

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

JOURNAL
ESTABLISHED 1843.

VOL. CLXII. No. 4
Whole Number 4289

DETROIT, MICH., SATURDAY, JANUARY 26, 1924

ONE YEAR \$1.00
FIVE YEARS \$3.00



MICHIGAN SECTION THE CAPPER FARM PRESS



Published Weekly Established 1843 Copyright 1923

The Lawrence Publishing Co.
Editors and Proprietors1632 LaFayette Boulevard Detroit, Michigan
Telephone Cherry 8384NEW YORK OFFICE 120 W. 42nd St.
CHICAGO OFFICE 606 So. Dearborn St.
CLEVELAND OFFICE 1011-1013 Oregon Ave., N. E.
PHILADELPHIA OFFICE 261-263 South Third St.ARTHUR CAPPER President
MARCO MORROW Vice-President
PAUL LAWRENCE Vice-President
F. H. NANCE SecretaryI. R. WATERBURY Associate Editors
BURT WERMUTH
FRANK A. WILKEN
ILA A. LEONARD
P. P. POPE Field Editor

I. R. WATERBURY Business Manager

TERMS OF SUBSCRIPTION

One Year, 52 issues \$1.00
Three Years, 156 issues \$2.00
Five Years, 260 issues \$3.00
All Sent Postpaid
Canadian subscription 50c a year extra for postage

RATES OF ADVERTISING

55 cents per line agate type measurement, or \$7.70 per inch (14 agate lines per inch) per insertion. No advertisement inserted for less than \$1.65 each insertion. No objectionable advertisements inserted at any time. Entered as Second Class Matter at the Post Office at Detroit, Michigan. Under the Act of March 3, 1879.

Member Audit Bureau of Circulation

VOLUME CLXII

NUMBER FOUR

DETROIT, JANUARY 26, 1924

CURRENT COMMENT

In farm work as elsewhere, we should become enthused over thoroughness.

One must be careful not to judge the world by what he can see from his window.

The successful farmer believes in cooperation; he cooperates with nature as well as with people.

Good books are worthy friends for any man. They help you forget yourself; one of the hardest but most beneficial things one can do.

Michigan Farm Products

VERY few Michigan farmers realize the full extent of the natural advantages which they enjoy because of the character of the agriculture and the industry of the state in which they live. This is more generally true at a time like the present, when for a period of years the agriculture of the entire country has suffered severely from the effects of deflation from which no farmer has entirely escaped. It is common human psychology to fail to see the silver lining to any cloud which may temporarily obscure the sun of prosperity. But in this case the silver lining is there for Michigan farmers to see if they will but look. Let us take a glimpse at it.

First, Michigan leads all other states of the Union in the diversity of her agricultural production. In a chart prepared from census figures showing the relative standing of all the states in the production of fifty important farm products this advantage stands out clearly. Of these fifty farm products this chart shows Michigan to be first in the production of three, second in three, third in three, fourth in two, fifth in three, sixth in two, seventh in three, eighth in five, ninth in two, tenth in one, eleventh in two, twelfth in seven, thirteenth in one, fourteenth in three, fifteenth in six, sixteenth in one, and seventeenth in three. Averaging these figures for the entire list of fifty products we find that Michigan outranks thirty-eight states in this list of fifty products, and thirty states in the products for which our state has the lowest comparative score. Not a bad showing so far as widely diversified production of important products is concerned.

But, the reader may say, what does this avail us when the market is poor and the price low for all these farm products? Here again the cloud has its silver lining. Michigan also has a

big industrial development. Statistics show that her factory workers are better paid than those of any other state, which makes the best possible home market for this big volume of widely diversified production at the lowest possible cost of delivery. A comparison of figures shows that the great bulk of this diversified production is needed for consumption right in our home markets and that most of the balance finds a consumer market within a comparatively short distance from the state line.

This advantage of widely diversified production which is needed in an exceptionally good home consumer market is a silver lining very much worth while. It has enabled Michigan farmers to come through the depression in much better shape than have the great majority of their contemporaries in other states and will place them in the front ranks of returning farm prosperity.

And right in this connection they can help to hasten this development, by themselves purchasing Michigan food products as far as possible when they have to buy food products not grown on their own farms.

The Tenant's Tendencies

TO say that a farm has been rented for the past ten years is ordinarily sufficient to describe its condition. The listener, if he be a farmer, or acquainted with farming, will know from such a remark that the land has been "run."

The average farm lease furnishes little or no incentive for a tenant to maintain or build up the soil. His personal interest lies in taking out of the soil just as much as he can, and putting back just as little.

No appeal to keep up fertility for the benefit of generations to come, will get anywhere with this problem, which is growing in importance in our agriculture. The tenant must be offered some inducement to put plant food in the land.

Long leases help, but the percentage of these is small. To get the cooperation of the one or two-year man will require a new type of lease. How it will be accomplished, we do not know. The matter is a real problem. Practical suggestions will be appreciated.

Your Son and You

THAT boy of yours is sometimes quite a problem to his mother—most every son is. He simply won't do things mother wants him to do, and consequently he is a "bad boy" too often for mother's comfort.

To dad he is not quite the problem that he is to mother, for dad remembers that he was once a boy who tied cans to dogs' tails, threw snow balls at passers-by, or get chased by the crabby old man who lived just over the hill. He can remember when he crawled under the bed to get away from the punishment mother was going to administer, and did later on, when he had to go to bed without supper, or do long extra hours of work in order to get him into ways of righteousness.

Boys will be boys, especially when they are just coming into manhood, for then they try to break away from parental authority and assert prematurely their manhood.

That is a critical period in the life of the boy. Judgment must be used in handling him, for then a life is often either made or broken. The parent has a great responsibility in the way the boy goes.

Students of the youth period of life say that we should endeavor to guide our boys, not control them. We should seek their confidence, not demand their obedience. In getting their obedience and maintaining a control, we assert a physical power over them. But when we guide them through the confidence they have in us, through

the sympathy we can give them when they actually need it, we gain our point through their emotions. This is the logical way, for at that time of life the emotions are the most active.

We should also use patience. Constant rubbing will make a stone smooth and polished, while hammering will often break it. We can not expect obedience to our every word, especially when, due to our own indisposition or lack of thought, the commands are ill-considered. But we can by diplomatic, indirect suggestion, usually direct the boy in the way he should go.

The Bean Meeting

HOW can the Michigan bean market be stabilized? That was the dominant question before the Michigan Bean Growers' Association meeting held at Owosso last Friday under the call of President A. B. Cook. At the close of the session the president was authorized to select a committee of ten to review the situation and to make, at some later meeting, such recommendations as it may deem desirable.

Suggestions on how to avoid throwing eighty per cent of the Michigan crop upon the market at threshing season, were offered by speakers and members. These suggestions included warehousing, financing, advertising and organization.

The proper warehousing of that portion of the crop not needed for immediate consumption was emphasized by several of the speakers. Farm storage was held to be the cheapest. This was satisfactory unless the grower needed money, in which event storage in a public warehouse offered wider possibilities, particularly where use was to be made of federal loan agencies. However accomplished, R. L. Churchill, secretary and manager of the Lima Bean Growers' Association of California, asserted that by holding back the surplus and feeding the market so as to keep it in a healthy state throughout the year would bring the maximum of returns.

