

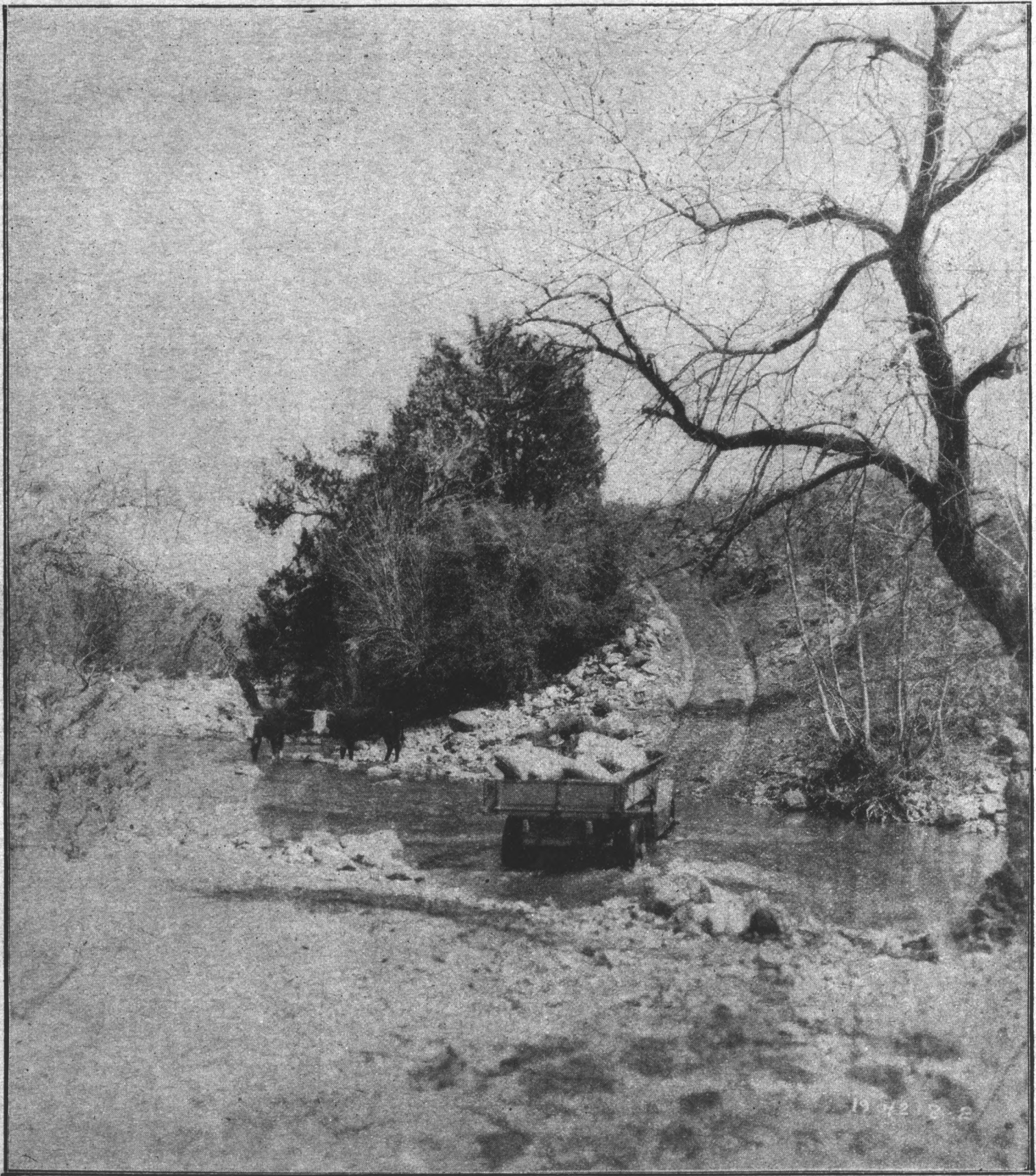
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DETROIT, NOVEMBER 18, 1922

CURRENT COMMENT

THE MICHIGAN FARMER SAYS:

Selfishness does not gain lasting satisfaction.

It is not the man who can who always does, but the man who does always can.

Our sorrows are as essential as our joys. They are needed to increase our appreciation of the happiness which comes to us.

Evidence is piling up showing that seed potatoes grown in cool soil has greater vigor than tubers produced where the climate is warmer.

General Election Results

THE success and perpetuity of a democracy is dependent upon the interest in and independent thought on public questions by the great body of its citizenship. That the great body of American citizens are showing both interest in, and independent thought on civic questions in this country cannot be doubted after a review of election returns in recent general elections. In the short space of two years the two dominant political parties have been vigorously spanked by the voters of the country, as shown by the general trend of election results. Further than a more or less general disapproval of party accomplishment, a close study of the returns in each case show a very decided independence of public thought in the choice of candidates favored with general approval as well as in discrimination as to policies and principles to which they were committed.

Regardless of whether the individual voter is pleased or displeased with the result of the recent election, this general public interest in governmental affairs is a matter for congratulation so far as the future well-being of our country is concerned. It is unmistakable evidence that public leadership must keep pace with rapidly changing conditions to meet with public approval. While this fact may make constructive leadership more difficult, it is perhaps necessary to overcome the inertia of adherents to old and firmly established partisan policies.

Notwithstanding the growing difficulties of successful public leadership, owing to an increasing class consciousness among our people, there is probably a greater opportunity for constructive public leadership than has

existed within the experience of the present generation. There still remains a great common ground between the extremes of conservatism and radicalism in which constructive leadership is needed to guide our national policies along lines which will be for the best interests of the whole people. We believe that this leadership will be developed in the present emergency as it has been in past national crises, and that our democracy will, in the words of the Immortal Lincoln, remain a government of, by and for the people.

Hay \$60 Per Ton

THIS is a good price for hay. Any farmer will admit this much, especially in a year like the present. We are, however, pretty apt to question such statements, yet a Kalamazoo farmer is receiving that price for his crop right in his own barn. He has the documentary evidence to prove that he is not only receiving this amount for his hay, but that his corn is bringing \$1.87 and his oats \$1.00 per bushel.

It is unfortunate, of course, that this market is limited. He is entitled to it, however, since it was developed on his farm through the aid of a man who came once each month to work out the problem. This visitor was no other than the man who tested the cows and determined the relationship between what each cow ate and what she produced. This made it possible to sell the unprofitable cows and replace them with better ones. Every time a poor cow left the farm and a better one was placed in her stall, the prices of hay and oats and corn went up.

This principle of animal economy should dominate the mind of every man who keeps live stock for the purpose of making money. He should develop hogs which will convert corn and other feeds into the maximum amount of high-quality pork; sheep which will take legume hay and grain and make of it the greatest amount of mutton and wool; cattle which will turn these and other feeds into the most valuable cuts of beef and dairy cows that will perform most economically.

This, the greatest of all farm manufacturing businesses, must be put upon the highest efficient basis. If animal products can be produced with greater efficiency, it will indirectly aid in the marketing of practically all other products.

Eliminating A Farm Loss

AT all times, but more particularly at this time, when farm commodity prices suffer in comparison with those of other commodities, is a sane and sensible economy desirable. In order to weather this period of adjustment to best advantage, the farmer should practice efficient saving. This does not mean miserliness, but often requires spending in order to make greater savings.

There is, however, one actual saving which every farmer can make, and should make, regardless of his financial condition. This is the saving of his farm machinery by protecting it. Each year, through carelessness, the farmers of the country lose about one quarter billion dollars by farm machinery depreciation, much of which could be eliminated by proper protection. Just ordinary care would save them \$150,000,000, while scrupulous consideration would add another \$100,000,000 to the savings.

It seems that often our human impulses prompt us to do things which judgment would direct us to do otherwise. As, for instance, many farmers would go to considerable effort to house their gasoline buggies of various degrees of worth, but never think of giving protection to their tractors

which may have cost twice as much.

Perhaps the social factor enters into the protection of the auto as the auto certainly has a higher degree of social standing than the common work-a-day tractor, cultivator or other agricultural implement. But even so, we must give due recognition to the unpretentious, hard-working farm implement for what it has done toward helping us to earn money enough to buy that aforesaid auto. With a sense of justice we must treat our worthy servants with at least some degree of the consideration that we do our pleasure companions.

If we do use scrupulous care in our implement management, perhaps we may approach the record of the Missouri man who harvested his hay this year with a mower forty-one years old. And furthermore, if we bend our efforts in that direction, we may be able to buy a better grade of auto next time with the implement money we saved, and thus go up another step in our social standing.

On Rural Michigan

A NEW book just from the press deals with farming and rural life in this state. The book is entitled, "Rural Michigan." It was written by Lew Allen Chase, a member of the faculty of the Northern Michigan Normal School and author of "The Government of Michigan." Mr. Chase is also a regular correspondent to the columns of the Michigan Farmer and our readers have become familiar with his short newsy items dealing particularly with farming practices and agricultural movements in Cloverland.

This volume is worthy of wide reading, not only in Michigan, but also in other states. It gives the reader a comprehensive idea of the factors of agricultural production in this state, of the progress made in marketing farm produce, the situation in rural life, the status of rural manufacturers, our agricultural societies, educational enterprises, government work for country life, etc. Especially do we feel that this volume will fill a need in our public schools and also public and private libraries.

We desire to congratulate Mr. Chase for his successful effort in bringing together such a fund of interesting and helpful information.

Apples And Potatoes

NEARLY every farmer in Michigan is interested in one or the other of these two crops. He is interested in both the production and the consumption of them. These facts would indicate that there will be a large and active farmer attendance at the big Apple and Potato Show planned for December 5-8 at Grand Rapids.

Combining the exhibits of these two major crops of the state is a new idea. Whoever conceived it should be congratulated. The questions involved in the production and the difficulties encountered in the marketing of these crops are similar, or so inter-related, that there should be a great deal of active cooperation between the fruit man who makes it his business to grow apples and the farmer who looks upon the potato crop for a substantial proportion of his income.

Then, too, the volume of business in these two crops in this state should enlist for this show a very generous patronage, not only from farming sections but likewise from our towns and cities. There are millions of dollars invested in land and equipment, and other millions required for distribution. The November report of the federal crop reporting board tells us that Michigan ranks second in the production of potatoes this year, with an estimated crop of 37,856,000 bushels. If

we add to this the fact that we rank fifth as an apple growing state, then we need go no further to find reasons for making a real noise about this exposition.

The organization of the show should prove a real constructive step in Michigan agricultural annals. We need it. Every farmer wants, or should want, higher ideals toward which to work in the production of these crops. But possibly even more important is the matter of interesting the general public in the size and remarkable quality of the apples and potatoes produced in Michigan. We have marketing problems to work out that require the sympathetic interest of the consumers. Such a show will furnish a real chance to enlist this interest. The first condition, however, will be that the farmers themselves must be fully awake to the opportunity, and for this reason alone we urge our readers to plan now for attending the first session of the Michigan Apple and Potato Show.

Some Weakly Thoughts

YOU know, folks, a Oughto makes lots of difference in a fellow's life. For inst., I don't know so much about our neighbors now. When I ain't doin' that necessary evil (work) we are ridin' in the old bus. And when we go visitin', we men folks talk about carberooters, differenshulls, transmisshuns, cowl dashes and such other things what sound like we knowed all about foreign languages. But the preponderin' subject is, how many smiles you kin



git outa a gallon of gas. I want to say, that gettin' too many smiles outa a gallon is what made Jim Hudson run his Oughto up a telephone post.

Of course, the wimmen folks kin talk about them things and lots else besides. So, once in a while, Sophie tells me like, for inst., Hiram Jones is sportin' two wives, one in Coldwater and the other in South Bend. Seems 'cause one wife is in one state and the other to home in another, the what you call interstate commerce commission is after Hiram. And it seems lately Hy is sometimes in Coldwater, but most of the time in hot water, and sometimes he's south, bendin' his efforts in tryin' to repair what you call his moral deficiencies.

Like Mr. Jones, I got suffishunt reasons for regrets. For inst., the other day I took down a good load of potatoes and brought home a pair of shoes. I wore my others out growin' the potatoes I took down to buy the new ones with. Seems like I woulda saved considerable of my natural resources if I didn't grow no potatoes a ta'h. But then, the shoe man wouldn't a got his profit on a pair o' shoes, so I guess it's all right. Anyhow, Sophie thinks it worth a pair o' shoes to keep me working.

With potatoes so low and coal so high, I'm glad I gotta wood-lot. I've sawed so much wood I can't hardly see no more. We kin keep comfortable all right, but my regrets is that my Oughto ain't fixed up for burnin' sawdust, 'cause I got more o' that than money for gas.

But I guess that's all right, too, 'cause I see Jonnie Rockafellow and Hank Ford is runnin' a neck to neck race to see which is the richest man. So I guess I'll wear out my Oughto burnin' gasoline to see which one I kin make the richest. Hank's ahead 'cause I bought my Oughto, but I think Jonnie will be ahead before I buy another Oughto, 'cause I'm helpin' him now by buyin' the gas to run it with. I always like to help the under dog. Don't you?

HY SYCKLE.

Want to Earn Money this Winter?

Make Your Wood-Lot Do It for You.—By Paul A. Herbert of the M. A. C.

THE winter is coming and with it comes the farmer's "vacation." After the firewood is cut, the fences fixed, and the farm generally cleaned up and everything put in shape for a good start next spring, most farmers find that they still have some spare time on their hands. This is generally called an "enforced vacation without pay." Many of you can't afford it and try to find some way of earning money during the winter.

Most farms have a "sort of" a wood-lot. By doing away with the "sort of," the wood-lot can be managed so that it will not only pay you your wages during this slack winter period but also furnish a profit. A good wood-lot will grow over a cord of wood per acre every year. I know of a farmer who, besides his wages for the actual time spent working on his wood-lot, is getting \$10 profit per year out of every acre in woods. And it doesn't take any special training to do this either. Farmers who have wood-lots can do the same thing. Every farmer, with his wide experience in plant growth can manage his wood-lot so that it will

SELECTING THE GOOD SEED.

THIS is an interested group of Kent county potato growers getting a practical demonstration in the selection of seed potatoes from a field of well-grown tubers. The picture is run at this time because it shows that farmers are downright interested in the matter of improving the seed that they plant. We venture that another spring the demand for well-selected stock will exceed the supply. Every



one who has gone to the trouble of sorting out the promising tubers should not feint now, but rather, should give these potatoes good housing this winter in order that they will not disappoint whoever plants them next spring. You know, if they grow well and you keep in the business of producing seed potatoes, that the testimony of this buyer will help next year.

earn him money. Always remember, too, that your agricultural college has men on its force who can give you advice whenever you are in doubt as to just what to do.

The wood crop has a number of advantages that the other crops do not have. Trees don't need care at any particular time, like corn and wheat. You can put off tending to your wood-lot where you can't do that with other crops. If you haven't got a good market for wood one year, why you can keep it a year or so without any loss. Another advantage is that the best time to work on your wood-lot is in the winter, just when you have the spare time. Stumps sprout better when the trees are cut in the winter, and the wood cut shows less rotting, staining, warping and checking than wood cut in warmer weather.



During the Winter Season the Farmer Can Profitably Employ Himself Taking Out the Matured Trees.

Now let me list just what goes into the make-up of a wood-lot that will make money for the owner. Later I will try to explain each item and try to show you how you can bring your wood-lot up to this standard:

1. The wood-lot must have as many trees in it as it can profitably grow there.
2. The trees should all be sound.
3. The trees should be straight and tall, with long, clear trunks.
4. The trees should be of all ages and sizes, from young seedlings to trees ready to harvest.
5. There should be several kinds of trees in the wood-lot. These should, naturally, be the kinds that are worth most.
6. There should always be a good layer of humus and leaves on ground.
7. The edge of the wood-lot should be dense.
8. Fire and cattle should be kept out.

"The wood-lot must have as many trees as can profitably grow there." That's common sense, but just how many does that mean? The best answer to that isn't a figure, (although I will give you that, too), as actual number depends on the age of the trees, the kind, and the soil, the same as any other crop. If you find a place where briars, weeds, and grass, are growing, why, that's a sure sign that there aren't enough trees at that spot. Those briars, weeds and grass are taking food that could and should be going into tree growth. Now, the best way to get trees into such an opening is to plant them there. Cut down the briars and weeds, and plant either the seeds direct or seedlings dug from another part of the wood-lot. Better still, plant some tree seed in the corner of your garden this fall or the coming spring and then you will have good-sized seedlings for planting up those openings next fall.

Mating Ewe Lambs

BREEDING ewe lambs before they have reached full maturity is not to be recommended. The practice not only impairs the development of the ewe lambs, but is likely to produce lambs with weak constitutions. Ewe lambs immaturely developed at mating time are most apt to intensify physical defects and deteriorate breed type.

Sheep of different breeds vary somewhat as to age of coming to maturity, but it is a wise rule to follow not to mate ewe lambs of any breed the first season. I know that some flock owners claim that by proper feeding of the ewes and lambs during the suckling and weaning periods the lambs may be brought to breeding maturity and mated the first year without injurious results. Good care and feeding goes a long way in bringing to early maturity any kind of breeding stock, but if best results are sought it is advisable not to force animals for the purpose of early mating.

Ewe lambs coming to maturity need all their strength to build framework and muscular tissue. If mated the first season the ewe lambs are called upon to do double duty, first to sustain themselves and secondly, to grow their unborn young. One or the other are likely to suffer.

Progress in building up flocks of sheep comes from the gradual and permanent strengthening of the productive qualities of each member of the flock. Matured parent stock is essential to assurance of meeting this desirable end. I have never made it a practice to mate ewe lambs, but I have had instances occur of ewe lambs being mated the first season through accident, and the results were not satisfactory.—Leo C. Reynolds.



But very many woodlots are too open all over and not in any particular spot. They look more like groves of old trees with no young trees at all. This is usually caused by cutting trees out and never giving the wood-lot a chance to grow young trees to take the places of the ones cut. When you have cattle grazing in the woods that is just what happens. The only remedy is to keep the cattle out. After that you can either plant or you can let nature fill up the gaps. Nature will do it if you give her a chance. It will take longer but if you haven't much time, or the woodlot is large, it is the best way.

But you say that you need that wood-lot for pasture? That's poor business; if you really need pasture, make a regular pasture out of all of it (if you need that much more pasture). You lose by trying to grow trees and grass together. First of all, very little grass grows in a wood-lot compared to an open field, and second, the grass that does grow there isn't worth very much; the cattle don't like it. Many farmers allow their stock to run in the wood-lot more for the shade and to let

YIELDS OVER TWO HUNDRED BUSHELS.

THE field pictured yielded 201 bushels of potatoes per acre with just common farming. There are ten acres in the field. It is sandy soil and was plowed last fall. It was put in shape this spring with a tractor. Planted certified seed with a horse-planter in rows thirty-six inches apart and twenty inches in the row. The field was



harrowed three times after planting and before the plants were three inches tall, after which they were cultivated at once. The crop was dug with a digger. Picture was taken July 26.—W. J. Fiely, Wolverine.

(Will be pleased to report any yields of potatoes which excel that of Mr. Fiely.—Eds.)

the cattle get away from the flies, than for the grass. But why let them ruin your whole woodlot? A herd of twenty-five head wouldn't need an acre to supply the necessary shade and protection. And so if they don't have any shade elsewhere, the thing to do is to fence off a little corner of the woodlot for them and use the rest for the business of growing trees.

To get back to the first point again. How are you going to tell when you have too many trees on a piece of land? Well, it's something like having too many corn plants in the same hill. They grow spindly and weak, and then after a time some begin to fall behind. Fine, then why not grow trees so that each tree has all the room it wants? This is where item three comes in, "All trees should be straight and tall with long clear trunks." If you give every tree as much room as it wants, you don't get "tall, straight trees with long, clear

(Continued on page 532).

LATE AGRICULTURAL NEWS

VALUE OF RADIO SERVICE.

THE efficiency of the international radio crop reporting service of the Federal Department of Agriculture was demonstrated the other day by the receipt of a radiogram from the department's Berlin representative regarding beet sugar production in Germany. The report which traveled between Berlin and Washington at the rate of 186,000 miles a second, was relayed throughout the United States, the news being in the hands of the receiving operators all over the country in less than five minutes after leaving Berlin.

The department officials relate that recently a farmer in Kansas was about to sell his cattle. On the morning of the day the sale was to be made, this farmer's boy who had rigged up a home-made wireless outfit, received the market report from the Kansas City stock yards. This information enabled the farmer to receive several cents a pound more for his cattle than he would otherwise have received.

BUREAU OF FEDERAL STATISTICS PROPOSED.

A NEW bureau of federal statistics is proposed. It is planned to take over and enlarge the census bureau, so as to include the statistical work of all the executive departments. The aim is to correlate these statistics so that overlapping will be eliminated and the statistics made available for practical use.

It is explained that the new name would be more appropriate to the work of the bureau of the census than its present name. The recommendations include provision for remaining existing divisions to be divisions of population statistics, farm statistics, and the like. The division of tobacco and cotton statistics would be consolidated into the division of farm statistics.

FARM TAXES GREATER THAN INCOME.

THE statement on taxation recently issued by the National Grange representative, in which he asserted that "the total amount of taxes farmers are called upon to pay this year in the entire United States amounts to a larger sum of money than the profits of all the farms of the United States this year over the cost of production of the entire farm crop of the country," has been sent to one hundred economists throughout the country with the request that they carefully consider the proposition and if true suggest a remedy.

FARMERS' CLUBS TO HOLD ANNUAL SESSION.

THE annual meeting of Michigan State Association of Farmers' Clubs will be held in the Assembly Room of the State Office and Library Building, Lansing, Tuesday and Wednesday, December 5-6. A program that will discuss from every angle the betterment of agriculture is being prepared and every one interested is invited to be present.

Every club in the state is asked to send delegates to this meeting and become members of the association. A great work has been done by our association and a much greater work could be done if every club in the state would become affiliated with us. We must educate, we must agitate and we must organize if we will have agriculture take its rightful place among the

industries of our country. Let every club become a part of this organization and work for the betterment of agriculture.

That the association may get in touch with every club in the state not affiliated with us, it is asked that the name of the club and also the name of the secretary of same be sent to the associational secretary at once.—Mrs. I. R. Johnson, Secretary-Treasurer, Rushton, Michigan.

FEDERAL HAY GRADES.

THE hearings on hay grades called by the Bureau of Agricultural Economics of the United States Department of Agriculture was well attended by representatives of the hay trade and the large hay shipping associations. Some of the trade representatives were in attendance at all three of the hearings in Chicago, New York and Washington. They gave their unanimous endorsement to the grades proposed by the bureau, with a few unimportant changes. The bureau will put the new hay grades into effect on October 30.

Inspections will be made at New York City, Chicago, Richmond, Va., several up-state points in New York state, and Philadelphia, to start with. A hay exchange is now being organized in Chicago to take care of this matter.

The system of grading includes timothy, clover and mixtures of the two. There are to be two classes, timothy and clover, and four sub-classes, light

clover mixed, medium clover mixed, heavy clover mixed, and very heavy clover mixed.

There will be five grades in each class. Color will be the distinguishing characteristic. The basis of grading will be the condition when cut: No. 1 hay in the bloom stage; No. 2 in the dough stage; No. 3 hay containing ripe seeds. Weeds and foreign matter will be handled on the percentage basis.

It is announced that these hay grades hearings will be followed by a "Better Hay" campaign throughout the hay-growing regions, especially in New York, Pennsylvania, Ohio, Michigan, Wisconsin and Minnesota, to be promoted through the state extension service.

ROAD PROBLEMS TO BE DISCUSSED.

NEXT week from Tuesday to Thursday at the Coliseum, Grand Rapids, a program of addresses and discussions by men active in the business of building, maintaining and using good roads will be presented by the Michigan Good Roads Association. The three days' sessions cover a wide range of topics, including up-to-the-second problems of practical road building; needed legislation for protecting roads, people and property, and the greatest of all road subjects—road taxes. The gasoline tax, franchises for common carriers upon highways, regulation of trucks will be given special

consideration. Farm bureaus, granges, gleaners and farmers' clubs ought to send delegates to this meeting.

LOANS BEING PAID.

THE War Finance Corporation is now receiving repayments on loans at a far greater rate than it is advancing funds on loans. From October 16 to October 31, the repayments received by the corporation totaled \$9,471,736, of which \$9,207,519 was on agricultural and live stock advances. From October 16 to October 31, the corporation approved twelve advances, aggregating \$301,000, to financial institutions for agricultural and live stock purposes. The War Finance Corporation has tentatively approved the application of the Peanut Growers' Exchange, of Suffolk, Virginia, for an advance of one million dollars for the purpose of financing the marketing of peanuts.

THE EGG-LAYING CONTEST.

THE Michigan International Egg-laying contest started on November 1 with ninety-five pens in place. The contest promises to be of international interest, as it contains entries from New York, Washington, Missouri, Rhode Island, Tennessee, Connecticut, California, Indiana, Ohio, Oregon, New Jersey and Canada. Two pens were entered from England, but at the last minute they were cancelled.

The White Leghorns are in the greatest majority, there being entered fifty-two pens of that breed. There are also eighteen pens of Barred Rocks, nine of White Wyandottes, seven of Anconas, six of Rhode Island Reds, two of Brown Leghorns and one pen each of Buff Leghorns, Buff Rocks, White Rocks, Buff Wyandottes, Black Minorcas, and Black Orpingtons.

Elmer E. Shaw's pen of White Leghorns from South Haven, had the lead at the end of the first week, with a score of forty-three eggs. W. A. Downs' Leghorns, from Washington, Michigan, came second with thirty-nine eggs to their credit, and E. D. Taylor's pen from Kalamazoo, was third, and that of Alfred Terhaar, of Hudsonville, was fourth with thirty-six. The last two pens were also Leghorns.

The pen of H. E. Dennison, of East Lansing, Michigan, leads the Plymouth Rocks with twenty-seven eggs to its credit; that of Clyde Hollis, of Hudsonville, Michigan, leads the Wyandottes with twenty-three eggs, while the Rhode Island Reds belonging to L. O. Dunning, Delton, Michigan, leads that breed with twenty-three eggs.

At the end of the week all pens were in place, making a total of one hundred pens of ten hens each.

ATTACK NEW GRAIN LAW.

SUITS attacking the constitutionality of the new grain exchange control law have been filed at Kansas City, Chicago, Minneapolis, Duluth and St. Louis. A test case will be tried at Chicago, November 13, after which it is probable that the act will again come before the United States Supreme Court for a final decision.

SOLDIERS ATTENTION.

ANY ex-soldier desiring information as to how he may reinstate his insurance should take the matter up with the United States Veterans' Bureau at Washington, D. C. In requesting this information the writer should give his name and address, his certificate number, serial number and rank and organization at date of discharge.



Wednesday, November 8.

A MINE blast at Spangler, Pa., caused the death of over seventy-five. —For the first time in Chicago's history, 100 federal deputies have been selected to guard the polls during election, because of intense political feeling.—One hundred thousand barrels of oil are on fire at Elderado, Arkansas. —The section for miles around is a roaring furnace.

Thursday, November 9.

THE Canadian grain interests are much concerned over the intention of the Interstate Commerce Commission to declare an embargo on grain. —Election results in Illinois indicate that the light wine and beer amendment won.—President Harding has called an extra session of congress for November 20.—The government plans to sell by auction the famous Hog Island shipyards on January 30.

Friday, November 10.

THE Hilliard Hotel Company, which manages the famous Vanderbilt hotels, is planning to build an eight million dollar hotel in Detroit. It will be the finest in the country.—Great Britain is preparing for a clash with the Turks because of the Turkish demand for the allies to get out of Constantinople.—Detroit voted down by a big majority the amendment prohibiting interurbans entering the city.

Saturday, November 11.

ANOTHER uprising of the republic forces in Dublin caused the death of three and the wounding of twenty-two.—A new marketing place of the Detroit Municipal Markets with indoor stalls has been opened.—The United States Post Office Department is dis-

couraging the use of odd-sized Christmas cards, because they interfere with the rapid handling of the mail.

Sunday, November 12.

THE report of experts who have been investigating the German financial condition say that a two-year moratorium would help stabilize the mark and put Germany in a better position to pay her debts.—M. Clemenceau, the famous French "tiger" will visit America to tell of French conditions.—The Fascist revolution which has been successful in Italy, is spreading to Bavaria.—Since the recent election, the republican majority in the house of representatives is eight, and in the senate four.

Monday, November 13.

IT is figured that the new tariff will increase the United States revenue \$100,000,000 in the fiscal year.—Government statistics show that the individual wealth increased forty cents per person during October.—The banks of Scandinavia have loaned 100,000,000 marks to the Finnish government.—The National Milk Producers' Federation, in session at Springfield, Mass., re-elected Milo D. Campbell, of Coldwater, Mich., as president.

Tuesday, November 14.

ALLIED troops seize Constantinople customs office and will declare martial law there.—The congestion of grain is so great at Buffalo that one ship had to wait three weeks before unloading.—An earthquake and tidal wave caused the death of over one thousand persons in the ports on the Chili, South American, coast.—A fire at Selfridge aviation field near Mt. Clemens, caused over a million dollars damage.

Clinton Farmer Has Model Hog House

And Some Porkers About Which He Can Well Feel Proud

By P. P. Pope

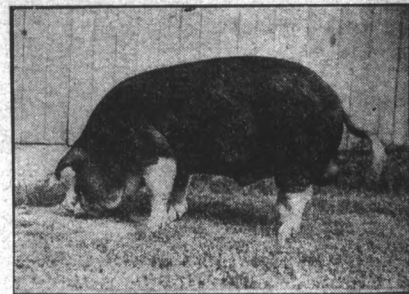
JUST at the edge of the cozy little village of Ovid, over on the boundary line between Clinton and Shiawassee counties, lies the beautiful seed farm of H. C. Owen. As I remember it, the farm contains some four hundred acres and is devoted to the production of vegetable, flower and

are all descendants of an old "A Wonder" sow, no doubt the only living daughter of that noted old boar still left in the state. She was shown to us in fine form and with a nice litter

that temporary partitions may be placed through the center of each pen, making double the number of pens each six by ten feet, so that twenty sows and their litters may be accommodated at one time if it is so desired. The lighting is well-nigh perfect. The house faces the south and the windows are large, and there are lots of them.

