.

Potato soup requires twelve potatoes, one onion, four quarts of milk, half cup of butter, half cup of flour, two tablespoons of salt, one teaspoon of celery salt, half teaspoon of white pepper, one teaspoon chopped parsley.

Before School.—Wash potatoes with a vegetable brush, peel, wash again and place in cold water. Peel onion and slice. Put peelings in garbage can. Place a kettle of water on stove.

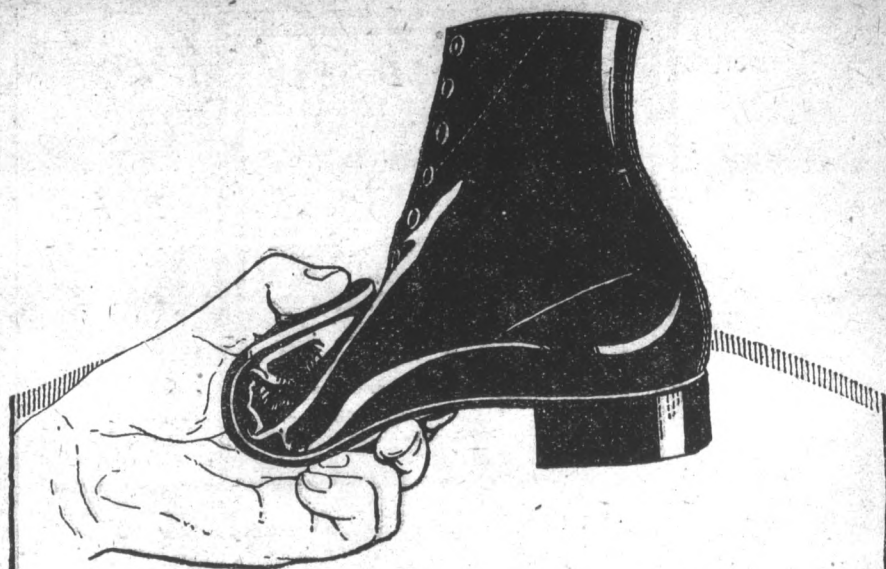
Before Recess.—Place the potatoes and onion in the kettle of boiling water and boil until soft, (twenty to thirty minutes), planning the time so that the potatoes will be cooked by recess. Drain off water immediately.

During Recess.—Place milk in double boiler to scald. Drain potatoes, if not already done. Press the hot potatoes through a ricer or mash. Pour some of the milk slowly over the mashed potatoes and stir until smooth. Measure butter and melt in saucepan; add flour and seasonings. Stir constantly and cook until blended together. Add some of the hot milk slowly and cook until it thickens. Pour into potato mixture in double boiler; stir well. Warm cups and provide water for dishes.

After Recess.—Cook soup, thirty minutes and keep warm for serving.

At Noon.—Serve soup. Rinse all cooking dishes and pile up neatly for

(Continued on page 707).



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For real foot comfort they have no equal. Forty years' scientific study of shoe needs is built into them.

Flexible in the sole where flexibility is most required. Shaped to give ample foot room but not clumsily loose. Soft and pliable leather tops.

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Pound can of Calumet contains full 16 oz. Some baking powders come in 12 oz. instead of 16 oz. cans. Be sure you get a pound when you want it.

**Calumet Gold Cake Recipe**

Yolks of 8 eggs, 1 1/4 cups of granulated sugar, 3/4 cup of water, 1/2 cup of butter, 2 1/2 cups pastry flour, 3 level teaspoons Calumet Baking Powder, 1 tablespoon of vanilla. Then mix in the regular way.

## Woman's Interests

### Choosing the Day's Food

**W**HILE it is essential that every one have foods from the five food groups in order to be kept in the best physical condition, it is not necessary that we have all five classes at every meal, or even every day. There can be occasional lapses of a few days when the family goes without some one class without any special harm resulting, but no one can eliminate one class for several weeks or months without suffering. For example, the quickness with which undernourished children who never had milk, add flesh when they drink two quarts of milk a day—or even one quart—shows the necessity of milk in the dietary of growing children. However, while we do not require vegetables or fruit, meat, eggs or milk, cereals, fats and sweets at every meal, we should aim to have all five every day.

The typical American breakfast—American because no other nation lives so well as America—is a good one for the best physical development. In the average home it consists of fruit, cereal with milk or cream, bacon and eggs, or one of these, toast or rolls and coffee or cocoa. If it is necessary for economy, the toast could be eliminated, as we have the grain in our cereal and are simply duplicating foods. If plenty of milk is taken, eggs are not necessary. If the supply of cream is lacking and buttered toast is not served, bacon would furnish the fat. Fruit should be included if possible, either fresh or canned. Cooked fruits, the scientists tell us, lose their vitamins, but as generations staggered along on canned fruit before vitamins were discovered, it is an open question whether or not mother's canned fruit isn't as beneficial to the human race as the fresh fruit.

For dinner, if possible, give one of all-five classes. Meat or eggs you will have. Potatoes take care of the vegetable dish, though you always plan on a side vegetable; bread furnishes the cereal; your dessert, cake, pudding, pie or cookies provides the sweet, butter and the quantities of meat fat outside workers consume in gravy, furnishes the fat.

Supper may be a light meal again. Warm potatoes, fried or creamed, perhaps cold meat, or eggs or tinned fish, plenty of whole wheat bread and butter, cake or cookies, and if you have it, a salad vegetable, such as lettuce, celery, radishes, endive, any vegetable that may be eaten raw. Raw vegetables are too often passed by because they do not seem to furnish the actual nourishment that heartier cooked vegetables do. But they are necessary to good health because of the mineral salts which they contain.

Furnishing a balanced ration is not a difficult thing. It is merely a question of keeping away from one sort of food to the exclusion of other sorts. Do not, as too many families who are far from supplies of fresh meats and vegetables, run to starches and give the family baked things, while abstaining from vegetables, fruits, meat and eggs. Plan during the summer to have a cellar full of root vegetables and canned fruit and vegetables.

Then in place of an over-supply of baked stuff, use generous quantities of vegetables and milk. If the family will not drink milk, see that they get it in cornstarch pudding, rice, tapioca and bread pudding, custard, and in creamed vegetable soup. Cook the vegetables until they will go through a strainer, and add to it the scalded milk. If you have nothing else, make cream potato soup and flavor with onion juice.

## December Calendar

**T**HE political calendar is blank so far as elections or conventions are concerned. But you might interest yourself in some needed legislation. There is the Shepherd-Townley act to provide adequate instruction for expectant mothers. Write your congressman and ask him what he is doing about it. Then a number of Michigan women are interested in securing legislation to censor movies. We'd like to know that when our children go to see a travel film, they are not going to have a "blood and thunder" reel thrown in for good measure. If you want to help a good thing along, write Mrs. Huntley Russell, Grand Rapids, Michigan, and ask her what you can do.

**O**f course, Christmas is the big event. Observe it all the month in the right way, giving where there is need. If you haven't money, give yourself, keep sweet and aim to show the Christ spirit. Buy green and red tissue paper, cut in strips an inch wide, and these into pieces four inches long, if the children are old enough to do the cutting. Then have the children take one four-inch strip and paste the ends together. Slip a second slip through this and paste those ends, so that the two are linked together. Continue making chains for Christmas decorations. Make some chains red, some green and some red and green alternating. If the little fingers can manage

needle and thread, cut stockings out of red and green mosquito netting, to be filled with popcorn, apples and home-grown nuts for the Christmas tree or table. If you have a tree they can make cornucopias out of stiff paper. If you can not secure colored sheets of stiff paper use white. Cut in rectangles, roll into the "horn of plenty" shape, and paste. The children can cut tiny pictures out of your magazines and papers and paste on the white paper for decorations.

Here are two menus, a simple one, and one more elaborate. Whichever you choose, ask the homesick stranger in your neighborhood to share it.

|                        |                        |
|------------------------|------------------------|
| Cream of Tomato Soup   | Turnips                |
| Chicken with Dumplings |                        |
| Mashed Potatoes        | Curant Jelly           |
|                        | Apple and Nut Salad    |
|                        | Pumpkin Pie and Cheese |
| Home-grown Nuts        | Coffee                 |

|                           |                        |
|---------------------------|------------------------|
| Oysters on the Half-shell |                        |
| Clear Soup with Wafers    |                        |
| Roast Turkey              | Cranberry Jelly        |
| Mashed Potatoes           | Candied Sweet Potatoes |
| Creamed Onions            | Celery Hearts          |
| Plum Pudding              | Lemon Sauce            |
| Salted Nuts               | Candy                  |
|                           | Coffee                 |

**S**EWING this month usually resolves itself into a wild frenzy to get the presents finished by midnight of the

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Just send your name, address, size and color and I will send this girl's heavy winter coat to you. Don't pay one penny until the coat is delivered at your door by the postman. This is a wonderful opportunity of saving about \$4.00. Made of a heavy polo wool velour lined throughout with cotton serge. Has large collar made of Egyptian plush, two serviceable pockets and new stylish cross over belt. Sizes to fit girls 6 to 14 years old, no larger. Colors, brown, gray or blue. When ordering, be sure and give size and color.

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Just send your name and address, size and color. When the coat is delivered at your door by the postman, pay him \$5.95 for the coat. We have paid the delivery charges. Let your little girl wear the coat. If you don't find it all you expect for any reason whatsoever, return it at our expense and we will cheerfully refund your money at once. Order by No. 37.  
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twenty-fourth. Mending, even, is usually neglected. Take time, however, to inventory the household linen, beds, table linen and towels, and make a list of what you absolutely must have. Plan to buy as much as possible during the white sales, which most stores start the second day of the new year.

**S**TART the little folks in nature study. Buy a bulb or two and start them in a glass bowl of warm water, with a sprinkle of sand and a few pebbles in the bottom. Have the children watch for signs of the first shoot, and reward the sharp eyes which see it first. Let each one have a pot of earth, an empty can with a few holes punched in the bottom will do, and give them a few seeds to plant in their own can. Give each child a different seed. Have them keep records of the planting, growth and development of their plant. A double lesson may be taught, that of nature, and the spiritual lesson of the resurrection. Get out doors every day, if only for five minutes on the porch. You need the fresh air. Bundle the kiddies up and send them out, no matter what the weather. The crying lack of the average American, adult and child, is fresh air.

#### SQUARE DEAL FOR BOYS AND GIRLS.

(Continued from page 705).

washing. Wash as many cooking dishes as possible before lunching hour.

#### Method of Making Calculations.

|                                 |          |
|---------------------------------|----------|
| Recipe for potato soup.         |          |
| Twelve potatoes (3 qts) at 40c  |          |
| a peck .....                    | \$ .15   |
| Four qts. milk at 10c qt. ....  | .40      |
| Half cup butter at 70c lb. .... | .19      |
| Half cup flour at 4c lb. ....   | .005     |
| Onion and seasonings .....      | .005     |
| Total cost .....                | \$0.75   |
| Number of servings .....        | 20       |
| Cost per serving .....          | \$0.0375 |

#### Make it a Cooperative Project.

The successful carrying through of the school lunch project depends upon the interest and cooperation of the school directors, parents, teachers, county school superintendents and the children. The community must have the right attitude toward the work.

Right now is the time to start your school lunch club. Hundreds of clubs are being formed all over the state of Michigan. The Boys' and Girls' Club Department of the Michigan Agricultural College is back of the movement and ready to assist whenever possible. The County Farm Bureaus through their county club agents and home demonstration agents are making it the big part of their junior program for this winter. Write your nearest agent or send to M. A. C. for Bulletin No. 12 (revised) on "Hot Lunches." Start it now as your community winter project.

#### BEFORE MARY BEGINS SCHOOL.

**G**IVE a child the idea of size with a nest of boxes, with a set of books graded by sizes, with blocks, with spoons, with tin pans. Any set of objects in series will be the materials for a group of play lessons for which the words "large" and "larger," "small" and "smaller" are the keys.

Along with size come length and height. Following sizes comes shape, taught most easily by sorting out all the blocks of a kind or all the beads of a kind from the usual boxes of blocks and wooden beads which are to be found among the playthings of most children. They all love to pick out shapes by touch, finding in a group of objects hidden under an apron in the mothers lap the twin of an object they hold in their hands, then, when they have the idea, doing the same from piles of their own making. They are interested in likenesses and differences. This interest is, indeed, at the bottom of most play suggestions for little children. Through it we start

the child on the training of his sensibilities. In discovering differences and noting them and in performing operations which make note of them through touch or sight, the child is developing these powers which are at the moment awaiting development.