In the matter of financing, special attention was given to the intermediate credit loan system, the features of which were explained by Mr. Rose, of the federal land bank of St. Paul. This system functions either through local banks or through local credit organizations. Farmer paper taken by the local bank will be rediscounted through the intermediate credit system, or, if it is not possible or desirable to secure needed loans in this manner, a group of farmers can organize credit corporations and handle loans for members, acting in much the same capacity as the local bank. In many instances where banks find it unwise to extend more credit, they assist the farmers to organize these credit associations. Further, he explained that provision is made whereby loans are made direct to farmers' business associations; but only to those that are strictly cooperative, whose members are producers, and the notes of which organizations are secured by warehouse receipts.

Another matter put forth was the stimulation of consumption. Growers and jobbers alike seemed to feel that a reasonable amount of promotion work with consumers would not only get people to depend more upon beans as a part of their diet, but would have a tendency to get beans upon the shelves and in the windows of our grocery stores. The lima bean growers, stated Mr. Churchill, started off their first year with an advertising budget of \$46,000 and have continued this work each year since. This, he believes, has contributed substantially to the success of the organization, enabling the members to realize an average of over eight dollars per hundred pounds for the six years in which the association has been doing business.

Finally, the organization of the growers was offered as a general move

which, if properly carried out, would aid in accomplishing many or all of the other suggestions presented. The address of Mr. Churchill gave general support to this idea. From his experiences in the west and observation with cooperation in other fields and territory, he stated that it was his firm opinion that the best results would come through the functioning of an efficient growers' cooperative organization. It was, no doubt, largely the result of his presentation that the growers present voted to authorize the president to make a careful study of the Michigan bean situation to the end of learning what can be done here to improve our marketing methods.

Later we shall give more detailed reports of the addresses by President Cook, Christian Breisch, president of the Bean Jobbers' Association, James N. McBride; Prof. J. C. Cox, of the M. A. C.; Mr. Rose and Mr. Churchill.

Skatin'

I GOTTA skate on the other day. You see, it was this way: Them high-school girls like to hitch on my cutter, seein' it's me, and some of them even come settin' in besides me, seein' it's me. Well, some of them says, "Why don't you come out skatin' with us?" And I says, "I ain't had a skate on since 1910 B. P. (before prohibishun), but seein' it's you, I'll try."

So, on a nice moon-light night, after Sophie is rippin' boards, I gets outta bed and goes out to the pond. Gee, but it was nice, the glistenin' snow and refreshin' frosty air, and the lafter of the girls, and everything.

I put on my skates where they was congregatin' by the fire, and they says, "Hurrah for Hy." I says, "Amen," and was glidin' over the ice in about a half minute. Gee, but ain't it nice to go sailin' along like a bird, playin' tag, and goin' partners with a nice young girl, and doin' fancy steps and goin' through the quadrille, and etc., and etc. And then goin' to the fire and roastin' weenies for the girls, and eatin' none yourself, 'cept when they ain't lookin', and then havin' the girls giving you a bite of theirs, and etc. I tell you that livin', and them girls made more o' me than they did the young fellows there, seein' it's me. And that's livin', too.

When we was by the fire foolin' around, one of them girls says, "Oh, lookit, Hy Syckle has got a icicle on his nose." And sure enough there was. And they all laft, 'cause my nose was red enough to keep water boilin'.

Well, it was gettin' late and the fire was gettin' low, and I was gettin' kinda chilly, so we starts skatin' again.

Well, I no sooner gets started when "blump," down I go. I see the whole sky full o' stars, includin' the sun and the moon.

When I was thus studyin' the heavens I hear somebody say, "What's the matter, Hy? What you doin' down there?"

Kinda half awake I says, "I don't know. Gee, it's cold down here. Wait until I get my skates off and I'll get up."

Then somebody says "SKATES?" And there was Sophie wakin' me up, and tryin' to get me back in bed.

Then she says, "What is the matter with you?"

I says, "Oh, I was just dreamin' about skatin', I guess."

The next mornin' I says, "Sophie, let's go skatin'! Skatin' is good and healthy, and what's good and healthy is good fer old folks as well as young folks."

So maybe me and Sophie will go skatin' soon. Only I hope them girls don't ask me to take a bite outta their weenie sandwiches.

HY SYCKLE.

Our Seed Gets a Boost

Michigan Clover Seed Gives New Life to Agriculture According to New York Tests

By A. L. Bibbins

Mgr. Cooperative G. L. F. Seed Department of New York

MICHIGAN-GROWN clover seed of high quality and purity has won a great name for itself on thousands of farms in New York, Pennsylvania, New Jersey and the New England states. Also a few Virginia farmers have become acquainted with the planting value of good Michigan clover-seed.

The northeastern farmer in particular has become accustomed to planting clover only to have it kill out during a normal winter and spring. This condition was so prevalent, particularly in the state of New York, as to cause considerable alarm. Farmers were feeling the loss of clover hay, not only in the milk pail, but also from the standpoint of soil fertility.

The New York State College of Agriculture started investigations to learn the source of trouble. They found that right after the war France and Italy in particular were shipping millions and millions of pounds of clover-seed to this country. They also learned that these countries had shipped seed to America before the war—however, starting in 1919 the volume of seed shipped to America was greatly increased as foreign countries had an accumulation of two or three years and America afforded an excellent market for it. It soon became evident that many of the clover failures in New York state were due to the planting of European seed which had been grown under milder conditions than commonly exist in the north.

Farmers Helped Themselves.

Forty-five thousand farmers, located in New York, Pennsylvania and New Jersey own and direct the Cooperative Grange League Federation Exchange, Inc., which was organized to purchase and distribute farm supplies. I was called by them in December, 1921, to be their "seed hired man." My job—"to get good seed." Having been so well acquainted with many Michigan growers of clover-seed and firmly believing in the productive value of Michigan-grown seed, I felt positive of my ground in recommending Michigan to my newly made friends.

In the spring of 1922, we distributed a few carloads of Michigan-grown clover-seed to farmers residing in New York, Pennsylvania, New Jersey and the New England states, and to a few of our Virginia farm friends.

In order to make comparisons and get at the truth of this situation samples of French and Italian-grown seed were sent out to a large number of

those farmers who had obtained Michigan seed. These farmers planted the foreign seed right beside Michigan seed and reported to me their experiences. The general results of all these tests were pretty much the same, viz.: "The Michigan-grown seed won by a mile." **Tests at Cornell University Prove the Superiority of Michigan-grown Clover-seed.**

Professor R. G. Wiggins, of Cornell University, obtained samples of foreign-grown seed through the United States Department of Agriculture. This foreign seed was sown right beside some of the Michigan-grown clover-seed which I obtained for Professor Wiggins. Professor Wiggins seeded all of the seed under similar soil conditions on plots measuring 8x60½ feet deep. Seed was sown April 29, 1922, good catches being obtained on all plots. During the first summer very good growth was made and in the fall the European seed looked just as good as the Michigan seed. In the spring, however, a great difference was noticed. The foreign plots had winter-killed

very badly, but those plants produced from the Michigan-grown seed demonstrated their hardiness by strongly resisting the winter and spring conditions. The chart herewith shows at a glance the amazing results which Professor Wiggins obtained.