A feature worthy of mention is the manner in which the floors are laid. They are of hollow clay tile, covered with an inch or so of concrete. This leaves a dead air space underneath the floors and thus removes the curse of cold and dampness always associated with solid concrete floors and so deadly to new-born pigs. My attention was called some time ago to a hog house floor that was laid one-half over hollow clay tile and the other half of solid construction. The surface presented exactly the same appearance to the eye but the hogs would continually fight for a bed over the tile, refusing to lie on the solid concrete if there was room to crowd in on the other.

Another feature of this hog house that is different is the feeding arrangement. The troughs are of solid concrete and are built within the eight-foot space devoted to alley, leaving the pens ten feet deep in the clear. The floor of the feeding alley is raised

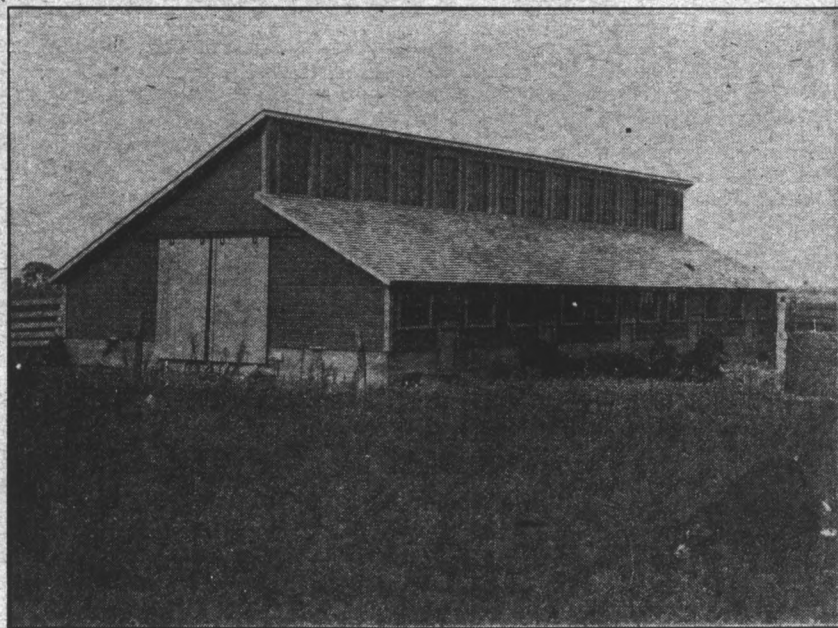


A Son of Revelation.

to a level with the top of troughs and has a slight crown, so I say all that is necessary is to spill the swill on the alley floor and the hogs are fed.

The front walls of the pen are made to slope outward toward the alley at the bottom, the bottom of these walls being fastened to irons imbedded in the concrete at the alley edge of the trough, while the top rail is directly over the inner, or pen side, of the trough. An open space of a few inches between the bottom of this partition and the edge of trough makes the feeding very convenient.

Mr. Owen and his assistant, Mr. Revise, are both gentlemen of the approved type, who take both pride and pleasure in doing good work, and doing it well. They are destined to be heard from in the better line stock field in the not distant future.



The New Hog House on the Owen Farm is Unusually Well Lighted.

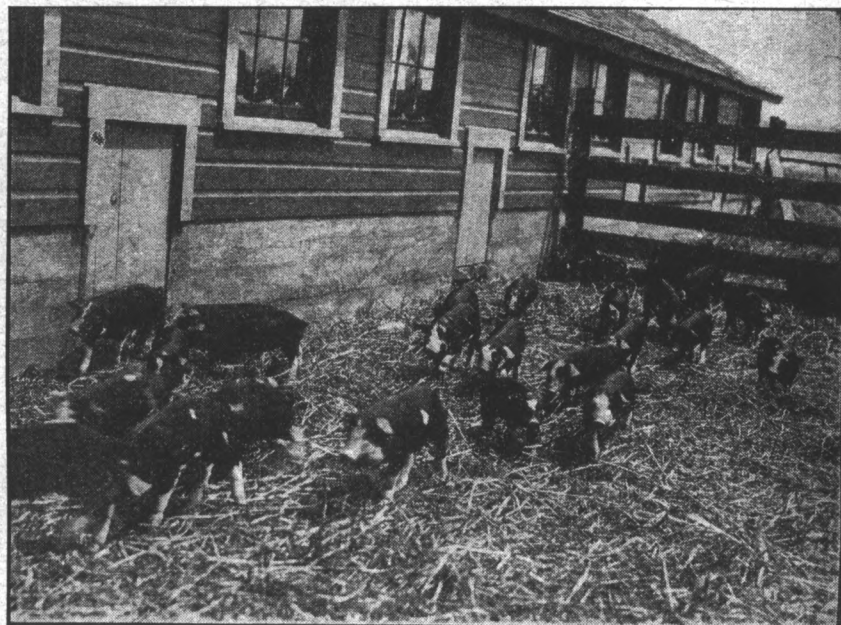
farm seeds and bulbs. An extensive farm house of masonry construction, and of liberal dimensions over in the town furnishes storage for the products and equipment for clearing and preparing them for the trade. As side lines Mr. Owen has some choice pens of pure-bred poultry and a high-class herd of pure-bred swine. It is the hogs and the new and up-to-date hog house that this letter is written especially about.

Several days ago, on a bright, fresh frosty morning it was my privilege, in company with a few other pure-bred swine "fans" to view the herd in their everyday surroundings and inspect the new central hog house. First to call for attention was the senior herd sired by the national grand champion Poland China boar, "Revelation." To date he has never been fitted for show but just kept in good growing condition and used heavily in the breeding herd. He has a wonderful back, perfect head, good set of feet and legs, a pleasing disposition, and a great bunch of sons and daughters. The brood sows are a good lot. They

of pigs a week or so old by her side.

Perhaps the greatest attraction from the breeder's standpoint, was the junior herd sire which the capable herdsman, Frank Revise by name, seemed to delight in showing. And who could blame him. The pig is sired by "Peter the Great." He is a recent arrival from the celebrated Glenwells herd of G. H. Glover, at Grandview, Missouri, and there seems to be no limit to his capacity for rapid growth. He is the extreme in big type and combines a goodly degree of quality with enormous size for age. You look at him and smile in wonderment, ask again about his age, then look some more and marvel that so much bulk could grow inside a hog's hide in so short a time. He will be mated to a choice lot of Revelation gilts and the outcome of the venture watched with interest.

The hog house, as shown in the illustration, is of the semi-monitor roof type. It is sixty-six feet long by twenty-eight feet in width. There is an eight-foot feed alley with a row of pens ten by twelve feet in the clear, on either side. These are so arranged



Grandson of an International Champion Enjoying the Sunlight on the South Side of their Well-constructed House.

Michigan Farmers Will Be There

By H. C. Rather

MICHIGAN will be there. The spirit of friendly but mighty keen competition is apparent among farmers in every county in the state. The International Grain and Hay Show is the big event that is stirring up the enthusiasm these days. Over in Coopersville the grange held a little preliminary workout of their own. It was a corn and grain show and every entry was of a type that would do honor to Michigan, even at the big international. Farmers at Coopersville say they are going to make that a seed corn center and they are all exhibiting at the International Grain and Hay Show next month to "tell the world" what good seed corn they have.

Michigan's famous Rosen Rye will be there, too, with samples from South Manitou Island, from practically every grower of certified seed, and from several others who have not kept up the

certification of their rye. Last year Michigan rye growers took the first twenty-five out of thirty awards. One grower said, "The only reason Michigan didn't take all thirty was because there were only twenty-five of us exhibiting." Competition is getting keener, though, and growers in the Wolverine state are going to have to put some extra elbow grease on their fanning mill, stick close to the purest of Rosen seed, and not forget a little acid phosphate and other elements that help make winners, if they are to continue the splendid performance of the past three years.

Red Rock wheat, another big international winner, will be there in force. C. D. Finkbeiner, of Clinton, already has won laurels for Michigan and himself. A bushel of his Certified Red

Rock entered at the International Wheat Show at Wichita, Kansas, won first in the class for soft red winter wheat and another bushel won third in the open class, competing with hard winter and spring wheats as well as wheat of its own grade. This news has awakened the interests of a lot more of the Red Rock growers to the opportunities at Chicago.

There will be entries of Shepard's Perfection, too. Michigan climate, Michigan soils and Michigan varieties combine to make wheat of outstanding quality and it will not be surprising to see Michigan growers carry off the majority of the soft winter wheat awards as they have done in the past.

One of the interesting features of Michigan's record at past international shows has been the fact that the

awards did not go to the so-called professional type of exhibitors. Instead, the big honors, the big money premiums, the trophies and medals have gone to practical farmers, like Charles Laughlin, of Dansville; the Hutzlers, the Johnsons, and Irwin Beck of South Manitou; W. O. Skire, of Cedar Run; J. W. Vietengruber, of Frankenmuth; Ray Brothers and Farley Brothers, of Albion; Ralph Arbogast, of Union City; Gifford Patch, of Clarklake; L. L. Lawrence, of Decatur, and many others. Here are men producing their crops on a field scale, entering into the real spirit of grain shows by exhibiting samples really representative of those crops, those same crops being good enough to win their honors in competition with the best in North America.

Every season adds to this list the names of men inspired by a desire for like achievements, learning from their experiences in keen competition.

OUR SERVICE DEPARTMENT

SUBSTITUTING BRAN AND MIDDINGS FOR OATS.

I have on hand a quantity of bran and middlings mixed, carrying 15.50 per cent protein. I feed silage containing a good supply of dented corn, and cut stover from which the corn has been husked in the morning, and silage and alfalfa or clover at night. Can I get as good results by using the bran and middlings in place of oats?—M. T. B.

Since oats contain 10.7 per cent of digestible protein, while your bran and middlings mixed contain between twelve and fifteen per cent, it will not require 200 pounds of the latter to take the place of 200 pounds of oats. In fact, 150 pounds of bran and middlings would replace that quantity of oats so far as the protein is concerned.

WHEN AND HOW TO APPLY LIME.

I would be pleased to know the best time to sow lime. Can it be sown with a grain drill?—C. H.

The proper time to apply lime is after the land is plowed and before the crop is planted. Lime should not be plowed down. It will leach through the soil fast enough. Lime applied in the winter time is liable to be carried off by surface water during freshets.

A grain drill is not suited to the work of applying lime. The lime will not feed through satisfactorily, nor will such a drill have capacity for applying enough. It is not practical to put on less than a ton of ground limestone per acre. A good lime drill can be purchased now for fifty dollars or less. They distribute the lime evenly and will put on sufficient quantity. If you can provide no lime spreader, a fairly good job of spreading may be done from a wagon with a shovel. A little experience will enable you to apply the right quantity.

SEEDING ALFALFA.

I have a field of rather poor sandy loam soil which stood in sod a number of years as pasture. This year raised a fair crop of corn. This fall I applied 300 pounds of sixteen per cent phosphate per acre and 1,200 pounds of ground limestone per acre, and sowed to rye and vetch, and I have a good stand of it. I want to know the quickest and best method of getting this field into alfalfa. I haven't any barnyard fertilizer to use, but am willing to use whatever lime and chemicals are necessary. I have a field of sandy loam which grew a good crop of red beans—thirteen bushels per acre this year without fertilizer of any kind. I want to plant this field to corn in 1923 and have no barnyard fertilizer for it. I would like to know what chemicals to use, when and how to apply them to get best results.—C. P.

In order to get a stand of alfalfa as soon as possible I would suggest that you allow the rye and vetch to stand in the spring until it is about four to five inches high, or until it is all thoroughly green, and then plow the same down, taking extra care that all material is turned under. This will dispose of the rye and vetch and at the same time add a small amount of organic matter to the soil. Roll the soil with a heavy roller, or better, with a cultipacker. Make another application of lime, either of a finely ground grade of limestone at the rate of about one and one-half tons to the acre, or marl, if such is available, at the rate of about three cubic yards per acre. Work this material into the soil with a spring-tooth or spike-tooth harrow. If the land contains weed seed it would probably be advisable to harrow the ground about once a week for about two to three weeks to kill the young weeds. Not more than a week previous to seeding, an application of a 2-12-4 or

2-10-4 fertilizer at the rate of approximately 250 pounds per acre, either applied with a grain drill or broadcasted and worked into the soil will prove profitable.

Obtain Grimm seed from a reliable source and inoculate. The inoculation can be obtained from the bacteriological laboratories of the Michigan Agricultural College, East Lansing, Michigan. Full directions for inoculation are furnished with the cultures.

Seed the alfalfa when the ground is moist in the first part of June. The rate of seeding for Grimm seed is ten pounds per acre. In case you cannot obtain the Grimm seed and are forced to use the common, then seed at the rate of about fifteen pounds per acre. Seeding can either be done with a drill or broadcasted and worked into the soil. Extra care should be taken not to get the seed too deep.

On a sandy loam soil corn usually responds well to a 2-12-0 fertilizer at the rate of about 250 pounds per acre. This fertilizer applied broadcast and worked into the soil or through a grain drill a short time previous to seeding is usually the best practice.—G. M. G., M. A. C.

NUISANCE.

If A leaves a dead horse unburied, can he be compelled to bury it? The health officer is this party's father, so there is no use of complaining to him.—E. K. R.

Nuisances may be abated by act of any person specially injured without any legal proceedings; or they may be abated by injunction order, or suit for damages may be maintained to recover the injury suffered thereby; or

the party may be convicted criminally for maintaining a nuisance. No one can abate the nuisance nor maintain an action for the injury therefrom unless he suffers special damage therefrom different from the general public.—Rood.

CHILDREN OF DIVORCED COUPLE.

My wife and I are living apart. She went away on her own account. We have three girls and a boy, all of them with me. Can she distribute those children to whom she pleases, without my consent?—Subscriber.

She cannot disturb custody of children without order of court.—Rood.

A CONCRETE CHIMNEY.

Can I use concrete to build a serviceable chimney for my house?—F. H.

The walls of a chimney used for stoves, fireplaces, or heating furnaces may be satisfactorily built of concrete. The chimney should be lined with fire clay, flue lining made for the purpose, and have walls not less than four inches thick, exclusive of flue linings. If the concrete is poured in place it should be reinforced, both vertically and horizontally to avoid the possibility of cracks due to settling of foundations or temperature stresses. Concrete blocks should be similarly reinforced in both directions. A quarter-inch rod vertically in each corner about one and one-half inches in, and a No. 9 wire around these every six to eight inches, will be sufficient. Woven wire fence of No. 9 wire would be satisfactory and probably more easily placed.

In frame buildings the chimney

should always be built from the ground up or on the basement wall. The foundation should be at least twelve inches wider on all sides than the chimney.

The concrete should be a 1:2:4 mixture consisting of one sack (one cubic foot) of Portland cement, two cubic feet of sand, and four cubic feet of gravel. The material which will pass through a quarter-inch mesh screen is classed as sand and that which passes over as gravel. A mixture of 1:5 of cement and bank-run and gravel in either case should be free from organic matter and clean and sharp.

If circumstances make it possible for a man to do his own labor in building a chimney, reinforced concrete may be economically used, otherwise brick will be found to be cheaper, and a material which in many ways lends itself more readily to this particular use.—Floyd E. Fogle, M. A. C.

RENTING FRUIT TREES.

I rent a farm of B, except the orchard, which was rented to another man. There are three cherry trees away from the orchard and are in a field I leased for beans. Has B a right to lease the land to one man and the trees in the same field to another? Or have I a right to half the fruit on the trees in my field?—J. N. F.

The lease of the land includes the fruit from the trees grown thereon and the lessee is entitled to it.—Rood.

LAND CONTRACTS.

A buys farm on contract. A has lived on farm two years, but his wife did not sign contract. Is it good?—H. C. J.

Signature on the contract by the buyer is not necessary, and even if it were it would not be necessary for the wife to sign. But the signature of the wife of the seller is necessary to bar dower, and if the property is a homestead to make the contract valid.—Rood.

FISHING FROM SHORE.

There is a certain farmer who has his barnyards and barn on the Saginaw Bay shore. His cattle pasture around his own fishing front as he has leased the fishing front. He has a neighbor who trespasses on his yards, opening gates and letting cows out. He claims that it is a public highway. There is a road every half mile where this man could get to the shore. The farmer has sign up, but still his neighbor passes, and sometimes destroys the signs. Is the man allowed to fish on this farmer's fishing front?—A. P.

The public has no right to fish from the shore, and the shore is not a highway unless made so by regular proceedings.—Rood.

VALUE OF SILAGE.

Will you kindly give the value of good silage per ton?—J. H. S.

The common price for silage is one-third the price of mixed hay in the barn. In other words, if mixed hay is selling for \$12 in the barn, silage could be figured as worth \$4.00 per ton. If mixed hay is \$10 per ton, silage would be worth about \$3.50 per ton.

DAMAGED BY EXPRESS COMPANY.

I sold a three-barrel gun. It was sent by express. It was bent and dented past repairing. The company refuses to pay for it, saying that if it can be fixed they will pay for it; but it cannot be fixed. What steps should I take to get my pay for the gun?—J. D.

The express company is liable for negligent injury to the gun while in its possession.—Rood.

Farmers' Week at M. A. C.

Preliminary Announcement

IN connection with the announcement of dates for Farmers' Week, which will be held at M. A. C. from January 28 to February 3, agricultural leaders call attention to the strategic part it now plays in the whole program of agricultural extension. This annual round-up, which brings to East Lansing several thousand persons each winter, has become the foremost agricultural meeting in Michigan, and from it radiate most of the farm activities of the entire year.

Farmers' Week is significant primarily for the definition of the issues facing agriculture, as set forth by men prominent in the nation's affairs. Usually these speakers are so chosen and their subjects so assigned that a few vital subjects—cooperation, or credit, or efficient production—are emphasized. Press despatches carry what is said to all points of the state, and the farmers who hear the addresses help to spread the ideas broadcast. In this way the attention of the entire state is focused upon the most pressing problems of the moment.

Another important result of Farmers' Week is the centralizing of the activities of a dozen or more leading agricultural associations, which hold their annual meetings at the college in connection with the general gathering. By convening simultaneously, these organizations are able to work in harmony and to plan programs for the year that will accomplish a maximum in the betterment of Michigan's agriculture.

Perhaps the most distinctive of the benefits accruing from the round-

up is the fine opportunity it affords to farmers to visit their agricultural college. Besides listening to the addresses at the general sessions and attending the separate association meetings, visitors are able to see exemplified in actual practice the methods advocated by college experts. They are invariably interested in the barns and laboratories where the soil, crops, dairy, plant disease and other problems are worked out. A number of special exhibits planned for the week stress the various phases of efficient production. The "parade of agriculture," inaugurated last year, gives the farmer a concrete notion of the live stock and equipment owned by the college and of the multitude of activities carried on by students.

Merely to absorb the atmosphere of the campus for five days and to come in direct contact with the men who are blazing the trail in modern agriculture is in itself an inspiration for the farmer. It's hard to keep a vision when you're engaged day after day in the routine of chores and farm work. The man who spends a week at M. A. C. each year goes home resolved to better his own methods of production and to do what he can to persuade his neighbors to adopt the same methods.

It is probably safe to say that of the five thousand farmers who visit M. A. C. each year a large portion assume places of leadership in their home communities. Michigan agriculture is thus given a progressive leadership from within itself which supplements and makes far more effective the efforts of the extension workers sent out by the college.—Henshaw.



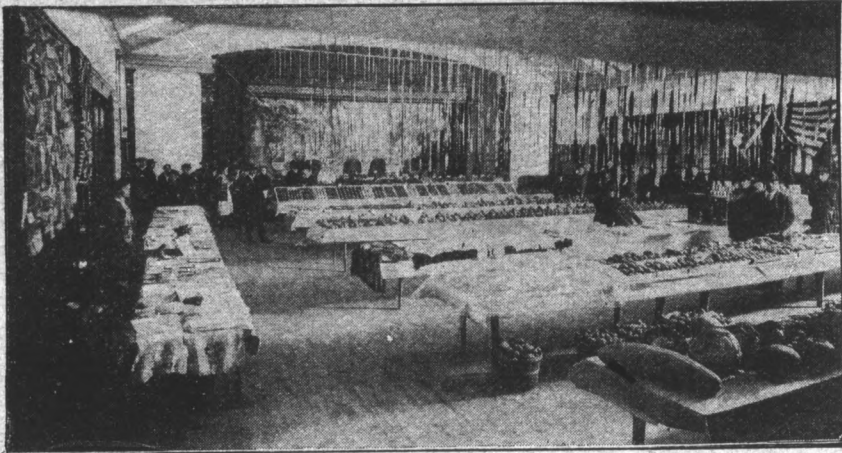
Michigan Standard Varieties

Standardizing Fruit Varieties Will Add to Michigan's Prestige In Outside Markets

THE commercial fruit interests of Michigan realize that one of the greatest weaknesses in the fruit sections of this state has been the multiplicity of varieties grown. Many of these varieties are not best adapted to the localities, while the great number of varieties produced makes it impossible to ship single varieties from many of our sections in carload lots. With the idea of presenting to the growers a limited number of the best varieties of fruits for commercial production in the several fruit sections,

mended and adopted by the society is as follows: Bartlett, Kieffer and Seckel for general planting, and the Clapp, Howell and Bosc, together with the previous varieties, for planting in southwestern Michigan.

The above varieties will be generally recommended by the society and by the horticultural department for Michigan planting until such time as other varieties prove more desirable from further tests and it is to be hoped that all growers and nurserymen interested in the production of tree fruits



The Recent Newaygo County Community Fair at Fremont was a Great Success. The Exhibits of Fruit and Vegetables were Especially Good.

and the hope of overcoming some of this weakness of producing such a multiplicity of varieties, the experimental committee of the Michigan State Horticultural Society, which is composed of representative growers of the several fruit sections of the state and representatives of the horticultural department of the college, presented a list of varieties to the State Horticultural Society for general planting in Michigan. This list is not recommended for the fruit sections about Grand Rapids and Detroit, but is for commercial plantings of growers producing fruit for the general market. It is hoped that for future plantings these growers will very seriously consider the varieties recommended by this committee. The varieties are as follows:

Apples.—Wealthy, Jonathan, Grimes (double-worked), McIntosh, Fameuse (Snow), Rhode Island Greening, Red Canada (Steels Red), Hyslop Crab; Duchess plantings to be limited to southwestern Michigan, the Spy to southern and central Michigan, and the Wagener to northwestern Michigan.

Since the Grimes is so susceptible to collar rot, it is desirable in growing this tree to purchase it already double-worked or to plant some other hardy variety and top-work it to Grimes. The committee did not feel that it could recommend the Duchess for planting in Oceana county or in any of the counties north of this point or the Wagener for planting in southern Michigan.

There are other varieties being advertised today that may prove worthy of recommendation in such a list some time in the future, but thus far the committee feels that they could not be recommended at this time.

The Elberta peach was the only variety of peach that they could recommend for general commercial planting in Michigan. The list of pears recom-

ended and adopted by the society is as follows: Bartlett, Kieffer and Seckel for general planting, and the Clapp, Howell and Bosc, together with the previous varieties, for planting in southwestern Michigan.

PEACHMOND, A NEW FRUIT.

REPORTS have come from Mexico that Dr. John Belme, a plant expert of the Mexican Horticultural Department, has produced a cross between a peach and an almond, which combines the flavor of both.

For seven years Dr. Belme has been endeavoring to cross the sweet almond with a fine sweet freestone peach which he procured from the United States. At last he has succeeded in producing a fruit which has eliminated the useless bitter kernel of the peach and substituted a valuable article of commerce. The seed of this fruit has a shell a little thicker than the ordinary almond, but the kernel is sweet and about the size of an almond. The flesh of the fruit is sweet and juicy and many experts believe it is superior to its peach parent.

If this fruit should prove of commercial value, it may be that soon we will be able to buy fruits and nuts combined in one article.

GRAPE EMBARGO.

THE Erie Railroad has announced a permanent embargo on all east-bound shipments of grapes. This action was taken because of the great congestion of grapes at the New York terminal of the road. Most of these grapes have come from California, Michigan and New York.

One of the officials of the road says that grape shipments have increased greatly during the past four years, because of the eastern shipments of California grapes which were used formerly to make wine. Since the advent of prohibition the California wine grape has become popular for fresh fruit consumption and also as crushed fruit.



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A flange-shaped sole of one single, solid piece of rubber, extending from toe to back of the heel—

Tough, flexible rubber everywhere backed by heavy, close-woven fabric—

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The diagrams below show you some of these details. Every one means longer wear and greater boot comfort.

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You'll find every type of rubber footwear in the big U. S. line. There's the U. S. Walrus, the famous all-rubber overshoe—the U. S. Lace Bootie, a rubber workshoe to be worn over your socks for spring and fall—U. S. Arctic and Rubbers—all styles and sizes for the whole family. Look for the "U. S." trademark before you buy—the honor mark of the oldest rubber organization in the world.

United States Rubber Company



THE ANKLE—An extra "collar" runs round the leg, and on top of that a heavy side-stay.



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



BACK OF THE HEEL—One of the strongest points of the sole boot—11 layers of duck and rubber.



Extra heavy flange sole

THE SOLE—A thick, single layer of toughest rubber. Its flange shape means extra wear.

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In almost every Michigan village and town you will find a reliable shoe store featuring the Herold-Bertsch service shoe line at \$3 up, and dress shoes at \$5 up.

HEROLD-BERTSCH SHOE CO.
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Good-looking
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News From Cloverland

By L. A. Chase

AN UNIQUE EXHIBITION.

WAKEFIELD will see on November 22 a very interesting exhibit of the handicraft of many nations, produced by residents of Gogebic county of varied European origin. There are said to be fifteen different nationalities represented in the city, all of whom are asked to be represented at this exhibition. The affair is under the auspices of the Americanization committee of the women's club.

SIGNS TO BE REMOVED.

HIGHWAY superintendents of the Upper Peninsula have received positive instructions from Mr. E. F. Rogers, state highway commissioner, to remove all signs along trunk-line highways in the district, as the law requires.

ANOTHER COUNTY PARK.

GOGEBIC county has established a park and camp-site on the shore of Lake Superior at Little Girls' Point north of Ironwood. There is a fine beach and woods. Tables and other accommodations for travelers and pleasure-seekers have been provided. There is a fine road to Ironwood, seventeen or so miles distant, running through much virgin forest of hardwoods on land that will some day be under the plow. Indeed, the Ironwood end of the road exhibits some very fine farms already.

ROUNDING UP CLUB MEMBERS.

COUNTY Agricultural Agent L. M. Geismar, of Houghton county has been holding a series of meetings for the purpose of meeting the boys and girls who are interested in club work during the coming year. Mr. Geismar finds that excellent results have already come from these clubs and he wishes to establish more of them.

The two other matters which are interesting Houghton county farmers are the securing of federal farm loans and securing markets for the very large potato crop, this fall. In southern Houghton county, farmers have produced a large quantity of cabbage for which a market is being sought.

MORE TRACTORS EMPLOYED.

THE increasing use of tractors in the Upper Peninsula as a substitute for horses in the hauling of logs and for woods operations generally, is illustrated by the recent practice of a saw-mill at Lake Linden, which now employs five of these machines in the woods. Two tractors hitched to nine wagons hauled ten thousand feet of timber to the mill in one operation. This is a tremendous saving of horse flesh. On the other hand, Iron Mountain reports that the car shortage is interfering with shipments of lumber by rail.

A GOOD YEAR'S WORK.

LAND-CLEARING Specialist L. F. Livingston, of the Michigan Agricultural College, has returned to his office in the Marquette county court house after completing the land-clearing campaign in sixteen counties of the northern section of the Lower Peninsula. Twenty-five demonstration schools were held, beginning with that at Cheboygan, September 14; thirty-one selected areas were cleared of stumps in the presence, and with the assistance of 4,000 assembled farmers. Of the farmers present, 1,265 will receive short-course certificates as a result of their participating in the work of these schools.

Mr. Livingston reports that one-fourth of the farmers who attended these schools were without experience with dynamite previous to the holding of the schools, and it is said that these farmers were gratified from learning the possibilities of this explosive. Inquiries from other sections of southern Michigan received at the Marquette office indicate that other farmers are becoming interested in the land-clearing methods that Mr. Livingston and his assistants have demonstrated thus effectively. Equipment similar to that used in the Upper Peninsula campaign, last spring, was employed, including a mixed train of flat, box and sleeping cars.



IS OPPOSED TO LOWERING INDEMNITY FOR T. B. CATTLE.

I UNDERSTAND that there is a sentiment favorable to reducing the amount of indemnity paid for cattle found affected with tuberculosis. This, I think, is entirely wrong. It is my opinion that the farmer ought to have more than he is getting now. When the state condemns a piece of property for public good they expect to pay the owner what the property is worth. If the state takes a man's animals for the public good why should they not pay what those animals are worth?—W. R. Hogan, Saginaw County.

BOYS' AND GIRLS' WORK IS IMPORTANT.

THERE is no work being done by the educational institutions of the country that quite equal, in my estimation, the value of that done in the clubs for the boys and girls. The way these club members look after their job is amazing. The valuable things they learn is beyond me. Through the leaders being developed in these organizations I have faith that the next generation of farmers will not be the unskilled farmers and the poor business men that we farmers of the present day are.—L. G. Strait, Oceana County.

HELP OURSELVES.

WHILE we are complaining so generously about our condition, I think we are just making ourselves less fit to do our work. When a fellow can lay the blame on some one else, then he goes at his work just half-heartedly. And everyone knows that to go at farming at the present time in a half-hearted manner means failure. We must sow good seeds on fertile lands, grow good stock and then go about the marketing problem in a way that we may be able to learn the fundamentals as we go.—B. C., Gratiot County.

STANDARD VARIETIES AGAIN.

I SEE that Professor Marshall does not agree with me in regard to varieties to plant. He is right, of course, but the difference between us lies in the fact that he is speaking from the standpoint of the best varieties for Michigan, while I have the

HEAVY BEET YIELD IN CLOVERLAND.