Other plays with duplicate spoons or blocks introduce the idea of matching things, selecting one and finding its twin. Then we come to sorting and here are opportunities for a variety of plays. Mix from the kitchen supply closet brown, white, and speckled beans; provide three receptacles into which to sort them. Make a play set from your button box. Children's delicate finger-tips are quickly susceptible to differences in texture. Go to your piece bag and cut squares (patchwork size) of cotton, flannel, velvet, corduroy, burlap, chamois skin, leather and silk, to be sorted into pieces of each kind, first by touch and sight, then by touch alone. Color plays come in a natural sequence, employing at first only the primary colors, red orange, yellow, green, blue and violet.

The whole secret of home education for little children is for the mother to meet awakening instincts and powers with play supplies and play suggestions. To meet his needs she has only to get his viewpoint and travel with him the road of investigation and appreciation of the interesting world about him.—National Kindergarten Association.

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No. 3348—A "Cover All" Apron. Cut in four sizes: Small 32-34; medium 36-38; large 40-42; extra large 44-46 inches bust measure. A medium size will require 4½ yards of 36-inch material. Price 12c.



No. 3120—A Smart Coat Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 will require 4½ yards of 44-inch material. Width of dress at lower edge is about 1½ yards. Price 12c.

No. 3330—Ladies' Coat. Cut in four sizes: Small 32-34; medium 36-38; large 40-42; extra large 44-46 inches bust measure. A medium size will require 4½ yards of 48-inch material. Price 12c.



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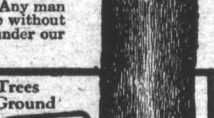
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Write us if you are interested. All our stock is reliable; we guarantee everything. Have you our 1920 Catalog? If you want to make sure of these Pullets, you should write now.

We still have 300 yearling White Leghorns for breeding at \$1.75 each.

**Cockerels** We have 60 fine Barred Rock Cockerels from our well bred Barred Rock Colony. Send for description.

STATE FARMS ASSOCIATION,  
Desk 1, Kalamazoo, Michigan

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

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

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

**BARRED ROCKS.** Park's 200-egg strain cockerels which will produce fine layers next year, \$3 each. R. G. KIRBY, R. 1, East Lansing, Mich.

**BARRED Plymouth Rock** cockerels for sale, some Prince thirty birds from prize winning stock \$4 and \$5. George H. Campbell, R. 5, Box 70, Ypsilanti, Mich.

### CHICKS

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

**CHICKS!** Standard bred White Leghorns and Brown Leghorns. Bred to lay, large white eggs. 50 chicks \$7.50; 100, \$15.00 and 500, \$72.50. Safe arrival guaranteed. Parcel post brings them to your door. Catalog free. Wolverine Hatchery, R. 2, Zeeland, Mich.

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

**50 Buff Orpington** chks., fine stock \$5 and \$8.25 good order, guaranteed satisfaction or refund. Cash with order. J. E. SECKINGER, Manchester, Mich.

**HEIMBACH'S** Heavy laying strain Martin foundation, splendid birds, true to form. Yearling hens, April hatched pullets and cockerels \$3 and up. C. W. Heimbach, Big Rapids, Mich.

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

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**Keeps Water at 70°**

No ice to chop. No chilled stomachs. Stock drink more—gain faster. Heater soon pays for itself in greater gains and bigger milk yield. Write for free catalog today.

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**Rhode Island Whites** If you have ever said there is no money in raising poultry try the R. I. White, stock for sale, order ahead. H. H. JUMP, R. 5, Jackson, Mich.

Additional Poultry Ads. on Page 715

## Poultry Notes

### FACTS ABOUT TURKEYS.

A TWO-YEAR-OLD tom mates with hens more than one year old makes the best combination for producing vigorous poults. The breeding stock should be unrelated and it pays to frequently obtain a new tom from a distant breeder. Inbreeding has been one of the factors in devitalizing turkey flocks.

Old hens are not as satisfactory as the turkey mother for hatching and rearing young turkeys. It takes from twenty-seven to twenty-nine days for the turkeys to hatch and that is a long time for a hen to set. The old hen may tire of protecting the poults when they are too young to be weaned but the turkey mother will often keep them with her until the end of summer. And in that time she leads them through the fields and woodlands and helps them to take on plenty of turkey meat at a small expense to the owner.

Protection from pests and storms is necessary, especially at night. Young turkeys should not go into deep wet grass early in the morning. For this reason a wire yard is fine for the mother turkey and her brood at night. By feeding at night the mother birds can be taught to come home to roost. Keep scrap lumber piles and brush or stone heaps away from the turkey yard as such places harbor rats and weasels and make turkey raising difficult.

New milk seems to be good for the growth of young turkeys and after they are about three weeks old it pays to keep plenty of sour milk before them at all times. Sour milk seems to act as a preventive of digestive troubles in all kinds of poultry and also helps to keep down the blackhead which is the disease that has put turkey growers nearly out of business in some sections.

The best turkey flocks which we have known have enjoyed free range. Some breeders have had success with turkeys on a limited range but we feel that their cost of production must be very large. And there is also an increased danger of the soil becoming contaminated. Turkeys on free range gather many bugs and beetles and will often practically rid infested fields of grasshoppers. They also need plenty of tender bits of green food. On a restricted range where it was necessary to furnish the bulk of the feed we can see no profit in turkeys at the present price of grain.

Some farmers who have not raised turkeys on their land in many years may find that the soil is clean and there will be a good chance of success with vigorous unrelated breeding stock. Even if very few turkeys are marketed it is a great satisfaction to raise enough for a few turkey dinners each year. Of course, there is a great similarity to chicken meat and yet a big slice from a well-browned turkey surely tastes very appetizing during the winter and the home-raised turkeys taste much better than cold storage stock.

Do not allow the turkeys to roost in the poultry houses as this increases the danger from lice and the turkeys need even more fresh air than hens. Their natural environment is in the trees and wild turkeys thrive under such conditions. Turkeys do not thrive under too much coddling. Place round poles in an open-front shed and that is all the protection from the weather they will need. Keep the turkey house clean and spray the roosts at frequent intervals. It will also pay to inspect the turkeys occasionally at night to see if they are getting enough to eat and are free from lice.

Sugar barrels make fine turkey nests. And if they are placed in secluded

parts of the range the turkey mother is apt to find them and lay her eggs in a barrel where they can be watched and at least partially protected from the weather and pests. Often turkeys hide their eggs around brush piles and in high clumps of weeds. Then if the weather is cold and rainy the hatchability of the eggs will be injured. A turkey mother can look after a large brood about as easily as a small one and so the breeder greatly desires good hatches. Some breeders place turkey eggs under hens at the same time the mother turkeys are setting. Then the broods come off at the same time and the hen-hatched birds are given to the turkey mothers to brood.

### KEEPING BREEDERS VIGOROUS.

ONE of the important factors in the success with hatching eggs during the spring is the care of the breeding stock during the winter. Hens that are forced for eggs in the winter cannot produce the most hatchable eggs in the spring. Birds that are too fat will produce eggs lacking in fertility. If they are enclosed in small yards and do not have sufficient exercise it will injure the hatchability of the eggs.

Green food is a tonic to the hens during the winter and helps to keep them in condition to produce fertile eggs during the season of incubation. Exercise in a deep straw litter helps to keep them in good physical condition. Year-old and two-year-old hens produce the best and most vigorous chicks. They are naturally apt to take a rest during the winter after the previous summer's laying and that rest gives their systems a chance to recuperate and they have the vitality to produce hatching eggs with a strong spark of life. The pullets which have been fed for eggs during the winter cannot produce hatching eggs that are as valuable for that purpose as the eggs laid by the hens. That is why it pays to keep both hens and pullets. The hens are to be the breeding stock which rests in the winter, while the pullets are to be the producers, which bring in the winter egg money.

Many failures with poultry result from poor hatches and the mortality among weak chicks. Usually the incubator receives most of the blame. And the real reason is often a lack of vigor in the breeding stock. One of the poultryman's aims must be to keep the breeders vigorous during the winter and thus begin the plans for the spring hatching season long before spring arrives.

### SAVE PRACTICAL ARTICLES.

NEARLY every farmer has a collection of clippings or articles stored away in a drawer or empty box. The notes contain information that is valuable when needed, but it takes too long to sort over a pile of clippings when the farm work is pressing.

Buy some sheets of thin cardboard and fold them so that one side is a third of an inch longer than the other. On the projection write the name of the material which it is to contain, such as poultry ration, dairy notes, alfalfa, silage, etc. Place articles of trees and wild turkeys thrive under such conditions. Turkeys do not thrive under too much coddling. Place round poles in an open-front shed and that is all the protection from the weather they will need. Keep the turkey house clean and spray the roosts at frequent intervals. It will also pay to inspect the turkeys occasionally at night to see if they are getting enough to eat and are free from lice.

The cardboard files can be placed in a drawer in alphabetical order. Business correspondence can also be filed in cardboard folders. It is often useful to have old letters handy and business men keep all such correspondence and usually keep a copy of all important business letters for future reference.

R. G. K.



## Our Service Department

### OATS AND RYE FOR PIGS.

I have eight shoats, weighing about one hundred pounds, and am feeding oats and rye, ground, equal parts bulk. Would middlings at \$2.70 per hundred be cheaper? These shoats root each other almost continually. Is there any cure, and what is the cause?

Kalamazoo Co.

C. C.

Neither oats or rye are first-class feeds for growing fattening pigs. Each one can be used as part of the ration. If one has this sort of grain that he wishes to utilize, a small part of ground oats in a ration, and ground rye is all right, but the hull of the oats cannot be utilized by the pigs. They do not like it and will not eat it unless they are compelled to do so. Rye can be fed to hogs in small quantities, but this food, too, is not very well relished by pigs. You would have a much better ration if you would cut out either the oats or rye and substitute wheat middlings. It is hard to get a better ration for growing fattening pigs than wheat middlings. They contain the protein and carbohydrates in just about the right proportion and they are very palatable. There is nothing that pigs like better than good wheat middlings. Before now I have fed pigs on wheat middlings alone, but at the age and size of your shoats now, one-half of the ration now, by putting corn or barley with it, is all right. Nothing is better than corn if you have it, but barley is a good substitute when it is finely ground. If you wish to continue feeding oats and rye I would add barley or corn meal or wheat middlings, compounding the ration so that not more than one-half of it would be oats and rye. If you have some skim-milk for these pigs it would be a splendid combination. It furnishes the desired protein for growth.

It is difficult to say what causes the pigs to root each other. I am inclined to think that you are not giving them enough salt. Some people neglect altogether to give hogs salt, but this is not a wise thing to do. For every barrel of slop for hogs you ought to use about one pint of salt, and I am inclined to think that if you do this and add corn meal or ground barley that your hogs will thrive and that much of this rooting will be stopped.—C. C. L.

### HENS BECOME LAME.

During the early winter several of my Rhode Island Reds have first gone lame, then in a day or so suddenly died, although fat and hearty and apparently in good health except for the lameness. The disease affects all hens, both hens and roosters. What can I do to prevent the disease from spreading through the entire flock? Also will you please state whether Rhode Island Reds are more susceptible than other breeds.

Genesee Co.

H. V.

In cases of tuberculosis the affection often causes swollen joints and lameness. Such birds become dull and inactive and later extreme emaciation results in death. It would pay to perform a post-mortem on such birds to determine if there are any of the greyish nodules on the liver which also indicate tuberculosis. If this should be tuberculosis there is great danger that it will spread through the flock. It might pay to kill all the birds and have the carcasses inspected by a veterinarian to determine which are fit for food. Then a new start might be obtained from a vigorous flock after the premises have been disinfected. It will pay to have an experienced poultryman in your vicinity look over the flock, as a great deal can be told about the health and vigor of the hens from a personal inspection.

The Rhode Island Reds are consider-

ed one of the best and most vigorous breeds of poultry and we do not believe they are more susceptible to tuberculosis or other diseases than any of our best standard breeds.—R. G. K.

### WEIGHT OF SILAGE.

I have sold my farm and wish to sell my silage. Silo is 12x35 feet. The silage was made from home-grown seed corn that yielded at the rate of about one hundred baskets of ears to the acre, and was put up in good condition. Please advise me regarding its value per ton and the number of tons to the foot the silo would hold.

Gratiot Co.

R. H. M.

To find the number of tons of silage in a silo, ascertain the number of cubic feet of ensilage and multiply this by forty. Careful experiments show that on the average, corn silage will weigh forty pounds to the cubic foot.

It is difficult to state a price for ensilage because it is not bought and sold on the market like hay. The best we can do is to arrive at its comparative food value. For instance, the amount and proportion of food nutrients in silage compare very closely to those of timothy hay and experiments show that one ton of timothy hay is about equal in feeding value to three tons of good corn silage. Therefore, corn silage would be worth one-third as much per ton as timothy hay.

C. C. L.

### SWEET CLOVER.

I have some sandy soil that has been cropped until it is difficult to get a catch of clover. I would like to seed to sweet clover this spring. I thought some of sowing a nurse crop of oats, perhaps four or five pecks per acre, and seeding with sweet clover. And as I have not the barnyard manure to spare, how much fertilizer and of what analysis should I use to get a seeding? Could the clover be made to grow tall enough to cut for hay when the oats were just maturing?