In summing up his tests, Professor Wiggins states: "It is very apparent that Chilean, Italian and French seed have no place in our northern agriculture, while the North German seed is only slightly better."

It will be noticed that the Bohemian seed did very well in the test—this gives additional proof to the value of seed grown under cold conditions as the Bohemian seed came from the mountainous sections of Europe. We should remember that comparatively small amounts of Bohemian-grown clover-seed is shipped to America. American seedsmen discriminate against it as it is so often infested with dodder which shows up very plainly in tests of the seed analyst.

Michigan Clover Worth \$425 a Bushel.

In the Cornell tests, the Michigan-grown seed through their Cooper-

clover produced twenty-seven times as much hay as the Italian. If Italian seed were retailing at \$15 a bushel, the Michigan seed should be worth \$425.

On the basis of the Cornell test, if you were to seed at fifteen pounds per acre, the Michigan seed would yield 4,484 pounds more clover to the acre than a bushel of Chilean seed would produce. The Michigan seed outyielded the north German seed thirty-six per cent, figured on yield per acre. The French clover seed yielded 4,816 pounds of pure clover hay, and 4,444 pounds of natural grasses and weeds, while the Michigan seed yielded 9,288 pounds of pure clover, and 1,640 pounds of natural grasses and a few weeds. Professor Wiggins' test decisively proves the great superiority of Michigan-grown clover-seed over that produced in foreign countries. This is due to the fact that the Michigan seed was produced by plants which had successfully withstood the ravages of severe winter and spring conditions, whereas the plants producing the foreign seed were not subjected to such rigorous conditions. Seed grown in such states as Michigan, Idaho, Wisconsin and Minnesota, is really the survival of the fittest. It is the result of nature's own selection for weak plants kill out, while the strong, sturdy plants live to produce seed. Seed coming from plants which have survived the severe tests of hard winter and spring conditions is especially well adapted for use on northern farms.

Farm Bureau Tests Prove Superiority of Michigan Seed.

As previously stated, during the spring of 1922, I forwarded samples of Michigan and European seed to a great many individual farmers asking them to put the seed out in their fields. Larger samples were forwarded to several County Farm Bureaus to be put out in a similar manner.

One of these was conducted on the farm of Charles A. Sayre, Wyoming county, New York. During the summer of 1922, the plants produced by the European seed were larger and more rank in growth than those produced by the Michigan seed, but during the winter a great reversal of form occurred.

Farmers visited this test and learned the importance of adaptability in seeds. They were struck by the (Continued on page 111).

CHILEAN 674 lbs.	
MICHIGAN 1795 "	
FRENCH 1207 lbs.	
MICHIGAN 2016 "	
ITALIAN 79 lbs.	
MICHIGAN 2239 "	
BOHEMIAN 2262 lbs.	
MICHIGAN 2387 "	
N. GERMAN 1729 lbs.	
MICHIGAN 2387 "	
HUNGARIAN 1098 lbs.	
MICHIGAN 2617 "	

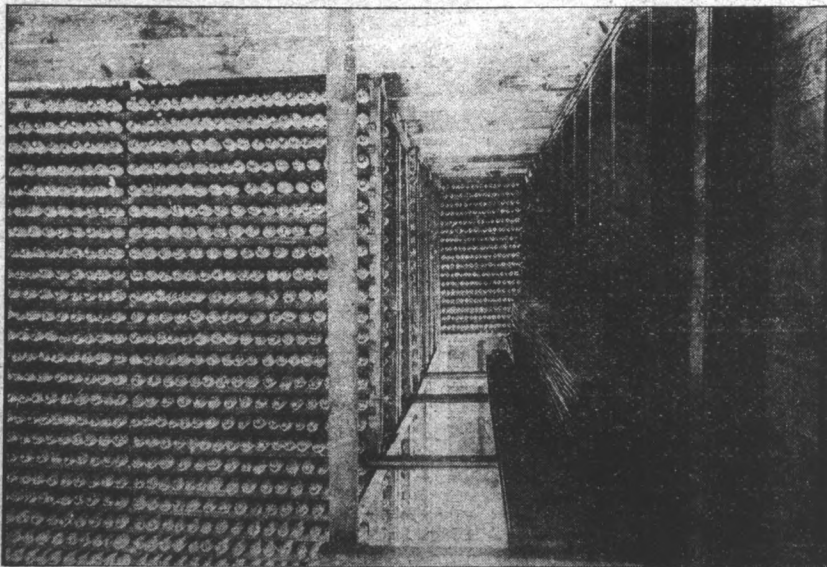
This Diagram Shows Comparative Results From Growing Clover Hay From Michigan Seed and From Imported Seed Under Identical conditions.

Monroe Farmer Dries Seed Corn In Quantity

OF unusual interest in this season of unreliable seed corn are the activities of Paul Clement, a farmer living near Britton, in the selection and storing of his seed corn.

Mr. Clement has been breeding up a strain of very productive white cap corn, and in 1921 conducted an ear-to-row breeding plot in co-operation with the Michigan Agriculture College. His corn this year matured in 112 days and yielded over 70 bushels shelled corn per acre figured at 14% moisture. This is equivalent to over 140 baskets per acre as the ordinary Michigan farmer figures his corn yields.

At harvest time, Mr. Clement drove through the field with his wagon and selected out 2,000 bushel baskets of well developed ears for seed purposes. Appreciating the importance of dry seed corn, especially in seasons like the present, when corn naturally has been very high in moisture, Mr. Clement had prepared a new roomy seed corn warehouse. This seed house



View of Mr. Clement's Corn Drying Racks Showing the Ears in Storage.

has racks for 3,000 baskets of corn so built that no two rows of corn are piled on top of each other. It is heated with a hot air furnace and permits of plenty of air circulation through ventilators in the roof.

While Mr. Clement's corn tested 32% moisture the day he husked it (low for this season) it is now safely dried to 15%, and since it has never been exposed to real freezing weather, has practically perfect germination.

Mr. Clement expects his seed corn drying house to practically pay for itself in one season through the sale of carefully tested seed corn which, despite the cost of this careful storage, he is able to furnish to growers at a nominal cost per acre.—H. C. R.

There are sixty-two farmers' business organizations operating creameries in the state of Michigan. They have 14,599 members, or an average of 235 each.

LATE AGRICULTURAL NEWS

OFFERS NATIONAL MARKETING

AMONG the many farm marketing schemes that are engaging the attention of congress, none are more elaborate or extensive in scope than the bill introduced by Senator Owen, of Oklahoma, which has all the essential features of the marketing plan that was discussed by the National Grange at its Pittsburgh meeting, and referred to a special committee now in conference in Washington.