THE Menominee River Sugar Company—the only beet sugar factory in the Upper Peninsula—was due to open about October 12. It will run until about Christmas, it is reported. The yield of beets in its territory, which includes the southern portion of the Upper Peninsula, is said to have been unusually heavy.

SOLDIERS WANT LAND.

AMERICAN Legion men in the copper country are manifesting considerable interest in the plans of the State Department of Agriculture for placing service men on the land, and a meeting for the consideration of this subject was held at Calumet, November 9, and was addressed by the State Commissioner of Agriculture, Mr. J. A. Doelle. The meeting was held under the auspices of the Legion posts of Calumet and Keweenaw.

dollars and cents viewpoint. Green apples simply will not sell, no matter how high the quality. The Greening is an excellent apple, but if people will not buy them, why set out trees of that variety? McIntosh has been very much overplanted and I fear it will go the same way the Duchess did, i. e., not sell for enough to pay for the freight and packages. I have in mind the law of supply and demand. The lowly Ben Davis is a most excellent keeper and the market demands a red, red apple. Along about February, the Ben Davis will bring a nickel apiece. If people are bound to eat inferior fruit such as Ben Davis apples and Elberta peaches, then it is a great deal more profitable to supply the demand than to educate the consumer.

As an instance of this I refer to the past summer. The Prolific and Captain Eads peaches are far superior to any Elberta ever grown. Many people around here had set out orchards of these varieties and had a big crop. The buyers would not even look at them, but demanded Elbertas only. Only for the tourist, roadside market the growers would have been unable to sell these peaches, and even so, there were hundreds of bushels that were never picked. Personally, I am chuck full of altruism, but when the kids need new shoes and winter clothes it is the Elberta peach, the Ben Davis apple and the Keiffer pear that produce the necessary spondulicks. But enough of that. Far be it from me to stand in the way of educating the consumer to higher standards.—L. B. R.

FROM THE CORRESPONDENCE TABLE.

How the farmers are going to get by with the help that is now available in the country is more than I can figure.—R. T. Smith.

The present coal situation makes us farmers wish many times that we had the old wood-lot in the condition it once was.—S. Brackett.

I have been in the west. It is apparent to me that the prospects for farmers in Michigan are grand, as compared with the outlook for the western many. They are simply up against the impossible until the railroad rates can be reduced, or until they attract more industries into that section.—W. Binney.

Caring for the Herd Sire

By W. A. Freehoff

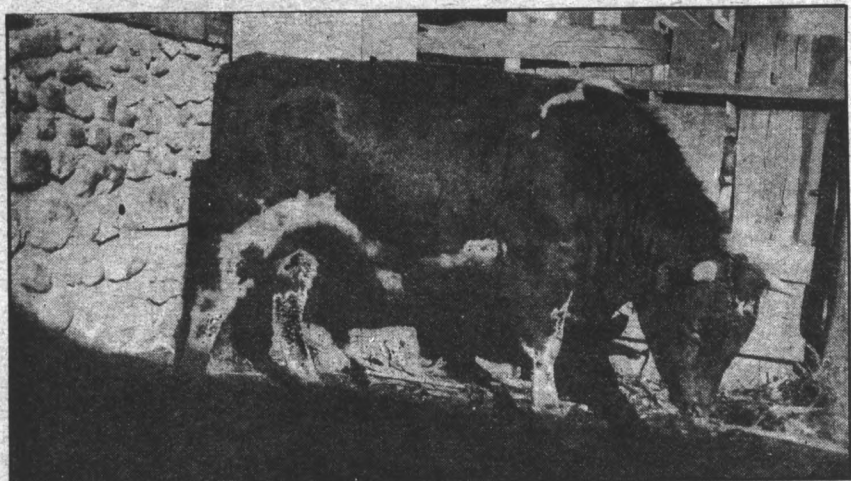
It has been said that "the bull is half the herd," but the truth of the matter is that, weighed in the milk scales and in the annual balance sheet, he is far more than half the herd. In truth, the whole success and future of the dairy industry depends upon the bulls used by dairymen. The pure-bred sire indelibly stamps his progeny with the "trade-mark" of his own breed, and his owner soon feels the direct benefits resulting therefrom.

For the farmer of average means the best plan is to buy a young bull whose maternal ancestors during several generations showed great yearly milk and butter-fat production records. Only bulls which have the backing of closely-related, high-producing ancestors can improve a herd. Keep this point in mind: Most good bulls are registered, but not all registered bulls are good. The prepotent bull stamps his calves with his own desirable qualities. Therefore he must have desir-

growing ration for the young bull is: Skim-milk, clover or alfalfa hay, silage or roots, one to five pounds, depending upon his age, and one-half to one pound of the following grain mixture: Oats, three parts; wheat bran, one part; corn, one part; and oilmeal, one-tenth part. The mature bull requires feed that gives strength and vitality, but not fat. He should receive from eight to fifteen pounds of silage daily, but no more. A good ration for him is: Silage, eight to fifteen pounds; hay, eight to twelve pounds; and grain mixture, two to four pounds, consisting of three parts of oats and one part of wheat bran.

AN EXPERIMENT IN LAND MARKETING.

A PRACTICAL demonstration of the advantages in producing high-class lambs was given recently at the Jersey City lamb market when two



A Strong Outside Enclosure Arranged so the Bull Can Have Exercise will Improve His Health and at the Same Time Keep Him in Better Temper.

able qualities, and he must be strong and energetic in order to unfailingly pass them on. Look for the wide muzzle, the broad forehead, prominent eye, deep chest, big barrel, open-jointed frame, long, straight rump and loose skin, all combined in the good-sized animal. In addition to outstanding masculinity, strive for vigor and vitality in the new herd sire. Beware of the undersized, lazy, dull-eyed bull; he is never a money maker for his owner.

See that the bull gets plenty of exercise. It will improve both his physical condition and his temper. Do not keep him "jailed" day after day in a small box-stall. Give him a strongly fenced exercise lot, provided with some sort of shelter against sun and rain and flies; here he may exercise at will. Feed him for masculinity rather than for fat. See that his winter quarters are light, well ventilated and sanitary. Handle him frequently and gently while he is still young; it will then be easier to manage him when he grows older. Use a bull-staff at all times, and insist that the hired men do likewise. Remember that it is the docile bull—so-called—that does the damage and gives us the facts for items such as this, so commonly seen in daily and weekly newspapers: "Farmer Gored to Death by Bull." How often the report goes on to state that the offending animal was the "pet of the family." The safe bull is the one that is never given an opportunity to be otherwise, and that is not permitted to run at large in the pasture with the cows.

Many young growing bulls are underfed, whereas the aim should be to get early, steady and rapid growth that guarantees size, stamina and vitality for the mature animal. A good

carload of lambs from West Virginia that had been docked and castrated, and which had been well cared for, topped the market at \$16.25 per 100 pounds, \$1.00 above the next highest price paid that day. One load of 189 lambs averaged sixty-five pounds in weight.

The second load included 211 lambs which averaged seventy-five pounds in weight. The commission firm making the sale informed the representative of the United States Department of Agriculture that \$16.25 was the highest price secured for lambs at Jersey City in a long while, but the lambs were very fancy, and desirable from the standpoint of the butchers. The department official says the price was from fifty cents to \$1.00 higher than would have been secured for the same weight of mixed bucks and ewes, and shows the advantage from the producer's standpoint of trimming lambs in the country.

GERMAN POTATO CROP POOR.

OFFICIAL data confirm reports that potato growing in Germany has probably suffered more from the war than any other major agricultural crop. Production has dropped more than fifty per cent. The reduction has broken down many prosperous industrial enterprises such as, the manufacture of potato flour and starch and of industrial alcohol. Animal husbandry has also been placed under a severe handicap through the shortage of potatoes for feeding purposes. The hog industry in Germany is quite dependent upon the potato crop. While before the war less than thirty per cent of the crop was used for human food, now about seventy per cent is sold for that purpose.



Rope that "stands up" under greatest strain

H. & A. "Blue Heart" Manila Rope, stronger than the Government Standard, stays by you in a pinch

In the ditch—and mired!

But neighbor Brown's teams will have you out again in a jiffy—if the rope doesn't break.

No time to fool with inferior rope on occasions like this. Only the strongest rope made will "stand up" under the heavy strain of such pulling.

H. & A. "Blue Heart" Manila Rope, spun from the toughest rope fibre grown, is the strongest rope made. It is guaranteed to exceed the strength of the U. S. Government Standard. (See Guarantee below.)

And yet H. & A. "Blue Heart" Manila costs no more than many inferior ropes.

Be sure you get this safe, extra-strength rope when you buy. You can tell the genuine, guaranteed H. & A. "Blue Heart" Manila Rope by grasping it in your hands and untwisting the strands. Running through the center of every foot of H. & A. "Blue Heart" Manila Rope is a small blue thread—the "Blue Heart"—our trade mark. Before you buy rope, untwist the strands. If the blue thread is there you will have in your hands a genuine guaranteed H. & A. "Blue Heart" Manila Rope—the strongest rope made.

For other tasks, where a high grade sisal rope is wanted, use the best—H. & A. "Red Heart" Sisal Rope, carefully spun from selected sisal fibre by the same skilled rope makers.

Special Offer!

The coupon below with 40c will entitle you to our new style combination halter and tie rope made from H. & A. "Blue Heart" Manila Rope—weather resisting and much stronger than ordinary halter rope or leather. It is 1/2 inch in diameter and fitted with two snaps and two adjusters that cannot slip when in use. It is worth a great deal more than the low price charged for it and is offered at cost to introduce to you the great strength and wonderful wearing qualities of H. & A. "Blue Heart" Manila Rope.

If your dealer does not yet carry H. & A. "Blue Heart" Manila Rope and cannot supply you with this special halter, fill out the coupon below and mail it to us with 40c in stamps and your dealer's name, and one of these special halters will be sent you prepaid.

GUARANTEE!

H. & A. "Blue Heart" Manila Rope is guaranteed to equal the yardage and exceed the breaking strength and fibre requirements of the U. S. Government Bureau of Standards. Any H. & A. "Blue Heart" Manila Rope found to be not as represented will be replaced.

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H. & A. Star Brand Binder Twine

Evenly spun from the best fibres, of full yardage, great strength, and used from coast to coast by farmers who claim it is never cut by insects.

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H & A

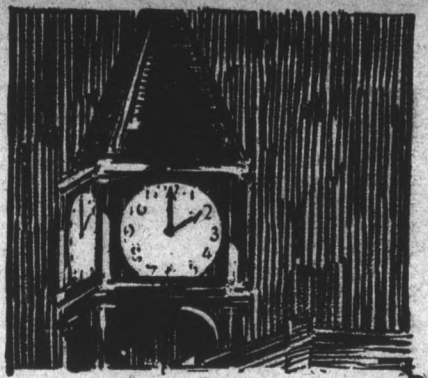
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High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free.
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HOW often you have heard people say, "I can't drink coffee; it keeps me awake nights!" They've learned from experience; have you?

If you are a coffee drinker and fail to get sound restful sleep, it means that your nerves are over-stimulated and that health needs protection from coffee's drug, caffeine.

There's no sacrifice in making health safe, as so many thousands have found who have turned from coffee to Postum. It has a delightful coffee-like flavor, and is free from any element that can harm you. As many cups as you like, and no regrets.

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reloaded smooth, to shoot
Bird shot total length 41
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GET BEHIND A "Midget" Marvel One Man Self-Contained Roller Flour Mill

Only a small house and small power necessary. There's more profit in this high class business than anything you can get into on the same capital, because "It makes a Better Barrel of Flour Cheaper." Saves the high freight on wheat out and flour and feed in. "The first eight months I made a net profit of over \$8000," says A. H. Ling, Jetmore, Kan.; "My profits from the 'Midget' Marvel average right around \$400 per day," Chas. M. McKinney, Cooper, Tex.; "Was \$6000 in debt when I bought my 25 barrel 'Midget,' and the little mill pulled me clean out of the hole long before I bought my 40 barrel mill from you," says M. A. Kamm, Oxford, Mich. Capacities: 15, 25, 50 and 100 barrels of as fine roller patent flour a day as any mill can make. Your community wants one of these mills. Start one before someone else gets in. It's a lifetime paying business. Write today for free booklet, "The Story of a Wonderful Flour Mill," 30 days free trial.

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Square Deal Fence
Stiff stay wires and well crimped line wires, heavily galvanized and locked together with the famous little Square Deal Knot so tight they can never slip, make this a true, long-lasting, economical fence. 50c copy of Ropp's New Calculator sent free to land owners who write for catalog.
Keystone Steel & Wire Co.
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Want to Earn Money?

(Continued from page 525).

trunks." You get pasture trees. You have to grow them close enough together to force them to grow tall and straight. And what is just as important, if they are too far apart you will get branches on the sides of the trunk. Remember that every branch means a knot. By shading the sides of the trunk few side branches will grow, and those that do will die early, leaving only small knots. Lumber is worth more than cordwood and clear lumber more than knotty pieces. Trees grown in the open yield practically nothing but cordwood, with perhaps a little knotty lumber.

Item four reads, "The trees should be of all ages." That doesn't mean that you must have trees, one, two, three, etc., years old, but it does mean that your wood-lot should have trees of all age groups and hence all sizes. Every woodlot managed as an uneven-aged forest should have seedlings, saplings, poles, and so on up to mature trees. By having trees of all ages you will always have some that are ready for cordwood and others of lumber size. It will give you a little to do every winter instead of having it all crowd on you in one year and then have nothing to do for a long time. It is also usually considered possible to get more out of a piece of land by having the trees uneven-aged.

There should always be more of the younger trees. As they grow older some of them must be cut out to make room for the others. Therefore of the oldest trees there will be fewest. The following figures will give you some idea as to how many trees a typical broadleaf wood-lot should contain. The trees run from seedlings to trees eighteen inches in diameter at (D. B. H.) four and a half feet from the ground.

Size of Tree.	Number.
D. B. H.	
1 to 4 inches	250
4 to 6 inches	100
6 to 8 inches	68
8 to 10 inches	39
10 to 12 inches	25
12 to 14 inches	19
14 to 16 inches	13
16 to 18 inches	10

Total, per acre.....524

The next question is "When is a tree ripe for cutting?" Trees decrease in rate of growth as they grow older. Unless you have an especially good market for large trees it isn't good business to let trees get over eighteen inches in diameter. In the preceding table it was assumed that all trees were cut when they reached the eighteen-inch diameter class.

It is also very important that you have the right kind of trees in your wood-lot. Trees that grow fast, live long, aren't likely to rot, and furnish good quality timber are the kind that you want. You should help such trees by cutting out less valuable kinds when they interfere with them. If any

of these trees grow in your locality you should favor them: basswood, white ash, walnut, chestnut, black cherry, and red oak. Please note that I said, "If these trees grow in your locality." Don't plant a tree because you have seen it grow like a weed in another state. If you must experiment do it on a very small scale, and don't charge it to the wood-lot's account. Your experiment station is better able to carry on such experiments and you may be sure that if they ever discover a tree which will bring phenomenal returns they will tell you about it. Nature usually knows what will grow well in your wood-lot, and if it hasn't been cut over too heavily, you will find everything right there which nature found worthwhile.

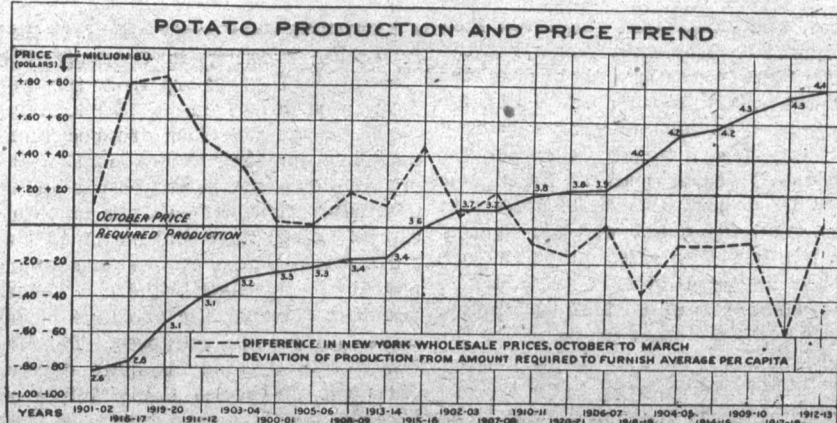
Then there are some trees like sugar maple, yellow birch, white oak, hickory, and elm that may be placed in an intermediate class. These trees are valuable, but not as valuable as those listed in the last paragraph. The following list includes those trees which are as a rule, least valuable. They should be cut out of your wood-lot in favor of the more valuable trees already mentioned. They are: Aspen or popple, dogwood, pin cherry, beech, red maple, June berry, alder, sumach, ironwood, blue beech, witchhazel, etc. All of these trees have some bad points which makes their presence undesirable. Also it is usually better to have trees of several varieties in your woods. Remember the old saying about putting all your eggs in one basket. Several kinds of trees protect you against complete loss, as most insects and many diseases only attack one species. Besides the different trees give wood of different quality to suit your various needs.

Just how to proceed with this wood-lot program will be described in an early issue, probably next week. Watch for it.

TO FIGHT GRAIN RUST.

ON November 14 the second annual conference for the prevention of grain rust will be held at St. Paul, Minnesota. Here will gather members from twelve north central states in the spring wheat area. The conference will review the work done during the past year in eradicating the common barberry as a means of checking the ravages of the black stem rust and will also discuss plans for aiding the United States government in the continuation of this work.

Michigan is vitally interested in this subject and will take a prominent part in the program. Members who will likely attend the conference are Governor Groesbeck, James Nichol, president of the State Farm Bureau, H. H. Halliday, secretary of the Agricultural College, and Dr. G. H. Coons, plant pathologist of the college.



The Above Chart Shows the Relation Between the Production of Potatoes in the United States and the Prices Received. The Crops Are Arranged According to Size, the Years Being Indicated at the Bottom of the Chart.

COMMODITY CO-OPS. TO MEET

AMONG the matters to be discussed at the first nation-wide meeting of commodity cooperative marketing associations called by Senator Capper, and to be held at Washington, December 14-16, will be rural credits legislation from the standpoint of cooperative marketing associations. The common problems of cooperative marketing associations, and particularly the problems attending the handling of the various commodities will be presented. Each commodity group will hold a separate meeting.

One of the chief objects of this conference is the establishment of an over-head organization in which it is hoped to federate all farmers' commodity cooperative organizations. The committee of organization announces its belief "that the future of agriculture, and that means the future of the country, is bound up in the success of commodity cooperative marketing of farm products, and that this meeting of men, and minds, to hear the leaders, to exchange experiences and ideas, to discuss common problems with the representatives of other groups, will be the most constructive forward step in the history of cooperation."



Have the Bees Been Given Attention?

CONTROL WHEAT RUST

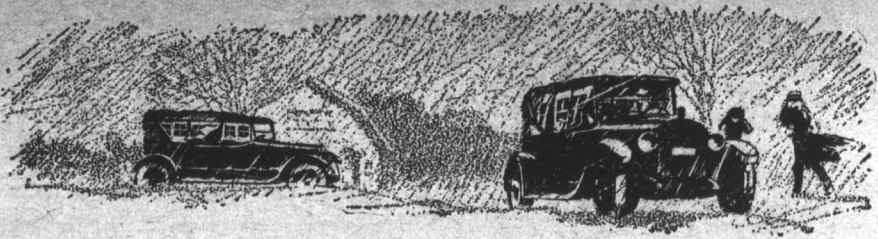
THE farmers of European countries have eradicated wheat rust by eliminating the barberry bush from their respective countries. Five countries have accomplished this largely by means of laws. In England the farmers took matters in their own hands and eliminated this bush. In Denmark, where the bushes have been removed, farmers are no longer troubled with outbreaks of the rust, while in Sweden this disease is extremely destructive, because there little attempt has been made to get rid of the barberries.

PLEASED WITH FEDERAL POTATO GRADES.

IF reports can be trusted, a very great majority of the buyers of potatoes in carlots are demanding that shippers do business on the basis of United States grades. Many buyers declare that it is almost impossible to sell any potatoes except those graded strictly United States No. 1's. The buyers also insist that each bag be properly tagged.

WORTH TEN CENTS PER BUSHEL

STUDENTS of grain production and marketing estimated that were the St. Lawrence waterway in operation now, it would be worth ten cents per bushel to the wheat producer. The waterway would lessen the cost of transportation to the seaboard by five cents per bushel and would also save another five cents per bushel in the set-back occasioned by the present congestion in wheat shipping.



Will You Face the Bitter Blizzards In an Open Car This Winter?

When the smashing price cuts on genuine Rex Tops make it cost so little to have real comfort

It never cost so little to buy real closed car protection as it does today.

Check over the list of popular-make cars at the lower left hand corner. If your car is in this list, your dealer is in a position to sell you a genuine Rex Top (Sedan Type) at a price which seems almost unbelievable—compared with the comfort and convenience you enjoy.

Transforms Your Open Car Into a Comfortable, Luxurious Coupe or Sedan

At the present very low price of the Rex Top, you get the same closed car luxury which formerly cost so much more; you get the greatest use out of your car every month of the year—in all kinds of weather—you travel with a sense of snug security which you never have with an open car. Your school, your church, and your friends are closer to you than ever.

Electric Dome Light Makes Interior Even More Attractive at Night

The effect of the rich trimming, the wide doors, the generous windows and other smart fittings becomes even more attractive at night when you turn on the

electric dome light and it throws its radiance over the interior. With the Rex Top you forget the leaky, flapping curtains; you have all the protection from the weather that money can buy for you and the smartness of line which comes only in a top which is "tailored" to fit your car.

Your Dealer Will Gladly Give You the Details

The dealer from whom you bought your car will gladly tell you all the details about Rex Tops, show you how easily they are adjusted for every season of the year (see pictures below) and explain how Rex patented construction holds the weight down (saving tires and gasoline) and still keeps the top free from squeaks and rattles—*absolutely noise proof*.

He will also tell you about the big price cut on Rex Tops—and how little it costs to install the particular model which fits your car.

Prepare to enjoy your car this winter by getting in touch with your dealer at once.

REX MANUFACTURING COMPANY
CONNERSVILLE, INDIANA

Write for beautifully illustrated folder which shows how the Rex Top looks installed on your particular car, together with details of remarkably low price. Give name and model of your car.

(11)

Big Price Reductions now in Effect on Rex Tops (SEDAN TYPE)

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BUICK—E-44, H-44, K-44, E-45, H-45, K-45, E-46, H-46, K-46, E-47, H-47, K-47, E-48, H-48, K-48, E-49, H-49, K-49, E-50, H-50, K-50, E-51, H-51, K-51, E-52, H-52, K-52, E-53, H-53, K-53, E-54, H-54, K-54, E-55, H-55, K-55, E-56, H-56, K-56, E-57, H-57, K-57, E-58, H-58, K-58, E-59, H-59, K-59, E-60, H-60, K-60, E-61, H-61, K-61, E-62, H-62, K-62, E-63, H-63, K-63, E-64, H-64, K-64, E-65, H-65, K-65, E-66, H-66, K-66, E-67, H-67, K-67, E-68, H-68, K-68, E-69, H-69, K-69, E-70, H-70, K-70, E-71, H-71, K-71, E-72, H-72, K-72, E-73, H-73, K-73, E-74, H-74, K-74, E-75, H-75, K-75, E-76, H-76, K-76, E-77, H-77, K-77, E-78, H-78, K-78, E-79, H-79, K-79, E-80, H-80, K-80, E-81, H-81, K-81, E-82, H-82, K-82, E-83, H-83, K-83, E-84, H-84, K-84, E-85, H-85, K-85, E-86, H-86, K-86, E-87, H-87, K-87, E-88, H-88, K-88, E-89, H-89, K-89, E-90, H-90, K-90, E-91, H-91, K-91, E-92, H-92, K-92, E-93, H-93, K-93, E-94, H-94, K-94, E-95, H-95, K-95, E-96, H-96, K-96, E-97, H-97, K-97, E-98, H-98, K-98, 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Don't board these destructive rodents this winter! Good authorities estimate it costs 2c a day to feed a rat—over \$7.00 a year. Keep them out! That's the big step in bringing about their extermination.

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As a special inducement to get you to try Youngstown Expanded Metal for rat-proofing we have a limited quantity of this material in narrow widths and varying lengths to be sold at 3c per square foot, freight paid to your depot. Figure up the quantity you can use—a few dollars invested now will more than pay the slight expense of rat-proofing your buildings. Don't board rats at \$7.00 or more a year each!

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Roup-Over

The Over-Night Remedy
Running nose is a danger sign in poultry. It usually means deadly Roup. A few drops of Roup-Over will quickly clear the air passages, and the sick fowl is soon all right. Nothing else like it for Roup, Colds and Canker. At your dealer's, or send 50c for a bottle (extra large size \$1) by mail prepaid. Money refunded if not satisfied.
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This space belongs to Simon Harkema and Sons. Breeders of American-English Strain of S. C. W. Leghorns.

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We yet have a few hundred Pullets in Leghorns, Barred Rocks, White Wyandottes and Orpingtons. The most of these Pullets are now near laying age and should be put into winter laying quarters soon. If you want a flock of winter layers, write to us now. Also Cockerels, Bronze Turkeys, Toulouse Geese and Pekin Ducks.

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Barron Strain S. C. W. Leghorns and Parks strain B. Rocks. Large pullets starting to lay \$1.75 each. 12 weeks old pullets \$1.25 each. \$1.15 per 100. Selected S. C. W. Leghorn hens \$1.00 each. \$95 per 100. Good healthy birds no culls or weaklings.

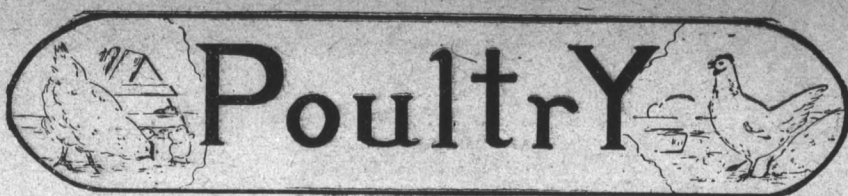
PINE BAY POULTRY FARM, Holland, Mich.

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Hatching eggs, \$1.50 per setting to \$15.00 per 100. We are listing 17 varieties of pure bred fowls: Chickens, Geese, Ducks & Guinea, also breeding stock. Send for prices and circular. Booking now for early delivery. CLINTON HATCHERY & POULTRY FARMS, WILMINGTON, Ohio.

Barred Rock Cockerels

Early hatched, utility bred cockerels at \$2.15 each. Special price in lots of 5 or more. Order from Ad. THOMAS BEYER, R. 4, Zeeland, Mich.



FLOCK CERTIFICATION PROGRESSES.

THE certification of the poultry flocks from which the members of the Michigan Baby Chick Association will secure their eggs for hatching purposes is already under way. Each hatchery man or commercial egg man is culling the flock from which he gets his hatching eggs. After he finishes his work, he notifies the chairman of the certification committee, and then when the local work is done the poultry experts of M. A. C. will check up the work and rate the flocks. If the poultry experts give their stamp of approval, the Michigan Baby Chick Association will issue a certificate of certification.

This certification work is only one of the activities in which the Michigan Baby Chick Association is engaged to put the business of its members on an honorable and unquestionable basis. The constitution and by-laws of this association contains a code of ethics to which all members must subscribe. It is as follows:

"We possess the greatest faith in the baby chick industry.

We believe that baby chicks possess the factors of convenience, safety, certainty and economy in replenishing the poultry flocks.

We pledge our earnest cooperation with and protection of the public through honest, truthful advertising; honest, upright business methods, honest production and sale of chicks as represented.

Lastly, we believe in the Michigan Baby Chick Association, subscribe to the principles for which it stands, and agree to be bound by its rules."

The action of the principal chick hatchers of Michigan in forming this association to assist them in building a business on such a basis is certainly a laudable one. A baby chick is sure to be a big factor in the development of the poultry industry of the state, and the action of these hatchery men in their endeavors to give quality stock to their customers will certainly have a great and favorable influence in putting Michigan in the front rank as a state of profit producing flocks.

FEEDING SYSTEM BY ILLINOIS EXPERT.

PROF. L. E. CARD, head of the Illinois University Poultry Department, was one of the participants in the recent Michigan Chick Hatchers' Association Poultry Tour.

During this tour, he gave a talk on poultry feeding, the gist of which is as follows:

He recommends a mash, consisting of equal parts of bran, flour middlings, cornmeal, ground heavy oats and beef scraps. Heavy ground oats was specifically mentioned for this mash, as the hens cannot stand very much food fiber such as may be found in light oats. For a grain feed, he recommends equal parts of corn and wheat, the measured part of which should be kept about even. For instance, for Leghorns, he recommends the feeding of two pounds per hundred hens of scratch feed in the morning and six pounds in the evening. For the heavy-

ier breeds, he recommends about three pounds in the morning and seven in the evening.

His purpose in feeding light in the morning is to encourage the hens to eat the mash, so as to get their required proportions of meat scraps. Hens naturally like scratch feed the best, but if fed light early in the day, they will fill up on mash and then in the evening will finish up on scratch feed. By this system of feeding, they will eat more than they would ordinarily.

In order to keep the hens in good laying condition he recommends that the scratch should gradually be cut down, starting about the first of March, until about the first of November they will get about half as much as recommended above. In other words, Leghorns will receive approximately one pound of scratch feed in the morning and three in the evening. This is to encourage the hens to eat more mash in order that they be prepared to do their active laying during the fall months when egg prices are high. Starting November 1, the scratch feed should be increased gradually until the full amount is given.

He says many poultry feeders make inquiry about the use of tankage, instead of beef scraps. From his experience he finds that tankage will not produce the number of eggs that beef scraps do. But if it can be bought at \$10 per ton less than meat scraps, it would be worth using as a substitute, as the meat scraps will not produce enough more eggs to make up the difference in cost.

LEGHORN BREAKS WORLD'S RECORD.

COLUMBIA BELL, a White Leghorn hen at Santa Cruz, California, which was entered in the California Farm Bureau Federation contest by L. H. Stewart, broke the world's record by laying 324 eggs in a year. The previous world's record was 315 eggs in a year, which were also laid by a Leghorn hen.