Huron Co.

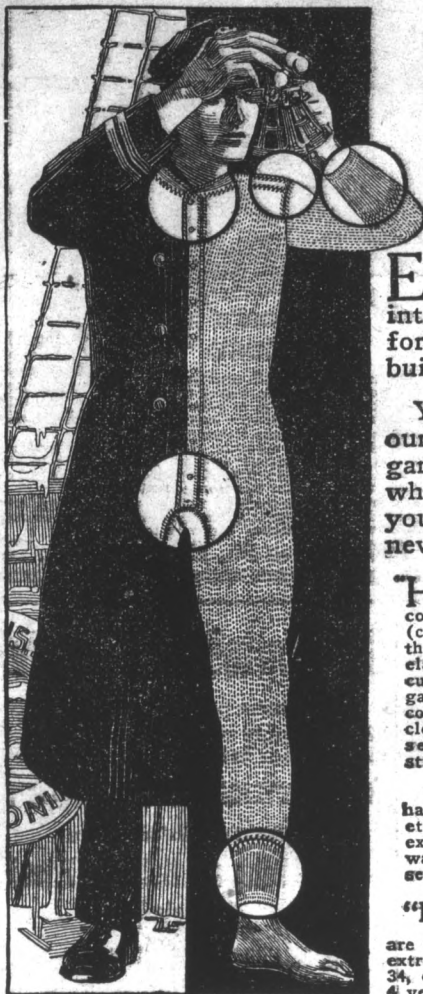
L. T.

Sweet clover will often make a satisfactory stand on soils so light that other clovers would be sure to fail. On your soil with favorable weather conditions and a light seeding of the companion crop you might get a stand of the sweet clover without any fertilizer or other treatment. However, the use of two hundred pounds per acre of a 2-8-2, or other good brand of mixed fertilizer, drilled in with the seed, would be a good investment. If the mixed goods can not be obtained, use the same amount of acid phosphate. One should also remember that sweet clover is a lime-loving plant and may give a poor, spotted stand on a sour soil. On one field which came to my attention last summer the sweet clover had made a stand only on that portion where limestone had been applied. Another thing to keep in mind is that sweet clover germinates poorly in a loose seed bed. If the field was in a cultivated crop last year, it should be fitted without plowing. Finally, try to secure scarified seed and be sure to inoculate it. A pure culture of the proper bacteria can be secured from the agricultural college for twenty-five cents, enough to treat one bushel of seed. You cannot hope to get any hay from the sweet clover the first year if sown with oats. Some pasture, however, may be secured after the grain crop is removed.

H. L. B.

When we follow a system of cover cropping with a legume crop once a year, there will be very little need of using fertilizers rich in nitrogen. The growth of the trees is a good indicator of the amount of nitrogen needed by the trees. The most successful peach growers are using an incomplete fertilizer with good results.

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**HANES**  
ELASTIC KNIT  
UNDERWEAR

EXTRA wear, extra warmth and extra comfort are built into "Hanes" winter underwear for men just as accurate time is built into a good watch!

Your own test will prove why our guarantee on every "Hanes" garment is so broad. We know what "Hanes" must deliver to you in satisfaction! "Hanes" never disappoints!

"Hanes" heavy winter weight union suits and the new silk trimmed, full combed yarn medium weight union suits (carrying the yellow Hanes label) have the non-gaping tailored collar and elastic knit, shape holding arm and leg cuffs; buttonholes last the life of the garment; an extra gusset assures extra comfort across the thighs; the "Hanes" closed crotch stays closed; pearl buttons sewed on to stay; reinforcements strengthen every strain point.

"Hanes" heavy winter weight shirts have the snug-setting elastic knit collar and arm cuffs. Drawers have an extra wide, durable 3-button sateen waist band that assures comfort and service.

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"We guarantee Hanes underwear absolutely—every thread, stitch and button. We guarantee to return your money or give you a new garment if any seam breaks."

Next Summer—You'll want to wear Hanes Nainsook Union Suits!

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NOT THE OLDEST BUT THE BEST HIDE AND FUR HOUSE IN AMERICA



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## NATIONAL GIANT SMOKE HOUSE

This is the same Smoke House used by Governor Cox of Ohio; by big breeders and farmers all over the country. In use on Agricultural Experiment Farms; pictured in a leading article by Country Gentleman, and recommended by Farm Paper Publishers all over the land.

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## A 7-Years' Success

Thousands of farmers in the U. S. and foreign countries will tell you that the National Giant Smoke House saves half their meat bills—gives them better, sweeter meat, fish for their own table. The wonderful National Giant Smoke House is portable; can be operated indoors or outdoors. Made in 3 sizes. Runs on sawdust and cobs and a little bark for seasoning. After smoking meats, use for store house. Fly and bug proof. Keeps meat without salting. Worth its price many times over for this storage feature alone. Contains valuable prize-winning recipes for curing and smoking Hams, Bacon, Sausages and Fish at home. Gives full description of the original. Write for it today.

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## BREEDERS' DIRECTORY

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## Wildwood Farms Angus

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

Our herd is under State and Federal Supervision.

## WILDWOOD FARMS

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Imported Herd Bulls  
ELCHO OF HARVIESTOWN (45547)  
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Reg. Aberdeen Angus bulls and heifers from 6 to 18 mos. old of the very best of breeding, also Berkshire Swine, boars ready for service and pigs both sex singles, pairs or trios, will accept Liberty Bonds.  
RUSSELL BROTHERS, Merrill, Mich.

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

## GUERNSEYS

Bull calves for sale. Sired by Anton's May King that sold for \$7,000. Farmers prices and guaranteed to please.  
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Four Guernsey Bulls out of Adv. Reg. dams. One month old to serviceable age. Also two heifer calves three months old. All by prize winning May Rose sire. Special prices if two or more are taken, write or visit.  
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Guernsey Bull Busto of Smallidge Farm, born Feb. 2nd, 1920. Sire Bennie of the Ridge, who's dam Trixy of the Ridge holds first place in class EE in Michigan. Granddam Abbie of Riverside is champion of Mich. Dam May Kings Ezalia of Eau Claire an A. R. cow.  
E. J. SMALLIDGE, Eau Claire, Mich.

GUERNSEYS—Federal Inspected. Headed by only 1 son of Carrie of Hillhurst, exchampion of A. A. class. 5 bulls under 10 mos., 1 a dandy whose dam in class D has given over 50 lbs. milk. No females to spare.  
G. W. & H. G. RAY, 4 mi. east of Albion, Mich.

GUERNSEY BULL CALVES whose sire's dam made 19,460.20 milk, 999.05 fat. Their mother's sire's dam made 15,109.10 milk, 778.80 fat.  
T. V. HICKS, Battle Creek, Mich.

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

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

For Sale 2 Registered Guernsey cows 6 register ed bulls ready for service, call or write.  
JOHN EBELS, R. 2, Holland, Mich.

Long Distance HOLSTEINS. HERD SIRE PRINCE OMA Five dams av. 1186 lbs. butter and 24771 lbs. milk in 1 yr. Bulls all sold. State and Federal Supr.  
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## NOTICE

## The Winwood Herd

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

## JOHN H. WINN, (Inc.)

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## OUR HERD SIRE Model King Segis Glista

By a 30 lb. son of Lakeside King Segis Alban De Kol. His dam Glista Fennelle 32.37 lbs. Her dam Glista Ernestine 35.96 lbs. His three nearest dams average over 33 lbs and his forty-six nearest tested relatives average over 30 lbs. of butter in seven days. Write for prices on his sons.

## Grand River Stock Farms

Cory J. Spencer, Owner Eaton Rapids, Mich.

## The Traverse Herd

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

## TRAVERSE CITY STATE HOSPITAL

Traverse City, Mich.

## Superior Holsteins

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

## Bull Calves

sired by my new herd bull, a grandson of

## May Echo Sylvia

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

## A. W. COPLAND

Birmingham, Mich.  
Herd under state and federal supervision

## WANTED:

One to twenty registered Holstein females, cows or heifers, or will buy a small herd, for spot cash. Must be free from abortion and stand tuberculin test. Please state full particulars in first letter, as to condition, prices, ages, herd book numbers and breeding. No fancy prices. Lock Box 118, Shepherd, Mich.

Additional Stock Ads. on Page 712

## Our County Farm Bureaus

(Continued from page 689).

me a half-hour interview, and I learned that, in his opinion, the big job now before the local bureau is the merging of the local cooperative elevators with the bureau organization, and also the forming of closer plans for marketing and buying. Mr. Learman planted this year thirty-two acres to oats, nine acres to wheat, fifteen to rye, five to barley and twenty-five acres to beans, which threshed about twenty bushels to the acre. He also cut one hundred and fifty acres of hay, and had eighty acres in pasture.

Theodore Priemer manages a farm of two hundred acres in Sherman township. He is a member of the executive committee, and believes that the most important work of the local bureau is encouraging the farmers to stick together for their mutual benefit, and to satisfy them in all dealings with the organization. "What is needed," he said, "is more active cooperation in marketing, and to this end the elevator exchange would be a good thing, if it is handled right."

Mr. Priemer is a pioneer of Huron county, having settled there in 1876, when the country was wild and farming a hazardous occupation. In 1887 he took the farm where he lives, and has developed it into a fine property. He raises hay, wheat, corn and general farm crops; uses a tractor and six horses.

Otto Pobanz, of Pobanz Brothers, general farmers, is the member of the executive committee from Sebawaing township. He is one of the farm leaders and believes that the local farm bureau should undertake to get a "sufficient percentage of the farmers to sign the crop agreement contract for grain, beans and, most important of all, sugar beets." He lives in the great sugar beet district, which comprises the west half of the county, and naturally knows the needs of the farmers respecting that product, at least.

The Pobanz farm, situated in the richest part of the Thumb country, comprises one hundred and sixty acres and the land is portioned out to wheat to an acreage of thirty, of beans to forty, of corn to twenty, and oats, barley and hay in like quantities. The brothers feed about twenty-five steers each winter, and average one hundred hogs for market yearly.

One of the most interesting farms I visited was the Carr Brothers' farm, in Bloomfield township, thirteen miles northeast of Bad Axe. It comprises three hundred and twenty acres devoted entirely to the breeding of registered Shorthorns. The owners are authorities on high-grade stock and pride themselves on the possession of the bull, Royal Bruce, No. 795521, a two-year-old imported calf. They bought him a year and a half ago, when eight months old, for the sum of \$6,000, and he promises to raise the standard of stock through Huron county. At the Huron County Fair, where more than two hundred head of registered stock were exhibited, Royal Bruce took first prize, and is regarded as the best bull in the Thumb. The owners have a bull calf from him, four months old, that they refused \$2,000 for a short time ago. The farm is ideally located for stock breeding, and the buildings are well equipped.

A business of great importance to the clover belt between Bad Axe and Port Austin is the apiary of David Running at Fillion. He has engaged in this business for nineteen years, succeeding his father who was an authority on bee culture. His holdings now consist of three hundred colonies, divided in summer into five apiaries, none of which is nearer than four miles from its neighbor. The honey

house, shop and cellar, at Fillion, is a model of its kind, being constructed of concrete and hollow tile, and carefully planned to meet every need of a growing business. The cellar is particularly worthy of notice, as it is entirely below ground, has thick concrete walls and floor and with ceiling covered with twelve inches of dry sawdust and an air space of six inches to the floor of the shop. With heavy double doors with a sixteen-foot space between, an average temperature of forty-five degrees is maintained regardless of the weather. In this cellar Mr. Running winters his bees, which is a much more satisfactory practice than to leave them outside, as formerly done.

The trade in honey, which is packed in five-pound and sixty-pound sealed cans, extends to all parts of the country, shipments having recently been made to Washington, Nevada, Kansas and the New England states. The total production this year was about twenty tons, and the honey here produced has a high rating owing to the pure sweet clover grown in Huron county. There are scarcely any weeds or foreign growth in the thousands of acres of sweet clover here grown, a condition due very largely to the millions of bees that swarm over the fields. As Mr. Running remarked, "bees are more valuable for their work in producing pollination of clover and fruit than for the honey they produce; and this is the reason farmers encourage the culture of bees as a business."

Four miles south of Fillion, on the trunk line highway to Port Austin, is the valuable stock farm of Elvin Brothers. They are very progressive and are united in the belief that all farmers should "pull together and agree on the solution of the many problems arising." In speaking of the sugar beet situation, they remarked that farmers should not oppose reasonable terms with the refiners, but that they were entitled to a conference for a right solution of the trouble.

The Elvin Farms consist of two hundred acres of rich land, divided this year to forty acres of hay, twenty acres of oats, seven acres of rye, ten of barley and fifteen acres of sugar beets.