The short title of the act is "The National County Cooperative Marketing Act," and its purpose is to "establish permanent plans for the encouragement of the agricultural interests, by assembling under a properly planned cooperative financial organization a nation-wide cooperative marketing system governed and operated principally by the farmers and the people of rural communities, but directed and supervised by a central governing body under federal control, the object being to prevent local and general scarcity, hoarding, injurious speculation and private control of the products of the farm, and the economic distribution of the same."

A National Marketing Board, similar to the Federal Farm Loan Board, would be established in Washington, including four members drawing \$12,000 a year salary. This board will divide the United States into twelve districts, which shall be known as national marketing districts. Each national district office is to be managed by a board of governors and a manager subject to instructions by the National Marketing Board.

The national district board of governors are required to organize county units, which shall be known as county companies, under supervision of the district board and managed by five directors appointed by the National Marketing Board.

The county company when duly organized becomes an incorporated body empowered to make contracts to buy, sell, or store articles of interstate commerce produced or required on the farm.

All county companies are entitled to a credit in cash from the National Marketing Board of not less than ninety per cent of the amount of cash invested in the stocks of the National County Cooperative Marketing Corporation.

WOULD ENCOURAGE FOREST PRODUCTION.

THE authorization of the deduction from taxable income of all expenditures incurred for the protection of existing timber or for reforestation is favored by the senate reforestation committee. The lake states originally contained over 103,000,000 acres of virgin forest. It became the dominant lumber production region in 1870 and held that position for thirty years. Michigan, Wisconsin and Minnesota are now dependent upon outside sources for forty-seven per cent of their lumber and pay annually \$30,000,000 in lumber freight bills. A federal expenditure of \$3,000,000 annually is advocated by the committee for immediate action in promoting forestry.

ANOTHER OFFER MADE FOR MUSCLE SHOALS.

AN offer from a combination of southern power corporations for the Muscle Shoals property has revived interest in this proposition. These companies offer to pay to the government \$100,000,000 in rental over a period of fifty years for the hydro-electric power. The nitrate plant is left out of consideration, although the offer proposes to reserve a block of electric power for the operation of the nitrate plant, should any one want to use it.

Southern representatives in congress are denouncing this offer on the grounds that it would give these companies a monopoly of power in the southern states.

This offer by the power companies, however, is not so attractive as it appears on paper. "The offer to lease the dam and purchase the nitrate plants at Muscle Shoals by Henry Ford

would net the government over fifty-year period, \$42,726,800 more than the so-called proposal of the nine power companies," says the American Farm Bureau Federation. "Mr. Ford would pay in fifty years a total of \$130,526,800 into the federal treasury, whereas the power companies would pay only \$87,800,000. Under the power companies' offer the nitrate plants are left on the government's hands, possibly to become obsolete and useless when wanted for military emergency. Ford would operate the nitrate plants to full capacity, keep them up to date, ready and available for use by the government in time of war. One offer enables the manufacture of fertilizer, the other leaves a grave doubt as to whether the plants would be operated or not."

PAY ON BASIS OF SERVICE, SAYS LA FOLLETTE.

AN amendment to the transportation and railroad valuation acts is proposed by Senator La Follette, of Wisconsin, which would fix transportation rates on a basis of cost of service instead of on "inflated and fictitious values."

"The highest courts have held repeatedly that rate regulation is the function not of the courts, but of the legislature," says Senator La Follette. "It is, therefore, the undoubted right of congress to define what are 'reasonable rates' and to direct how they should be established. I propose that congress shall adequately perform this long neglected duty." It is not thought likely that any radical change in the railroad law will be made during this session of congress.

WILL BE DENIED USE OF MAILS.

THE post office department is getting after the "gyp" tire concerns. Charged with selling worthless automobile tires, through the mails, upon representations calculated to lead the purchasers to believe they will receive good tires, capable of furnishing excellent service, the Rose Tire Company,

operating under various names at Chicago, was denied the use of the mails through a fraud order issued by Postmaster-General New.

It was shown at the hearing in the case, that the concern operated by Bernard and Milton Holtzman, received orders ranging from 110 to 150 per day and did a monthly business of more than \$12,000. The concern purchased discarded tires from junk dealers, repaired them at a cost of sixty-five cents each, and sold them through the mails as "slightly" used tires. They also sold new tires made of some worthless material.

FARM BLOC GROUP MEETS.

AT a meeting of the senate farm bloc at the home of Senator Arthur Capper, chairman of the group, the various farm relief measures now before congress were discussed. The proposal to repeal the rate section of the Esch-Cummins law and the enactment of the Norris-Sinclair bill to create a government corporation to buy and sell farm products were endorsed, according to senators who were present.

The Norbeck bill, providing for government loans to northwestern wheat growers with which to buy dairy cattle and other live stock was favored, and it is evident that it will have the active backing of the farm bloc.

LAND BANKS PLAN FOR INCREASED LOANS.

A NEW issue of \$60,000,000 federal land bank bonds at four and three-fourths per cent interest is being offered by the Federal Farm Loan Board to meet the late winter and spring demand for money on the farms. During the past year the twelve federal land banks have increased their capital to \$43,597,320 and their assets to \$876,323,007. "With this continued growth and continued evidence of their solidarity," says Commissioner Cooper, "it is anticipated that the present offering of securities will be promptly absorbed."

Exposure and Starvation Among Bees

By B. F. Kindig

THE commonly believed tradition is that bees freeze up or hibernate during the winter. Many have observed that on warm days the bees seem to come to life and take flights around about. Beekeepers have long known something of the fallacy of the tradition, but no information of positive value was available until a few years ago, when the problem was taken up by the investigators of the United States Department of Agriculture. Some of their findings are, briefly, as follows:

Bees do not hibernate. Regardless of how low the temperature may be in winter, the bees are active, and the lower the temperature to which they are exposed, the more active they are. The matter of the air temperature in the hive was shown to be a most important factor in successful wintering. After the bees become broodless in October or November, the temperature in the unprotected hive varies in harmony with the rise and fall of the outside temperature. The differences in behavior of the bees divide the temperature ranges into three distinct groups, namely, temperatures of from ninety-five to sixty-nine degrees; from sixty-nine to fifty-seven degrees, and from fifty-seven to forty-five degrees. The range from ninety-five to sixty-nine degrees is characterized by much activity on the part of the bees, activity both within and without the hive. The range of temperatures from sixty-

nine to fifty-seven degrees is characterized by the bees being scattered about the hive, moving but very little, and consuming very little food. The range between fifty-seven and forty-five degrees is distinct from the others in that the bees are clustered tightly. When the temperature within the cluster falls to forty-five degrees the bees become numb. Each of these groups of temperature ranges have a very important bearing on the wintering of the bees.