PROFESSOR FOREMAN SAYS:

FEED sprouted oats when they are about an inch long. When they get longer and the green color develops, much of the food value of the oat is lost because the vitamins are used up in growing the sprout.

The Agricultural College will have ready a bulletin on chick feeding in a few weeks. The culling bulletin is being revised and will be ready soon.

IMPROVING THE EGG MARKET.

SEVERAL requisites are necessary for the successful marketing of eggs through the cooperative method. First of all, honesty and integrity lie at the bottom of this mutual plan of distributing eggs or other farm products. There must be a sufficient quantity of the product to warrant the building up of an adequate system. A year-round supply is necessary. The members should have a desire to ship their eggs cooperatively and to facilitate this, they should make every effort to produce the highest quality.

Lots of Eggs, All Winter!

Flock of 46 Hens Laid 39 Eggs a Day.
Costs Nothing to Try.

"Have been using Don Sung since Jan. 1st. My 46 hens are very healthy, and the extreme cold weather doesn't seem to affect the egg production at all. Last week they averaged 39 eggs a day. My pure-blooded flock is the center of attraction in this neighborhood."—Alice M. Dieffenderfer, 199 So. 2nd St., Hughesville, Pa.

If you think your hens can't lay as well, right through the winter months, you're making an expensive mistake. A little Don Sung in their feed costs but a trifle, and shows an amazing difference in the egg record. Let us, at our risk, start your hens laying right now. Here's our offer:

Give Don Sung to 15 hens. Then watch results for 30 days. If it doesn't show you a big increase in eggs, if it doesn't pay for itself and pay you a good profit besides, tell us and your money will be promptly refunded.

Don Sung (Chinese for egg laying) acts directly on the egg-laying organs, and is beneficial in every way. It makes hens healthy and happy. They scratch and sing. Pullets develop earlier. The whole flock lays regularly in any season, in any weather, when eggs are scarce and high.

Can you afford to ignore the wonderful reports you are hearing from Don Sung users everywhere? Why not let us show you the same results, with your own flock? Don Sung is no trouble to use. It costs nothing to try. All we ask is a chance to prove our claims, entirely at our risk. Get Don Sung from your local dealer, or send 50 cents for package by mail prepaid (large size, \$1, holds three times as much).

Burrell-Dugger Co., 424 Columbia Bldg., Indianapolis, Ind.

Brower's Non-Freeze Lampsless Poultry Fountain
Keeps water at a drinking temperature winter and summer. Made of galvanized iron on the principal of thermos bottle, with lined and sealed air space between. GUARANTEED.
1 gal., \$2.50 — 3 for \$6.75
2 1/2 gal., 3.50 — 3 for 9.50
5 gal., 4.50 — 3 for 12.00
Write for Catalog of Poultry Supplies.
BROWER MFG. CO., Box 170, Quincy, Ill.

LEG BANDS

Red, White and Blue Celluloid leg bands at 65c per 100. Post paid. State size and color wanted.

John Nies' Sons,
43 E. Eighth St.

Holland, Mich.

POULTRY

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

S. C. Anconas and S.C. White Leghorn

yearling hens at bargain prices. Write your wants.

M. D. Wyngarden, Zeeland, Mich.

R. C. Br. Leghorns, Pekin Ducks, W. Chinese birds. Mrs. Claudia Betts, Hillsdale, Mich.

Whittaker's R. I. Reds

200 Single Comb Red pullets at \$2.50 to \$5 each. Also Cocks and Cockerels of both combs. From stock blood tested for bacillary white diarrhoea. Write for catalog. Interlakes Farm, Box 39, Lawrence, Mich.

WHITE LEGHORNS FREE
Lay 265 to 301 eggs per year. Winners at 50 shows. Chicks, eggs, pullets, hens and males shipped C.O.D. at low prices. Write today for catalog and complete information to the World's Largest Leghorn Farm.
GEO. B. FERRIS, 934 UNION, GRAND RAPIDS, MICH.

PULLETS & COCKERELS

Now Four Months Old

WHITE LEGHORNS AND MOTTLED ANCONAS Also Black Leghorns, Brown Leghorns, Buff Leghorns, Black Minorcas, R. C. Rhode Island Reds, Barred Plymouth Rocks, White Plymouth Rocks, Silver Wyandottes, White Wyandottes. WE HATCH eggs from Hogenized flocks on free range on separate farms. Where our chicks are raised. Send for Price List.

CRESCENT EGG COMPANY
Allegan, Michigan

RHODE ISLAND WHITES

win over all breeds at the egg laying contest. 30 eggs \$5; 50 \$8; 100 \$15 order from this ad. Some chicks H. H. JUMP, R. 5, Jackson, Mich.

S. C. White Leghorns

Cocks and Cockerels

RALPH S. TOTTEN, Pittsford, Mich.

Single Comb Buff Leghorn

Early hatched ckls. Willard Webster, Bath, Mich.

WHITE WYANDOTTES

207 egg average. Eggs all matings. \$2.00 per 15, \$10.00 per 100. Cockerels, hens and pullets \$5.00 each. FRANK DELONG, R. 3, Three Rivers, Mich.

Additional Poultry Ads. on Page 547



BEST RESULTS FROM SEED CUT SEVERAL DAYS AHEAD OF PLANTING.

WHEN I. C. Holdridge, a regular farmer of Livingston county, had the larger part of his field of Russet Petoskey potatoes planted, he noticed that he was going to run out of seed. His neighbor, being his only source of supply, could furnish him with the same variety of potatoes, as he had a number of bushels left over after finishing his planting. These were cut and ready for planting. They had been cut for fully a week while those that Mr. Holdridge had already planted were cut immediately before planting.

The story of this unthought-of experiment resulted as follows: The yield per acre of the area where seed was cut immediately before planting was 145 bushels per acre; where the seed was cut seven days before planted and properly stored the yield was 193 bushels. This makes a difference of forty-eight bushels, which, at sixty cents per bushel, the price they were selling for at digging time, will make a difference per acre of \$28.80.

This, on a large acreage, would frequently mean the difference between success and failure. The value of cutting seed beforehand to give ample time for the cut to heal up in good shape, and the proper storage of this cut seed, apparently is not only a benefit in a dry season, but works equally as well as in a wet season.—C. L. Bolander, County Agent, Livingston Co.



If You Put Poor Hay in Center of the Bale, this Man will Find You Out.

POTATO GROWERS SHOULD GRADE STOCK.

MORE than ever before the national and state authorities have urged potato growers to grade their stock before placing it on the market. The large crop this season makes it necessary for the marketing of only well graded stock, in order that the producer may receive a fair return for his product. A large quantity of potatoes on the market makes it easier for buyers to select their purchases, and they will naturally give preference to the high quality product.

By grading, the growers can reduce the handling charges, save transportation charges, and also cut down on the use of sacks, besides they will secure a higher price for the grade of stock alone than for a larger quantity of ungraded potatoes. It is reported that one association received premiums of from ten to twenty cents per sack for the graded stock over the ungraded product.

"There never was a time when there was more need, more necessity for those who can teach people by the voice of the word and through the journals of our country than the present."—Vice-President Calvin Coolidge.



Now back to 1917 Prices!

MAKE this Christmas one of the happiest your family has ever known—one they will never forget—one they will look back to year after year with fondest memory. Put Delco-Light in your home for Christmas.

Think of the happiness in your home on Christmas eve, with the family enjoying Christmas pleasures in rooms flooded with bright, cheery, Delco-Light.

And think, too, of the joy in the minds of all in knowing that

Delco-Light will continue to make the home brighter, happier, every day in the year—that running water can be available anywhere you want it—that there will be power to run the washing machine, to milk the cows, and help with so many other chores.

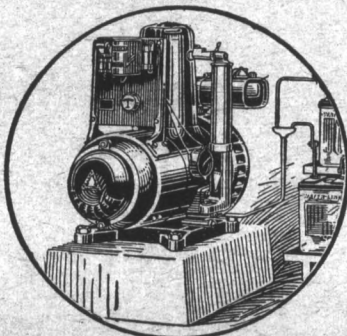
You've probably been thinking for years that sooner or later you would buy Delco-Light. Now is the time to do it. The new big price reduction and time payment plan make it easily possible.

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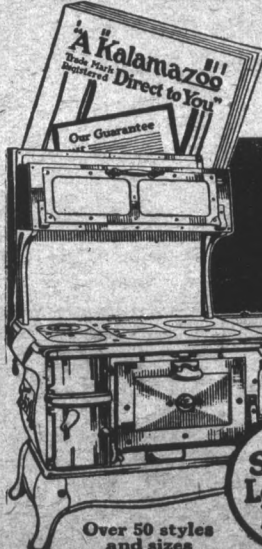
M. L. Lasley, 49 E. Elizabeth Street, Detroit, Mich.
Pringle-Matthews Co., 18 Fulton Street, Grand Rapids, Mich.
E. H. Walker Co., 212 N. Erie Street, Toledo, Ohio



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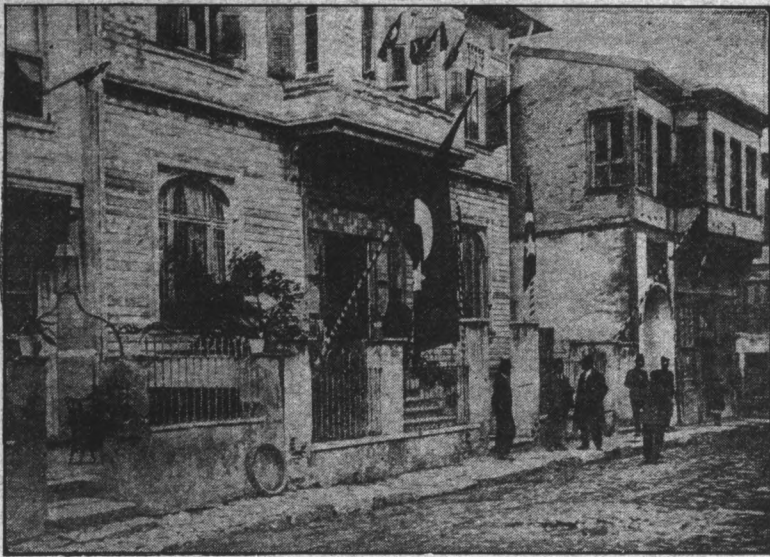
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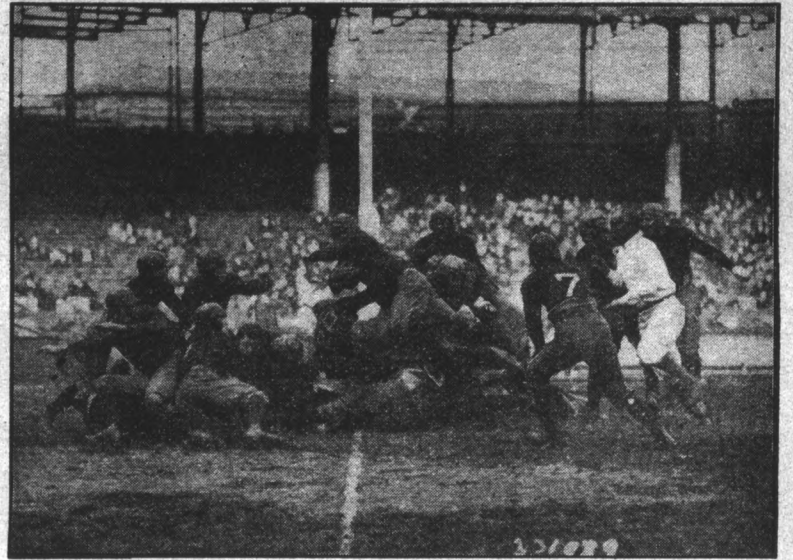
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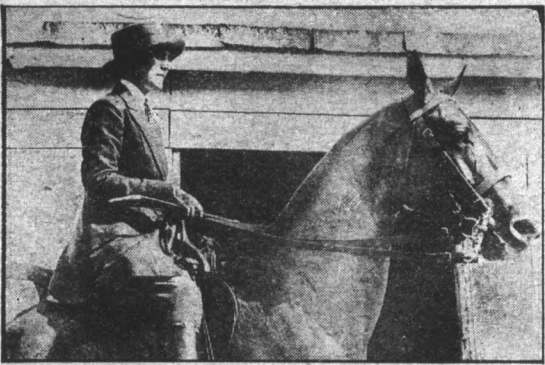
WORLD EVENTS IN PICTURES



In this house in Mudania, Asia Minor, the Allies and Angora Turks met and decided on the armistice that ended danger of continued warfare in that section of the country.



After several such "stack-ups" as this, Georgetown finally won the game with a score of 28 to 13, from Fordham at Polo Grounds at New York City.



Miss Ailsa Mellon, only daughter of Secretary of Treasury, Andrew Mellon, is reported engaged to S. Parker Gilbert, of the capital city.



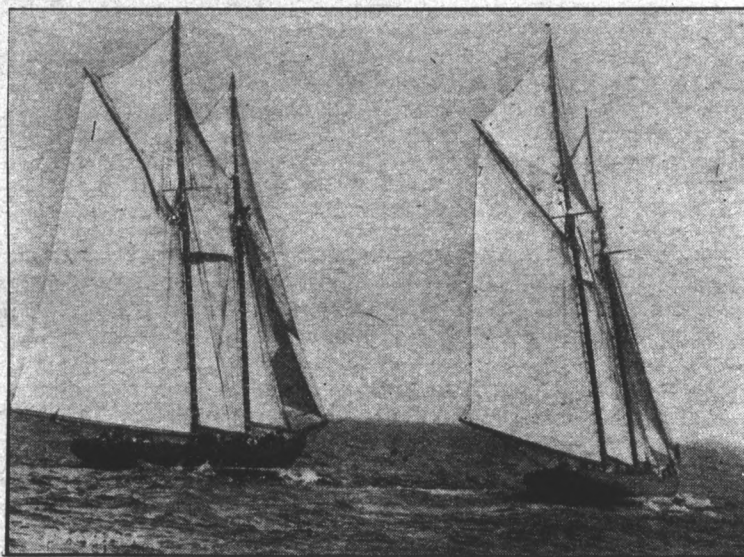
In a test in the natural amphitheater, Atlanta, Ga., Marie Tiffany's voice carried over a mile.



President Ebert, of German Republic, is an enthusiastic movie-fan, and recently visited a spectacular moving picture production.



Mrs. Howarth is first white woman to scale Andes Mountains, which are 10,600 feet above sea level.



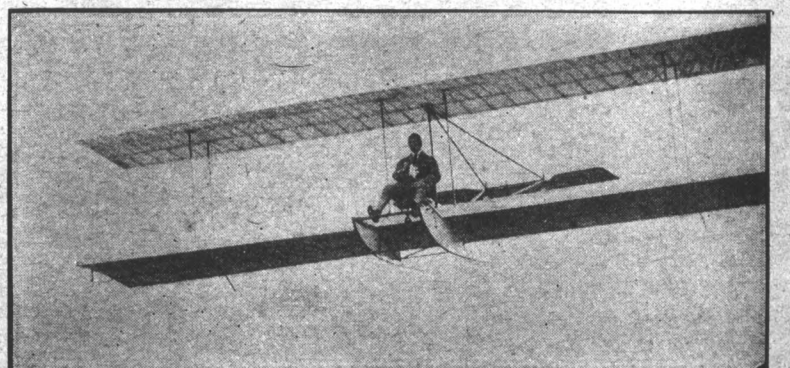
It was nip and tuck in the first official International Fishermen's Race off Gloucester, Mass., when the Henry Ford, the American schooner, and Bluenose, Canadian defender, tried for the laurels.



Marian E. Parks succeeded M. Carey Parks as president of Bryn Mawr, famous Pa. institution.



Showing the escape of crew of the cross-continental dirigible C-2, as it collapsed and burst into flames, while leaving the hangar at San Antonio, Texas.



Anthony G. H. Fokker, famous Dutch airplane inventor, remained in the air fifteen minutes in this motorless plane, which he invented. Many of the late German airplanes were of his design.

THE CROSS-CUT —By Courtney Ryley Cooper

Copyright, 1921, By Little, Brown & Company

For a long moment, Fairchild said nothing, then as Harry came from the staging, he moved to the older man's side.

"I—I didn't quite catch the idea," came at last. Harry pointed with his sledge.

"I've been noticing the vein. It keeps turning to the left. It struck me that it might 'ave branched off from the main body and that there's a bigger vein over there some'eres. We will just 'ave to make a try for it. It's our only chance."

"And if we fail to find it there?"

"We'll put a couple of 'oles in the foot wall and see what we strike. And then—"

"If it ain't there—we're whipped!"

It was the first time that Harry had said the word seriously. Fairchild pretended not to hear. Instead, he picked up a drill, looked at its point, then started toward the small forge which they had erected just at the foot of the little raise leading to the stope. There Harry joined him; together they heated the long pieces of steel and pounded their biting faces to the sharpness necessary to drilling in the hard rock of the hanging wall, tempering them in the bucket of water near by, working silently, slowly—hampered by the weight of defeat. They were being whipped; they felt it in every atom of their beings. But they had not given up their fight. Two blows were left in the struggle, and two blows they meant to strike before the end came. The next morning they started at their new task, each drilling holes at points five feet apart in the hanging wall, to send them in as far as possible, then at the end of the day to blast them out, tearing away the rock and stopping their work at drilling that they might muck away the refuse. The stope began to take on the appearance of a vast chamber, as day after day, banging away at their drill holes, stopping only to sharpen the bits or to rest their aching muscles, they pursued into the entrails of the hills the vagrant vein which had escaped them. And day after day, each, without mentioning it to the other, was tortured by the thought of that offer of riches, that mysterious proffer of wealth for the Blue Poppy mine—tortured like men who are chained in the sight of gold and cannot reach it. For the offer carried always the hint that wealth was there, somewhere, that Squint Rodaine knew it, but that they could not find it. Either that—or flat failure. Either wealth that would yield Squint a hundredfold for his purchase, or a

sneer that would answer their offer to sell. And each man gritted his teeth and said nothing. But they worked on.

October gave up its fight. The first day of November came, to find the chamber a wide, vacuous thing now, sheltering stone and refuse and two struggling men—nothing more. Fairchild ceased his labors and mopped his forehead, dripping from the heat engendered by frenzied labor; without the tunnel opening, the snow lay deep upon the mountain sides, for it had been more than a week since the first of the white blasts had scurried over the hills to begin the placid, cold en-

"Counting what we borrowed from Mother 'Oward?"

"Yes."

Harry clawed at his mustache. His nose, already red from the pressure of blood, turned purplish.

"We're nearing the end, Boy. Tackle the foot wall."

They said no more. Fairchild withdrew his drill from the "swimmer" or straightforward powder hole and turned far to the other side of the chamber, where the sloping foot wall showed for a few feet before it dived under the muck and refuse. There, gad in hand, he pecked about the surface,

"There's one." Fairchild raised his gad and chipped away the softer surface of the rock, leaving a tubular protuberance of cement extending. Harry stared.

"What the bloody 'ell?" he conjectured. "D'you suppose—" Then, with a sudden resolution: "Drill there! Gad a 'ole off to one side a bit and drill there. It seems to me Sissie Larsen put a 'ole there or something—I can't remember. But drill. It can't do any 'arm."

The gad chipped away the rock. Soon the drill was biting into the surface of the foot wall. Quitting time came; the drill was in two feet, and in the morning, Fairchild went at his task again. Harry watched him over a shoulder.

"If it don't bring anything in six feet—it ain't there," he announced. Fairchild found the humor to smile.

"You're almost as cheerful as I am." Noon came and they stopped for lunch. Fairchild finished the remark begun hours before. "I'm in four feet now and all I get is rock."

"Sure now?"

"Look."

They went to the foot wall and with a scraper brought out some of the muggy mass caused by the pouring of water into the "down-hole" to make the siftings capable of removal. Harry rubbed it with a thumb and forefinger.

"That's all," he announced, as he went back to his dinner pail. Together, silently, they finished their luncheon. Once more Fairchild took up his work, dully, almost lackadaisically, pounding away at the long, six-foot drill with strokes that had behind them only muscles, not the intense driving power of hope. A foot he progressed into the foot wall and changed drills. Three inches more. Then—

"Harry!"

"What's 'appened?" The tone of Fairchild's voice had caused the Cornishman to lean from his staging and run to Fairchild's side. That person had cupped his hand and was holding it beneath the drill hole, while into it he was pulling the muck with the scraper and staring at it.

"This stuff's changed color!" he exclaimed. "It looks like—"

"Let me see!" The older man took a portion of the blackish, gritty mass and held it close to his carbide. "It looks like something—it looks like something!" His voice was high, excited. "I'll finish the 'ole and jam enough dynamite in there to tear the insides out of it. I'll give 'er 'ell. But in the meantime, you take that down to the assayer!"

DIRTY HANDS

By M. R. S.

I have to wash myself at night, before I go to bed,
An' wash again when I get up, and wash before I'm fed.
An' Ma inspects my neck an' ears an' Pa my hands and shirt;
They seem to wonder why it is, I'm so fond of dirt.
But Bill—my chum—an' I agree that we have never seen
A feller doing anything whose hands were white an' clean.

Bill's mother scolds the same as mine an' calls him in from play,
To make him wash his face an' hands a dozen times a day.
Dirt seems to worry mothers so, but when the plumber comes
To fix the pipes, it's plain to see, he never scrubs his thumbs.
His clothes are always thick with grease and his face is smeared with dirt,
An' he is not ashamed to show the smudges on his shirt.

The motorman who runs the car has hands much worse than mine,
An' I have noticed when we ride there's dirt in every line.
The carpenter who works around our house can mend a chair,
Or put up shelves or fix the floor, an' mother doesn't care
That he's not in his Sunday best; she never interferes
An' makes him stop his work to go upstairs to wash his ears.

The fellers really doing things, as far as I can see,
Have hands and necks and ears that are as dirty as can be;
The man who fixes father's car when he can't make it go
Most always has a smudgy face, his hands aren't white as snow.
But I must wash, an' wash, an' wash, while everybody knows
The most important men in town have dirty hands an' clo'es.

wrapment of the winter. A long moment, then:

"Harry."

"Aye."

"I'm going after the other side. We've been playing a half-horsed game here."

"I've been thinking that, Boy."

"Then I'm going to tackle the foot wall. You stay where you are, for a few more shots; it can't do much good, the way things are going, and it can't do much harm. I was at the bank today."

"Yeh."

"My balance is just two hundred."

seeking a spot where the rock had splintered, thereby affording a softer entrance for the biting surface of the drill. Spot after spot he prospected, suddenly to stop and bend forward. At last came an exclamation, surprised, wondering:

"Harry!"

"Yeh."

"Come here."

The Cornishman left his work and walked to Fairchild's side. The younger man pointed.

"Do you ever fill up drill holes with cement?" he asked.

"Not as I know of. Why?"

AL ACRES—Slim Shows His Adeptness at Bovine Hirsute Embellishment.

—By Frank R. Leet.



CHAPTER XIX.

A Cave-in and Harry Disappears.

FAIRCHILD did not hesitate. Scraping the watery conglomeration into a tobacco can, he threw on his coat and ran for the shaft. Then he pulled himself up, singing, and dived into the fresh-made drifts of a new storm as he started toward town; nor did he stop to investigate the fast fading foot-prints of some one who evidently had passed the mine a short time before. Fairchild was too happy to notice such things just now; in a tin can in his side pocket was a blackish, muggy mixture which might mean worlds to him; he was hurrying to receive the verdict, which could come only from the retorts and tests of one man, the assayer.

Into town and through it to the scrambling buildings of the Sampler, where the main products of the mines of Ohadi found their way before going to the smelter. There he swung wide the door and turned to the little room on the left, the sanctum of white-haired, almost tottering old man who wandered about among his test tubes and "buttons" as he figured out the various weights and values of the ores as the samples were brought to him from the dirty, dusty, bin-filled rooms of the Sampler proper. A queer light came into the old fellow's eyes as he looked into those of Robert Fairchild.

"Don't get 'em too high!" he admonished. Fairchild stared.

"What?"

"Hopes. I've seen many a fellow come in just like you. I've been here thirty year. They call me Old Undertaker Chastine!"

Fairchild laughed.

"But I'm hoping—"

"Yep, Son." Undertaker Chastine looked over his glasses. "You're just like all the rest. You're hoping. That's what they all do; they come in here with their eyes blazing like a grate fire and their faces all lighted up as bright as an Italian cathedral. And they tell me they've got the world by the tail. Then I take their specimens and I put 'em over the hurdles—and half the time they go out wishing there wasn't any such person in the world as an assayer. Boy," and he pursed his lips, "I've buried more fortunes than you could shake a stick at. I've seen men come in here millionaires and go out paupers—just because I've had to tell 'em the truth. And I'm soft-hearted. I wouldn't kill a flea—not even if it was eatin' up the best bird dog that ever set a pa'tridge. And just because o' that, I've adopted the system of taking all hope out of a fellow right in the beginning. Then if you've really got something, it's a joyful surprise. If you ain't, the disappointment don't hurt so much. So trot 'er out and let the old Undertaker have a look at 'er. But I'm telling you right at the start that it won't amount to much."

Sobered now, Fairchild reached for his tobacco can, which had been stuffed full of every scrap of slime that he and 'Arry had been able to drag from the powder hole. Evidently, his drill had been in the ore, whatever it was, for some time before he realized it; the can was heavy, exceedingly heavy, giving evidence of purity of something at least. But Undertaker Chastine shook his head.

"Can't tell," he announced. "Feels heavy, looks black and all that. But it might not be anything but straight lead with a sprinkling of silver. I've seen stuff that looked a lot better than this not run more'n fifteen dollars to the ton. And then again—"

He began to tinker about with his pottery. He dragged out a scoop from somewhere and prepared various white powders. Then he turned to the furnace, with its high-chimneyed draft, and filled a container with the contents of the tobacco can.

"Let 'er roast, Son," he announced. (Continued on page 541).

A Practical Reminder for Everyday Farmers

You know your farm like a book. Whether it covers 80 acres or 320 acres, you are perfectly familiar with every corner of every field. You know the lay and contents of the buildings that make up your homestead. With your eyes shut you can tally the livestock and all the items of farm equipment. To be well posted on these things is a matter of pride with you and a matter of careful management besides.

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Ensilage Cutters
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Beet Cultivators
Beet Pullers
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Walking Plows
Riding Plows
Disk Harrows

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Peg-Tooth Harrows
Tractor Harrows
One-Horse Cultivators
Culti-Packers
Kerosene Engines
Tractors
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Wagons
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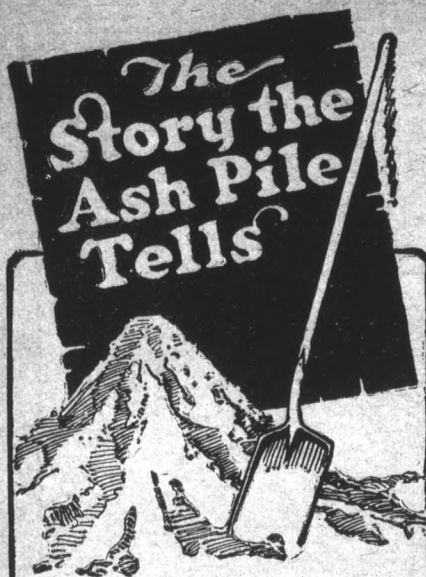
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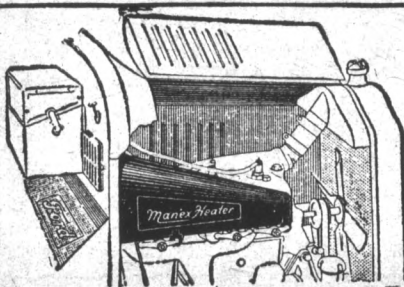
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The Prince of Friends

Our Weekly Sermon—By N. A. McCune

SOME years ago I heard the Reverend Charles L. Goodell tell the following story. He was, when this happened, the pastor of a church in Boston. A man who had for years been pretty well given up to drink came to the church and was converted. He was very happy, and the church folk promised to do all they could to help him keep in the way that he had started. He soon got a place as street car motorman. All went well for a number of months, when he got gloriously drunk. He came to the church and confessed it, and made a fresh start. That night after church the pastor went home with him. He lived in a room on the top floor of a rooming house. When they had gotten to the top of the first flight of stairs, he said to Dr.



Goodell, "You don't need to come any farther, I can get along all right." But Goodell said he guessed he would go up one more flight. At the top of the stairs the same conversation was repeated, and at the next, Goodell always saying he guessed he would go up one more flight. At last the room was reached, and the pastor assisted his friend to undress and get into bed. Then he bade him good-night. Billy never fell again. A few months later he was sitting in a restaurant waiting for his order, before going on his car for the night's work. His head fell over on the table, he slowly slipped down to the floor, and he was gone. He had made his last street car run. Friendship saved this man, nothing else.

Russell H. Conwell, the famous preacher, and the lecturer on "Acres of Diamonds," tells how he was brought to his senses, and brought into a new life, by the steadfastness of a boy in the army. Conwell re-enlisted in the Union Army, and was commissioned captain. A boy whose name was Johnny had no mother, and wanted to enter the army as personal aide to Captain Conwell. The first night Johnny came into the captain's tent, took out his Bible and began to read it by candle-light. The captain said, "Johnny, you can't read that in my tent." "Why," said he, "what is the matter, Captain? This is my mother's Bible, and father told me to read it in memory of mother." He said, "you ought to remember your mother, but you can't read that book in this tent."

Johnny went, after that, into the orderly sergeant's tent to read his Bible.

A FEW days after that, there was an attack, and the Union troops were driven back. Conwell's men swam across the river and set the wooden bridge on fire. Just then Johnny remembered the gold-mounted sword that had been given to the captain when he went away to war. He turned and rushed back to get it. He found it and started to run back across the burning bridge. They shouted to him to jump into the river, but he did not hear them. When he got to the other side his clothes were in flames. They put him in the river and extinguished the fire in his clothes, but he was insensible. He was taken to the hospital, and three days later he regained consciousness. "Where am I?" he asked. "Where is the Captain's sword? Won't you bring it in, so I can put my hand on it? Isn't the Captain coming to see me?" The next night he awoke, and said, "Hasn't the Captain come yet? I wanted to give him this sword myself, so he will know how much I love him." That night the nurse, who was a Christian woman, said to Johnny, "You are going to see your mother." "Do you think I am going to die?" he asked. "Yes, I will tell you the truth. You will not live more than twenty-four hours." Johnny put up his hands and whispered a prayer, and then he said, "Will you tell the captain that I saved his sword?" "Yes," said the nurse, "I will tell him, but I hope he will come before you go." Says Dr. Conwell, "When they told me that he was dead no man can describe the horror that came into my soul."