Registered Holsteins are the pride of the farms, the head of the herd being Ormsby Korndyke Huron, son of Ormsby Korndyke Lad. Their barns are of approved type, electrically lighted and supplied with running water. In fact, the whole property shows careful attention to best methods in farming, the cozy, comfortable farm homes having every convenience enjoyed by city dwellers.

Another big farmer, whose property is located in Verona township, is Sam Pangborn. His farm is in the gently rolling country east of Bad Axe. For nineteen years they have farmed there, and the three hundred acres was this season divided into sixty acres of pasture, twenty-five acres of hay, twenty acres to oats and thirty acres to wheat. No sugar beets were grown. They breed Shorthorn cattle, of which there are about fifty head.

Hardware is high and it pays to gather up all the water dishes and sanitary fountains which have been used in raising the young stock. Next year such equipment will be useful but it will not last long if allowed to remain on the ground. The brooders should have been cleaned up before this and wipe all the metal parts with oiled rag to prevent rusting. A prompt repair of poultry house roofs is necessary to prevent deterioration of equipment.

R. J. K.





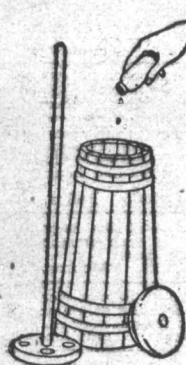
# Aspirin

Then It's Genuine

Unless you see the name "Bayer" on tablets, you are not getting genuine Aspirin prescribed by physicians for 21 years and proved safe by millions. Always say "Bayer."

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

## Use Dandelion Butter Color



Add a half-teaspoonful to each gallon of winter cream and out of your churn comes butter of golden June shade to bring you top prices.

### DANDELION Butter Color

All stores sell 25-cent bottles, each sufficient to keep that rich, "Golden Shade" in your butter all the year round. Standard Butter Color for fifty years. Purely vegetable. Meets all food laws, State and National. Used by all large creameries. Will not color the buttermilk. Tasteless. Wells & Richardson Co., Burlington, Vermont.

## \$500 SAVED

On 100 PIGS by FEEDING

### ACME PIG MEAL

Equal to Milk Protein 28½%

### A COMPLETE RATION

FOR PIGS AND BROOD SOWS  
Fed to fattening hogs for half the cost of Tankage.

**\$1.65** worth of Acme Pig Meal feeds a pig until five months of age.

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On trial. New, well made, easy running, easily cleaned, perfect skimming separator. Skims warm or cold milk. Different from picture which shows larger capacity machines. Our guarantee protects you. Get our plan of easy

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and handsome free catalog. Whether dairy is large or small, write today. Western orders from Western points.

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Please mention the Michigan Farmer when writing to advertisers.

### CONDENSED MILK MARKET DULL.

THE condensed milk market continues to be in a state of hopeless inactivity, except for a very moderate domestic demand. There is very little export inquiry and no actual orders have been reported of late. The condition of foreign exchange, together with the fact that considerable condensed and evaporated milk are being produced in Holland and European countries, makes foreign interest almost negligible. To add to the seriousness of the situation, little hope is felt that conditions may become better in the future. One outstanding fact continues and that is that the condensed milk industry is in a panicky condition.

It was hoped by condensed milk manufacturers that by curtailing their output until the beginning of the new year it might be possible then to operate their plants again at full capacity. However, it now seems that the greater percentage of the plants will be closed for an indefinite period, if not permanently. The larger corporations while moving some of their accumulated stocks still find themselves holding immense quantities. That those stocks will not be entirely moved during the next year is freely predicted.

Aside from the well advertised brands of condensed and evaporated, there has been a downward trend of prices of all other classes. It is fully expected that the highly advertised brands will show a price decline before many weeks pass. The present prices of such brands are purely artificial, being held at those figures simply because the manufacturers will not sell at lower figures.—L.

### POTATO MARKETING.

(Continued from page 694.) goes to show that the increase is mainly in the smaller producing states, and perhaps in the territory or portions of it that constitute the outlet for the surplus Michigan crop. If this is the case, the usual demand will be lacking and the market will be relatively inactive during the year.

This condition demonstrates the fact that, in the leading states, farmers are not inclined to change their acreage very materially because of high prices obtained the previous year, but that this tendency is very strong in the lesser producing states.

The government is contemplating the collection of information early each spring relative to the intention of farmers to plant. It is believed the publishing of that information will have a wholesome effect. Where an abnormally large acreage is intended for a given crop, this advance information will cause a reduction in the area planted. Likewise it will stimulate the acreage where under-production is indicated. By thus stabilizing the acreage and, through the aid of cooperative marketing organizations, distributing the marketing more uniformly throughout the year, better returns may be expected by Michigan potato growers.

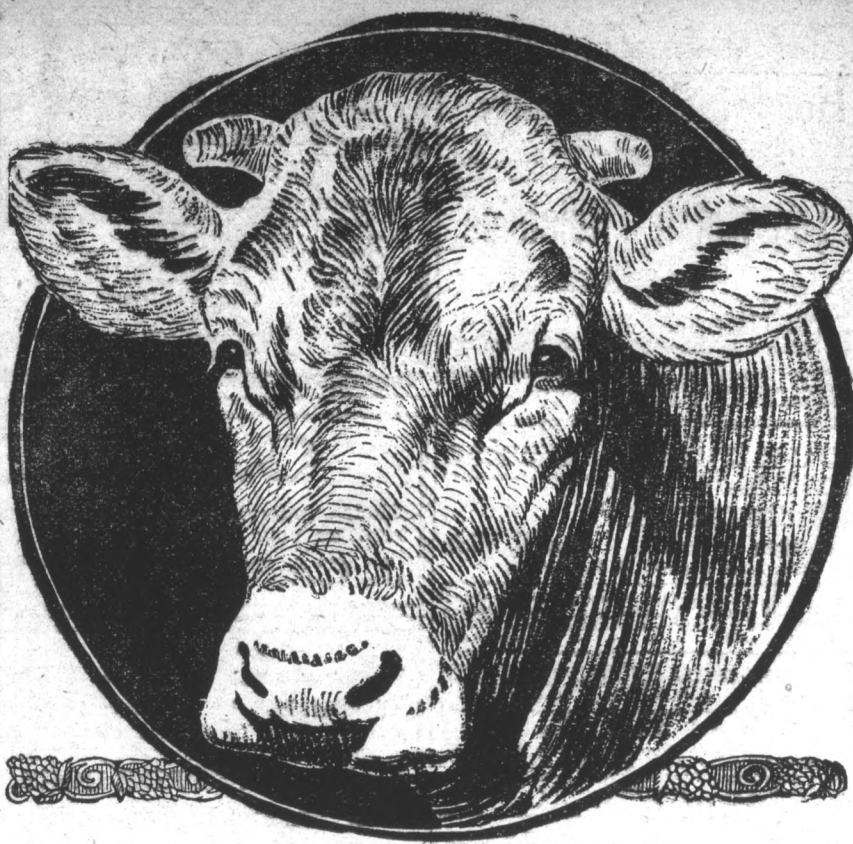
### APPLES TO DAIRY COWS.

Will you kindly advise me as to whether apples fed to milch cows will dry them up or not? Some say they will.

Newaygo Co.

E. L. L.

There is nothing whatever in the idea that apples will dry up dairy cows. Cows like them and they furnish a splendid succulent food if you have no other. Of course, if a man should attempt to feed an entire ration of apples the cows would fall off in their milk supply, because the food value compared to the weight is quite small, but if you would feed one peck or one half bushel a day in connection with other feed you will find that they will not only be relished by the cows, but will increase the flow of milk.—C. C. L.



A year's record of this BROWN SWISS: 16,538 lbs. milk, 646 lbs. butter fat. A good example of carefully safeguarded health.

## Dairy Profits Depend On—What?

GOOD feeding and good breeding, partly, of course. These are routine considerations every dairyman knows. But, after all, the health consideration is the real fundamental.

As a milk-making machine, the dairy cow's production must depend on her bodily health—entirely. Actual or approaching disease can soon wipe out a cow's profit balance.

Because the hard-worked organs of production and reproduction are a natural prey of disease, the medicinal proper-

ties of Kow-Kare have been designed especially to tone up and strengthen these organs. Such cow ailments as Barrenness, Abortion, Retained Afterbirth, Scouring, Lost Appetite, Bunches can be prevented or successfully treated by cow owners with the aid of this wonderful medicine.

A trial will cost little; results will be conclusive. Sold by feed dealers, general stores and druggists, 70c and \$1.40 packages. Write for free book "The Home Cow Doctor."

### DAIRY ASSOCIATION COMPANY

Lyndonville, Vermont

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



## Col. Fred Reppert's AUCTION SCHOOL

Livestock Judging and Pedigree Study

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Term Opens January 3, 1921

Colonel Reppert, known to nearly every auctioneer and livestock man in America, will personally have charge of this school, thereby giving to the students the advantage of his years of successful experience in the auction work. Mr. Auctioneer, do you want to increase your earning power? Do you want to reach the top of your profession? If so, send at once for the free book of information regarding this school, term, etc.; it will interest you. Address

**COL. FRED REPERT'S AUCTION SCHOOL**  
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## MICHIGAN LIVE STOCK INSURANCE COMPANY

INDEMNIFIES Owners of Live Stock—Horses, Cattle, Sheep and Hogs  
Against Death by Accident or Disease

308 Davidson Building,

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

## Holsteins of Quality

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

## "Top Notch" Holsteins

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

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

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

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

His 4 nearest dams average 25.39 lbs. butter in 7 days. Dams, a 22 lb. cow with a daughter who produced 38.744 lbs. milk and 1543 lbs. butter in two consecutive years. Price \$125.00 f. o. b. Howell.

No. 1 Bull about one quarter white.

No. 2 Bull about half and half.

McPherson Farms Co. Howell, Mich.

Our herds under U. S. Supervision.

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

Reg. Holsteins For Sale. A few choice cows and heifers. 2s. 3w. St. Johns. J. R. HICKS, St. Johns, Mich.

Federal Herd Bull For Sale. Accredited for service. Dams records, 7 da. milk 467.50. Old enough for service. Dams records, 7 da. milk 467.50. Dams, a 22 lb. cow with a daughter who produced 38.744 lbs. milk and 1543 lbs. butter in two consecutive years. Price \$125.00 f. o. b. Howell.

## An Introduction

Mr. Dairy Farmer, Mr. Holstein Breeder Meet KING FLINT

ALL THREE are working to a common purpose—to increase the production of Michigan Dairy herds.

We believe all three should work together.

We feel sure that no Michigan bull has ever been better equipped for the work.

We have it on high authority that there are none better individually.

His three nearest dams each averaged to produce 100 lbs. butter and 2100 lbs. milk per month for a full lactation period with an average of 3.8% fat.

His dam is one of Michigan's greatest family—three full sisters that have produced over 30 lbs. butter in seven days, two of them producing over 700 lbs. milk, and two of them producing more than 1000 lbs. butter and 21000 lbs. milk in ten months.

His sire is the direct descendant of three generations of 30 lb. cows and two generations of 1200 lb. yearly record cows.

His first three sisters to enter yearly test will each produce more than 800 lbs. butter and 17000 lbs. milk as heifers.

Let King Flint Help You Improve Your Herd Through One Of His Sons

A son of this great young sire suited to head any herd in Michigan, grade or purebred, can be secured in Genesee County and we want them all to stay in Michigan.

Write us about your herd, tell us what you need and what you feel you can afford to pay and let us help you find just what you want in Genesee County, the center of Michigan's long distance dairy cattle.

Genrida Farm Walter T. Hill Davison, Mich.  
Elmcrest Stock Farm G. L. Spillane & Son Co. Clio, Mich.

## Cluny Stock Farm

Offers the best selection of young bulls from 8 to 12 months we ever raised; out of dams up to 29.76 for aged cows and over 26 lbs. for 2 yr. olds. Yearly records up to 24000 lbs. milk and 1000 lbs. butter. Sired by our Senior Herd Sire, Maplecrest Application Pontiac, whose dam made 35 lbs. butter in 7 days and 1344 lbs. butter and 23421 lbs. milk in a year, or by Dutchland Konigen Sir Rag Apple, our Junior Herd sire, whose dam is a 30 lb. 10 yr. old maternal sister of Dutchland Colantha Denver who made 36 lbs. in 7 days and 1315 lbs. butter and 25431 lbs. milk in 1 year. Several carry the blood of both these sires.

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

Send for pedigrees and prices.

R. Bruce McPherson, Howell, Mich.

\$100

## Registered Holstein Bulls

Best blood in America. Ready for service, grandson of King of the Pontiacs. Herd sire King of the Pontiac Segis.

Herd under State and Federal Supervision.  
JAMES B. JONES FARMS  
ROMEO, MICH.