Following the cessation of brood rearing, the temperature within the hive varies as the temperature of the outside air fluctuates from hour to hour and from day to day. When the hive temperature is above sixty-nine degrees the bees are active, using their energy and food. When the temperature around the hive is such that the temperature within is below sixty-nine and above fifty-seven degrees, then the bees seem entirely content to sit quietly on the combs, using the minimum of food and not wasting their vitality and energy by useless wandering around the hive or flying outdoors. This is the ideal condition for wintering the colony. Nature, however, provides but few days during the winter when the unprotected colony can enjoy this complete cessation of activity. If the beekeeper will pack the bees so well that

the heat given off involuntarily as a result of their vital processes will keep the temperature above fifty-seven degrees and below sixty-nine degrees, then the colony will winter with the smallest loss of numbers of bees, with the greatest amount of vigor and with the use of the smallest amount of food. If a bee cellar is so constructed that it normally holds an air temperature which is such that the temperature within the hive falls in that range of temperature, then, the bees will winter perfectly—no crawling out of the hive, no dysentery, few dead bees being thrown out, and no spring dwindling following. This statement is made upon the assumption that the colony has good honey or syrup for food and that there is no excess of dampness in the cellar.

When the bees are so wintered that the temperature in the hive is generally below fifty-seven degrees, then an entirely different condition exists. When the temperature falls to fifty-seven degrees, the bees form a cluster for the purpose of saving the heat which they naturally give off and if that is insufficient they begin the generation of heat through muscular activity. This is done by vigorous fanning, running about, moving parts of the body, etc. Whenever muscles are active, energy is being transformed

into heat. Food is required to restore energy used. Under this condition the bees are required through lack of protection to heat their hives during the winter, they must use up their energy, their food and their numbers for many of the bees are not able to undergo such constant exertion for any very great length of time.

If, because of lack of protection from cold, the bees must use from two to four times as much food as when properly protected, then the chances of unprotected bees starving to death are at least from two to four times as great as when well protected. As a matter of fact, very little starvation occurs among bees that are well protected. Beekeeping specialists generally give ample protection and when the winter losses run from ten to fifty per cent, as has been recently experienced, the specialist's losses are little above normal. Beekeepers should send to their congressman or to the editor and chief, Division of Publications, United States Department of Agriculture, Washington, D. C., for a copy of Farmers' Bulletin No. 695, entitled, "Outdoor Wintering of Bees." This bulletin discusses the subject in detail not possible here, and if its advice were followed would result in the saving of thousands of colonies of bees that are lost annually in Michigan through carelessness or ignorance of the requirements for good wintering.

Kitchen Fox Farming

Suggests Itself as a Side Line for Farmers---By Ben L. Taylor

THERE is a side line which many farmers of Michigan may take up with excellent chances of profits worth consideration, if the experience of farmers in Muskegon county are to be accepted as typical. That side line is the breeding and growing of silver foxes.

There are two types of silver fox ranches now existing in the United States and Canada. One is the large ranch where as many as two hundred pairs of foxes are ranched at one time. The other is the "kitchen" ranch, which has become a frequent sight on Canadian farms in recent years. It is with the latter particularly that this treatise proposes to deal.

The large ranch is promoted for the most part by several stockholders who form a company or corporation and pool their money. This type of ranch is more for the city dweller who seeks a place to invest his surplus earnings and a business which will divert his mind from office routine for a time. It is not so well suited for the average farmer of the state as the smaller or kitchen ranch.

By the latter term is meant the ranch that a farmer may start and maintain in his back yard, where table scraps from the kitchen, such as the family dog grew up from puppyhood on, may be utilized to cut down the operating expense.

There are farmers near Muskegon, the silver fox center of the United States, who have found that there is more profit, per fox, in the kitchen ranch than in the larger enterprise. They have found that three to six pairs of silvers can be kept in a chicken wire pen out by the barn, or in the orchard or vineyard with little more care and expense than would be incurred by a flock of two dozen chickens.

Foxes eat practically the same food that dogs thrive on. Some farmers feed table scraps and add eggs, milk, chickens, cereals, vegetables, bone meal and fresh meat. The large ranches buy these articles of food in large quantities for their foxes. The aver-

age farm produces most of these in sufficient quantities to feed several pairs of foxes, and here lies the advantage of the kitchen ranch. It is estimated by the National Silver Fox Breeders' Association that it costs twice as much or more to feed a fox on a large ranch as it would on a kitchen ranch.

Oscar J. East, of Muskegon Heights, who has a kitchen ranch, says he can

much higher prices may be demanded for breeding stock, for fox ranching has reached a stage where specialization is necessary, even as it came years ago in the breeding of pedigreed cattle, horses and other live stock.

A farmer who likes animals and has some knowledge of animal husbandry undoubtedly would be a successful kitchen rancher. Of course, if he should meet with misfortune and some

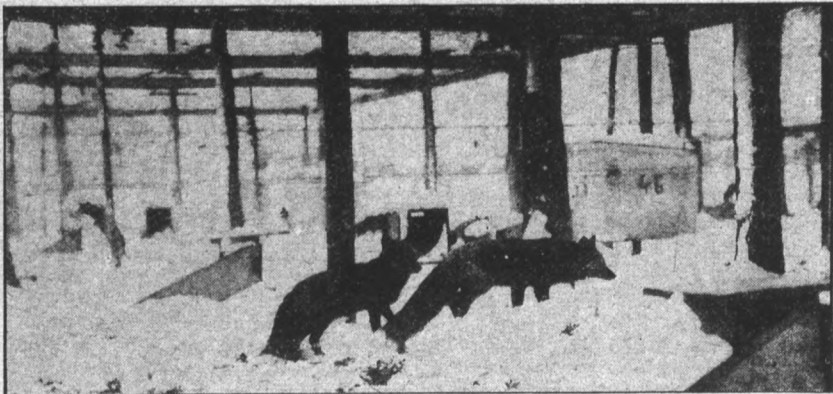
the offspring would undoubtedly be suitable for breeding stock, but to eliminate all chance of argument let it be assumed that the increase should all be pelted. At present market prices it is entirely reasonable to assume that the average selling price per pelt would be \$300, in which case the farmer would realize \$3,600 and he would still have his original breeding stock of six foxes. This represents a profit of approximately fifty-four per cent.

As a matter of fact, the United States government bureau of biological survey says in an official bulletin that 100 per cent profit is the usual thing in the fox industry. The government has spent much time and money investigating and experimenting at the federal fox farm at McKeesport, New York.

Many have the idea that the fox industry is on the decline. Actual figures compiled by the National Silver Fox Breeders' Association of America, which has its offices at Muskegon, Michigan, show that this is not true. It is a fact that there is less wildcat speculation in foxes than there was before and during the war, but that is a sign, the National Association says, of a healthy recovery from an attack by unscrupulous promoters.

When the silver fox industry first was developed in Canada by a group of individuals there was a compact that none should sell any foxes to outside breeders. Thus they hoped to keep a monopoly on a highly profitable business. But fabulous sums were offered members of this compact and finally one member yielded. That broke the compact and speculators rushed to obtain foxes. Prices mounted until \$25,000 was paid for one fox shortly before the war.

"Quality" foxes were sold by unscrupulous promoters who would not know a quality fox if they saw one. Many people thus were sold impure stock and the industry was done an immeasurable amount of harm. But the public grew wary and now it is (Continued on page 123).