Dr. Conwell describes what befell him later. "Six months afterward I was left for dead on the field of battle at Kenesaw Mountain. I was taken to the hospital, and when I came to myself I said to the nurse, 'I want the chaplain.' The chaplain came in and said, 'What do you wish?' 'I want to be forgiven! I want to find the Lord. Will you pray for me?' He made one of those formal prayers that one hears sometimes. It didn't do me any good, and I was angry. I said, 'I want to be prayed out of my sins somehow or other.' I told him how Johnny had read the fourteenth chapter of John. He read it, I couldn't see anything in that then, and I told him so. The chaplain said, 'There's nothing I can do for you, Captain. You will have to go to God for yourself.' Some time during the night I felt a strange sense of dying, a fading, falling out of life, and I said, 'I am going to my God, if there is one;

to the Savior I have scoffed at and despised; going to meet Johnny and his God!' An awful sense of sinking came over me, and I called upon an unknown God for forgiveness and asked Him to reveal Himself. The nurse came in and I asked her to read a prayer. A few minutes later my heart opened. I cannot describe it, the instinctive need for the love of God, and that warming of the heart which came to me. But the final sense of final forgiveness seemed to fill my soul with light, and I began to shout, 'I have found the Lord! I have found the Lord!' The steward came in and said, 'You must be a little more quiet.'

MANY years have passed since then. Dr. Conwell is an old man now, and has for many years been the pastor of one of the largest churches in the United States, and president of Temple University. He says, "Every morning, before I kneel to pray, I say, 'Lord, if Thou wilt help me today I will do Johnny's work and mine.' When people ask me why I have tried for fifty years to do two men's work—sixteen hours a day, seven days in the week—I tell them, 'I have been fifty years trying to do two men's work—Johnny's and my own—in order that when I go home to heaven I may say, 'Johnny, your life went out early, but I did the best that I could to make up for the unfinished life.' Conwell is what he is because of this lad, in the long ago."

That is a peculiarly impressive scene, where this woman comes in, and washes the Master's feet with her tears and wipes them with her hair. It seems that uninvited people could come to banquets, and stand or sit around near the wall. The guests, of course, were reclining on the floor, after the manner of the oriental. And while Christ's host thought that this woman should be put out, because of her unsavory reputation, Christ shows him that she is more worthy than he, "for she loved much."

SUNDAY SCHOOL LESSON FOR NOVEMBER 19.

LESSON:—Luke 7.
SUBJECT:—Jesus, the Friend of Sinners.

GOLDEN TEXT:—Faithful is the saying, and worthy of all acceptance, that Christ Jesus came into the world to save sinners, of whom I am chief. I Timothy 1.15.

GRANGE REPORTS ON TAX SITUATION.

IN response to numerous inquiries for details as to the large increase in the tax burden of the people of the various states, the Washington office of the National Grange is making an effort to secure complete details from all the states as to state, county, township and municipality taxes for several years for the purpose of making a more complete comparison than the one recently given out by the Washington Grange representative.

Enough has been received, say the grange officials, to make it safe to assert that the state and local taxes are today double the taxes paid in 1912 in practically all the states and will average more than that amount. This, however, includes all taxes assessed on property owners.

PLANNING FARMERS' TOUR.

ARRANGEMENTS are being made for the Michigan Farmers' Tour, which comes to Washington in 1923, the tourists spending a week in the capital city. According to J. H. Brown, manager of this trip, who has been in Washington arranging for the tour, the party will travel in military formation, carrying its own commissary, equipment and tents and will camp in Potomac Park.

A Rural Community Hall

MANY churches and other institutions have been successful with the social and physical development of their communities, but the building of the Taymouth Community Hall in the Saginaw Valley district, will be the first endeavor to serve practically all the groups of the rural community.

This hall will be under the guidance of the Taymouth Presbyterian Church. In its gymnasium there will be provided activities for men, women and children nearly every day in the week except Sunday. Room is provided for the development of boys and girls' club activities, which will be carried on in cooperation with the agricultural college.

Group organizations of women will be formed to affiliate with state and county organizations engaged in social welfare work. A moving picture ma-

chine will be installed in the gymnasium to provide wholesome entertainment by means of educational films. A stage is to be erected at one end of the gymnasium to provide for home talent productions.

In connection with the church there is already organized a recreational club to which about fifty boys and girls belong, although Taymouth is not even a cross-roads.

This is probably the first endeavor in Michigan in which all of the religious and social needs of the community will be provided for by the cooperative efforts of all the people of the community regardless of religious views. A well organized community endeavor of this sort would do much toward bettering rural social conditions and making farming more attractive.

The Cross-Cut

(Continued from page 539).

"That's the only way. Let 'er roast—and while it's getting hot, well, you just cool your heels."

Long waiting—while the eccentric old assayer told doleful tales of other days, tales of other men who had rushed in, just like Fairchild, with their sample of ore, only to depart with the knowledge that they were no richer than before, days when the news of the demonetization of silver swooped down upon the little town like some black tornado, closing down the mines, shutting up the gambling halls and great saloons, nailing up the doors, even of the Sampler, for years to come.

"Them was the times when there was a lot of undertakers around here besides me," Chastine went on. "Everybody was an undertaker then. Lor', Boy, how that thing hit. We'd been getting along pretty well at ninety-five cents and a dollar an ounce for silver, and there was men around here wearing hats that was the biggest in the shop, but that didn't come anywhere near fittin' 'em. And then, all of a sudden, it hit! We used to get in all our quotations in those days over the telephone, and every morning I'd 'phone down to Old Man Saxby that owned the Sampler then to find out how the New York market stood. The treasury, you know, had been buying up three or four million ounces of silver a month for minting. Then some high-falutin' congressman got the idea that they didn't want to do that any more, and he began to talk. Well, one morning, I telephoned down, and silver'd dropped to eighty-five. The next morning it went to seventy. The house or the senate, I've forgotten which, had passed the demonetization bill. After that, things dragged along and then—I telephoned down again. "What's the quotation on silver?" I asked him."

"Hell, says Old Man Saxby, 'there ain't any quotation. Close 'er up—close up everything. They've passed the demonetization bill, the president's going to sign it, and you ain't got a job."

"And young feller—" Old Undertaker Chastine looked over his glasses again, "that was some real disappointment. And it's a lot worse than you're liable to get in a minute."

He turned to the furnace and took out the pottery dish in which the sample had been smelting, white-hot now. He cooled it and tinkered with his chemicals. He fussed with his scales, he adjusted his glasses, he coughed once or twice in an embarrassed manner; finally to turn to Fairchild.

"Young man," he queried, "it ain't any of my business, but where'd you get this ore?"

"Out of my mine, the Blue Poppy!"

"Sure you ain't been visiting?"

"What do you mean?" Fairchild was staring at him in wonderment.

Old Undertaker Chastine rubbed his hands on his big apron and continued to look over his glasses.

"What'll you take for the Blue Poppy mine, Son?"

"Why—it's not for sale."

"Sure it ain't going to be—soon?"

"Absolutely not." Then Fairchild caught the queer look in the man's eyes. "What do you mean by all these questions? Is that good ore—or isn't it?"

"Son, just one more question—and I hope you won't get mad at me. I'm a funny old fellow, and I do a lot of things that don't seem right at the beginning. But I've saved a few young bloods like you from trouble more than once. You ain't been high-grading?"

"You mean—"

"Just exactly what I said—wandering around somebody else's property and picking up a few samples, as it

were, to mix in with your own product? Or planting them where they can be found easily by a prospective buyer?"

Fairchild's chin set, and his arms moved slowly. Then he laughed—laughed at the small, white-haired, eccentric old man who though his very weakness had the strength to ask insulting questions.

"No—I'll give you my word I haven't been high-grading," he said at last. "My partner and I drilled a hole in the foot wall of the stope where we were working, hoping to find the rest of a vein that was pinching out on us. And we got this stuff. Is it any good?"

"Is it good?" Again Old Undertaker Chastine looked over his glasses. "That's just the trouble. It's too good—it's so good that it seems there's something funny about it. Son, that stuff assays within a gram, almost, of the ore they're taking out of the Silver Queen!"

"What's that?" Fairchild had leaped forward and grasped the other man by the shoulders, his eyes agleam, his whole being trembling with excitement. "You're not kidding me about it? You're sure—you're sure?"

"Absolutely! That's why I was so careful for a minute. I thought maybe you had been doing a little high-grading or had been up there and sneaked away some of the ore for a salting proposition. Boy, you've got a bonanza, if this holds out."

"And it really—"

"It's almost identical. I never saw two samples of ore that were more alike. Let's see, the Blue Poppy's right up Kentucky Gulch, not so very far away from the Silver Queen, isn't it? Then there must be a tremendous big vein concealed around there somewhere that splits, one-half of it running through the mountain in one direction and the other cutting through on the opposite side. It looks like peaches and cream for you, Son. How thick is it?"

"I don't know. We just happened to put a drill in there and this is some of the scrapings."

"You haven't cut into it at all then?"

"Not unless Harry, my partner, has put in a shot since I've been gone. As soon as we saw that we were into ore, I hurried away to come down here to get an assay."

"Well, Son, now you can hurry back and begin cutting into a fortune. If that vein's only four inches wide, you've got plenty to keep you for the rest of your life."

"It must be more than that—the drill must have been into it several inches before I ever noticed it. I'd been scraping the muck out of there without paying much attention. It looked so hopeless."

Undertaker Chastine turned to his work.

"Then hurry along, Son. I suppose," he asked, as he looked over his glasses for the last time, "that you don't want me to say anything about it?"

"Not until—"

"You're sure. I know. Well, good news is awful hard to keep—but I'll do my best. Run along."

And Fairchild "ran." Whistling and happy, he turned out of the office of the Sampler and into the street, his coat open, his big cap high on his head, regardless of the sweep of the cold wind and the fine snow that it carried on its icy breath. Through town he went, bumping into pedestrians now and then, and apologizing in a vacant, absent manner. The waiting of months was over, and Fairchild at last was beginning to see his dreams come true. Like a boy, he turned up Kentucky Gulch in a very contented frame of mind.

(Continued next week).



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Woman's Interests

More Pumpkin Pie

AND now comes another question on home canning. Is it practical and worth while to can pumpkin and squash?

Yes, most emphatically. Neither pumpkins nor squash can be kept very long in the average home cellar or storage space without rotting. Fortunately, pumpkins and squash are a most splendid, economic and delicious food product when canned, either in glass jars or tin cans. By following the cold pack method of canning the product is ever ready for use as a vegetable dish throughout the winter, spring and summer months, and always ready for pie filling. Here is the way to can them.

Canning Pumpkin.

Select firm, ripe pumpkins and cut into halves. Scrape out the seeds and spongy pulp. Cut each half into strips one and one-half to two inches in width, and with a sharp knife cut off the outer rind. Cut the strips into convenient sections and blanch in steam ten to fifteen minutes, or until tender. Mash with a potato masher or put through a sieve. Pack immediately into hot jars or enamel-lined cans; add salt and other seasonings, or spices if desired. Sterilize in hot water canner for two to three hours, according to size of can, and for fifty minutes have the steam pressure canner under ten pounds of steam. Remove jars and complete seals at once. Tin cans should be plunged immediately into cold water, thus being cooled quickly.

Canning Squash.

Cut squash open; remove seeds and core. Cut into sections and place in

oven to bake until pulp becomes soft or easily removed with a large spoon. Pack contents into hot jars or cans directly upon removing from rind and follow the same process as in canning of pumpkin. (Some folks prefer to steam the squash in removing from rind.—G. O. S.)

Following are some tried recipes by which these two vegetables may be made tasty.

Scalloped Pumpkin.

Cut the pumpkin in slices, peel and boil in boiling salted water for twenty minutes. Drain and put into a buttered pudding dish in layers, seasoning each layer with sugar, powdered cinnamon, grated nutmeg and small pieces of butter, pour over all one-half cupful of milk and bake in a moderate oven for one hour. Serve in the baking dish.

Squash Pie.

One cupful of squash, made very fine, one-half cupful of sugar, two eggs, one-half teaspoonful of salt, one cupful of milk, one-half cupful of cream, one cupful of chopped dates. Add fruit and salt to cooked squash. Beat eggs light, add sugar, milk and cream, and mix all together. If no cream is used stir into the squash a lump of butter, while squash is still warm.

Pumpkin Fritters.

Beat up one egg until light, add one-half cupful milk, one teaspoonful salt, a few grains of red pepper, sift in one cupful of flour, add one teaspoonful of olive oil, and one cupful of stewed pumpkin. Mix until smooth and glossy, and drop by spoonfuls into smoking hot fat. Fry a golden brown, drain on white paper.—Miss H. A. L.



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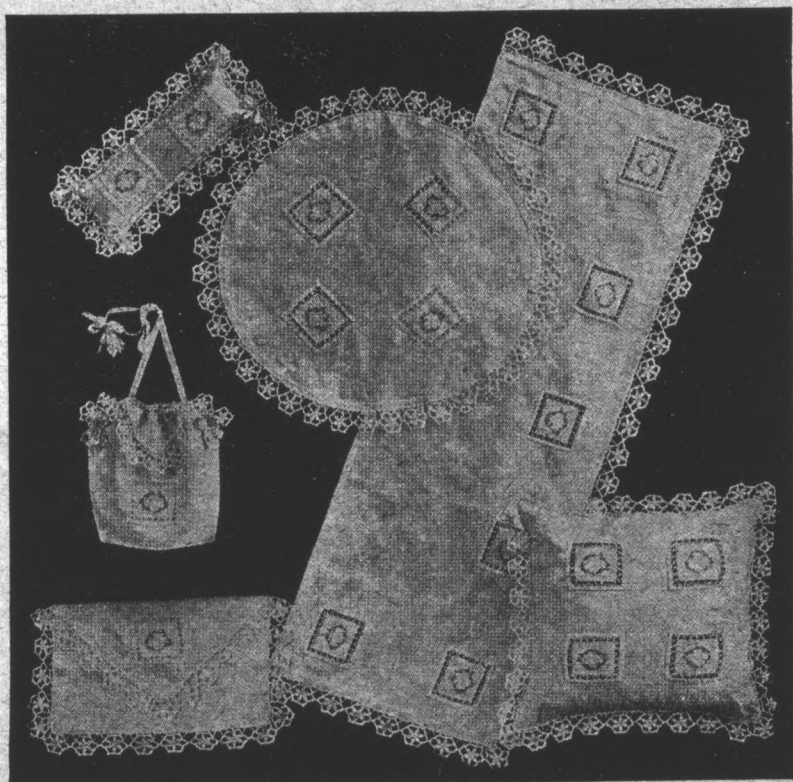
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It includes the dresser scarf, pin cushion cover, centerpiece, pillow cover, work bag and nightgown case. The lace edging is a succession of Venetian crochet motifs and the inserted squares are filet crochet, embroidered with a wreath of tiny rambler roses. Directions for making these pieces, including full directions for crocheting the lace edging and filet squares, are given in *Filet and Venetian Crochet Book No. 2*. Price fifteen cents from The Michigan Farmer, Detroit, Michigan. This book contains also over seventy more very pretty designs for useful articles.

My Canning Inventory

By the Prize Winners

JUDGING from the letters received this week, the housewives of this fruit growing state have been doing their share in preserving the abundant fruit and vegetable crop for which there appeared to be no active market at the time it was mature. They have canned, and then canned some more, until their cellar canning shelves are groaning from their heavy burdens. This supply will not be amiss, though, when the winter days roll around. Many seem to have taken advantage of the large supply of certain fruits, and have canned a sufficient amount for two seasons. In nearly all cases the canning budget equals and often surpasses the one worked out by the Home Economics Department of the Michigan Agricultural College. Many mothers are proud, and rightfully, too, of the experience and expert knowledge their daughters have received from the canning clubs of which they are members.

First Prize—Mrs. N. M., Hanrietta, Michigan.

I started canning as early as March this year, canning at this time mostly meats, pork, beef and a late fall hatching of chickens, the stock from the bones being made into vegetable soup.

I also canned whole onions at the same time before they started to sprout, and they were delicious as

make the best of it. We have canned 540 quarts of fruits and vegetables, consisting of strawberries, blackcaps, red raspberries, plums, pears, peaches, tomatoes, blackberries, elderberries and apples. Also peas, beans and carrots. Besides these we made cucumber pickles, French pickles, beet pickles, peach pickles, green tomato pickles, chili sauce, catsup, jelly and jam.

We used the cold-pack method, and the hot water bath for our berries and plums. We raise all our fruits and vegetables. Our twin girls, thirteen years of age, were in the Canning Club this summer, and their club won first prize of the county at the Hillsdale Fair. They use the cold-pack method almost entirely. We are a family of six.

My favorite pickle recipe is French pickles: One gallon cucumbers; half dozen onions sliced together. Put in small half-cup of salt, let stand over night. Drain in the morning. Let come to a boil one quart of vinegar, two and one-half cups of sugar, then drop in cucumbers and onions and let boil till done.

Dressing:—Three heaping teaspoons flour, half teaspoonful celery seed, half teaspoonful mustard, half teaspoonful tumeric and half teaspoonful pepper. Stir into cucumbers and boil all together from three to five minutes.

Third Prize—Mrs. F. M., Croswell, Michigan.

How I would love to reach out and pat each one of those dear ladies on the back who wrote those helpful, inspiring letters on economy. Sometimes when I make soap, made-over clothing, etc., I think I am the only one who has these tasks to do; but I believe nearly every farm mother is doing her uttermost to make home a success, and these little economies show that "thrift" is our watchword.

Don't you just love to step into your cellar these bright, crisp mornings and be greeted with the view of rows of nicely packed barrels of apples, pears, cans of fruit; what a lot of stored-up summer pleasures, as well as work, etc., those shelves of delicious fruit contain. First, there are fifty quarts of strawberries, picked from our own vines. Then about ninety quarts of red raspberries, from our own bushes. These I did cold-pack method. I would do my family work in the forenoon, then pick fruit in the afternoon, look it over and get it into the cans in the evening, hop up in the morning and get it cooked and out of the way while it was cool, by the cold-pack method. I use a large wash boiler with a perforated board in the bottom for cooking the fruit.

I also have cherries, black and red currants, gooseberries and wild blackberries, about thirty quarts. There are also about eighteen quarts of plums, thirty quarts of peaches and about the same of pears, jam and jellies and lots of pickles and relishes.

Here is my favorite pickle recipe, because it is so easy and sure:

One large stone crock; one gallon of good cider vinegar; one cup of mustard; one cup salt; two ounces white mustard seed; three pounds of brown sugar. Mix all together and as you pick cucumbers wash and lay them in, cover with a plate.

We have a family of five to feed, three children, all healthy and strong.

Because of lack of space the letters of Mrs. S. W. S., Ypsilanti, Mich., and Mrs. B. H. T., of Holland, Mich., who won fourth and fifth prizes respectively, will appear next week.

When it comes to sweeping clean, a new broom has nothing on a new vacuum cleaner. And it saves no end of mother's time and energy.

Short-Cuts in Sewing

WHEN mother is so busy and time is scarce to give to the family sewing, some extra short-cuts in needlework might add to the amount she is able to accomplish. At the suggestion of one of our readers, let your letter this week contain some short-cut in needlework that you have found useful and helpful in doing the home sewing.

The best letter will receive a three-piece kitchen set, the next two will each receive a two-piece kitchen set, while the following two will each receive a pair of fancy six-inch scissors. Address all letters before November 23 to Household Editor, Michigan Farmer, Detroit, Mich.

creamed onions during the summer when onions were expensive. The canning, of about fifty quarts, was all cold-pack method.

The next canning of whatever happened to be ready first was as follows: One hundred qts. string beans; 60 qts. corn; 8 qts. wild berries; 60 qts. cherries; 65 qts. tomatoes; 30 qts. apples; 50 qts. cucumber pickles; 60 qts. of peaches (the only fruit bought); 10 qts. plums; 6 qts. pears; 41 qts. different kinds of jellies and preserves, mostly cold-pack method.

There are only four in our family, but I allow for our school's hot lunches, grange dinners, company, and, of course, give some to others.

When the rush is over, all emptied cans will be refilled with beets, apple sauce, and later sauer kraut, and still later with meat.

Our favorite pickle recipe is tumeric pickles: Eighteen No. 2 cucumbers, sliced, soaked in salt water a while and then drained; nine medium-sized onions sliced very thin; two cups of sugar; one teaspoon each of celery and mustard seed; one teaspoon of tumeric; a pinch of red pepper. Cook all till tender in one quart of vinegar.

Second Prize—Mrs. D. B., Litchfield, Michigan.

We surely had a good vegetable and fruit season, and we have tried to

Had Your Iron Today?



Good November Food

For Men on Farms

The reading of newspapers and farm journals in easy chairs calls for different kinds of food than plowing days require.

Inactivity is particularly the foe of good health on the farm.

You need foods then that tend to do what exercise does during busy times.

Stewed Raisins are luscious and effective

Stewed raisins served with cream is a most delicious breakfast fruit-dish, and one that brings real winter benefits.

Eat them frequently when exercise is lacking. For raisins are 75 per cent fruit sugar in practically predigested form.

And this sugar and the raisin skins make a mildly laxative food that's the most effective natural fruit-laxative we know.

Raisins furnish food-iron also—fine food for the blood.

You need but a tiny bit of iron daily but that need is vital. Stewed raisins will help you get your daily portion of it in a most attractive way.

The fact is, you will like this dish so well that it will be your regular morning fruit-food the year round.

Try it now and note how delicious. Try it every morning for ten days as a test. Decide then if it's also a health food that you need.

Always ask for

Sun-Maid Raisins

Get delicious Sun-Maid Seedless Raisins from your grocer. Stew them as directed in the column to the left.

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Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade to bring you top prices. "Dandelion Butter Color" costs nothing because each ounce used adds ounce of weight to butter. Large bottles cost only 35 cents at drug or grocery stores. Purely vegetable, harmless, meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless.

Wells & Richardson Co., Burlington, Vt.

Household Service

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

TO REMOVE WAX.

Will you please tell me what will take wax from a slate blackboard? We have tried hot vinegar, kerosene and gasoline but to no avail.—Miss L. A.

Try scraping off as much of the wax with a dull knife as is possible to get off, and then rub the board with turpentine, it will remove the remaining substance.

A strong solution of washing soda applied hot may also help.

PATTERNS IN BEAD-WORK.

I am writing for help. Can you give me any information on making bead necklaces or anything of bead work, and where I may obtain a bead loom?—E. M. H.

Space will not allow the illustration of the various designs and uses for which beads may be used. But if you will write or visit the needlework department of any large department store they will furnish you with these designs, and looms also.

HAIRS ON FACE.

I have some hairs that grow on my face and would like to get rid of them. How can I do it?—Miss M. M.

Unless the hairs are very bad, I

would not advise you to do anything to them unless you are in a position to have them removed by an electric needle under the supervision of a good beauty specialist.

There are many preparations on the market to remove hair from the face that are very good, but the hair will continue to grow, and will be stiff and hard after it has been once used. However, if you desire to try one of these preparations your druggist can advise you as to the best one he has in stock.

TO PAINT WEEDS.

Please tell me the directions for painting wild flowers and milkweeds used in the painted bouquets, and what kind of paint to use.—J. B. G.

If you write any general paint company or any art store they will supply you with a special kind of paint known as "weed paint," to be used in painting fall weeds for art bouquets.

The kind of paint to use depends a good deal upon the selection of weeds. Some are stained by dipping, while others are painted with a brush. All weeds of a firm fiber may be painted or tinselled with a brush, while those of a more fuzzy type will have to be stained by dipping.

Crepe Paper Uses

To many housewives the uses of crepe paper are associated only with the making of children's May baskets and to festival decoration. But I have found it to be a real household help.

In the kitchen it has numerous uses. I always keep a bunch of plain white crepe paper sheets on hand to be used as hand towels, saving much hard laundering. Also, these sheets are very handy as rough sink cloths and for cleaning out dirty cooking utensils before washing them.

I never think of using anything but paper napkins in the school and picnic lunch basket and throughout the year they are used on the kitchen table in place of linen napkins and tray-cloths, which require ceaseless laundering to keep them looking good.

To keep a fresh, clean cloth covering on a plant stand is next to impossible, for the plant pots always make noticeable stains on the cloth that are exceedingly hard to wash out. So the white sheets of crepe paper come into excellent use here, as well as serving the purpose of a covering for the pantry and window shelves. I have made stained and nicked plant jars look quite attractive, too, by covering them with the colored sheets of paper, gathered in at the top with a narrow band of the same paper.

In the dining-room, too, crepe paper can lend itself usefully and artistically. To add just the right bit of color to the general tone of my dining-room, I purchased a light wire lamp shade frame and covered it with several sheets of crepe paper, of the desired shade, shirring it slightly at the top and bottom of frame and finishing with tape, glued on.

About this time, too, the covering of my serving tray needed attention. So I covered it with a sheet of crepe paper the same color as that of the shade. Beneath the glass, it looked like expensive crepe cloth. Mats for the dining-table, I find, are very serviceable and can be made very attractive, of braided crepe paper, made in various shapes and sizes, to fit the "hot dishes."

Most porches are exposed to all kinds of weather and much trampling of feet. Table and stand covers and door mats are always bound to get shabby after a while. A carpet, and even a rug, is apt to become too soiled to be cleansed in a short time, especially in rainy weather. Braided crepe paper rugs and table mats are just the thing here, for they can be burned when they have become soiled. I was surprised to find how easily and quickly they can be made. And if dark colors are used for these, their time of service is lengthened.—Hester C. Cunningham.

My Favorite Cake Recipe

Following are two of the prize winners of last week's contest:

Fourth Prize—Carrot Cake.

One-half cup mashed carrots
One cup sugar
One-third cup shortening
One teaspoon lemon extract
One scant cup milk.

Measure two cups flour before sifting and sift with one teaspoonful salt, one teaspoonful of cream-of tartar, one-half teaspoonful of soda, one-half cup chopped raisins and add the remaining ingredients. Bake in a quick oven and be careful not to burn.—Mrs. F. S., Petoskey, Mich.

Fifth Prize—Prune Cake.

One cup sugar
Four level tablespoons butter
Yolks of two eggs
One cup prunes
One cup juice of prunes
One cup raisins
One teaspoon soda
One-half teaspoon cinnamon
Two cups flour.

Mrs. C. U., Mt. Clemens, Mich.

"PASS IT ON."

Corrugated paper can be cut in neat squares to put under hot dishes, also large pieces placed under the dishpan, or used for covers. Sugar sacks can be bought at grocers for five cents. There is no printing, they are soft and make excellent dish towels or milk strainers.—Mrs. G. D.

Aspirin

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Unless you see the name "Bayer" on package or on tablets you are not getting the genuine Bayer product prescribed by physicians over twenty-two years and proved safe by millions. Accept "Bayer Tablets of Aspirin" only. Each unbroken package contains proper directions. Handy boxes of twelve tablets cost few cents. Drug-gists also sell bottles of 24 and 100. Aspirin is the trade mark of Bayer Manufacture of Monoaceticacidester of Salicylicacid.



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Rural Health

By Dr. C. H. Lerrigo

HOT LUNCH FOR SCHOOLS.

WHAT about the school hot lunch at this time of the year? Does your school serve it? If not, are you not missing a good chance to give valuable help to your children and to your community?

I used the word "community" advisedly. The boys and girls who are going to your school today will be the men and women of your community in another decade or so. The physique and mentality they are now building will count tremendously then.

What difference does a hot lunch make? Try it for yourselves. It has passed the stage of fad or experiment. Wherever it has been inaugurated it has become a fixture. Try it in your school.

The hot lunch at school does not mean that the teacher prepares a pot roast with various seductive extras. Nothing of the kind. Its chief value does not consist in the additional food that it gives to the children, so much as in the added palatability and digestion given to the lunches that they bring from home.

In most rural schools one hot dish each day is all that is attempted. This dish may be nothing but hot cocoa, it may be a milk soup, it may be a vegetable soup. The fact that stands prominently forth is that the children who get this addition to their fare become brighter students, stronger in frame and better nourished.

No doubt very much of the improvement is due to the fact that instead of gobbling their cold, dry lunch as hastily as possible, the addition of the extra dish gives somewhat of the ceremony of a meal, thus encouraging them to eat and digest the food brought from home to a very much better effect.

We need not bother about the explanation. The absolute and verified facts are that the hot lunch, even in its simplest form, is a good thing for your children, and a practical thing for any school to give; and this is just the season to begin.

The expense need not be very great. One cooking vessel of large size helped out by serving dishes brought from the homes of the children has been the start of the hot lunch experiment in many schools. But to do it properly it should be handled as an experiment in teaching domestic science and sufficient money should be appropriated to purchase a modest outfit of cooking and table utensils.

INCUBATOR BABIES.

I have just come back from taking care of my daughter, whose baby was born prematurely. It weighed three and a half pounds and lived four days. I suppose it would have had some show if it had been put in a baby incubator. Please tell us whether there is any chance to raise a baby like this any other way. Did you ever know one to survive that did not have the care of the hospital and the incubator.—Grandma.

Incubator babies are doubtful risks under the most favorable circumstances. To rear them successfully by the aid of an incubator one needs also the aid of a special nurse whose sole duty is to watch the baby and the incubator. The temperature and moisture of the air must be kept exactly right all the time. The feeding must be carefully watched and every detail of the baby's life must have careful supervision. It is quite possible to raise such a baby without the help of

an incubator if equal care is given. The little one will not stand much handling. No washing should be attempted beyond rubbing the body with warm oil once in two or three days. The baby should not be dressed, but wrapped in cotton from head to foot and placed in a bed kept warm by hot water bottles or some other method of supplying gentle heat. The child should be fed with a medicine dropper, getting a teaspoonful every two hours the first day and gradually increasing the amount up to one ounce at a feeding. If at all possible he should be fed with breast milk. If the mother cannot supply it there is usually some other source available. A little warm water may be given but this is not urgent if the milk is taken well. The important things are regular feeding, even temperature, and absolute rest. With these supplied a premature baby may be raised at home.