## Here Is A Good One.

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

Hillcrest Farm, Mgr. F. B. Lay, Kalamazoo, Mich.

Registered Holstein Bull Born Dec. 19, 1919. Sire a son of King Ona. His dam is a 21 lb. daughter of a 21 lb. cow. Price \$90 delivered your station. Write for pedigree.

EARL PETERS, N. Bradley, Mich.

\$75 gets 6 weeks old gds. of Maplecrest Korn Heng. and Flint Heng. Salina 27.09 butter 561.2 milk in 7 days. Calf's dam is my best untested cow. Terms. M. L. McLAULIN, Redford, Mich.

Reg. Holstein-Friesian Bulls ready for service and priced to sell. Light in color and richly bred.  
B. B. REAVEY, Akron, Mich.

Herefords Double Disturber bull at head of herd. Offer 52-yr. olds, bred, 9 yearling and 5 heifer calves. Fairfax breeding. Bulls any age.  
EARL C. McCARTY, Bad Axe, Mich.

# JERSEYS

## The Cows Without a Fault

TWO-HUNDRED years of careful breeding, with the milk-end always in view, have made Jerseys the ideal dairy breed. Truly they are the cows without a fault.

Jerseys milk earlier and longer—have the shortest "dry" period—thrive anywhere—breed true to type—are willing workers.

Write to the Jersey Information Bureau for the facts about The Profit Breed and stories of farmers who are making good with Jerseys.

The American Jersey Cattle Club  
324-R West 23d St., New York



# O. I. C. BOARS

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

J. CARL JEWETT, Mason, Mich.

# O. I. C. HOGS

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

CRANDELL'S PRIZE HOGS, Cass City, Mich.

## GRADE HEREFORDS

We offer the following  
of our own raising, 25 head yearling steers, 35 head stock calves, also 30 head heifer calves, these heifer calves would make a good foundation for a here. SANILAC STOCK FARM, Berkshire, Sanilac County, Detroit Office, No. 76 Broadway.

Hereford bull for sale Woodland 2nd., 495678. Descended from Dale and other first class stock. A good sized bull, a sure breeder and priced to sell. J. C. Thomas, Silver Birch Ranch, West Branch, Mich.

## The Reconstruction Period Is Upon Us

Economy must be the farmers watchword.

Doubly so the dairyman's watchword.

In "Chicago Test" 1893 the Jerseys returned a greater net profit than any other breed.

In "St. Louis Test" 1904 Jerseys produced a pound of butterfat for each 12 pounds of feed. Most of any breed.

In "Ohio Test" 1917 Jerseys produced 52 pounds of butterfat for each 1000 pounds of feed. Nearest competitor only 38 pounds of butterfat.

The Jersey is a winner.

Be a winner by breeding Jerseys.

Write Sec'y Henriksen of Shelby, Mich. for more Jersey facts.

## The Wildwood Farm

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

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

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

Lillie Farmstead Jerseys 2 R. of M. bull calves, one year old this fall.  
C. C. LILLIE, Coopersville, Mich.

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

Jersey bulls for sale: From Marguerite's Premier a grandson of Pogue 9th. and R. of M. dams. SMITH & PARKER, R. 4, Howell, Mich.

Meridale Interested Owl No. 11311 heads my herd bull calves from this great sire and out of R. of M. dams for sale. Leon E. Laws, R. 6, Allegan, Mich.

## Claradale Milking Shorthorns

Are Officially Supervised by Michigan Agricultural College. The two year old Fancy Duchess Maid 8,336 lbs. milk, 378 lbs. fat, 4.56 percent average. Rose Mist 8709 lbs. milk 425 lbs. fat, 4.75 percent average. Fancy Ring 7295 lbs. milk 267 lbs. fat 8 mo's. Peri Duchess 27th 6964 lbs. milk 232 lbs. fat percent 4.21. 2d calf. We have other good cows under state supervision, our records are made under every day farm pasture conditions twice a day milking only. We can price you bulls from 2 months to two year olds. Sired by the Great Bull Lord Harrington 5th. and Green Leaf Master Imp. Your success is our success. Come and see us, or write your wants to F. W. JOHNSON, Box 26, Custer, Mason Co., Mich.

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BUY A BULL

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

BIDWELL STOCK FARM,  
Box D, Tecumseh, Michigan

## The Maple's Shorthorns

Kirklevington Lad, by Imp. Hartford Welfare. In service, bulls for sale.

J. V. WISE, Gobleville, Mich.

## Bloomdale Shorthorns

See our cattle get our prices and breeding before buying. Both bulls and females for sale.

CARR BROS. & CO., Bad Axe, Mich.

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

## Richland Shorthorns

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

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

## BRANCH COUNTY FARM

Breeders of American Polled Shorthorn Cattle

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

## Maplewood Shorthorns

Two bull calves of good milking dams and sired by our herd bull, Maplewood Jeweller, both calves are splendid individuals. Harter & Easton, Jenison, Mich.

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

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

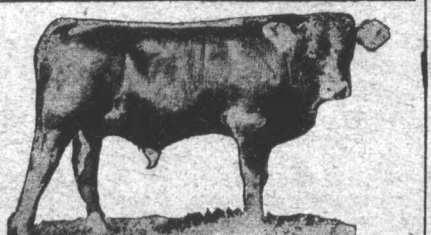
MEADOW Hills Shorthorns. Herd headed by Silver King, full brother of Lavender Sultan Purdue University's great sire. For sale females of all ages, a few young bulls. Geo. D. Doster, Doster, Mich.

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

Milking Shorthorn 3 mos. heifer calf \$125 bred heifers and serviceable bulls at farmers' prices. Central Mich. Shorthorn Assn. Oscar Skinner Sec. Gowen, Mich.

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

Reg. Red Polled Bull calves for sale, from 3 mos. to 1 year old, sired by Famous Charnier grand son of Charnier 1919 International Grand Champion.  
WESTBROOK BROS., Ionia, Mich.



## FOR SALE: A few choice registered BROWN SWISS

yearlings and calves.  
SAMUEL WILLIS, Owosso, Mich.

## HOGS

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

BERKSHIRES Large growthy glits, bred or open. Serviceable boars. W. H. EVERY, Manchester, Mich.

## Quality Berkshires

2 BOARS, 4 SOWS. May farrow. Littermates, sired by Prince of Rudgate (236191) and out of Hilltop Model 2nd. (290816)

All of these pigs are good, growthy individuals that should be in the hands of some Berkshire breeder or farmer where they will have a chance to make good. Write or visit farm.

WILLIAM ROBERTS  
Lone Pine Road, Birmingham, Mich.

Fine Registered Berkshire pigs for sale, prolific, large litters.  
C. H. WHITNEY, Merrill, Mich.

## Brookwater Duroc Jerseys

BOARS—Ready for Service

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

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

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

## BROOKWATER FARM

ANN ARBOR, MICHIGAN

H. W. Mumford, Owner J. B. Andrews, Mgr.

## DUROC JERSEY SWINE

for sale 2 yr. old herd boars, yearling boars and boar pigs, also bred sows and glits. Write for pedigrees and prices. Come and see them.

THOS. UNDERHILL & SON, Salem, Mich.



Spring pigs by Walt's Orion, First Sr. Yearling Detroit, Jackson, Gd. Rapids and Saginaw 1919

Phillips Bros, Riga, Mich.

For Sale Duroc Jerseys of the big heavy boned type.  
CHAS. BRAY, Okemos, Mich.

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

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

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

Duroc Jerseys Boars of the large heavy boned type at reasonable prices. Write or better come and see.  
F. J. DROTT, Monroe, Mich.

Michigan Farm Durocs. Service boars and open glits for sale at \$40 and \$50. These are real hogs. Satisfaction guaranteed.  
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Write Me at once I have just what you want heavy bone registered Duroc Jersey boars ready for service.  
W. H. MAYES, L. B. 505, Durand, Mich.

Duroc Jerseys Boars sired by Ed's Defender Col. and Thorn Apple Col. The 2nd one yearling Boar by Orion's Fancy King.  
FREY BROS., Caledonia, Mich.

Duroc Jersey boars from 6 mo. to 1 yr. old. Young sows old enough to breed for spring litters all in good condition and at fair prices. Safe delivery guaranteed.  
W. E. BARTLEY, Alma, Mich.

## DUROC JERSEYS

Carey U. Edmonds, Hastings, Mich.

## DUROC JERSEYS

Boars and glits by Mich. Pathfinder. E. D. HEYDENBERG, Wayland, Mich.

PLEASANT View Durocs. Choice spring boars and glits. Come and see or get our price before buying.

W. C. BURLINGAME & SON, Marshall, Mich.

### Raise Chester Whites

Like This  
the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at 3 months old. Write for my plan—More Money from Hogs.  
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

SPECIAL prices on Fall, Winter and Spring boars during October.  
WEBER BROS., R. 2, Royal Oak, Mich.

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

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

O. I. C's 2 March boars \$40 each. Fall pigs by C. O. Big Callaway.  
C. J. THOMPSON, Rockford, Mich.

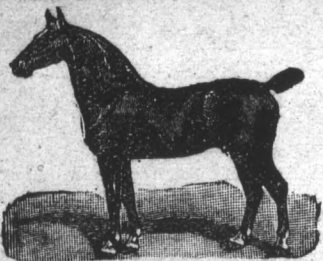
## Central Mich. O. I. C. Swine Breeders Ass'n.

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

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



## Warranted to Give Satisfaction Gombault's Caustic Balsam



**Has Imitators But No Competitors**

**A Safe, Speedy, Positive Remedy for**

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

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

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



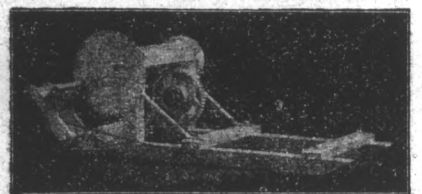
The tank heater with the **Improved Burner**. Different from others. **New Features.** No sparks, no smoke, no ashes, no danger from fire, no heat wasted. All heating space under water. Compact, convenient and easily handled. Keeps water at even temperature in coldest weather. Made of heavy steel. All seams welded. Fits any wood, steel or concrete tank. Pays for itself first year. Don't buy until you get the facts and price of the **ACME**. It's Guaranteed.

### ACME NON-FREEZE Hog Waterers

Made of galvanized iron. Three different styles to choose from. All guaranteed not to freeze. **Live Farmer Agents Wanted.** Write today.

**ACME CO., 150 Main St., Washington, Ia.**

## Coal is High and Scarce Make Money by Cutting Wood



### GASKELL'S GEARED BUZZ SAW

The only buzz saw that can be operated successfully with a small engine. We also build buzz saw outfits without gears, for larger engines. Can furnish you with fly wheels, boxes, saws, shafts, pulleys, &c. Write for circulars and prices.

**The Gaskell Mfg. Co. Morenci, Mich.**

### HOGS

**O. I. C's.** One last fall boar wgt. 425, two last fall gilts, bred lots of spring pigs and this fall pigs either sex, good growing stock 1/4 mile west of Depot. Otis's. Phone 124. Otto B. Schulze, Nashville, Mich.

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

**O. I. C.** Serviceable boar's. A few extra good boars at farmers' prices. H. W. MANN, Danville, Mich.

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

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

Large type Poland Chinas spring boars ready to farrow. Everything immune from Cholera. A. A. FELDKNAP, R. No. 2, Manchester, Mich.

## Poland Chinas

Spring boars and gilts from the Sr. Champion boar at the State Fair at Detroit this year also Grand Champion at West Mich. Fair at Grand Rapids weighing 1025 lbs.

If you want something that will give you satisfaction let us sell you a boar or gilt.

**ALLEN BROS., Paw Paw, Mich.**

6 boar pigs best I have raised in my 15 years of breeding sired by Big Bob Mastodon a son of the world's champion. Price \$50 and 50 fall pigs send orders now. O. E. GARNANT, Eaton Rapids, Mich.

## 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.

**Umbilical Hernia.**—I have an eight-week-old hound puppy that has a soft bunch at navel. Would like to know if the pup can be cured? J. M. Pickford, Mich.—If left alone the pup may recover; if not, a surgical operation can be performed that will effect a cure.

**Bruised Hock Joint.**—Some time ago my four-year-old colt was kicked, bruising the hock joint, causing it to swell. I applied a liquid blister, which reduced the swelling some, but considerable swelling remains. Have been applying hot water daily, but I fail to notice any improvement. Can swelling be reduced? C. J. S., Rockford, Mich.—Clip off hair and apply one part iodine and eight parts fresh lard three times a week, until the swelling reduces.