A Few Inexpensive Pens and Runways in the Barnyard is all the Equipment Necessary for Side Line Fox Farming.

make a fair profit on his investment by selling his foxes at \$50 each as soon as they attain their growth. This takes into consideration all ranching costs, including the time he devotes to his foxes.

The owner of one of the largest silver fox ranches in Michigan says he would have to receive \$100 per fox to make a profit. As a matter of fact, both ranchers have not had to accept anywhere near these low figures for their foxes, unless it was for foxes which met with mishaps and died in puppyhood.

Silver fox pelts bring on the fur market of today \$100 to \$700 for prime fur. Live foxes for breeding stock bring \$500 to \$1,000 per fox. Of course, where unusual strains have been developed and exceptional individuals are able to impress their superior qualities on their offspring,

of his foxes would die it would be a greater blow to him than the loss of the same number would be to the large ranch owner. But on the other hand, the small rancher can watch his foxes more carefully and forestall many casualties among his pens which might otherwise occur.

A female fox will throw a litter of one to eleven foxes once each year. The average litter is four. If these are all brought to maturity the average increase would be double the original stock annually. A rancher who would purchase three pairs of proven breeders this winter to start his kitchen ranch should have, if he experiences average good luck, eighteen foxes a year from now. If he paid \$2,000 a pair for his breeding stock, \$200 each for three pens in which to keep them, and \$50 a pair for keep for a year, his investment would be \$6,750. Some of

Some Electrical Farming Experiments

Results Suggest the Possibility of the Farmer Becoming the Big User of Electricity

By Robert H. Moulton

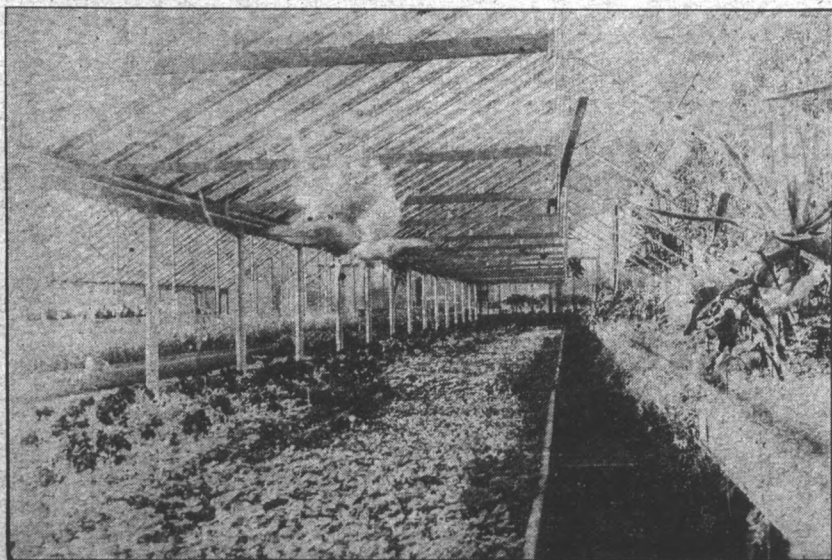
NOW that scientists have discovered that high frequency electrical currents are powerful stimulants, both of plant and animal life, the farm hand of the future may have to be a duly qualified electrical engineer before he can get a job. It will not be enough for him to know how to manipulate the motors and transmission gear by which the farm machinery will be run. He will have to be up on the chemistry of electricity. He will not only have to know the use of violet rays in purifying water, but will also have to know whether ground wires are better for beets, ruby lights for radishes, mercury vapor for tobacco, and electric sprinkling for something else. He will have to be something of a plant neurologist, too. When the corn in the "south forty" is getting "nerves," or when the oats in the new ground are becoming too somnolent, he will have to make correct diagnoses and prescribe the proper remedy.

Electrification for plant growth has arrived. And when the canny American farmer learns that he can double or even treble the output of his fields by the use of electricity, somebody will have to find a way for him to use electricity and thereby make a good profit out of his crops.

Experiments conducted during the last few years have shown conclusively that plants electrically treated grow

much more rapidly than those growing under normal conditions. What is of equal importance, it has also been discovered that electrification of the soil in one year will increase its fertility the next, although the discharge is suspended in the second year.

Dr. Herbert G. Dorsey, an expert, had charge of experiments conducted on a farm in the fertile Miami River Valley, near Dayton, Ohio, from which much valuable information on the effect of electricity upon growth was secured. Additional information has



These Greenhouse Plants Are Being Given an Electrical Treatment Through Overhead Wires.

been furnished by William Stahl, who experimented with a small electrical farm near Chicago.

In the Ohio experiments small plots were marked off for exposure to different kinds of electrification out of doors, and potted plants were used for experimentation inside a greenhouse. To insure that the soil of one outdoor plot was not better than another, top earth was collected, mixed and sifted, and then was laid to the uniform depth of seven inches over the entire area.

In the soil of plot No. 1 was buried a wire screen. Over the plot was a network of wire, stretched about fifteen inches from the ground. Connecting the network above the ground and the screen below, were several wire antennae. The screen was connected to one terminal of a Tesla coil and the network to the other. A transformer stepped a 110-volt alternating current up to 5,000 volts, charging a condenser of tinfoil and glass plates, which discharged through a primary coil. About 130 watts were operated for an hour each morning and evening.

Plot No. 2 was illuminated by a 100-watt tungsten lamp with a ruby bulb. The light was turned on for three hours daily, beginning at sundown. Plot No. 3 was illuminated the same way, except that a mercury vapor lamp was used. No. 4 had no artificial stim-

ulation of any kind, being intended as a comparison between electrically treated plant growth and that of natural conditions.

In plot No. 5 was buried a wire network connected to the terminal of a 110-volt direct current. The positive terminal was attached to a small sprinkling can with a carbon electrode in its center. The can being filled, the water was subjected to electrolysis for several minutes. The plot was then sprinkled from the can, the theory being that the current might flow from the can through the streams of water to the soil.

After radish and lettuce seed had been planted and germination had begun, the various methods of electrification were tried with extreme care. The result of the experiments showed that the plants in plot No. 1 grew in every instance far more rapidly than those in the other beds and more than double the normal growth as shown in the un-electrified bed. From this the experimenters became convinced that electrification of the ground by high-frequency currents stimulated plant life to an extent that warranted a more complete investigation. So they selected two acres of flat, rich ground.

First a network of sprinkling pipes was built fifteen feet above ground.

The pipes ran east and west a distance of two hundred feet and were spaced at fifty-foot intervals. In the north-east corner of the tract seven copper wires were stretched north and south, each being two hundred feet long with an interval of fifteen feet separating them. The wires were elevated sufficiently for the soil to be plowed by horses, and the ends of the wires were attached to insulators on top of gas pipes set in concrete.

At the extreme edge of the field the experimenters built a small transformer house and installed machinery which would yield 10,000 volts. A choke coil and a Tesla coil were used. The whole thing was connected up so that by means of antennae, current from the wire network was sent to the network of sprinkling pipes, which of course, furnished proper connection with the ground. The result was that a pressure of 50,000 volts was obtained and the frequency of the oscillatory currents was estimated to be about 30,000 cycles a second. Birds lighting on the wires were stunned and thrown to the ground.