MALARIA CARRIERS.

I am interested in the theory that malaria is caused by mosquitoes. If that is so why do not all of us become ill with malaria and where does the mosquito get it in the first place?—J. J. K.

Malaria is not caused by the mosquito. It is due to a microscopic animal parasite which gets into the blood. The mosquito serves only as a carrier. First he must bite some person already infected, then he transmits the infection to his next victim. Ordinary mosquitoes cannot even act as carriers. Only the kind known as "anopheles" does this fell work. However, the only practical way to get rid of malaria is to exterminate all mosquitoes.

TAKING TEMPERATURES—ADMINISTERING CHLOROFORM.

How many minutes does a thermometer have to remain in one's mouth to get the right temperature in case of fever. Also please explain how to administer chloroform.—D. D. F.

Three minutes is the proper time to allow for a thermometer to register, the lips being tightly closed. If extreme accuracy is desired five minutes may be used. Chloroform is now but little used as an anesthetic, having been superseded by ether. Its administration should be undertaken only by physicians or registered nurses.

POSSIBLY GALL-STONE.

I suffer with a hard, sudden pain that comes once in a while in my chest. I bloat terribly at that time and my breath shortens so I can hardly stand the pain. It lasts about one or two hours. My home doctor says it is acute indigestion but I don't think so, as I can eat anything and it does not hurt me.—Mrs. F. R.

I am more inclined to think this trouble to be gall-stone or kidney colic, most likely the former. I suggest that X-Ray pictures will help in diagnosis.

CHILDREN HAVE SCABIES

I wish you could tell me what to do for my children. They caught something like an itch, terrible itching and scabs form on lower parts of bodies. It is only on their bodies, not on their faces.—A Mother.

I fear that your children have scabies. The application of sulphur ointment in strength of five to ten per cent will cure it, but you must first give a hot bath and scrub all the scabs off so that the sulphur may reach the parasite. Green soap is better than common soap for this.

Keep Musterole on the bath-room shelf

Years ago the old-fashioned mustard plaster was the favorite remedy for rheumatism, lumbago, colds on the chest and sore throat.

It did the work all right, but it was sticky and messy to apply and my how it did burn and blister!

The little white jar of Musterole has taken the place of the stern old mustard plaster.

Keep this soothing ointment on your bathroom shelf and bring it out at the first cough or sniffle, at rheumatism's first warning tingle.

Made from pure oil of mustard, with the blister and sting taken out, Musterole penetrates the skin and goes right down to the seat of the trouble.

Order Musterole today from your druggist. He has it in 35c and 65c jars and tubes; hospital size, \$3.

The Musterole Co., Cleveland, Ohio
BETTER THAN A MUSTARD PLASTER



ZERO WEATHER COMING

Have you selected your winter underwear?

Be comfortable this winter. Keep warm. Avoid colds and influenza. Wear the kind of undergarment that has been the favorite with outdoor men for fifty years.

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Soft, downy fleece next the skin—buttonholes that won't ravel—buttons that won't pull off—stitching that won't rip—heavy-duty underwear that is good for several seasons.

If your dealer hasn't one of the garments for you to examine, write us and we will send you a sample of the fabric and a folder describing the underwear.

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Biggest mill value you can buy—made right—highly improved—cheapest in operation and up-keep, and adjusts easiest and guaranteed to do uniform work.

100% Right in Operation Because they are made with positive gear drive. Fluted adjusting and self-aligning Duplex Grinding Burrs—Double Hand Screw Burr Regulator—Self-aligning Upper Grinders and Upper Force Feed—all of which means less power, less speed and larger capacity.

GRINDS ALL SMALL GRAINS Ear corn and cob with or without husks, Kaffir corn in head, peas and vines, alfalfa, beans, etc. Write for catalog, prices and full particulars of our 60 proposition.

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We buy wool—let us know what you have. We can get together.

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Make \$60 to \$100 a Week

Introducing this wonderful new lamp. Gives soft, brilliant light; restful to eyes; ideal illumination. Burns Kerosene or Gasoline. Clean, odorless, economical. Burns 96% air, 4% fuel. Absolutely safe. Lights with match. 100 times brighter than wick lamps. Patented. Greatest improvement of age. Table lamps, hanging lamps, lanterns. Work all or spare time. You simply take orders. We deliver by Parcel Post and do collecting. Commissions paid same day you take orders. No experience necessary. Get started at once. Big season now on. Write today for catalog and special agents offer.

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A FINE FUR COAT

Made from Your Own Horse or Cow Hide.

We make this coat to measure from the hide you send. Write us for special low price.

Any Kind of Skin

We make up any kind of skin to suit your needs.

Also Ladies' Coats and Furs, Robes, etc.

We have been in the tanning business since 1878 and guarantee satisfaction.

FREE Book of styles of Men's and Women's furs.

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IT'S NOT WHAT A MAN SAYS BUT WHAT HE DOES that puts the dollars in the shippers' pockets. That's the main reason why

JIM ELLIS

never has any trouble holding old shippers. No Bluffing. No Ridiculous Promises.

Simply a square deal to shippers throughout the United States, Canada and Alaska since 1899. Who offers more and keeps his promise?

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Reliable Quotations Sent Free.

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Write for prices and market conditions.

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Our high prices, fair, honest grading, prompt returns and square dealing will bring you the largest check. You'll make money by shipping all your furs to George I. Fox, New York—The World's Leading Fur Market. Don't delay, write now market reports, price list, shipping tags.

GEO. I. FOX, INC.
164 W. 25th St., Dept. 130, New York, N.Y.

LET US TAN YOUR HIDE.

Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered; or we can make your hides into Oak Tanned Harness or Slaughter Suits or Belt Leather; or your calfskins into Shoe Leather, colors Gun Metal, Mahogany Russet or lighter shade. Calfskins tanned in the lighter shades of shoe leather, also make elegant stand and table covers; great for birthday, wedding and holiday gifts.

LET US FIX YOUR WORN FURS

fashion, repair and reshape them if needed. Furs are very light weight, therefore it would cost but little to send them in to us by Parcel Post for our estimate of cost, then we will hold them aside awaiting your decision. Any estimate we make calls for our best work.

Our illustrated catalog and style book combined gives a lot of useful information. It tells how to take off and care for hides. About our safe dyeing process on cow and horse hides, calf and fur skins. About dressing fine fur skins and making them into neckpieces, muffs and garments. About our sharp reduction in manufacturing prices. About Taxidermy and Head Mounting.

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Stop This Big Loss

Write Abraham Fur Co. for Free Instruction and advice which will enable you to vastly increase your income from the trap line. We want to show you how to buy Trappers' Supplies at bargain prices. We operate the Largest Supply Dept. of any fur house in the World—if you buy supplies from anyone before getting our "Proposition on Supplies" you will be the loser. Write us for inside secrets on how to get full value for your furs—valuable information Free for the asking.

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Abraham Fur Co.
214 Abraham Building 45th YEAR St. Louis Missouri

Save Your Barns, fences, posts, rope, etc. Mere PRESERVER. Prevents rot. Gallon \$1.00. HOME PRODUCTS INC., Rahway, New Jersey.

Our Boys' and Girls' Page

THE STORY OF MY CALF.

I AM a calf club member. When I am in the club I can learn how to judge dairy cattle, how to feed and manage young calves, and also how to cure diseases of calves.

Our club selected the Guernsey breed because they give rich milk and this country is a good place for Guernsey cattle.

Every club member borrowed money from the American Security Bank of Iron Mountain. We paid seven per cent interest on the money.

Mr. Miller, the county agent, bought my calf at Algoma, Wisconsin, of Jacob J. Blahnik for \$125. It was then thirteen months old.

When I got it, it became my pet. It would follow me like a dog and had been trained to lead by its recent owner.

My calf has been very healthy. It

The pure-bred bull, which is now nearly a month old, is getting along very fine. His name is Beaty's Noval of Magic. I have no papers on him yet, but I intend to get papers very soon.

I stopped the growth of the bull's horns when he was five days' old. I have the bull outside a little while for exercise. I keep salt and water for the bull at all times.

We have had quite a few club meetings this summer and from them I have learned how to judge and feed dairy cows and pigs.—William Bloomquist, Calf Club Champion, in Dickinson County, 1922.

EFFECTIVE SETS FOR MUSKRATS.

BY JOHN O. ROBERTS.

MUSKRATS are prolific, bearing four or five litters of from six to nine young each season. They are



Boys' and Girls' Calf Exhibit at Felch Twp., Dickinson Co., Community Fair.

has had no sickness whatever as long as I have had it.

My calf won first prize at a school exhibit last year.

When my calf was sixteen months old I had it bred by a pure-bred Guernsey bull. After it was bred I took great care of it. I fed it as good as I knew how, and kept clean, dry bedding under it at all times.

When the heifer was twenty-six months old she got a calf and it was a bull.

The first day and night I let the cow be with the calf. Then I put the cow in a stable and milked her and gave it to the calf. The first week I fed the calf four pounds of its mother's milk three times a day.

During this time I also kept a milk record. She milked 160 pounds the first week, 189 2-10 pounds the second week, etc.

We have a scrub cow that calved during the same month as mine did. My pure-bred cow milks twice as much as the scrub cow. My cow has much richer milk and is better than the scrub on all points.

found throughout the United States and Canada, especially along the numerous rivers, swamps and creeks of Michigan.

Muskrat are most often caught at the foot of slides; the trap being placed under about three inches of water. Always set your trap with the spring turned toward the trigger jaw so that the rat may, in nearing your trap, not have to go around the spring and not step on the pan.

Apples, carrots and parsnips are used by many for bait. Corn also may be used. I personally prefer corn and parsnips.

Traps concealed in runways with parsnip scattered about is a good set or they may be set in the entrance of the holes in the bank if located.

By gouging out a hole at the water line with the toe of your boot and plastering the upper edge with corn, the rats mistake it for one they dug and are sure to get caught. In making water sets always stake the chain in deep water as the muskrat upon being caught dives for deep water. The weight of the trap drowns it quickly.

Our Letter Box

THIS letter box will be where the boys and girls can express their views, tell of themselves and things about the farm, or ask advice. The most interesting letters each week will appear here. Address your letters to me.—Uncle Frank.

Dear Uncle Frank:

Well, here I am trying in another contest, for the third time. I have never won before, but you know the old saying, "Three times and out," so maybe I will win this time, I hope so.

Now, Uncle Frank, I am going to tell you something which I think very queer, because I have an Uncle Frank besides you, also a cousin Frank, and I myself am sometimes called Frank. Now, isn't that queer?

We don't live on a farm now, Uncle Frank, because we just moved into town, but we still take the Michigan Farmer and will continue to do so.

Well, Uncle Frank, I must close for

this time, with love to you and all my cousins. Frances Chamberlin, Pontiac, Michigan.

I hope you will substitute the expression, "If you don't succeed, try, try again," for "Three times and out." Write again, "Frank."

Dear Uncle Frank:

Your letter received in the 11:30 mail, and gee! but it was quite a surprise, as I did not expect any mail whatever.

I cannot say very much about farming as this is my first year living on the farm. We have two horses, a cow,

five hogs, some geese and chickens. I like farm life fine. We like the Michigan Farmer very much, and dad has found some real useful things in it. Uncle Frank, I never see any nephews or nieces of my age writings. I am ten years old. Am I the youngest? Your sincere nephew, Thomas Morris, Jr., Clarkston, Michigan.

No, you are not the youngest. I have had letters from some eight years old. Come again when you can, Thomas.

Dear Uncle Frank:

I live on an eighty-acre farm. We have a wonderful grove, it is beautiful in the summer. We have five cows, two horses and some young stock. My people are grangers. The grangers were to organize a juvenile lodge, but every time they had a meeting there wouldn't be enough children present. I hope they will soon organize it, although I'll soon be able to join the other one, but it will be nice for the other children.

I answer every contest in the Michigan Farmer. I have won two prizes.

I think this is wonderful for the boys and girls.

I write the news for our county paper and must close and complete it. It has been bitter cold here the last few days and we are only too glad to hug the stove. There was two inches of snow on the ground this morning. Winter will soon be here. Yours sincerely, Thelma Johnson.

It is fine that you are acting as a newspaper correspondent; the training is good. I am glad you take such interest in the contests.

Dear Uncle Frank:

It seems I did not quite understand the Read-and-Win Contest conditions, and so made my answer entirely too lengthy.

I am working on a radio outfit, one of the battery kind. I have made several galena sets. I get Detroit and Pittsburgh, Pa.—Your nephew, Wilse Buffington, Rushton, Michigan.

Yes, you did make your answers too lengthy. I bet you get a lot of fun out of your radio.

Some Puzzle Pointers

By Uncle Frank

THE biggest ever" is the way the circus advertiser would describe that ZJLEZU contest. But really, in plain English, it did bring by far the greatest number of letters of any contest so far.

The puzzle was easier than I thought it would be. This was probably because it was made up of a verse which was quite familiar to most of us. Be-

counts as much in these contests as neatness itself. I like to see all who try these contests stand high in effort, at least.

So many had the answer correctly and neatly done that the only way I could be fair in picking the winners was to put all the good letters in a basket and have an uninterested person pick out the winners.

The mixed English contest has proven popular, and so have the Read-and-Win contests. So, this week we have a combination of both.

I want to thank my many pals for the nice letters they sent me this week. I wish the management would turn over the whole paper to me so I could print a big bunch of them.

PUZZLE WINNERS.

Here are the winners of the November 4 puzzle:

Pencil Box:

Anna Haystead, Britton, Mich.
Marvin Dick, Ionia, Mich., RR. 7, box 51.

Nickled Pocket Pencil:

Esther Gebauer, Elkton, Mich., RR. 1, box 3.
Marie E. Kirchoff, Wixom, Mich., RR. 1, box 55.
Delmar Gieseler, Barryton, Mich., RR. 2, box 110.

Maps:

Effie Dyhenga, Ellsworth, Mich., care Mrs. I. Tornga.
Lawrence Smafield, Melvin, Mich.
Ethyl Cranke, Grand Junction, Mich.
Gertrude Johnson, Bark River, Mich., box 57.
Ella Stephenson, Sault Ste. Marie, Mich., RR. 3.

THE PUZZLE ANSWER.

Puzzle.

Little drops of water,
Little grains of sand,
Make a mighty ocean,
And a happy land.

WANT TO CORRESPOND.

The following girls and boys would like to receive letters from other young folks who are interested in this department:

Myrtle Greenman, Topinabee, Mich.
Lelah Greenman, Topinabee, Mich.
Betty Schlusser, Fairgrove, Mich.
Dora Achambeault, Cooks, Mich., R. F. D. 1.

Lillian Hunter, Bailey, Mich.
Zelda Farmer, Elba, Mich., R. F. D. 1.
Martha Buss, Manchester, F. F. D. 2.
Mabel White, Hermansville, Mich., R. F. D. 1.

Mary E. Putnam, Colling, Mich.
Elizabeth Weaver, Ithaca, Mich., R. F. D. 4.
Freda Sparks, Saranac, Mich., R. F. D. 2.

Mildred Walters, Eckford, Mich.
Iris Peabody, Sunfield, Mich.
Grace Schlader, Freeland, Mich.
Alida Westus, Grand Rapids, Mich., R. F. D. 8.

UTIQUEOSN UHNT

tahw rep tenc fo cimlaghn
lectat rae ecruburalt?

Just a little more mixed English, or rather, a Read-and-Win question mixed up a bit.

First find out what the title and the question are, then look through the paper and find the answer to the question.

When sending in your answers, give the correct title and question, your answer and the page upon which the answer was found.

To the ten who send the most correct, concise, and neat papers we will give prizes as follows: The first two, Michigan Farmer pencil boxes; the next three, handsome nickled pocket pencils, and to the next five, Michigan Farmer maps of the world and new Europe.

Send your papers to Uncle Frank, Michigan Farmer, Detroit, Michigan, before November 23.

cause it was a well-known verse, some pals made a mistake on it, as they had the last line, "And a pleasant land." If they had worked out all the words, they would have found that "pyhpa" could never make "pleasant."

Others showed that they worked out all the words, but were not very familiar with the verse, for they had the next to the last line, "Make a mighty canoe," which could be made out of the letters in that line, but it would not make sense. At least, I would not care to have a canoe made out of little drops of water and little grains of sand. Would you?

Many answers lost out on account of the lack of neatness. Now, I know it is much harder for some to write neat letters than others. For instance, I am one who finds it hard to write a nice hand, and those in the office want to know what those marks are, when I am writing "just plain English." But, even if one can not write neatly, he can at least make an effort toward neatness. The endeavor to be neat

FREE to trappers

HERE'S SOMETHING for YOU, Mr. Trapper and Fur Shipper—something very important to YOU.

Prices of raw furs are high this season, so get all the furs you can, BUT to get the most money for your furs, you must be accurately posted on market conditions and market prices. Make this your biggest season by reading "The Shubert Shipper" regularly. It costs you nothing—it's FREE—and it will make you many dollars. What is "The Shubert Shipper"? It's the greatest publication of its kind in the world. It not only quotes highest authentic market prices on all articles of American Raw Furs, but also contains market information that you cannot afford to be without.

Write **SHUBERT** Today

What will the "The Shubert Shipper" do for you? It will make money for you. It will put you in position to sell your furs at the highest prices at all times—you will always know just what prices your furs should command. Isn't such information worth money to you? The market reports published in "The Shubert Shipper" are always based on true facts concerning conditions existing in all the fur markets of the world. It also contains pictures of fur-bearing animals in beautiful colors. What must you do to get "The Shubert Shipper" regularly? Just sign and mail the coupon below and a copy will come to you by next mail. You need it. Don't be without it.

WRITE FOR YOUR COPY AT ONCE.

SHIP ALL YOUR FURS DIRECT TO

A.B. SHUBERT INC.

THE LARGEST HOUSE IN THE WORLD
DEALING EXCLUSIVELY IN

**AMERICAN
RAW FURS**

25-27 WAUSTIN AVE
CHICAGO, U.S.A.

A. B. SHUBERT, Inc.

25-27 W. Austin Ave., Chicago, U. S. A.
Without obligation send me "The Shubert Shipper" and keep me posted on Raw Fur Market conditions during the Fur Season of 1922-23.

Name (PLEASE PRINT NAME)

Post Office

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SEE THIS PENINSULAR Sheep Lined Coat No. 26

Just the thing for Dad or big brother! When he sees the name Peninsular in his coat he knows he has a coat that is guaranteed to give him the utmost satisfaction. This coat is belted and is 36" long, made of selected, long wool, "live" skins. Peninsular brand of men's apparel has been a leader for 48 years. There must be a reason! Their quality of goods—workmanship—and roominess with an ideal fit has made them so. Sizes 38 to 50 priced at \$12.00. If your dealer cannot supply you write us direct.

Geo. F. Minto & Co.
Dept. F. Detroit, Mich.

Peninsular shirts, hosiery, underwear, etc., in suitable weights for all seasons. Also makers of the famous Flexknit sweaters and bathing suits.

Said the Farmer:

Brown's Beach Jacket

"About one year ago I got one of your coats. The coat is good yet, and I have given it very hard wear such as any farmer would give a working coat in a country where it is needed some part of the day, almost every day in the year."

It is as warm as an overcoat, cheaper than a good sweater, wears like iron, can be washed, and keeps its shape. It comes coat without collar, coat with collar, and vest.

ASK YOUR DEALER
BROWN'S BEACH JACKET COMPANY
Worcester, Massachusetts



**CRAFTS
MEDICINE FOR
DISTEMPER**

The standard preparation for Coughs, Colds, Distemper. All Druggists. Write for FREE Book on Horse Diseases. **WELLS MEDICINE CO., Lafayette, Ind.**

POULTRY

Bred-To-Lay White Wyandottes

Special sale of cockerels from 200 egg hens for \$5.00 if taken early. **EVERGREEN POULTRY FARM, Blanding & Sons, Greenville, Mich.**

Michigan's Best Giant Bronze Turkeys

Healthy range-bred birds from world's best strains. Unrelated stock furnished. N. Evalyn Ramsdell, Ionia, Mich.

White Wyandotte Cockerels. Finest Bred-to-Lay Stock. **HOWARD GRANT, Marshall, Mich.**

Bourbon Red Turkeys Birds and Eggs now. We have them. Order your. **SMITH BROS., R. 3, Augusta, Mich.**

FULL BLOOD White Holland Turkeys for sale. \$7 and \$9. **MRS. GUY WELCH, R. 2, Elwell, Mich.**

Please Mention The Michigan Farmer When Writing to Advertisers

Make \$13 More Per Cow

Free Book for Dairy Farmers
Tells How to Cut Out Waste;
Gives Valuable Building Hints

Do you know that the manure produced by one cow in twelve months contains fertilizing elements valued at \$39? And do you know that one-third, or \$13 of this amount is lost in the course of a year through improper handling? By providing a simple easy-to-build pit outside the barn, this loss can be prevented.



Write for this Free Book, "Concrete on the Dairy Farm" and see the many money-saving suggestions it gives on the use of concrete in making permanent improvements. Properly housed dairy cattle return greatest profit on the investment. This free book is recognized as a simple guide to 100% efficiency and economy in building on the dairy farm. Fully illustrated with diagrams and pictures. Shows how to build barns, milk-houses, silos, icehouses, cooling tanks, paved barnyards, manure pits, water supply systems, etc. Address office nearest you.

PORTLAND CEMENT ASSOCIATION
Dime Bank Building
Detroit, Michigan

A National Organization to Improve and
Extend the Uses of Concrete
Offices in 23 Other Cities

HOW DO YOU TIE YOUR COWS?



The Porter Fig. 15 Stanchion illustrated here is made with the patented cow-proof latch. Strong—durable—sanitary. Costs less than you think. Write for price stating how many you might need. Nearly every farmer needs a

Fig. 668 Porter Litter Carrier

No obligation involved if you want estimated cost of a litter carrier installation—just send rough sketch of barn with dimensions.

If you are re-modeling an old barn ask for BOOK No. 64.

J. E. Porter Corporation
783 Guion Street : Ottawa, Illinois

PORTER
"Dependable Since Sixty-Eight"

For CUTS And WOUNDS

Does Not Blister **ON MAN OR BEAST.**

CORONA WOOL FAT COMPOUND

For sale at 20 oz. Tin, \$1.00
50c
Delivered

Sore Shoulders
Barb Wire Cuts
Cracked Hoofs
Caked Udders
Collar Boils

For sale at Drug Stores, Harness and Shoe Shops, or mailed by mail if you have never tried it. Send for FREE SAMPLE.

THE CORONA MFG. CO.
Dept. 12 KENTON, OHIO

Why Not PUT THIS NEW MILL ON YOUR OLD TOWER

ALBION

Albion steel and wood mills are quiet and powerful. One-third the working parts of any other mill. Only main frame bearing subject to wear. This is oilless, and easily replaceable. Governed by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your churning hour now with a good Windmill? This is your chance—F. O. B. Albion. Erect it yourself. Ask your dealer, or write direct to

Union Steel Products Co. Ltd.
No. 528 N. Berrien Street,
ALBION, MICHIGAN, U. S. A.

Mention The Michigan Farmer When Writing Advertisers

Dairy Farming

Introduces Innovation

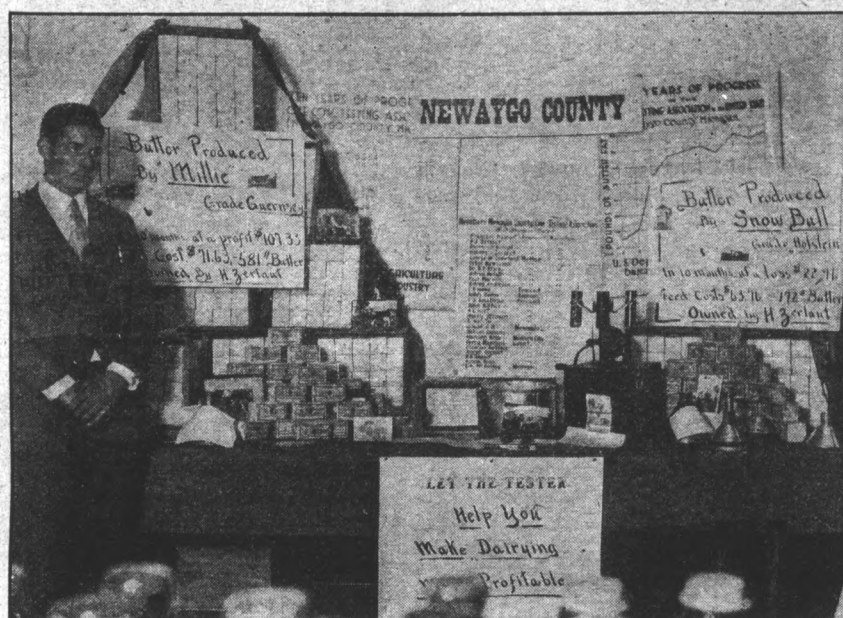
Farmers Enjoy Educational Features Put On by Mr. Spencer at Recent Sale

AN outstanding feature of the sale of pure-bred Holsteins at the Grand River Stock Farm, at Eaton Rapids, was the program arranged for by Corry J. Spencer, owner of the farm. Members from the M. A. C. faculty and from the State Department of Agriculture addressed those attending the sale on the importance of cleaning up and building up our dairy herds.

A half a million dollars yearly for a period of five years would be sufficient, according to Horace W. Norton, of the State Department of Agriculture,

in the vicinity of the agricultural college," declared Professor Reed, head of the dairy department at that institution, who followed Mr. Norton on the program. "I wish, therefore, to enlist the support of the men in this community for the betterment of all, because the man with a few cows is really the backbone of the dairy industry."

Describing the dairy and alfalfa campaigns which were started in Clinton county and will be extended to a score of others during the fall and winter season, Professor Reed urged



HOYT SISLER, Newaygo county cow-tester, demonstrates at recent local fair that some cows are better than others. In one herd he found "Snow Ball," a cow that brought her owner a loss of \$22.96 in ten months. She produced 172 pounds of butter in that period. Another cow, "Millie," in the same herd, produced 581 pounds of butter in the same time and made a profit over feed cost of \$107.33. There are thirty-two cow-testers in the state making similar discoveries every week. Is there one in your community? The dairy department of the M. A. C. will be pleased to help start this work if you and your neighbors are interested.

ture, to clean up the dairy herds of Michigan. "While this seems like an immense sum of money," he said, "Delaware county, New York, is now in such bad condition that they estimate it will cost one and a half million dollars to clean up that county alone."

Three and a half per cent of the cattle in the state are tubercular, and this, in the estimation of Mr. Norton, is the biggest argument for proceeding with as much speed as possible and get the disease eliminated before it spreads to a point where the cost of eradication will be almost prohibitive.

Mr. Norton remarked that there is considerable talk that the indemnity should be reduced to a level of that paid in other states. The department does not like to see a reduction made inasmuch as the farmer who owns reactor cows is now the heavy loser, even though he is paid the present indemnity. When, however, the figures are presented, showing the large sum of money that will be necessary to pay for reactors, there probably will be a tendency toward lowering the indemnity rate.

To indicate the progress made in this work, Mr. Norton stated that eighteen months ago there were only four hundred cattle under observation in this state, while at the present time there are about two hundred thousand.

Professor Reed Talks Straight.

"It is difficult indeed, to get the proper interest in the dairy business

the active cooperation of all farmers, and particularly the men interested in pure-bred stock. These campaigns will promote a better appreciation of the good dairy cow, the advantage of pure-bred sires, the value of properly balanced ration and above all, a careful weeding out of the inferior cows and the breeding of the good ones to the end that the farmer may secure a maximum return for every dollar invested in the feed given to the animals.

Professor Reed declared that the average of 3,600 pounds of milk per year per cow as indicated by the federal census is not far from correct. Recently factory managers who were taking large quantities of milk daily and who knew the number of cows being milked by their patrons, calculated that the animals were producing from 3,600 to 4,000 pounds of milk per cow. This means that there are probably half of these animals producing 4,000 pounds or less, and the 4,000-pound cow, according to Mr. Reed, is an inefficient animal.

Out of 19,000 of the better milk producers in the state of Michigan, there are less than one hundred who are attempting to make milk records. "This," said Professor Reed, "is one of the programs we hope to put over in Michigan. We now have thirty cow-testing associations in this state, and I am quite sure that the men connected with the pushing of this work will have one hundred in operation before long.

There is nothing more important than knowing what our cows are producing."

There ought to be a way of destroying scrub bulls and replacing them with pure-bred sires. The average farmer cannot afford to own a pure-bred bull. It has got to be a neighborhood proposition. In some way four or five farmers must own such an animal jointly. There is nothing that can be done toward insuring better results than providing a pure-bred sire. It will help the individual farmers and will be a great boon to the community. The organization of a bull association should be heralded by bankers and business men as well as by farmers, since it is introducing a worthwhile economic factor into the community.

Professor Reed closed by appealing for greater loyalty on the part of farmers to their own interest. "Don't eat butter substitutes and expect someone else to pay a good price for the butter you produce. I discovered in a small town in Allegan, that thirty-six per cent of the farmers were eating oleo. I started to investigate and one of the grocers told me that he had four brands of oleo, but had no butter for sale. I asked him why he handled this, and he said he had to do so in order to hold his trade on other articles. The farmers demanded oleo."

Professor Dennison, of the M. A. C., who had charge of the program, next introduced Reverend Parrott, who stated that when he came to Jackson he asked where he could get milk from tuberculin-tested cows and was advised that he could get it almost anywhere. This, he stated, aroused his respect for the farmers in this locality and with such a start the outlook was promising.

The Sale.

Regarding the sale, Mr. Spencer states, "This was our first sale to be held in the community and the first dairy sale that was ever held here, and we really look to it as being a real success on account of the interest manifested by those at the ring side. A great many bulls remain in the community to improve both grade and pure-bred herds right around us, only one of the sires going to New York state." Evert E. Price, former herdsman at the M. A. C., fitted the animals for the show ring. The selling was done by the veterans, J. E. Mack, auctioneer, and S. T. Wood in the box. Mr. Spencer states that plans are already being made to hold another sale of this nature next spring.