**Lymphangitis.**—Puffed Hock.—We just purchased a team of horses and one mare has big hind leg. It is thickened to hock, besides the hock joint is puffed, but swelling is soft. She is not lame, exercise has a tendency to reduce the swelling. How can swelling be reduced? D. S., Mason, Mich.—Your mare suffers from chronic lymphangitis and bog spavin, or thoroughpin. Apply equal parts tincture of iodine and spirits of camphor to hock daily. Hand-rub leg twice a day, don't forget to exercise her every day. Feeding her too much grain and failing to exercise her when idle is very likely the cause of thick leg.

**Sprain.**—Have been reading Michigan Farmer for many years. Would like advice regarding my nine-year-old horse that slipped on cement floor and hurt himself, causing him to stand with feet well apart, he also shifts feet. In a chronic case of this kind is there a remedy? N. D., Decatur, Mich.—The writer is inclined to believe that your horse is incurable; however, if you can locate the weak muscles and apply equal parts of turpentine, aqua ammonia and raw linseed oil every day or two it will help him. The rest he has had should have made him well ere now.

**Chronic Vaginitis.**—I have a three-year-old heifer which freshened last May out in a cold rain. I called veterinary and he said she would get along all right, but it would take time. She comes in heat every two weeks, has a thick yellow colored vaginal discharge, is low in flesh. Have thought she would not get with calf until she came in heat every three weeks. A. B. C., Cass City, Mich.—Give her one ounce doses of baking soda in feed or in drinking water twice a day. Dissolve thirty grains of permanganate of potash in one gallon of water and with fountain syringe wash out vagina daily. Use not less than one quart each time. When vaginal discharge ceases, she will perhaps get with calf.

**Imperfectly Developed Udder.**—Holstein heifer, due to freshen September 20, has very little milk in fore quarters, but back quarters are well filled. What can be done for her? A. J. K., Burr Oak, Mich.—After she comes fresh gently hand-rub the fore-quarters and milk her clean.

**J. B. Rhodes, Mich.**—Your ten-year-old cow which suffers from chronic garget, besides fails to come in heat, had better be fattened and sold for beef. She will perhaps never again breed and, of course, must prove unprofitable for dairy purposes. Your thin horses may perhaps need more flesh-producing food. Notice if their grinder teeth are in good order; they may require floating. Go to a drug store and secure some iodine ointment and apply some to cows under three times a week. Giving your old cow nux vomica and capsicum might bring on heat. As you say, nux vomica is a poison, but 30 or 60-grain doses will do your cow no harm.

**Congestion.**—Whenever my five-year-old cow is not regularly milked, she is in pain, seems to swell about the head and neck, but soon as milked clean she gets all right. What shall I give her? A. A., Bronson, Mich.—A good cow is often ruined by irregular milking. You should plan to milk her regularly, this is the remedy, but it will help her, if she is given two teaspoonfuls of acetate of potash twice a day, when her head or throat is swollen.

**\$4,000 from 4 acres of apricots**  
**\$7,500 from 20 acres of peaches**  
**\$25,000 from 35 acres of grapes**  
(Cut these figures in two, to be safe, and returns still are large)

# San Joaquin Valley California

There is but one California. It is a garden. It is a scenic paradise. It is the place of no winter. You get the most out of life for yourself and family. See it, this winter, when the East is snowbound.

## You Can Farm All Year in California



No storing costly fodder for months of snow and ice. Here you can profitably raise alfalfa, grain, fruit, stock and poultry. You have benefits of established communities. Schools are ready, and fine roads. The various fruit associations have a remarkable marketing system. You raise the fruit; no bother about markets. That problem has been worked out for you.

Land values still are within reasonable bounds—considering what you get in return. The San Joaquin Valley can support many thousands of families, on twenty and forty acre tracts. The world competes for what you raise, because of superior quality.

Our illustrated folders, descriptive of California lands, and the trip there, mailed on request. Let me help you plan your trip, and advise about places worth looking over.

C. L. SEAGRAVES, Supervisor of Agriculture, A. T. & S. F. Ry.,  
926 Railway Exchange, Chicago, Illinois.

## 5 daily trains to California

## L. S. P. C.

Everything sold previously ad. 25 spring pigs placed on the bargain counter for mo. of Sept. pairs or trios not akin.

H. O. SWARTZ, Shoolcraft, Mich.

## Big Type Poland Chinas

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

**For Sale O. I. C. Swine.** Strictly Big Type with quality. Have a few good boars and gilts left of same type and blood lines. That won't for us at Ohio and Michigan State Fairs. Priced very cheap. Write us before you buy. **NEWMAN'S STOCK FARM, MARLETTE, MICH.**

**My! Oh My! What An Opportunity**  
We are now offering a few choice big type Poland China Boars, from Big Smooth Jones, one of the breeds best sires, from dams by such noted sires as Grand Master, Hillcrest Wonder, Mastodon Wonder and Hillcrest Bob.  
You can't get better breeding. Individually they will please you. Price \$50.00.  
**HILLCREST FARM, Kalamazoo, Mich.**

## L. T. P. C.

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

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

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

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

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

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

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

## Edgewood Hampshires

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

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

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

### SHEEP.

**Delaine** Rams B. & C. type, having size, quality, best of breeding, priced to sell, write.  
**S. H. SANDERS, R. 2, Ashtabula, O.**

### WHITTUM FARM SHROPSHIRE

A fine lot of imported and house bred yearling ewes and rams for sale. A fine chance to start a new flock or improve the old one call at the farm or write for just what you want.  
**C. H. WHITTUM, Eaton Rapids, Mich.**

**For Sale SIX REGISTERED SHROPSHIRE** PRICES VERY REASONABLE. ALSO SEVEN GOOD GRADE HOLSTEIN COWS AND TWO YEARLING GRADE HOLSTEIN HEIFERS.  
**GOTTFREDSON FARMS, YPSILANTI, MICHIGAN**  
**L. H. LEONARD, MGR. PHONE 74913, YPSILANTI.**

**FOR SALE** 35 Registered Shropshire yearling rams and ram lambs. Also some choice Dorset Jersey boars and gilts.  
**CLIFFORD MIDDLETON, Clayton, Mich.**

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

**Shropshire Rams** lambs, yearlings and 2 yrs. old, priced right.  
**CARL TOPLIFF, Eaton Rapids, Mich.**

**Shropshires** Yearling and rams, with quality, from imported stock.  
**W. B. McQUILLAN, R. 7, Howell, Mich.**

**Shropshires** yearling rams. Ewes of all ages. Priced right.  
**W. B. KELLY, Ypsilanti, Mich.**

**Shropshire Rams** yearling or lambs for sale.  
**ARMSTRONG BROS., R. 3, Fowlerville, Mich.**

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

**Registered Shropshire Rams and ewes** all ages for sale. Well-worled with size and quality.  
**R. F. Mouser, R. 6, Ithaca, Mich.**

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

**SHROPSHIRE** Yearling rams, in price and quality.  
**W. E. MORRISH, R. 5, Flint, Mich.**

**Reg. Hampshire Down ram lambs**, one registered R. Shorthorn bull calf, 9 mo., spring and fall farrowed Berkshire pig.  
**M. G. Mosher & Sons, Osseo, Mich.**

**For Sale** Oxford ram lambs registered and delivered \$25.00. Guaranteed.  
**GEO. T. ABBOTT, Palm, Mich.**

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

### HORSES

### BAY MARE

For Sale, sound and right in every way, weight about 950 lbs. Must be sold at once come and see her or write L. J. Hamlin, 496 Eurlbut Ave., Detroit, Mich.

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



# LATEST MARKET REPORTS

## GRAIN QUOTATIONS

November 30, 1920.

### Wheat.

Detroit.—Cash No. 2 red \$1.93; December \$1.84; March \$1.82; No. 2 white and No. 2 mixed \$1.91.

Chicago.—No. 1 hard \$1.82@1.83; December \$1.56½; March \$1.50.

### Corn.

Detroit.—Cash No. 3 yellow, new 81c; No. 4 yellow, new 77c.

Chicago.—No. 2 mixed 72½c; No. 2 yellow 77½c.

### Oats.

Detroit.—Cash No. 2 white 54½c; No. 3 white 53c; No. 4 white 50c.

Chicago.—No. 2 white 48½c; No. 3 white 46½@48½c.

### Beans.

Detroit.—Immediate and prompt are lower at \$4.10@4.20 per cwt.

Chicago.—White beans steady. Hand-picked beans choice to fancy \$4.50@4.75; red kidney beans \$9@10 per cwt.

New York.—Market continues dull. Choice pea \$5.75; do medium \$5.75@6; red kidney \$10.50 per cwt.

### Rye.

Detroit.—Cash No. 2 rye \$1.45.

### Seeds.

Detroit.—Prime red clover \$12.25; December \$12.25; alsike \$16.75; timothy \$3.50.

Toledo.—Prime red clover, cash and December \$11.75; alsike \$16.50; timothy \$3.25.

## WHEAT

Export demand for wheat the past week has been extremely brisk. It is estimated that around 4,000,000 to 5,000,000 bushels of hard winter wheat was sold to Europe mainly via the gulf in addition to considerable Canadian via the Atlantic ports. Country offerings have increased somewhat the big decline in prices causing many producers to sell out, being afraid of a further drop in values. Banks are trying to have the producer sell sufficient grain in order to take care of notes, but in North Dakota a number of small banks which were heavily over-loaded were forced to close their doors. They were not members of the Federal Reserve Bank and could not rediscount their paper. Statistically the domestic wheat situation is strong. It is merely a question of time before this persistent buying will affect the price, and the volume of business passing is most surprising in view of the low rates of foreign exchange.

## CORN

The corn market remains heavy. The movement is rapidly increasing, despite the low prices. The latter are now somewhat under the pre-war level to the producer. For nineteen years previous to the war the average farm price of corn on December was about 44c. At the price producers are being bid at the present time there is a heavy loss and the next crop can scarcely be produced at a profit even with the decline in other commodity prices. The corn industries situation shows little change and the corn products companies are generally grinding only about fifty per cent capacity. The quality of the arrivals is excellent and the bulk of the receipts is from the new crop. Nothing is heard regarding export business, although a few small lots have been taken. Large clearances are reported as the result of sales of old grain made some time ago.

## OATS

Oats have declined in sympathy with other grains and are very low when everything is considered, around 30 @35c being about the best price that is being paid to producers.

## RYE

Rye has held up relatively much better than wheat, with a good export business under way, and is, pound for pound, nearly equal in price to that grain. As compared with last year rye is only a few cents per bushel lower, while wheat is around 75 cents lower.

## BEANS

Michigan beans are quoted at \$4.50 for choice hand-picked stock f. o. b. Michigan shipping points. This represents a decline of about 10c for the week and the market is back around the lowest point of the season. Farm-

ers are not selling freely but wholesalers refuse to buy in quantity. Colder weather is needed to stimulate consumptive demand. Reduced employment usually means an increase in bean consumption.

## SEEDS

Clover seed prices are now down to about one-third the price paid when the market was at the top last spring. Future prices depend upon how heavily farmers will buy. Demand now is at low ebb. Unprofitable prices for grains may induce heavy seeding of acreage to grass.

## FEEDS

The United States Bureau of Markets has found in a recent survey that the carry-over of wheat feeds from 1919 was unusually large. Production during the last four months was reduced because of the slack demand for flour, but the carry-over, combined with lower prices for feed grains and open fall weather with good pastures, has led to unusually light demand in the central distributing markets. Prices weakened slightly during the last few days, and are holding around the low point of the season. As suggested in previous reports, changes either way from this level are not likely to be radical. Linseed meal has come down to a point not far above cottonseed meal quotations. Shorts remain relatively high compared with corn, but are quoted in most markets below the price of bran. Latest quotations per ton (100-lb bags) in carlots are:

Detroit.—Bran \$41; standard middlings \$41; flour middlings \$51; coarse cornmeal \$38; cracked corn \$38; chop \$35.

## HAY

Light demand prevails in the hay markets with prices weakening. Although values now leave little for the producer, there is slight prospect of an advance as long as feed grains are quoted as cheap or cheaper than hay on a per pound basis. At Detroit prices are: No. 1 timothy \$29@30; standard \$28@29; light mixed \$28@29; No. 2 timothy \$27@28; No. 1 mixed \$26@

27; No. 1 clover \$26@27; rye straw \$14.50; wheat and oat straw \$13.50 @14. Buffalo.—Timothy, No. 1 \$31@32; No. 2 \$29@30; No. 3 \$26@28.

## EGGS AND POULTRY

Egg prices continue to soar in spite of declines in nearly all other lines. On the supply side there is no prospect of a change for two or three months, but consumers may decide to turn to cheaper products and start a decline. Poultry markets have been helped by holiday demand and presumably will remain fairly strong until the end of the year. Latest prices are as follows:

Chicago.—Eggs, fresh firsts 70@71c; miscellaneous 60@67c. Poultry, spring chickens 23½c; hens, general run 18@23c; roosters 17c; ducks 23@36c; geese 26c; turkeys 35c.