The ground was planted to radishes, lettuce, beets, cabbage, cucumbers, turnips, muskmelons, potatoes, carrots, beans, parsnips, peas, corn and tobacco. All were planted in rows running

east and west, so that one-half of each row was electrified and the other half was not. As a result, it was found that practically all the plants in the electrified area grew much more rapidly than those out of it, and in almost every case, the electrified vegetables were ripe two weeks earlier than those outside the zone. In the cases of the potatoes, carrots and turnips, not only was the difference in the height of the stems and the luxuriance of the leaf growth very marked, but the weights of the vegetables taken from the electrified ground averaged from fifteen to twenty per cent more than those taken from the unelectrified ground.

The electrified end of the tobacco crop was cut and it was found that each plant weighed about 1,687 grams. It was two weeks before the untreated tobacco could be cut, and then it weighed only 1,632 grams to the plant. Taking into consideration that the most rapid growth of the tobacco plant is in its last two weeks before ripening, the experimenters estimated that the actual increase in weight of the plants in the electrified zone was twenty per cent greater than in the unelectrified zone. If this could be followed on a grand scale, it is apparent that the effect of the electrification on the annual tobacco output of the nation in

a single season would be tremendous. While authorities state that numerous questions must yet be answered before the use of electricity for the general stimulation of plant life could be considered economically possible, they add that many of these questions are being worked out in greenhouses over the country.

The electrical farm operated near Chicago covered two acres. At the end of the season the operator was able to show his neighbors a series of crops of vegetables which came to maturity from two to three weeks ahead of those on their farms. He even gave them another free exhibition by planting a second crop of some of the vegetables later in the summer and bringing them to a successful harvest after the frost had killed off nearly everything on the neighboring farms.

Just as these American experimenters proved the importance of electrification to plant life, so a group of English experimenters have proved its importance to animal life. They took two large brooders, filled with newly hatched chickens of the same breeds. One of them was subjected to the influence of high-frequency currents and the other was not. Those in the former were found to grow much more rapidly than those in the other.

The Michigan Potato Exchange

Facts Derived from a Detailed Study of the Various Locals Affiliated Therewith

INFORMATION received from a study of the detailed reports of forty-six of the 105 active locals affiliated with the Michigan Potato Growers' Exchange, of Cadillac, Michigan, is helpful in understanding the present status of the local association in the cooperative marketing movement.

Sixteen of the locals were formed in 1918, an equal number in 1919, five in 1920, and one each in 1921 and 1922. The total membership for the forty-three locals reporting number of members; was 5,458. Three of the associations had less than twenty members each, five had more than 250 each. The forty-three associations reporting membership, arranged in groups according to number of members, gives the following:

Members.	Number Assn's.	Per Cent.
Under 25	3	7.0
25 to 49	8	18.6
50 to 74	4	9.3
75 to 99	6	14.0
100 to 124	4	9.3
125 to 149	5	11.6
150 to 174	5	11.6
175 to 199	3	7.0
200 to 224	0	.0
225 to 249	0	.0
Over 249	5	11.6
Total	43	100.0

The forty associations reporting the number of cars shipped, forwarded a total of 1,488 cars to market. Seventeen of the associations shipped fewer than nineteen cars of potatoes each, while two shipped from 120 to 139. The detailed figures are as follows:

Cars Shipped.	Number Assn's.	Per Cent.
Under 20	17	42.5
20 to 39	8	20.0
40 to 59	6	15.0
60 to 79	4	10.0
80 to 99	2	5.0
100 to 119	1	2.5
120 to 139	2	5.0
Total	40	100.0

Nineteen of the associations reported regarding amounts paid members of the board of directors for attending meetings. One association pays the expenses of the board members; three associations pay directors \$1 a meeting; two associations pay \$1.50 a meeting; five associations, \$2.00; five associations, \$3.00; one association, \$5.10; one association, \$18 a year, and one association \$30 a year.

Forty-four associations reporting regarding managers have had from one to five managers each, although the

oldest association is but little more than five years old. The table below gives figures regarding number of managers per association:

	Number Assn's.	Per Cent.
5 m'grs.	2	4.5
4 m'grs.	7	15.9
3 m'grs.	10	22.8
2 m'grs.	13	29.5
1 m'gr.	12	27.3
Total	44	100.0

The salaries paid the managers of the forty-four associations reporting on this point ranged from \$600 to \$3,000 per annum. More than sixty per cent of the associations pay their managers \$1,500 or less. In the case of five of the associations the compensation of the manager is a commission on sales. The table below gives the more im-

portant facts regarding the salaries of managers:

Salary.	Number Assn's.	Per Cent.
\$ 600 to \$ 999	1	2.3
900 to 1,060	4	9.1
1,000 to 1,200	6	13.6
1,200 to 1,300	7	16.0
1,300 to 1,500	1	2.3
1,500 to 1,560	9	20.5
1,700 to 1,800	1	2.3
1,800 to 2,000	3	6.8
2,000 to 2,400	2	4.5
2,400 to 2,500	2	4.5
2,500 to 3,000	2	4.5
3,000 to 4,000	1	2.3
Commissions	5	11.3
Total	44	100.0

Of the forty-four associations reporting regarding crop contracts with the members, fifteen, or 34.1 per cent, have crop contracts, and twenty-nine, or 65.9 per cent, do not. Thirty-seven

associations out of forty-five do business for non-members.

Handling charges for potatoes varied from two cents per cwt. for an association shipping eleven cars, to twenty cents for three associations shipping seven, twenty-two and forty-eight cars. Nine of the associations have handling charges of less than ten cents per cwt.; eight charge ten cents; three charge twelve cents; ten charge fifteen cents; two charge sixteen cents; three charge seventeen cents; one charges eighteen cents, and three charge twenty cents.

Thirty-seven locals reported operating fifty-seven warehouses with a storage capacity of 545,000 bushels. The smallest warehouse had storage for 2,400 bushels, and the largest for 38,000 bushels. Seven warehouses had storage capacity for 25,000 or more bushels.

Twenty-six of the 131 potato locals organized in the last five years are inactive at the present time. This is approximately twenty per cent of the total number.

Thirty of the associations are buying collectively for their members. Many of the supplies bought in wholesale quantities are retailed to the members. During the last business year the retail business of twenty-one associations amounted to nearly \$900,000. One association reported a business of over \$200,000 and three additional associations reported \$100,000 or more each.

TARIFF COMMISSION NOT FUNCTIONING.

THE Federal Tariff Commission is far from meeting the expectations of its friends who hoped that by the creation of the commission tariff questions could be investigated and recommendations made by a non-partisan board unhampered by partisan politics. In this regard they have been greatly disappointed.

The commission is divided into two groups holding different views upon the tariff, and as a result no recommendations for rate changes have been transmitted to the President for his approval, although the flexible provisions of the new tariff act have been in effect fifteen months. Thirty cases await final vote, while the commission remains deadlocked.