CULLING OF DAIRY HERDS SAME AS ADVANCE IN PRICE OF MILK.

WHEN the lowest-producing cows in the herd of pure-bred Jerseys maintained on the experiment station farm at Geneva, New York, were sold recently, the average annual yield of butter-fat for the present herd was increased fifteen pounds per cow. These two lowest-producing animals were readily identified by means of the records kept. The average yield of the herd before these two cows were disposed of was 337 pounds of butter-fat per year per cow and this was increased to 352 pounds per cow with the sale of the two poorest cows.

Assuming that the cost of caring for the cows is the same, this sale of the two lowest producers is equal to a raise in the price of milk from \$2.00 to \$2.10 per hundred weight, declares the station dairyman. A raise of ten cents per hundred weight in the price paid to the farmer for his milk would attract much more attention than an increase in the production of butter-fat of fifteen pounds per cow per year, although actually they amount to the same thing.

DAIRY COWS NEED LIME AND PHOSPHOROUS.

GOOD dairymen are finding it a wise practice to feed well the cows which are dry, or nearly so. The big milk producers, during the period of heavy production, commonly draw upon the supply of mineral elements in their bodies. This supply must be replaced. The time to replace it is when the cow is yielding little or no milk. Then it is that a surplus of these important elements should be stored ready for the following season of heavy production.

Certain feeds are richer in lime and phosphorous than others. Alfalfa, clover, soy-bean and cow-pea hays are especially rich in lime. Phosphorous in feeds is found in the largest quantities in wheat bran, cottonseed meal, standard wheat middlings and linseed meal. Where these hays and concentrates are given in appropriate quantities to the cows, the best results will be obtained.

DANISH AGRICULTURE SUFFERS DEPRESSION.

IN an address delivered before the Farm Hands' Clubs of Washington, Dr. S. Sorensen, agricultural representative from Denmark, said that while Denmark is a small country its surplus production of butter, bacon and eggs has considerable influence upon the world's markets.

Previous to the war the Danish farmers enjoyed a long period of prosperity. They imported large quantities of feedstuffs and exported vast quantities of dairy, hog and poultry products.

Agriculture in Denmark suffered severely during the war. The farmers could have sent their surplus products to Germany, but for patriotic reasons they sent their butter, eggs and bacon to England instead at much lower prices than they could have received in the German markets.

After the war the Danish farmers experienced the most serious depression in the history of agriculture. The number of cattle and hogs declined sharply. In 1915, there were exported 200,000,000 pounds of butter; in 1919, 30,000,000 pounds. Less than one per cent of the bacon exported in 1914 was exported in 1919.

Danish agriculture has come back rapidly, however; the exports of butter reaching over 200,000,000 pounds in 1921, and bacon exports reaching the same figure, about two-thirds of the pre-war exports. Imports of feedstuffs are again about normal, a larger amount being received from the United States now than before the war.

BETTER PURE-BRED SALES.

THERE are too many public sales of dairy cattle being held in which the offerings are decidedly inferior, is the opinion of a Holstein breeder with whom I talked recently. He had just come from a sale in which the highest priced animal brought \$250.

This breeder had gone to that sale with the intention of buying, but he didn't. Not that he suspected any shady practices or even the health of the animals, but the cattle being offered simply were not of the proper quality to have been admitted to a sale of that kind.

"The consignors to that sale," he declared, "had overlooked one fundamental factor when organizing the sale, namely: the selling value of condition. Many of the cows looked sickly; most of them were thin; none of them were well groomed. There were too many old cows, for another thing."

This is a lesson it seems very hard for those who sell live stock to learn, that good appearances spell profit. Professional dealers spend a great

deal of money in building fine sales barns in which the cattle may be shown to advantage, and they also see to it that the cattle are well fed and well groomed. Many farmers, however, merely show a buyer through their pasture and let him look at animals in the rough, or they take these same cows right out of pasture and consign them to some sale.

I well remember attending a sale some years ago in one of the greatest dairy sections in Wisconsin. It was the first sale that these people had held, and they chose a day in spring just about a month after pastures had been opened. Every single one of the consignors had driven his sale stuff into the pasture and kept them there until two days before the sale. Then some of the cows were walked as far as twenty miles to the sales pavilion. You can imagine the condition those cows were in.

Of course, there is nothing specially wrong about holding that kind of a sale, but it does disappoint both buyer and seller. Such a sale is simply a poor business proposition. It does not bring out full value for the cattle offered, and it does a great deal to make the buying public indifferent to all public sales.

Good condition in live stock is like the fancy wrapper around the food we buy. There may be no real increase in value because of the fancy wrapper, but our eye is attracted so that we buy the good looking packing and pass by the unattractive one.

CO-OP COMMISSION HOUSES ARE DOING WELL.

MICHIGAN cooperative live stock shippers have opened a cooperative commission house at the Buffalo stock yards, the only one on that market. Their cooperative commission house at the Detroit stock yards—the Michigan Live Stock Exchange Commission Merchants, is handling from 111 to 122 cars weekly, better than one-third the volume of stock sent to the Detroit market.

Buffalo is an important outlet for Michigan, Ohio and Indiana live stock. Accordingly the Michigan Live Stock Exchange and the live stock exchanges of Ohio and Indiana farmers have cooperated with the State Farm Bureaus of the three states to found the Producers' Cooperative Commission Association at East Buffalo. Elmer A. Beamer, of Blissfield, Mich., is president of the Buffalo commission house. P. M. Granger, of Charlotte, and J. H. O'Mealey, of Pittsford, are directors.

The Buffalo cooperative commission house opened business November 1 with twenty carloads. The cooperators have an excellent crew of salesmen. Ernie Prentiss, of Buffalo, is their cattle salesman. They took P. C. Flournoy from St. Joseph, Mo., as hog salesman, and Joe Quinn from South St. Paul, as calf and sheep salesman. The Buffalo house is located at the New York Central Stock Yards, East Buffalo, New York. According to reports from Michigan Live Stock Exchange locals, their Detroit cooperative commission house is giving excellent satisfaction.

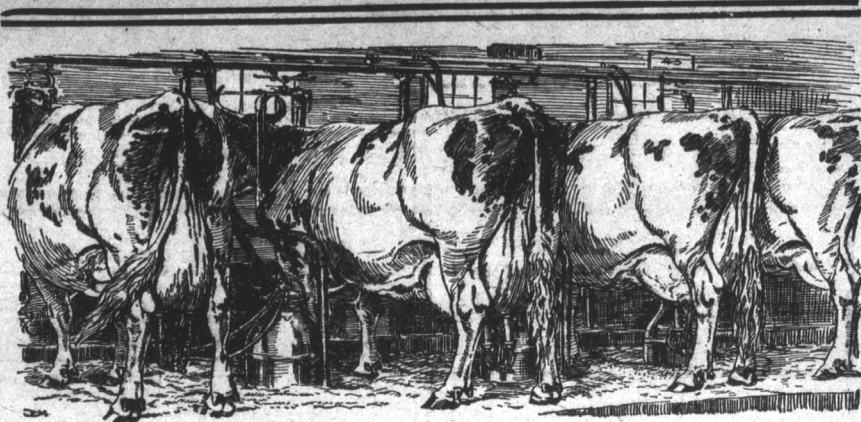
CURRENT EVENTS FOR FARMERS.

Corn huskers are in demand in Illinois.

The government of Saskatchewan will distribute four million forest trees next spring.

President Harding is impressed with the predicament in which agriculture finds itself and emphasizes the need of better systems of marketing and transporting farm crops and in financing the farming business.

Exports from Canada for the past year equal \$150 per capita, which is the highest in the world.



"My DeLaval Milker pays me better profits than any equipment on my farm"

This statement was recently made by a De Laval Milker user to us in a letter, and he goes on to say: "I cannot say too much for the De Laval Milker as my cows are milked better than they were by hand and it has solved my labor problem. Thousands of De Laval Milker users have experienced such as this and the following:

"The De Laval Milker makes it possible for me to take care of 20 cows alone and do all my other work. You can make no mistake in owning one."

"After using the De Laval Milker for nearly three years, we find it is all and more than you claim for it."

"My cows take very kindly to the De Laval and their production has increased from its use."

"I have now used a De Laval Milker for three years and will never milk by hand any more."

We could quote indefinitely from among the thousands of satisfied De Laval users; but "The Better Way of Milking," a beautifully illustrated book, contains the experiences of De Laval Milker users from all sections of the country. We shall be glad to send it to you on request.

If you are milking ten or more cows by hand you are more than paying for a De Laval Milker,

because it

1. Increases milk production;
2. Saves time and labor;
3. Produces cleaner milk;
4. Makes dairying more pleasant;
5. Makes more money.

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from all sections of the Great Lakes. We are not the largest concern, or the smallest, the richest concern, or the poorest. But ship us your furs and be convinced that we will pay you as much or more money and give you better treatment than the largest or richest house you ever dealt with. Write for price list and prevailing Market. changes throughout the season.

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80 Acres Handy Detroit 3 Horses, 4 Cattle, 400 Bu. Corn

50 Bu. potatoes, oats, fodder, hay, 50 hens, brood sow, full implements included if taken immediately; you should prosper from first day here; on State Highway, convenient depot; stores, creamery, schools, churches; 60 acres productive fields, 20-cow spring-watered pasture, wood, timber; variety fruit; good 2-story 8 room house, large barn, corn crib, garage, poultry house, needed. Details page 66 Illus. Catalog Bargains 160 pages. Copy free. STROUT FARM AGENCY 814 Bu Ford Bldg., Detroit, Mich.

5 CENTS AN ACRE CASH

Texas School Lands for sale by the state at \$2 per acre; 5c an acre cash, balance in 40 years. 5% interest. Send 6c postage for further information. Investor Publishing Co., Dept. F., San Antonio, Texas.

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Free U. S. Land

200,000 A. in Ark. for homesteading. Send 85c for Guide Book and Map. FARM-HOME, Little Rock, Ark.

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Municipal Lands For Sale By The District.

No agents, no commission; interested only in getting home-builders on the project. Longest growing season in the northwest. Gardens and fruits thrive; schools, highways and railroads the best. Junction Snake and Columbia rivers. Write for terms and folder. Address Burbank Irrigation District No. 4, Burbank, Washington.

80 ACRES

fertile soil with good buildings. Flowing well, good orchard. Five acres timber. Two miles from town. Liberal terms. OTTO WIRTH, Ewart, Mich.

Poor Man's Chance

\$5 down, \$5 months ly buys 40 acres. productive land near town. Some timber. Price \$225. Other bargains. Box 425-2, Carthage, Mo.

I Have Cash Buyers

for Salable farms. Will deal with owners only. Give description and cash price. MORRIS M. PERKINS, Columbia, Mo.

WANTED—Good 100 acre farm in exchange for my equity in 222 acres in Shiawassee County. This farm has good buildings, is well fenced and is A1 farm. Box C-21, Michigan Farmer, Detroit.

FARMS.

Most productive soil in Michigan. Crops nets \$75 to \$175.00 per acre. Many bargains. My list explains all. Write, its free. M. MAYER, Jr., Merrill, Mich.

For Sale

or exchange for stock of merchandise 80 acre farm, Also 160 A. farm, both improved. J. F. GARRISON, Davison, Mich.

Farms Wanted

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

For Rent

Fine Stock Farm Cherokee Co. Kan. 620 A. Good imp. water, market, soil. Possession now. E. H. WARE, Coeur d'Alene, Idaho.

Wanted

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

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5 Grand Champions
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Our success can also be yours. Our young animals are the finest examples of breeding and will do much to improve your herd. Get the blood of the King of Sires **EDGAR OF DALMENY** into your herd and you will have individuality, distinction and quality.

The services of our Grand Champion Stallion, **GEORGE HENRY** are available.

Your correspondence and inspection are invited.

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ORION, MICHIGAN
W. E. SCRIPPS, Prop. SIDNEY SMITH, Supt.

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

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

For Sale Guernsey Herd Bull. 3 yr. old. Sire, Anton's May King sold for \$7,000.00. Dam, Bonnie's Bloom 530 lbs. B. F. Price \$175. Fall bull calves by above sire. Accredited Herd. GILMORE BROTHERS, Camden, Mich.

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

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Grand River Stock Farms
Cory J. Spencer, 111 E. Main St.
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All ages, from high-producing dams. Also a few registered and high-grade Holstein cows at farmers' prices. Pedigrees and prices upon request. A clean herd under Federal supervision. WHITNEY FARMS, Whitney, Mich.

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Yearling Bull, \$100

Pure bred, registered, federally tested. Dam, a 18 lb. 3 yr. old daughter of King Segis Pontiac, 37 lbs. Good individual, mostly white. Guaranteed healthy. Priced to sell quickly. Pedigree on request. ALBERT G. WADE, White Pigeon, Michigan.

For Sale a semi-official daughter of Maple Crest Korn. Hengerveld. Federal tested, also a few granddaughters from 1 to 3 yr. old. Terms if wanted. M. L. McLaughlin, Redford, Mich.

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

Registered Jersey Cattle. Some young bulls for sale, ask for pedigree. I would spare a few cows to freshen soon, records kept. Herd accredited. J. L. CARTER, Lake Odessa, Mich.

For Sale: Jersey bulls ready for service, cows and heifers due to freshen soon. All cows Register of Merit. Accredited herd. SMITH AND PARKER, R. 4, Howell, Mich.

JERSEYS. Registered bull calves, two to four months, \$15 and up. Flying Fox breeding. Tuberculin tested. Also Mammoth Bronze turkeys. Ten Have Farm, R. 2, Holland, Mich.

FOR Sale registered Jersey Cows, some due to freshen now, one bull two years old and bull calves. O. H. FRENCH, Marquette, Mich.

Lillie Farmstead Jerseys. For sale, 3 heifers bred to freshen this fall, 2 bull calves, 6 to 9 mo. old. Colon C. Lillie, Coopersville, Mich.

Jersey Bull Calves. 7 mos. to near yearlings strong in St. Lamberts. T. B. tested. H. HALSEY, Homer, Mich.

Jersey Cattle. Young stock for sale. Accredited herd. F. L. BODIMER, Reese, Mich.

BIDWELL SHORTHORNS

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.

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For Sale at Farmer's prices.
5 yearling bulls 8 yearling heifers
10 of the above sired by our \$200 Repeater bull. We have others not related. This is an opportunity to start in good stock at a moderate price.

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616 So. West St., Kalamazoo, Mich.

Herefords For Sale. Bulls, cows and heifers. RALPH CALHOON, Bronson, Mich.

Polled Herefords, for sale three young bulls and some females. GLEN GOLDEN, Angola, Ind.

For Sale pure bred Hereford stock, 1 bull, 3 cows, 2 yearling heifers and 1 calf. DAN SLOWINSKI, Lake Odessa, Mich.

Polled Herefords—A few past yearling heifers for sale. Also some cows due to calf soon. Write for prices. Lloyd F. Wilson, Angola, Ind.

For Sale feeders and stockers several loads all Herefords, each bunch uniform in size and color. Edgar Sedore, Ottumwa, Iowa

FOR SALE

Polled Shorthorn Cows & Heifers in calf and calf by side. Also a few young bulls. Herd headed by Victor Sultan and Royal Nonpareil.

We can please you in richly bred cattle with quality at farmers' prices.
GEO. E. BURDICK, Mgr.
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We are offering two splendid white yearling bulls by Imp. Newton Champion and a few extra good heifers and young cows at very attractive prices. For full particulars write to

C. H. PRESCOTT & SON,
Herd at Prescott, Mich.
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Central Mich. Shorthorn Breeders' Assn offer for sale both milk and beef breeding, all ages. Write M. E. MILLER, Sec'y, Greenville, Mich.

Shorthorns for sale. ENTIRE herd just passed State Tuberculosis test. J. A. BARNUM, Union City, Mich.

Milking Shorthorns Bull calves for sale. Also 2 cows. ROSEMARY FARMS, Williamston, Mich.

For Sale Shorthorn Bulls Berkshire Boars. SIMON G. MAICHELE, Middleville, Mich.

Clayton Unit Shorthorn Breeders' Assn. Scotch, Scotch Top and Milking Shorthorns for sale all ages. W. J. Hinkley, Sec'y, Flushing, Mich.

Milking Shorthorn Bull 1 yr. old. Red. Bates IRVIN DOAN & SONS, Croswell, Mich.

1 Month old Shorthorn bull: 1-4 months old Jersey bull. Price right. M. G. MOSHER SONS, Osseo, Mich.

Steers For Sale

All are dehorned and the best of quality. Must be sold at once your choice one load or all. Most all bunches Herefords. Weight 500 lbs. to 1000 lbs. and each bunch even in size, some just fair flesh, account short pasture. Know of light Shorthorn steers 54c. State number and weight preferred. V. BALDWIN, Eldon, Iowa

HOGS

Every's Berkshires have proven their superiority at the leading Michigan fairs in 1922. You want the best. Let us help you to get started right. Spring boars priced reasonable. W. H. Every, Manchester, Mich.

Berkshire pigs two months old \$10 each. Spring pigs \$20.00 each. Good type and thrifty individuals. Guaranteed O. K. B. B. REAVEY, Akron, Mich.

Collinsdale Duroc Farm, Lyons, Mich., R. 1. Greatest Blood Lines in Duroc Hogs

Herd Boars by Great Orion Sensation, Pathfinder, Duration and Great Wonder I Am. Now have for sale three yearling boars by Wolverine Sensation. For sale at all times, sows, gilts or boars registered. Sold under a positive guarantee and worth the money. Write for prices. L. A. BURHANS, OWNER

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Mr. Breeder Mr. Farmer Have you selected your BOAR yet? We have some big, growthy spring boars weighing over 200 lbs. They are sired by a son of GREAT ORION SENSATION and one by FOUST TOP COI. Get our prices on them before buying. Write in now! LOEB FARMS, Michigan

Charlevoix. "The Home of Grand Champions"

Woodlawn Farm Duroc Hogs A well kept herd, best of blood lines, with size and breeding qualities, stock of all ages for sale at reasonable prices. W. E. BARTLEY, Alma, Mich.

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Spring and Fall Boars of quality Sired by 1921 Mich. Grand Champion and Grandson of Scissors, World's 1917 Gr. Champion. Spring, Fall and yearling sows of above breeding, open or breeding privilege to the undefeated boar pig at 1922 Fairs, a son of Unique Sensation, World's 1921 Junior Champion. Personal inspection invited. F. HEIMS & SON, Davison, Mich.

Duroc Fall Yearling

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

Wetsview Duroc Bred Sows

all sold. Have two spring boars left at a reasonable price. Will book orders for April & May Pigs. ALBERT EBERSOLE, Plymouth, Mich.

Oakwood Farm offers choice gilts of Orion Cherry King and Walt's Top Col. breeding bred to Pathfinder Orion for Ang. and Sept. farrow. RUSH BROS., Romeo, Mich.

Duroc Jerseys We have a choice lot of spring boars ready for service. Will ship on approval. Satisfaction guaranteed. F. J. DRODT, R. 1, Monroe, Mich.

DUROCS of Sensation and Pathfinder blood lines. We guarantee satisfaction. MICHIGANA FARM, Pavilion, Mich.

Durocs—choice lot spring boars, sired by Great Duration, Brookwater Satisfaction 8th and Greater Orion King. Norris Stock Farm, Casnovia, Mich.

BROOKWATER DUROC JERSEYS

Ready for Service Boars

Sired by Panama Special 55th and Big Bone Giant Sensation. BROOKWATER FARM, Ann Arbor, Michigan H. W. Mumford, Owner, J. B. Andrews, Lessor.

DUROCS either sex of Orion breeding good quality, spring \$25 to \$35, few yearling gilts at \$40 and Holstein heifers. H. G. KEESLER, Cassopolis, Mich.

Duroc-Jerseys 100 head, all ages, very prolific, big bone, good breeding. Start now and grow pure bred Durocs. Satisfaction or money back. B. E. KIES, Hillsdale, Mich.

Duroc spring boars, gilts, summer and fall pigs for sale. Reasonable prices and satisfaction guaranteed. Jesse Bliss & Son, Henderson, Mich.

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

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

DUROCS Spring boars and gilts, Pathfinder breeding. Sturdy individuals. CLARENCE E. CALKINS, Wayland, Mich.

Pleasant View Durocs Spring boars and gilts, Choice individuals at reasonable prices. W. C. Burlingame and Son, Marshall, Mich.

BIG TYPE CHESTER WHITES

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

Chesters We are sold out of Boars. Choice of spring pigs. Write WEBER BROS. Royal Oak, Mich., 10 ml. and Ridge Rds., Phone 408.

Chester Whites We still have some good March boars for sale also fall pigs, both sexes at right prices. F. W. ALEXANDER, Vassar, Mich.

SHEEP MEN ACTIVE FOR LEGISLATION.

FROM every section of the country sheep men are insisting upon the enactment of the federal truth-in-fabric legislation and consumers are even more deeply interested.

These people contend that shoddy is the cheap substitute for virgin wool. This shoddy used in wool cloth and clothes is sold under the same names as virgin wool, and the public is permitted to believe that shoddy is new wool. This fraud on the public takes advantage of the people's misunderstanding of the term "wool" and thereby destroys the possibility of developing a prestige which this industry might enjoy if virgin wool goods could be properly marked.

Not only would the public be saved great expense, but the sheep industry of the country would be placed on a much superior basis should the provisions of the Capper-French truth-in-fabric bill be enacted and become effective throughout the country.

TO SAVE VALUE OF MANURE.

AT Geneva, New York, bacteriologists have isolated an organism which seems to be especially active in breaking down the nitrogen compounds in manure. While additional work must be done by the scientists, it is possible that this discovery may open the door toward practices which may help the farmer to reserve for agricultural use much of the nitrogen now lost before the manure is placed where the plants can make use of the nitrogenous constituents.

To check the loss of nitrogen from fertilizer, these specialists recommend scattering acid phosphate on manure as soon as possible after it is voided. This practice preserves the nitrogen in the manure, is inexpensive and easily carried out. Not only this, but the acid phosphate increases the fertilizing value of the manure.

USE POTATOES FOR SILAGE.

ANOTHER method of disposing of an excess of potatoes is suggested by M. J. Thompson, of Duluth, as follows:

"The large crop of small potatoes, left after grading, can be converted into silage by using ordinary barrels for silos or, better still, the larger type such as salmon casks, if available. If some kind of a straw or root cutter is available, it should be used to break up the potatoes, for exposure of the white starchy portion hastens fermentation. Place a layer, six inches thick, at the bottom of the barrel and cover with a light layer of cornmeal. Then another layer of potatoes covered with cornmeal. Continue to alternate these layers until the barrel is full. Use about two per cent of cornmeal, the purpose being to stimulate fermentation. Cover and weight down. Open in a few weeks and begin feeding about one gallon per feed, spread on the grain or silage.

"When the barrel, or little silo, has been emptied, it can be filled again and again with other lots from the roothouse."

MILK PRICES FOR OCTOBER.

ACCORDING to a survey of the October milk market in seven Michigan cities, it appears that the highest prices were paid f. o. b. milk at Kalamazoo, while the lowest was paid at Lansing. The Detroit price was \$2.60, the Battle Creek price \$2.45@2.50, the Ann Arbor price \$2.25, and at Grand Rapids \$2@2.25. The price reported for Kalamazoo was \$3.20 and for Lansing \$1.95.

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.

Teat Polypus.—About two weeks ago a lump about the size of a white bean formed in cow's teat, midway between end and udder, but this bunch does not obstruct milk flow. Some blood comes with milk and a second bunch is now forming. W. L. K., Merrill, Mich.—Ask your veterinarian to remove growths, or leave them alone and milk gently.

Sore Shoulder—Sore Neck—Bruised Shin.—For some time one of my horses has been troubled with sore shoulder, caused by collar; also tell me what to do for a horse with sore neck. I have a five-year-old mare which got a knock, just above fetlock, and since then she has limped, when trotting she is out of line. The shin and fetlock joint are not swollen. C. W. C., Pickford, Mich.—Apply hydrogen peroxide, then apply equal parts of oxide of zinc and boric acid twice daily. The same remedy for sore neck.

Founder.—My five-year-old mare is now suffering from the effects of first eating too much new corn, now she is badly founder. I called our local veterinarian, who gave her mineral oil. Now she runs in pasture. What can be done for her? M. F., Caro, Mich.—The front feet should be kept cool and moist, if they are too hot, stand her in wet clay for two or three hours daily. Protect the bottom of fore feet with wide-webbed shoes, but no calks. Such cases are usually incurable.

Scratches—Stocking.—I have a two-year-old filly that has been troubled with scratches for some time; the sores are low down on one hind leg. I also have a nine-year-old mare that has been worked hard all summer until lately, now she rests part time, hind legs are badly stocked. C. H., Petoskey, Mich.—Apply one part carbolic acid and thirty parts water to sore heel twice a day, and give her a teaspoonful of acetate of potash in feed or drinking water daily. Don't wash heel often. Give your mare a teaspoonful of nitrate of potash and one dram of ground nux vomica in feed once a day, and give her daily exercise.

Vertigo.—We have a Collie dog that has peculiar sick spells, he will bark and run rapidly and halt for nothing; he seems to be foolish and does not know any of us until after the sick spell leaves him. It is not unusual for him to be gone for hours and when he returns he is wet and we believe he goes into the creek. M. S., Dundee, Mich.—If bowel parasites are the cause of his ailment, give him twenty drops of fluid extract of spigelia, and twenty drops of fluid extract of senna at a dose in the morning, daily for two or three days; this should rid him of worms.

Paralysis.—I have a Cocker spaniel dog that suddenly lost the use of his hind legs about one week ago, apparently without being sick. He has no pain, but I find a sore spot on back and sides. A. J. N., Remus, Mich.—Doubtless he met with an accident, either displacing or fracturing one of the bones of back; if this be true very little can be done for him. Apply hot water bottle or bag to back.

Collar Galls.—I have a pair of black mares that are troubled with shoulder galls. J. J. S., Metropolitan, Mich.—Apply equal parts of oxide of zinc and boric acid to sore shoulders two or three times a day.

Indigestion.—My horse is thin and in a sort of rundown condition; occasionally I notice a few worms in his dung. H. E. H., Bath, Mich.—Mix equal parts of powdered sulphate of iron, powdered gentian, powdered cinchona, and salt together. Give him a tablespoon at a dose in ground feed twice daily.

Diseased Molar Teeth.—The early part of last spring my nine-year-old mare commenced to discharge mucus from one nostril; lately mucus comes from both nostrils, but she has never coughed, nor seemed to be sick. O. S., Georgetown, Mich.—Make a careful examination and you will perhaps find the fourth molar (grinder) tooth in upper jaw diseased, especially the root. Extraction of the teeth is the only remedy, but this is work for your veterinarian.

HOLSTEIN DISPERSAL

AT
Bridgeman, Berrien County, Mich.

75 miles from Chicago on P. M. Railway

FRIDAY, DECEMBER 1, 1922

Beginning at 11 A. M. Sharp the undersigned will sell at Public Auction

48 REGISTERED HOLSTEIN CATTLE

Consisting of 21 head of cows, mostly high in calf, the majority of which have creditable 7 day records. Balance of herd consists of 16 females in junior and senior yearling and calf form, and 10 young bulls, 3 of which are ready for service.

The young animals are all sired by King Valdessa Pontiac Master No. 273071, a 32 pound son of King Valdessa Pontiac No. 189344, the former Bell Farm 40 pound herd sire whose daughters at Bell farm are proving very sensational producers.

All the cows in the herd are bred to this splendid young bull, who is also offered for sale.

The herd is free of Tuberculosis having been tested at regular intervals by approved state vets. and a retest privilege will be given all purchasers.

Six months time will be extended to those desiring it on approved notes.

DATE HOLSTEIN FARMS

Bridgeman, Berrien County, Mich.

Sidney S. Date, Prop.; J. E. Mack, Auctioneer; W. Osborn, Ped. Man.
Grant E. Volland, Mgr.

PUBLIC SALE

Of Shorthorn Cattle

November 22, at 1 o'clock P. M.

At Farm of

Frank Rohrabacher Laingsburg, Mich.
Farm one-half-mile East and one-half mile South of Laingsburg. Write for Catalog.

18 HEAD
13 Females 5 Bulls

Frank Rohrabacher, Owner
John P. Hutton, Auctioneer

HOGS

Big Type Chester Whites. Spring boars and fall boar pigs sired by Hill's Big Buster, 3rd prize yearling at the 1922 State Fair.
LUCIAN HILL, Tekonsha, Mich.

CHESTER WHITE BOARS
Prize winners, from prize winning stock, for sale at reasonable prices.
F. L. Bodimer, Reese, Mich.

Saginaw Valley O. I. C's, won four silver cups at Saginaw Fair on aged boar and sow, Jr. Sow and Sow Pig; also Grand Champion Sow at West Mich. Fair. We raise the hogs that hog the prizes. Serviceable boars at \$25. Papers furnished.
JOHN GIBSON, Posters, Mich.

O. I. C's. Breeding stock of all ages. 20 boars, buy now. Grand Champion Boar and Sow at Michigan State Fair. Stock cholera immune. Will ship on approval. Come and see my herd. Farm located 1/2 E. of Flint on Atherton Rd. next to D. U. R.
EARLE R. MORRISH, R. 6, Flint, Mich.

Registered O. I. C. Boars
J. CARL JEWETT, Mason, Mich.

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

O. I. C's Champions, Grand Champion and Reserve Champion Boar and Sow at Michigan State Fair. Every entry shown won a ribbon. Young stock for sale. Shipped on approval.
EARLE R. MORRISH, R. 6, Flint, Mich.

O. I. C's. Spring gilts and service boars for sale. Prices right.
A. J. BARKER & SON, Belmont, Mich.

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

Registered O. I. C. April Boars also July Pigs. Shipped O. O. D.
CHAS H. STEEL, R. 8, Eaton Rapids, Mich.