Detroit.—Eggs, fresh candled 70@80c. Live poultry, spring chickens at 25@26c; leghorns 20@22c; hens 24@25c; small hens 18c; roosters 18c; geese 24@25c; ducks 30@32c.

## BUTTER

Following the lead of Chicago, which showed weakness several days ago, all butter markets were sharply lower. Eastern markets held relatively steady until near the close of the week. The principal factors have been the absence of speculative interest, as buyers expected lower values to follow; retailers purchased in small quantities only; new import shipments were reported on the way; arrivals at central markets were relatively heavy; cold storage holdings are large, and the effect of turning condensaries to the manufacture of butter was first felt actively during the week. While the Danish holdings in the east have been practically all cleaned up, two new cargoes with about four to five thousand cases were expected to land within a few days, and Canadian butter was also offered in the east. Many buyers purchased direct who would ordinarily have bought in the open market. Prices upon 92 score butter as quoted by the Bureau of Markets on November 27 were: Chicago 53c;

New York 60c; Boston 58c; Philadelphia 61c.

## WOOL

Wool markets continue to reflect the stagnant condition in the textile industry. Markets in all the leading producing countries continue to sag, in some cases reaching the level of pre-war days. Boston reports offers of Lincoln fleeces from Argentina at 11½c and 40-44's at 15@16c. South African wools are quoted as low as 70@75c for clean combing wools, landed basis. Australia quotations would permit importing average 70's fleece wools for 95c clean landed basis. All these prices represent substantial declines from the levels of two or three weeks ago. Prices are so low that some Australian growers refuse to sell. In American markets sales are small for the most part, and prices are anything but attractive to the grower. The best fine staple territory wool is quotable at about \$1 on a clean basis. Missouri quarter-blood containing a little three-eighths has sold at 28c in the grease. The last government auction, held over a week ago, cannot be considered successful, as nearly 80 per cent of the offerings were withdrawn. The few sales of western wools quoted indicate a price basis about the amount of the advances allowed by the bankers upon wool holdings last spring. Stocks of wool in the hands of the dealers and manufacturers are only about 60 per cent as large as a year ago. Presumably this is due largely to the fact that growers have held their wools upon farms or in various pooling arrangements.

## POTATOES

Potato markets weakened gradually during the last few days. Small dealers are well supplied and shipping markets were unsteady, although the movement is gradually falling off. Shipping station prices are about 15c lower per hundred pounds, closing at \$1.60@1.85 on Northern round white potatoes. In Chicago carlots at \$1.80 @1.90 and middle western jobbing markets \$2@2.50. At Detroit Michigan potatoes bring \$3.50@3.75 per 150-lb sack.

## APPLES

While receipts of apples have fallen off perceptibly supplies are still comparatively heavy upon the markets, which remain dull and draggy at prices which are practically steady. At New York shipping points Baldwins A-2½ are quoted at \$4.10@4.25 per barrel and at \$4.50@5.50 in consuming markets. Chicago quotes Baldwins and Greenings at \$4.75@5.25; Kings \$5@5.50; Spies \$5.50@6; Ben Davis at \$4@4.50; Jonathans \$8.50@9 per barrel. As indicated by the last Bureau of Markets report storages are mostly filled to capacity.

## NEWS OF THE WEEK.

(Continued from page 686).

the American people.—The federal shipping board will need deficiency appropriations totaling \$100,000,000 to complete its program for the present fiscal year.

Sunday, November 28.

**PRESIDENT WILSON awards D. S. M. to the surgeon-general of the Belgian army.**—Raids against the Irish republican army in Dublin results in the arrest of three hundred persons. The British government is starting the construction of stockades for housing captured members of this army.

Monday, November 29.

**FIFTEEN warehouses in Liverpool, England, are burned.**—Secretary Baker declares that the American army is now reorganized on its post-war basis.—Teachers of Michigan will ask the state to assist financially in a pension bill now being framed.—Veterans of the World War form International council in Paris.

Tuesday, November 30.

**PREMIER LLOYD GEORGE holds an important conference with the British, war, civil and police heads on the latest Irish outbreaks.** Fifteen more police cadets are killed in the county of Cork.—Battle Creek will fight to retain Camp Custer.—Negotiations for a new treaty with Japan are continuing at Washington.

## Live Stock Market Service

Markets for December 1.

### DETROIT

#### Cattle.

Market dull; quality common.  
Best heavy steers ..... \$ 9.50@10.00  
Mixed steers and heifers 7.00@ 9.00  
Best handy wt bu steers 6.00@ 8.00  
Handy light butchers.... 6.00@ 6.50  
Light butchers ..... 4.00@ 5.50  
Best cows ..... 6.50@ 7.00  
Butcher cows ..... 4.50@ 6.00  
Common cows ..... 4.00@ 4.50  
Canners ..... 3.25@ 3.75  
Choice bulls ..... 6.00@ 6.50  
Bologna bulls ..... 5.00@ 6.00  
Stock bulls ..... 4.00@ 5.00  
Feeders ..... 7.00@ 8.00  
Stockers ..... 4.50@ 6.00  
Milkers and springers.... \$ 65@ 110

#### Veal Calves.

Market steady.  
Best ..... \$14.00@15.00  
Others ..... 4.00@12.00

#### Hogs.

Market steady.  
Mixed hogs ..... \$10.50@10.65  
Pigs and lights ..... 11.00

#### Sheep and Lambs.

Market strong.  
Best lambs ..... \$ 12.50  
Fair lambs ..... 10.00@10.75  
Light to common ..... 7.00@ 8.00  
Fair to good sheep ..... 4.50@ 5.00  
Culls and common ..... 2.00@ 3.00

### CHICAGO

#### Hogs.

Estimated receipts today are 23,000; holdover 13,683. Market fairly active and about steady with yesterday's average. Bulk of sales at \$10.15@10.40; tops \$10.50; heavy 250 lbs up medium, good and choice \$10.20@10.50; medium 200 to 250 lbs medium, good and choice \$10.30@10.50; light 150 to 200 lbs common, medium, good and choice \$10.20@10.45; light lights 130 to 150 lbs common, medium, good and choice at \$10@10.35; heavy packing sows 250 lbs

up smooth \$9.75@10.10; packing sows 200 lbs up rough \$9.40@9.75; pigs 130 lbs down medium, good and choice at \$7.50@10.50.

#### Cattle.

Estimated receipts 11,000. Steers dull; cull stuff strong; calves are 25c lower. Beef steers medium and heavy weight 1100 lbs up choice and prime \$14.50@17; do medium and good \$8.75 @14.50; do common \$7.75@8.75; light weight 1100 lbs down good and choice \$10.75@17; do common and medium at \$6.75@10.75; butcher cattle, heifers, common, medium, good and choice at \$4.75@12.25; cows, common, medium, good and choice at \$4.65@10.25; bulls bologna and beef at \$4.35@9; canners and cutters cows and heifers \$3.50@4.60; do canner steers at \$3.75@5.50; veal calves light and handyweight, medium, good and choice at \$11.50@13; feeder steers common, medium, good and choice \$6.75@10; stocker steers, common, medium, good and choice at \$4@8.75; stocker cows and heifers common, medium, good and choice at \$4@6.25; western range cattle beef steers, medium, good and choice at \$8 @11.40; do cows and heifers medium, good and choice \$5.25@9.25.

#### Sheep and Lambs.

Estimated receipts today are 12,000. Market is 25c higher. Lambs 84 lbs down medium, good, choice and prime \$11.50@13; do culls and common at \$8.75@11; spring lambs medium, good choice and prime \$8.50@10.75; ewes, medium, good and choice at \$4@5.40; ewes cull and common at \$2.50@3.50; breeding ewes, full mouths to yearlings at \$4.50@6; yearling wethers medium, good and choice \$9.50@11.25.

### BUFFALO

While cattle prices show some improvement the trading is dull, with prime and shipping steers at \$13@14; best lambs advanced to \$14; calves to \$17; and hog sales ran up to \$12.



## DETROIT CITY MARKET

Buyers were scarce at the markets following the holiday week. Eggs are moving at 90c@91; home-made butter 80c; apples, firsts \$1.25@1.75; seconds 50c@51; cabbage 50@75c; celery large \$1 per bunch; dry onions 90c@91.25; parsnips 75c@81; pears \$1@1.50; potatoes \$1.25@1.45. Above represent the wholesale prices.

## MILK PRICES FOR DECEMBER.

A MEETING of the Detroit Area Milk Commission was held Monday, November 29, to consider prices which should be recommended for December milk. The testimony presented showed that due to unsettled conditions and the extent of unemployment in the city, consumption was steadily decreasing while production is considerably above normal. After a conference with each other and with those present of their constituency, the officials of the producers' and distributors' organizations signified to the commission their willingness to accept a price of \$3.00 per cwt. for milk on the one hand, and distribute it at fourteen cents per quart and eight cents per pint on the other, for the month of December. The distributor also agreed to launch an advertising campaign to increase consumption. The price was accordingly recommended for December milk as follows: To producers \$3.00 per cwt. for 3.5 per cent milk f. o. b. Detroit, for all milk delivered, the butter-fat differential to be four cents per point for all milk testing four per cent or less and five cents per point for milk testing above four per cent.

To consumers, fourteen cents per quart, and eight cents for pints, delivered. Bulk milk forty-eight cents per gallon.

## HORSE MARKETS ARE SLUGGISH.

The markets for horses are sluggish, with demand of a limited order. Values show little quotable change for the week but are materially lower than last spring. Heavy horses have not been sought so briskly as Maine and eastern cities are buying few. The wagon horse trade is fairly good. Selling mules is a peddling affair. Not till a business revival is in sight will the horse trade improve materially. Such a change is expected to arrive by next spring.

## M. A. C. NEWS LETTER.

PERHAPS of greatest significance in the part played by Michigan at the International Hay and Grain Exposition at Chicago this week, was the graphic illustration of the recent forward steps in the development of improved crop varieties brought about through the cooperation of the three organizations—Michigan Agricultural College, Michigan Crop Improvement Association and Michigan Farm Bureau.

The Michigan exhibit showed in detail the work of the Farm Crops Department at M. A. C. in developing such varieties as the Rosen rye, Red Rock wheat, Wolverine and Worthing oats, Smooth Awn Black and Michigan Two-row barley, and Robust beans. Work of the Crop Improvement Association in increasing these varieties under a careful registry and inspection system, and of the Farm Bureau Seed Department in aiding in the sale, was also illustrated.

Varieties developed by the plant breeding work at M. A. C. are not only of importance in Michigan, but many of them have been adopted as standards in other states. No other state at present has an organization maintaining a system of inspection and guaranteeing seed produced. Michigan is the first state to establish a Farm Bureau Seed Department.

Close cooperation of the three agencies named secures a rapid increase of the highest yielding strains and places safe seed at reasonable prices in the hands of Michigan farmers.

Practical work in cow-testing and dairy barn management is the feature of a two-weeks' special course which opened at M. A. C. this week. Subjects that occupy the time of the men and women enrolled are animal breeding, feeding, Babcock test, live stock judging, dairy barn management and advance registry and cow-testing. Besides the class-room instruction, the course makes much use of the college herd and dairy plant.

Besides the excellent exhibit of crops, Michigan was represented at Chicago this week by the presence of more than sixty M. A. C. students who attended the International Live Stock Show.—HENSCHAW.

## Are You Getting the Best Prices For Your BEANS

Great caution must be experienced this year in handling the bean market. There is a big crop and a very weak demand. Nothing can be gained by the dumping process.

We operate two of the most complete terminal bean elevators in the United States which we are placing at the disposal of the bean growers of the State.

If you want your beans picked and placed in shape for the market, we have the facilities. We can pick and clean them for you and hold them at your disposal. Each week we will make you an offer for these beans. You can also look for a market and we will ship upon your order.

Through this plan we will stabilize the market and each farmer will reap such profits as may come through a rise in the market. The fact that you can sell at any time, places you in the position of a jobber. If interested in the bean proposition or any other of the many things we are doing for the farmers send in this coupon:

MAIL THIS COUPON

Fred Lewellyn, Manager.  
Gleaner Clearing House Assn.,  
Grand Rapids, Michigan

I have about.....bushels of beans, and would like to have you send me your plan of handling them through the Gleaner Terminal Elevators.

Name .....

Post Office .....

State .....



**JARECKI BRAND**

**FERTILIZERS**

**WILL INCREASE THE YIELD OF ANY FIELD**

AGENTS WANTED IN UNOCCUPIED TERRITORY.

CINCINNATI, OHIO. THE JARECKI CHEMICAL CO. SANDUSKY, OHIO.

ESTABLISHED 1881.

TREAT YOUR OWN LIVE STOCK  
PROMPT FIRST AID IS VERY IMPORTANT

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



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

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

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

## SHIP YOUR

## POULTRY, VEAL and HOGS

TO

## J. W. Keys Commission Co.

470 Riopelle St., Detroit, Mich.

Eastern Market

You Will Get a Square Deal  
and Returns Daily.