O. I. C. Boars and Gilts sired by 1921-1922 G. Champion at W. Mich. State Fair.
GEO. M. WELTON & SON, Middleville, Mich.

O. I. C. 15 large growthy Mar. boars at Farmers' prices.
CLOVERLEAF STOCK FARM, Monroe, Mich.

Registered O. I. C. Boars
H. W. MANN, Dansville, Mich.

Large Type P. C. A few spring yr. gilts bred for Aug. and Sept. farrow.
H. O. SWARTZ, Schoolcraft, Mich.

Walnut Alley. Big Type Poland China, the kind that makes good. Boars and gilts ready to go.
A. D. GREGORY, R. 3, Ionia, Mich.

Lone Maple Farm L. T. P. C. Match Boars and gilts ready. Prices reasonable, stock as represented.
F. R. Davis & Son, R. 3, Belding, Mich.

Big Type P. C. Spring boars and gilts ready for new homes, also sows and pigs.
CLYDE FISHER, St. Louis, Mich.

LARGE TYPE POLAND CHINAS
Boars and gilts for sale from one of the best herds in Mich. Sired by B's Clansman Mich. 1921 Grand Champion. Alasha, M and W's Orange and Daddy Long Legs 2nd. Give us a visit and look them over if not write to N. F. BORNOR, Parma, Mich.

L. T. P. C.

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

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

LARGE TYPE P. C.

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

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

BIG TYPE POLANDS

A few choice boars of March farrow sired by Emancipator 2nd. Double treated for cholera, and ready for service. Come over, or write.
WESLEY HILE, Ionia, Mich.

Large Type Poland Chinas

Spring boars sired by Fox's Clansman 1922 Grand Champion and by F's Clansman 1920 Grand Champion Mich. State Fair. Also two choice 1921 fall boars. All immune by double treatment. Come and see them or write. A. A. FELDKAMP, Manchester, Mich.

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

Big Type Poland China

Spring boars now ready for service weighing 200 lbs. Sired by Clansman Buster and Haver's Liberator 600 lb. Jr. farrow. Come and see them or write.
DORUS HOVER, Akron, Mich.

L. I. P. C. Spring boars and gilts now being shipped, at farmer prices. They never last long. There's a reason. They talk for themselves. Call or write M. M. PATRICK, Grand Ledge, Mich.

Must sell registered spotted Poland China Pigs at M'Drout Plains, Mich. Prices reasonable. Dr. Meyer, Morgan & Wright, Detroit, Mich. Phone Edgewood 3660

BIG TYPE Poland Chinas, leading strains at lowest prices. Both sex, all ages, and bred sows and gilts.
G. A. BAUMGARDNER, R. 2, Middleville, Mich.

For Sale Large Type Poland China Boar pigs ready for service, at reasonable price.
SCHAFER BROS., Comstock Park, Mich.

Francisco Farm Poland Chinas

Still have a few of those good young boars ready for service. Also Top Notch fall pigs either sex. Both pigs and prices are right.
P. P. POPE, Mt. Pleasant, Mich.

CLASSIFIED ADVERTISING

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

Rates in Effect October 7, 1922

Words	One time	Four times	Words	One time	Four times
10.....	\$0.80	\$2.40	26.....	\$2.08	\$6.24
11.....	.88	2.64	27.....	2.16	6.48
12.....	.96	2.88	28.....	2.24	6.72
13.....	1.04	3.12	29.....	2.32	6.96
14.....	1.12	3.36	30.....	2.40	7.20
15.....	1.20	3.60	31.....	2.48	7.44
16.....	1.28	3.84	32.....	2.56	7.68
17.....	1.36	4.08	33.....	2.64	7.92
18.....	1.44	4.32	34.....	2.72	8.16
19.....	1.52	4.56	35.....	2.80	8.40
20.....	1.60	4.80	36.....	2.88	8.64
21.....	1.68	5.04	37.....	2.96	8.88
22.....	1.76	5.28	38.....	3.04	9.12
23.....	1.84	5.52	39.....	3.12	9.36
24.....	1.92	5.76	40.....	3.20	9.60
25.....	2.00	6.00	41.....	3.28	9.84

Special Notice

All advertising copy discountance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

TO INTRODUCE our three yr. old tobacco will sell 10-Pounds "Regular Smoking" 95c. Best Weak Smoking \$1.45. Best Smoking \$2.25. Best Burley Smoking \$2.95. Medium Cheving \$1.95. Best Cheving \$3.25. 3-pounds Best Burley \$1.00. 100 Fine Cigars \$3.96. Pay when received. Pounds Sample prepaid 30c. Satisfaction Guaranteed. Catalogue free. Kentucky Tobacco Company, Owensboro, Ky.

SHORT COURSE IN NURSING—The Michigan State Sanatorium for Tuberculosis offers a one year's course in nursing approved by the State Board of Registration for Nurses and Trained Attendants, which qualifies for registration as Trained Attendants in Michigan. Apply to Superintendent of Nurses, M. S. S., Howell, Michigan.

WOOL WANTED—We manufacture your wool into Downy Bating, Fleecy Blankets, Comfy Auto Robes, Yarns, Suitings. We also sell above goods. Circulars on request. Woolen Mills, Reed City, Michigan.

BUY YOUR CIGARS DIRECT. Fifty Hand Mades Prepaid \$1.50. Money back if dissatisfied. Agents wanted. Havana Smokehouse, Homeland, Ga.

WOMEN FOR HOMEWORK. Chicago Rug Exchange, 764 Oakwood Blvd., Chicago.

Large Type P. C. Boars of all ages, at very low prices. Satisfaction guaranteed. R. W. MILLS, Saline, Mich.

Large Type Polands. Spring boars and gilts, good big ones weighing up to 250 lbs. Priced right. ARTHUR S. COBB, Stockbridge, Mich.

Choice Boars ready for service. Priced to sell. Also sows and gilts. O. E. GARNANT, Eaton Rapids, Mich.

Hampshire Spring boars now ready, place your order soon. 10th year. JOHN W. SNYDER, R. 4, St. Johns, Mich.

Hampshire Boars Hampshires top the market, why not raise that kind? We have sons and grandsons of Maplewood Payroll, 1st prize aged boar Mich. State Fair, 1922 and other State Fairs. Spring boars wt. from 180 to 270 lbs. Immured. G. H. DODDS, R. 5, Kenton, O.

Hampshire Boar 18 mos. old, registered, cholera immune, also fall pigs. E. O. REIGLE, Marcellus, Mich.

SHEEP

Kope-Kon Farms

Offers the best in yearling Shropshires of course. Also choice of the best lot of Ram Lambs you will see this year. Follow M 29.

S. L. Wing, Coldwater, Mich.

SHROPSHIRE RAMS Come to the farm or write Dan Booher, R. 4, Ewart, Mich.

Strong robust one and two yr. old Wool-Mutton Shropshire rams priced right. Tell us what you want. Maplewood Stock Farm, Allegan, Mich.

SHROPSHIRE RAMS for sale at reasonable prices. W. E. Morrish, R. 5, Flint, Mich.

Shropshires Rams with quality sired by an imported ram. Also ewes bred to imported ram. W. B. McQUILLAN, Howell, Mich.

SHEEP FOR SALE

475 western breeding ewes in good condition from yearlings up, no broken months, also about 100 coarse wool natives. Will sell in lots to suit purchaser. Ewes on my ranch at Gladwin, Mich. See Wm. Neely of Gladwin. Fred Randolph, Jerome, Mich.

FOR OXFORDS, rams, ewes and ewe lambs, write WM. VAN SICKLE, R. 2, Deckerville, Mich.

FOR SALE Registered Rambouillet rams good individuals, extra heavy covering and best of breeding.
ROBE T. J. NOON, R. 9, Jackson, Mich.

For Sale Oxford rams and ewes all ages, guaranteed breeders. Write or call at farm. Geo. T. Abbott, Palms, Mich., Tel. Deckerville 78-3.

Cotswolds 50 head Rams and Ewes all ages, no better flock in State. Write or phone A. M. BORTEL, Britton, Mich. Phone no. 706.

70 Breeding Ewes

1-2-3 years in good flesh. 25 ewe lambs, 35 Wethers lambs all Oxford Grades. Near Manistee at \$10 per head. P. O. Box 254, Grand Rapids, Michigan

REG. DELAINE RAMS

At Farmer Prices. Write or Come. CALHOUN BROS., Bronson, Mich.

FOR SALE 75 good breeding ewes in lots to suit purchaser at \$8.00 per head. Also 40 yearling ewes at \$10.
GEORGE D. DOSTER, Doster, Mich.

Additional Stock Ads. on Page 553

WANTED—SINGLE MAN for general farm work and milking. Wages \$50. Gordon Jackson, Iron Mountain, Mich.

POULTRY

SUPERIOR Ringlet Barred Rock Cockerels, early hatched, extra fine. Prices reasonable. J. L. Wyndham, Tiffin, Ohio.

PURE BRED Mammoth Bronze Turkeys. Exceptionally large, vigorous birds, both sexes. Mrs. Ralph Sherck, Caledonia, Mich.

NARRAGANSETT Turkeys. Fine stock. Order now. Toms \$10 and \$12. Hens \$8. Mrs. W. B. Newell Onsted, Mich.

MICHIGAN'S best pure bred Bronze Turkeys, good ones, order early. Mrs. William Tanton, Deckerville, Mich.

GRABOWSKY'S S. C. White Leghorns, cockerels and pullets for sale. Leo Grabowsky, R. 4, Merrill, Mich.

NARRAGANSETT TURKEYS. Toms \$10 up, hens \$8. Get your order in early while choice is good. Ernest Clement, Ionia, Mich.

JAPANESE SUKIE BANTAMS. Beautiful and useful pets. Ideal for the backyard flock. Ashley Phelps, R. 3, Ionia, Mich.

PUREBRED Imperial Pekin ducks and drakes \$3 each. Shirley Barrett, North Street, Mich.

200 GIANT S. C. Black Minorca cockerels none better \$3.25 each. Mike Schaefer, R. 1, Essexville, Mich.

LIGHT Brahma Cockerels. Fine big utility birds \$3.50. William Adams, R. F. D. 5, Plymouth, Mich.

WHITE Holland Turkeys. May hatched, toms \$7 each. A. E. SHIER, Wolverine, Mich.

PURE BRED Mammoth Bronze Toms \$10. Mrs. Irving Charlton, R. 7, Hastings, Mich.

TURKEYS. Mammoth Bronze Beauties. Mrs. Eugene Ramsdell, R. 1, Hanover, Mich.

PURE Bred Mammoth Bronze Turkeys. Write me. Johnson's Turkey Farm, R. 1, Six Lakes, Mich.

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

LATEST MARKET REPORTS

GRAIN QUOTATIONS

Tuesday, November 14.

Wheat.

Detroit.—No. 2 red \$1.32½; No. 2 mixed \$1.30½; No. 2 white \$1.30½.
Chicago.—No. 2 red at \$1.29; No. 2 hard \$1.19@1.20½; December \$1.17½.
Toledo.—Cash \$1.33.

Corn.

Detroit.—Old, Cash No. 2, 78c; No. 3 yellow 77c; new, Cash No. 2, 76c; No. 3, 75c.
Chicago.—No. 2 mixed 70½@71½c; No. 2 yellow 71½@72½c.

Oats.

Detroit.—Cash No. 2 white 49c; No. 3, 47½c.
Chicago.—No. 2 white at 43@45c; No. 3 white 42½@43½c.

Beans

Detroit.—Immediate and prompt shipment \$6.75.
New York.—Choice pea at \$8@8.25; red kidney \$8.50@8.75.
Chicago.—Michigan choice hand-picked \$5; red kidneys \$5.50@6.

Buckwheat.

Clean milling grain \$2.15@2.25 per cwt.

Rye

Cash No. 3, 90c.
Chicago.—86½@87c.
Toledo.—88c.

Seeds.

Detroit.—Prime red clover cash at \$13; March \$13.20; alsike \$10.75; timothy \$3.40.
Toledo.—Prime red clover cash at \$12.95; alsike \$10.80; timothy \$3.45.

Hay

Detroit.—No. 1 timothy \$17@17.50; standard \$16.50; light mixed \$16.50@17; No. 2 timothy \$15@16; No. 1 clover \$15@15.50; rye straw at \$11.50@12; wheat and oat straw \$11@11.50 per ton in carlots.

Feeds.

Bran at \$32.00; standard middlings at \$33; fine do at \$35; cracked corn at \$33.50; coarse cornmeal \$32@33; chop \$28.50 per ton in 100-lb sacks.

Fruit.

Chicago.—Grapes small baskets 45c; Climax baskets 75@80c; apples, Jonathans \$5.50@6 per bbl; Wageners at \$4@5; Greenings \$5 bbl; Baldwins at \$4@4.50; Northern Spies \$5@6; Baldwins at \$4@4.50.

WHEAT

Wheat prices remain close to the highest figures since the 1922 crop began to move in volume. Domestic mills are the chief factor in the market and the scarcity of choice wheat is exemplified by small purchases of Canadian wheat. Moderate sales for export are being reported every day, mostly Manitobas, but clearances of wheat alone from United States ports have been averaging over 3,000,000 bushels each week.

CORN

The government's estimate upon the new corn crop and carry-over was 110,000,000 bushels higher than the private reports. However, the official figures showed a total supply, including stocks at terminals, of only 3,084,000,000 bushels, compared with 3,385,000,000 bushels last year and an actual disappearance of 3,197,000,000 bushels in the last twelve months. New corn is being offered more freely, the car situation is becoming easier in the surplus states, and the export demand has flattened out with Argentina underselling us.

OATS

Production of oats in twenty-seven countries for which comparable data are available totaled 3,017,538,000 bushels in 1922, compared with 2,742,438,000 bushels last year, 3,269,712,000 bushels in 1920, and an average of 3,007,788,000 bushels in five years 1909-1913. Domestic demand for oats continues brisk, as the south and west are buying and industries are using more than last year.

SEEDS

The November estimate upon the clover seed crop was 1,878,000 bushels, compared with 2,033,000 bushels a month ago. But last year's yield was

only 1,411,000 bushels and the average of the five years, 1916-1920, is 1,564,000 bushels. Prices for both clover and timothy seed are firm.

FEEDS

Demand for feeds is said to be light, with little export buying. Production of all classes is rather heavy and the car situation is loosening up slightly so that the movement is improving. As a result markets are unsettled with wheat feeds slightly easier.

HAY

Hay prices have changed but little in the last six weeks. Light receipts sustain the market and a little improvement in demand is noted at some points as a result of buying by the cotton belt.

POULTRY AND EGGS

The reduction in storage holdings of eggs in the United States during October was 2,150,000 cases which was larger than expected, based on partial returns, and the largest for that month since the records have been compiled. The remainder on November 1, however, was 5,715,000 cases, the largest ever known on that date. Since fresh receipts usually are lighter in November and December than in October, distribution of storage eggs during these months should be as great as, or greater, than in October. If such Chicago.—Eggs checks 19@20c; fresh firsts 40@48c; ordinary firsts at 32@38c. Live poultry hens 21c; springers 19c; roosters 14c; ducks at 22c; geese 22c; turkeys 35c.
Detroit.—Eggs, fresh candled and graded 45@52c; storage 26@28c. Live

poultry, heavy springers 20@21c; light springers 16@17c; heavy hens 23@24c; light hens at 14c; roosters 15c; geese 20@22c; ducks 21@23c; turkeys 36@37c.

BUTTER

The advance in butter prices was checked last week as a result of an unexpected increase in receipts. Some Canadian butter arrived in the east and New Zealand butter is offered for late November shipment at prices a little below the domestic market, but no sales were reported.

Prices for 92-score fresh butter on November 10, were: Chicago 48½c per pound; New York 49½c. Fresh creamery in tubs at Detroit, 40@43c.

POTATOES

Potato shipments from producing sections are falling off so that prices in city markets show more stability, but no upturn has been effected. The recent cold weather has damaged a large quantity before digging and in transit. A further increase in the movement from first hands is due in the next few weeks and values should respond as potatoes are not apt to come out of storage at this level. The northern sacked stock is quoted at \$1.15@1.25 per hundred pounds in mid-western cities, 70 to 90 cents for carlots in Chicago and 65@70c f. o. b. shipping points.

APPLES

Apple prices are strong with the movement from producing sections lighter. Shipping point prices are around \$4.50@4.75 per barrel f. o. b. for Baldwins, Greenings and Baldwins

are from \$3.75@4.50 and Jonathans \$5.50@6.25 in midwestern cities.

BEANS

Stocks for immediate requirements are short and the prices for new goods coming in are firm. The prices are tending higher on red kidneys. It is apparent to the New York market men that Michigan growers know the statistical situation and are therefore holding on to their crop. Transportation congestion also has some effect on beans moving eastward.

WOOL

Wool markets report more caution on the part of buyers, although mills are still disposed to purchase whenever they can at prices ruling recently. The goods market continues healthy and the American Woolen Company is operating at ninety per cent of capacity compared with eighty per cent a few weeks ago.

GRAND RAPIDS

With warehouses in western Michigan filled to capacity with potatoes and practically no cars available to move the tubers, prices on this vegetable have sagged to the lowest levels of the season. The current price in and around Grand Rapids and Greenville is 35@40c per hundred pounds. The tone of the market is decidedly weak. Beans struck a weak spot late last week but had apparently passed over it early this week when the tone seemed improved. Large supplies of hot-house leaf lettuce has unsettled the market and prices have eased to eight to ten cents a pound. With the exception of cabbage all other vegetables were moving fairly well. The Grand Rapids Growers' Association has handled 200 tons of cabbage in the last two weeks at \$6.75 per ton. Supplies of poultry continue heavy at 11@17c bid for springers and fowls. Turkeys are slightly higher at 30@33c bid. Fresh eggs are scarce at 50@52c bid.

DETROIT CITY MARKET

The market is liberally supplied, with prices tending lower. Receipts of potatoes are large, celery and spinach are also plentiful and lower. Receipts of poultry are moderate and prices held firm. Good grade butter is in light supply and firm. Storage eggs are plentiful but the fresh kind are scarce and bring good prices. Apples sell for 75c@2.50 per bbl; celery 15@60c per dozen bunches; cabbage 35@50c per bu; carrots 30@50c per dozen bunches; dry onions 75c@1.25 per bu; potatoes 55@75c; poultry 22@30c per pound; pears 65c@1.50; spinach 75c@1; veal 16@17c.

BUSINESS EXPANDS.

THE business of the Michigan Farm Bureau Exchange has been steadily expanding since operations were started in June. The total transactions for that month aggregated \$15,000; for July it increased to \$30,000; for August, \$34,000; for September, \$42,000, and for October \$51,138.04, according to a statement just made by Manager F. L. Bloom.

FEDERAL CROP REPORT.

THE Crop Reporting Board of the Bureau of Agricultural Economics makes the following estimates from reports of its correspondents and agents for November 1:

	1922	1916-1920
Crops. Preliminary. Average.		
Corn	2,896,108,000	2,830,942,000
Wheat	810,123,000	799,083,000
Oats	1,229,774,000	1,412,602,000
Barley	196,431,000	197,447,000
Rye	79,623,000	67,762,000
Buckwht	13,643,000	14,426,000
Potatoes	433,905,000	373,417,000
Hay, tons	108,736,000	102,129,000
Peaches	56,125,000	43,632,000
Pears	17,772,000	14,085,000
Apples:		
Total bu.	205,539,000	179,208,000
cm'rl bbls.	31,901,000	26,779,000
Sug. bts, tns	5,000,000	6,623,000
Beans	13,013,000	13,317,000
Onions	20,309,000	16,657,000
Cabbage	1,134,000	726,000
Cloverseed	1,878,000	1,564,000

Live Stock Market Service

Wednesday, November 15.

DETROIT

Cattle.

Receipts 317. Market steady.
Best steers \$ 8.00@ 8.50
Handyweight butchers .. 7.25@ 8.00
Mixed steers and heifers 6.00@ 6.75
Handy light butchers.... 5.50@ 6.00
Light butchers 4.75@ 5.00
Best cows 4.50@ 5.00
Butcher cows 3.25@ 3.50
Common cows 2.75@ 3.00
Choice bulls 4.50@ 5.00
Canners 2.00@ 2.55
Bologna bulls 3.50@ 4.50
Stock bulls 2.75@ 3.50
Feeders 5.50@ 7.30
Stockers 6.00
Milkers and springers...\$ 40@85.00

Veal Calves.

Receipts 720. Market steady.
Best \$12.50@13.00
Others 4.50@11.50

Sheep and Lambs.

Receipts 3,200. Sheep steady; lambs 25c lower.
Best lambs \$ 14.00
Fair lambs 11.50@12.50
Light to common..... 5.00@ 8.00
Fair to good sheep 6.00@ 7.00
Culls and common 2.00@ 3.00
Heavy sheep 5.00@ 5.50

Hogs.

Receipts 2,780. Market steady.
Mixed hogs and pigs ...\$ 8.50
Roughs 7.10
Stags 4.50@ 5.00

CHICAGO

Hogs.

Estimated receipts today are 28,000; holdover 6,818. Market is strong to higher. Bulk of sales \$8.10@8.40; tops \$8.70; heavy 250 lbs up \$8.25@8.50; medium 200 to 250 lbs at \$8.30@8.45; light 150 to 200 lbs \$8.25@8.35; light lights 130 to 150 lbs \$8.25@8.35; heavy packing sows 250 lbs up \$7.70@8.20; packing sows 200 lbs up \$7.40@7.75; pigs 130 lbs down \$8.25@8.40.

Cattle.

Estimated receipts today are 16,000. Market slow, steady to lower. Beef steers medium and heavy weight 1100

lbs up \$7.75@13.50; do medium and good \$7.15@11.75; do common \$5.50@7.15; light weight 1100 lbs down \$8.50@12.75; do common and medium \$5.25@9.50; butcher cattle heifers \$4.50@10.50; cows at \$3.40@8; bulls bologna and beef \$3.50@6.50; canners and cutters cows and heifers \$2.40@3.40; do canner steers at \$3@3.75; veal calves light and handyweight at \$8.25@10; feeder steers \$5@7.75; stocker steers \$4.25@7.75; stocker cows and heifers \$3@5.25.

Sheep and Lambs.

Estimated receipts today are 18,000. Market steady. Lambs 84 lbs down at \$13@14.80; do culls and common \$9.25@12.75; spring lambs at \$9.75@13.25; ewes \$5@8; ewes cull and common \$2.75@5.25; yearling wethers \$12.25@14.25.

BUFFALO

Cattle

Receipts five cars. Slow. Choice to prime shipping steers 1000 lbs and up \$10.50@11; good to choice shipping steers at \$9.50@10.50; heavy grass steers, good quality \$8@8.50; medium to good \$7@8; fat \$6.50@7.50; light native yearlings, fancy quality \$11@11.50; medium to good at \$7.50@8.50; best handy steers \$7@8; plain \$6.50@7; handy steers and neifers \$6@6.50; western heifers \$5@6; light Michigan butchering heifers at \$5@6; best fat cows \$5.50@6; medium to good at \$4@4.75; cutters \$2.25@2.75; canners good weight \$1.75@2.10; common and old rams \$1.25@1.75; best heavy bulls at \$4.75@5; heavy bologna bulls at \$4@4.75; common bulls at \$3@3.50; best feeders \$7@8; medium feeders at \$6@6.50; stockers good at \$5.50@6; light common at \$4@5; best milkers and springers \$60@100; common and medium \$35@50.

Calves steady with tops at \$13.50.

Hogs.

Receipts 30 cars. Market is slow. Medium and heavy \$8.90@9; yorkers and pigs \$9@9.25.

Sheep and Lambs.

Receipts 15 cars. Market is lower. Top lambs \$14.75; yearlings \$10@12; wethers \$8@8.50; ewes \$6.50@7.50.

Michigan State Farm Bureau

PRODUCE EXCHANGE

The only produce commission house in Detroit owned and controlled by farmers.

Works for interest of the producer at all times.

Well-trained, experienced salesmen in all departments.

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By shipping to us through your local Co-op in carload lots. Carload shipments save you extra charges that go to transportation companies on less than carlot shipments. They also enable us to divert when other markets would net more than Detroit's.

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Farm Bureau Pro- duce Exchange

2729-2731 Russell St.,
Detroit, Mich.

Phone Cadillac 2270

THE BUSINESS OUTLOOK.

THE barometers of business continue to indicate expansion in trade and industry.

Freight car loadings in the week ending October 28 were above a million for the sixth time on record, and were never exceeded with the exception of one week in October, 1920. Loadings of general merchandise were by far the largest ever known. The tremendous car shortage is a natural outcome. Unfilled orders for cars in the week ending October 28 reached 166,349, the largest on record, and sixteen per cent of the total number loaded in that week. Furthermore, railroad officials hold out but little hope that the car shortage will improve soon, although the peak of freight loadings generally is reached about this time of the year.

Building trades are unusually active. Textile mills are operating at a high per cent of capacity. Pig iron output for October was the greatest since December, 1920. The steel industry is running at seventy-five per cent of capacity and producing more steel than in the best times before the war. Automobile and truck production is phenomenal with the total for the first ten months of 1922 but little short of the output for the full year in 1920, which until now has constituted a record. Retail business in most lines is good. A comprehensive survey shows that retail sales in October were fifteen per cent above the five-year average. Sales to farmers were twenty-two per cent higher than in September and six per cent below the five-year average. Wholesale trade is thriving as the public is buying, and distributors show a greater disposition to stock up ahead than at any time in months. The periodical bulletins of banks are almost uniformly favorable with the note of caution less prominent than for two years or more.

Part of the expansion is merely the return to normal from the extreme contraction of industry which became most acute about eighteen months ago. But the pendulum is swinging up on the prosperity side and is apt to go further before turning back. Most views favor an additional year or more of progress in the direction we are now going.

Relatively low prices for farm products, the European situation and the possibility that too much capital will be put into fixed forms, such as residential and industrial construction, are the forces which may check the expansion process.

If this analysis is correct, demand for farm products in general will be broad as long as the expansion lasts. Practically universal employment of labor means heavy consumption of foods, especially those representing a higher standard of living, such as meats, butter and eggs, which eventually assists the grains used in their production. Wool is aided likewise, and the decrease in recent cotton crops more than offsets any decline in foreign demand so that this fiber is benefiting greatly from the revival of domestic business.

COMING LIVE STOCK SALES.

Feeders.—November 20. C. C. Judy, Tallula, Ill.
Holsteins.—December 1, Date Holstein Farms, Bridgeman, Mich.
Shorthorns.—November 22, F. Rohrbacher, Laingsburg, Mich.

FARM MEETINGS.

Michigan State Association of Farmers' Clubs, Lansing, December 5-6.
International Live Stock Exposition and Grain Show, at Stock Yards, Chicago, Ill., December 2-9.
Michigan State Apple and Potato Show, Grand Rapids, December 5-8.
National Silver Fox Breeders' Association, Muskegon, December 6-8.
State Grange meeting, Kalamazoo, December 12-15.

VISIT International Live Stock Exposition

Dec. 2 to Dec. 9

Union Stock Yards

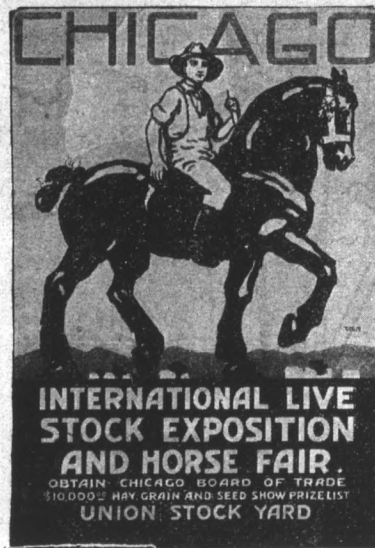
CHICAGO

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Learn Economy in Production.
Enjoy the Great Spectacular Features.
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LIVE STOCK SHOW



DAILY PURE-BRED SALES

ABERDEEN-ANGUS SALE
Wednesday, Dec. 6th, 1:00 P. M.
For particulars write Chas. Gray,
Union Stock Yards, Chicago

SHORTHORN SALE
Thursday, Dec. 7th, 1:00 P. M.
For catalog write F. W. Harding,
Union Stock Yards, Chicago

BERKSHIRE SALE. Wednesday, Dec. 6th, 1:00 P. M.
And Other Pure-Bred Live Stock Sales

MILKING SHORTHORN SALE

Friday, Dec. 8th, 10:00 A. M.
For information write F. W. Harding,
Union Stock Yards, Chicago

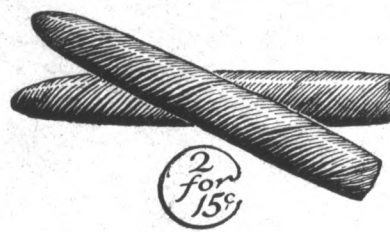
HEREFORD SALE

Friday, Dec. 8th, 1:00 P. M.
For particulars write R. J. Kinzer,
300 W. 11th St., Kansas City, Mo.

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27 years of leadership—
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flavoring—just good old
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Gunsberg Packing Co., Inc.
2460 Riopelle Street, Detroit, Mich.
Write for tags and quotations.

BEANS WANTED

Send one pound fair sample. State how many. Give shipping point. We will bid straight price your station. Clover Seed wanted also.
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FARMER WANTED

At once on modern dairy and general farm, 3½ miles S. E. of Belleville, Mich. Want practical general farmer who knows how to handle herd milking by machine. Apply in person or write, stating experience, to Kiskadden Farm, Belleville, Mich.

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1400 Breeding Ewes
FOR SALE

In lots of 50 or more, black faced, from 1 to 4 yrs old; no broken mouths, in good condition, located 22 miles S. W. of Detroit on Detroit and Toledo electric and Dixie Highway. Telegraph address, Rockwood Almond B. Chapman, So. Rockwood, Mich.

Reg. Hampshire ewes. Also ram lambs. Best of breeding. Priced to sell.
W. W. CASLER, Ovid, Mich.

Delaine Rams, extra fine ones bred for free. F. H. RUSSELL, Box 41, Wakeman, Ohio

FOR SALE A few choice Cotswold land Leicester sheep, both sexes.
W. T. SHUTTLEWORTH, R. 4, Ypsilanti, Mich.

Hampshire Rams. Prices Right
M. G. MOSHER & SONS, Osseo, Mich.

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