## HAY

Ship to The Old Reliable House  
Daniel McCaffey's Sons,  
623-625 Wabash Bldg., Pittsburg, Pa.

## Mr. POULTRY FARMER:

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

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment

## FARM HELP

**WANTED** Experienced competent young married man without children. Twenty acres. Registered grains, fruits, poultry. With wife who is first class housekeeper. Give experience and references; and wages wanted by year, on condition work is competent and satisfactory. State Farms Assn., Kalamazoo, Mich.

**Wanted** Single Man for farm and dairy barn work on farm with up-to-date farm machinery and Fordson Tractor and purebred Jersey cattle want a steady man to work by the year good wages and bonus to a good man. Address Letters with references to  
O. NIELSON, R. F. D. 2, Box 13, Farmington, Mich.

**Wanted** Farm manager, married. Experienced in stock raising, fruit growing and soil. References required. Box 1124 Mich. Farmer, Detroit.

## Farms and Farm Lands For Sale

## Attention Farmers!

If you want to sell or exchange, your farm for Detroit city property, write to us for quick results.

## J. F. Hintz Real Estate Co.,

736 Milwaukee Ave., E. Detroit, Michigan.  
Phone Melrose 281.

Members of the "Detroit Board of Commerce" and "Detroit Real Estate Brokers Association."

## The Future Live Stock and General Farm Section of America

Is what a professor in a Northern Agricultural College said about the south. The reason is that live stock and crops yield larger net returns than in any other part of the United States because of fertile soils, short winters, long pleasant summers and convenient markets. Two or more crops a year can be grown on the same land. Long grazing seasons and winter cover crops reduce feed costs. Lands cost from one-third to one-half as much as similar lands in Northern and Western States. Good roads, schools, churches and good people make the South a delightful place to live. Locate now while land prices are still low, make money and build up a good property. For full information write to J. C. Williams, Manager, Southern Railway Development Service, 1312 Pennsylvania Avenue, Washington, D. C.

## 80-Acre Michigan Farm Equipped With

7 cows and calves, 3 horses, 4 sheep, 70 poultry, wagon, implements, vegetables, etc.; for east winter; amid thriving neighbors, convenient RR; 50 acres productive tillage, large wire-fenced pasture, estimated 2,000 cords wood and 15,000 ft. timber; large quantity apple, pear, plum trees, 200 sugar maples; warm cottage house, good clapboarded barn, poultry house, etc.; personal reasons force sale; \$3,900 takes everything, easy terms. Details this and farm \$1,000 down, page 72 Strout's Big Illustrated Catalog Farm Bargains 33 States. Copy free. STROUT FARM AGENCY, 814 BQ Ford Bldg., Detroit.

Own farm near Detroit, the automobile center of the world. Where land will double in value, 60 minutes to city, hard surface and state roads city people pay cash at your door for your products. Farmers making money selling milk, neighbor purchased farm 8 years ago with grain, fruit and cows paid for it and sold last winter for twice what paid. Had auction \$7000. A few fine farms good buildings, \$125 per acre for quick sale. J. W. SALLIARD, Romeo, Mich.

## FARMS FOR SALE IN NEW YORK STATE

All kinds of farms at bargain prices. "Go East Young Man" to the land of big values for low prices. "A Satisfied Customer" is our motto. Write for our catalog. Go direct to our headquarters for advice and correct information. H. M. BOWEN, Cooperstown, N. Y. Farm Settlement Department.

**Farms** Here is a partial description of one of the many I have listed: 80 acres, slightly rolling, clay loam soil, good house, basement barn, silo, windmill, woven wire fences, about 350 fruit trees, 6 acres pasture, 5 acres sugar bush, very productive soil. Near school, 4 1/2 miles from town. Only \$5500. \$2500 down will buy it. Write or phone for full particulars. G. C. Adams, The Farm Implement Man, Olivet, Mich.

**Farm For Sale** A bargain one of the best, and best equipped farms in the famous Grand Traverse fruit belt. 100 acres good heavy soil, 800 young cherry trees, buildings all modern, running water, electric lights, furnace, plumbing. One and one half miles from depot. The best buy in Northern Mich. Write ROBERT E. FLOOD, Northport, Mich.

**180 Acres Waukesha Twp.** splendid maple soil, level, 150 a. tillable, 20 a. good timber; splendid house; 1 new barn 34x75 another 36x40, cement stove silo 12x20, good fences, windmill and gas engine; 50 a. clover seeding. Great bargain at \$135.00 per acre, Oscar E. Burnham, 507 Bank Bldg., Kalamazoo, Mich.

**Owner Obligated To Go To Another State** offers fully equipped 200 acre dairy farm, convenient to best schools, colleges and from heavy laying stock. Two good homes at big sacrifice, if taken now, with or without cattle and equipped. WILLIAM B. HATCH, Ypsilanti, Michigan

**Good 100 Acre Farm** For sale or Lansing, Mich. Terms. Small farm taken as down payment. W. P. Boyer, R. 1, Elwell, Mich.

**For Sale** Grain, Dairy and Fruit farms at bargain prices. Market at your door, one hour from Detroit the heart of the country. Write J. W. SALLIARD, Romeo, Mich.

## POULTRY

## R. I. RED SALE

100 Rose Comb R. I. Red cockerels at \$3 each. Good type and size and from heavy laying stock. 5 for \$14. Satisfaction guaranteed or your money back. We have hundreds of good cockerels worth up to \$25 each and make this special offer to move some of them quickly. Order at once from this ad, as this offer may be withdrawn at any time. INTERLAKES FARM, Box 39, Lawrence, Mich.

**Hens and Pullets** for sale White and Brown Leghorns and Anconas. M. D. WYNGARDEN, R. 4, Zeeland, Mich.

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

## Single Comb White Leghorns

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

**S. C. Black Minorca Cockerels**, from pen headed by cock, our \$50, 11 lb. cock bird. These cockerels will be very large with quality. R. W. Mills, Saline, Mich.

**Silver**, Golden and White Wyandottes A few good cockerels for sale at \$5.00 to \$15.00 each. O. W. BROWNING, R. 2, Portland, Mich.

**Trapnested Pedigreed** White Wyandotte cockerels, records of 244 to 286, mated to cock from a 251 egg hen. O. R. HANES, Schoolcraft, Mich.

## White Chinese Geese,

White Pekin Ducks, R. C. B. Leghorns. Order early. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

**Extra Large** Embden, Toulouse and African Geese \$4 each. Brown also White China, \$3.50. Giant Pekin Ducks \$3.00 each. Buff Orpington, Colard also White Muscovy Ducks \$2.50. Pearl also White Guinea \$1.50 each. Egyptian Geese \$18 per pair. Cedar Lawn Poultry Farm, Wapakoneta, O.

## TURKEYS

Michigan's best Giant Bronze breeding stock. Very large, excellent color health and vigor guaranteed. N. EVALYN RAMSDALL, Ionia, Mich.



# "Gandy, HOG-TONE Has Made Me \$10<sup>00</sup> for EVERY Dollar I Paid for It!"

"Say—I've told that to some of my neighbors and I'll be hanged if I could make 'em believe it! And yet, as I told them, it's as plain as the nose on the faces of those people who asked me.

"Isn't it easy to figure out? I paid only about 25 cents per pig from weaning time to marketing time for all the Avalon Farms HOG-TONE and Special Hog Physic Boluses you furnished to me on 60 Days' Free Trial. When I marketed those hogs they brought me in a good deal more than 10 times more

than what I paid for the Avalon Farms HOG-TONE and Physic Bolus treatment.

"And the beauty of it was, I didn't have to even make up my mind to pay Gandy a cent until I was all through using what he sent me and had made up my mind good and thorough that I had got my money's worth—and then some.

"I call it a pretty square deal and I am mighty glad that I finally decided to take Gandy at his word and make him prove his HOG-TONE to me at his expense before I sent him a cent."

The owners of over 15,000,000 hogs feel just that way about HOG-TONE. They gave me a square

deal, too, using the HOG-TONE and Physic

Boluses for 60 days according to directions and getting the results I assure under those circumstances.

**Send Me the Coupon and I Will Send You All the**

**AVALON FARMS**

(REGISTERED U. S. PATENT OFFICE)

# HOG-TONE

Reg. U. S. Pat. Off.

**That ALL Your Hogs Will Need for 60 Days**

# FREE

Don't sympathize with me. I am no philanthropist. I am not giving this treatment away. I am just saying that when you use it for 60 days that you will be mighty glad to pay for it.

Friend—I have made this offer, and stood solidly behind it every time, month after month, in this reputable farm paper. You know that my products are exactly what I claim and my offer on the square. That's why I can place my offer before you in this publication, as unreliable propositions are barred from these pages as you are aware.

**Now Let Me Make My Free Offer Clear to You**

I will ship you one \$1.00 bottle of HOG-TONE for each four hogs in your herd the day the coupon below, filled in, reaches this office. I will also send you one \$1.00 box of Avalon Farms Hog Physic Boluses

(the sure worm expeller) for every 12 hogs you own—without asking you to pay a cent until the 60 days' trial time has elapsed. That will be sufficient to treat your hogs 60 days or more, according to size. That treatment is guaranteed by me to give you a big profit at marketing time over and above the cost to you of the HOG-TONE. If it does not, I don't want you to pay me a cent.

HOG-TONE is a highly concentrated liquid medicine for hogs only.

Contains highly important medicinal liquid ingredients which can not be combined in Medicated Salts, Stock Foods or Condition Powders of any kind. Safe. Easily mixed with any slops, drinking water, dampened feed.

Thoroughly proved on Avalon Farms, near Fort Wayne, Indiana. Almost invariably successful in cleaning out Stomach, Bowel and Bronchial Worms that infest hogs. Thus, it protects hogs from easily contracting Cholera, Rheumatism, Scours, Thumps (caused by worms and indigestion), Enteritis, Indigestion and other diseases.

Wonderful tonic and conditioner, gives hogs voracious appetites, aids digestion, makes them thrive and put on flesh fast. No matter how healthy your hogs appear to be, HOG-TONE will make more pork on them with the same feed. Best known tonic for sows during gestation. Its use insures litters of strong, healthy pigs. The reliable worm expeller that is safe to use at this time.

Now is the time to act. Today is the day to send in the Free Coupon.

W. O. GANDY, President

**AVALON FARMS CO.**

331 W. Ohio St. CHICAGO, ILL.

W. O. GANDY  
President Avalon Farms Co.

**Read These Letters From Hog Raisers Living Near You: Will Eat Three Meals a Day**

I am enclosing check for the AVALON FARMS HOG-TONE. I gave it a trial and found it all right. Oh, how the hogs did grow! I can recommend it to any farmer who has hogs.

August Short, Yale, Mich.

I never saw hogs make such rapid gains before as my hogs did on AVALON FARMS HOG-TONE. My hogs had worms and were a stunted looking bunch, but it straightened them up fine. I am buying my HOG-TONE now from W. B. Gleason's drug store.

Adolph Gerstenberger, Snover, Mich.

I fed AVALON FARMS HOG-TONE just as the directions said, and it was worth twenty dollars a bottle on my bunch of hogs.

G. C. Slating, Leonard, Mich.

I have given AVALON FARMS HOG-TONE a pretty good test on a bunch of runts. It is getting them back into shape now. I can see they are improving every day. This certainly was the worst looking lot of hogs I ever saw. I will give you another order as soon as my present supply runs out.

Wm. J. Stolz, Saginaw, Mich.

I am sending you the money for the AVALON FARMS HOG-TONE which I got from you. I have fed it and found it to be just what you said it was. It keeps the pigs in a sleek condition and in good growing order, and gives them a better appetite.

Leonard Black, Levering, Mich.



**DON'T SEND A CENT WITH THIS COUPON**

W. O. GANDY, President, AVALON FARMS COMPANY, 331 W. Ohio St., Chicago, Ill.  
NOTE—Be sure to give number of hogs you own

701

I have.....hogs. If you will ship me immediately enough Avalon Farms HOG-TONE and Special Hog Physic Boluses to treat all my hogs for 60 days, I agree to give the treatment a full 60 days' trial and follow your directions carefully, treating my hogs on a basis of 1 bottle to 4 hogs. I am to pay nothing now except transportation charges. But, I agree to report results to you at the end of 60 days and will then pay for the HOG-TONE and Physic Boluses if I am satisfied with the results. If I am not satisfied, I will return the labels from the HOG-TONE bottles and Physic Bolus boxes and tell why I am dissatisfied—and you agree to cancel the charge.

Name.....  
(Please print name very plainly)  
Post Office.....  
R. R. No.....State.....  
Shipping Point.....  
The name and address of my druggist is as follows.....