Find the Man Who Is Riding on a Pass



Fruit Marketing Problems

By James Nicol

Prominent in Cooperative Marketing Activities

THE Michigan Fruit Growers' Inc., is an organization just starting to creep, and at present has not sufficient strength to hardly pull itself up to a chair; but it is alive, healthy, ambitious, and only born for service to the fruit growers of Michigan.

The problems confronting our growers are so numerous and seem to be increasing, both from the producing and distributing ends. But at present we are going to consider only the selling and distributing end of our business.

We are all agreed that standardization of our apples would tend greatly to help maintain fair prices and constant demand. How are we going to standardize? We have laws enough and can get any law passed on that line that we agree upon. But the buyers say some associations pack better than others. Is one association packing too good, or another too poor?

Uniform Pack Necessary.

It is one of the functions of the Michigan Fruit Growers, Inc., to have a traveling superintendent of packing who will endeavor to help maintain a uniform pack of proper quality. We can only do that in mass. In local units, the volume would not be large enough.

Then we have the problem of transportation, one phase of which is trucking. Trucking has come to stay and perhaps is to be the transportation of the future. But we should not let it be our master. It should serve us. As it operates today, it is very erratic, one week perhaps of great advantage to us, next week when we need it badly it is absent without leave. Then again, what is it doing to the retailer? In some cases helping him when it delivers a steady supply of what he can use.

The Status of the Peddler.

But the peddling trucker who starts to sell anywhere to retailer consumers is hurting our trade in our best markets, because in so many cases he finds a slow or over-stocked market and sells at any price to clean up, which establishes in the mind of the consumer a price away below profitable marketing, and when the consumer goes to a retailer to purchase, he thinks the price asked by him unreasonable and tells the retailer what he last purchased for. This tends to make the retailer a reluctant buyer of our products; in fact, he does not care to handle them, and buys his fruit from far distant points, when the trucker is not underselling on these fruits.

How can we handle such a situation, which is permanent? The peddling truckers are not, as a rule, doing overly well; but a new crop is willing to try it out every season. Standardization is the solution.

Advertised Brands Sell Better.

Apples are grown in every state, and almost on every farm. Hogs are raised on most farms. You must have noticed that every local butcher has standard brands of bacon and hams on sale; he also has his own cure and for the standard brand he asks about fifty per cent more than for his own, and gets the price. How about the biscuit trade? Every retail baker carries national brands in direct competition with his own. Here are two of the commonest articles of food carried by every local dealer, often in direct competition with their own, selling at a higher price, but they are standardized and advertised and the consumer calls for them.

We can do the same for our apples by having a large volume of standardized brands of quality that gives the retailer a chance to market profitably. There will be apples on the market at lower prices, perhaps bulk or-

chard run, but not Michigan Standard with our brand. Does anyone here think that selling apples in bulk can ever be profitable to the grower?

The Elberta peach today is the favorite with the speculator, and in general on account of its canning qualities. But how about the consumer? Is it pleasing to his taste, is he an eager buyer of peaches when they can be obtained; or only because it is the season to use them? I am inclined to think that the consumer is not so eager to buy peaches as he used to be, because of too much Elberta, which does not satisfy the palate as do the Crawford, Kalamazoo and St. John varieties. A traveling man said in my hearing, "I never tasted a real peach but once this season," and he added that it was on a diner in the east, and it was a white peach, not an Elberta, but it was delicious.

The Fruit Retailer.

In the past ten years, a great change has come over the persons engaged in handling fruit in our cities. A large proportion of them are recent arrivals from southern Europe who know very little regarding the quality of our fruit, and, in fact, have very limited knowledge of the different varieties, confined mostly to Jonathan apples, Elberta peaches and Bartlett pears. One store I visited in Chicago had a printed sign for Jonathan apples and I asked him what other apple signs he had. He looked them over and had about ten Jonathan and no other.

An Association for Advancement.

The market for plums this year was noticeable for its absence. The general public is not calling for Michigan plums. Perhaps we have not given them a standard of quality that induces repeat orders.

These are a few of the many problems that we hope the Michigan Fruit Growers, Inc., are going to help to solve.

Who are the Michigan Fruit Growers, Inc.? Simply the associated growers of Michigan fruits working together to protect and advance our business. We have to depend upon ourselves to work that out. The general public are sympathetic, but they have their own affairs to attend to.

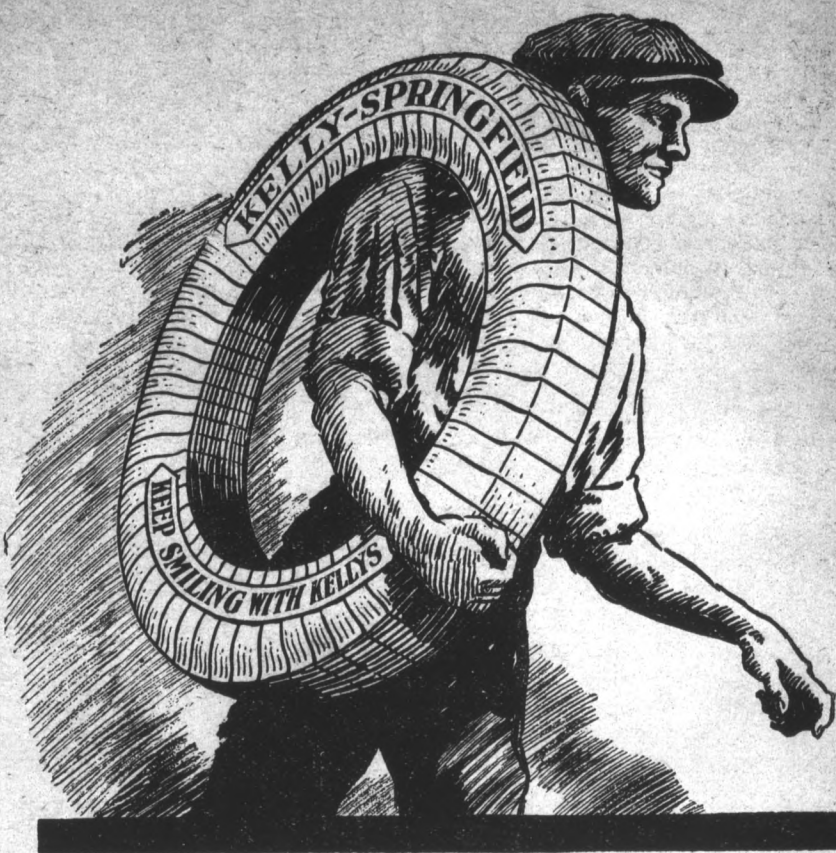
I wonder if we realize the scarcity of competent salesmen that exists today in the fruit industry? And remember that almost all the leading fruit salesmen of today have had their training through Florida or Pacific Coast experience. The middle west will have to train their own men to meet our conditions.

Just Starting.

None of us engaged in fruit raising and selling could claim that any great progress has been made this season in solving our difficulties, but remember, you only started just as fall fruit commenced to move; and in organizations, as well as any other project, you can only find the weak spots when you test them out. But the fact remains, and face it we must, that we have to compete in all markets with a standardized product of good quality. And if we are not willing to standardize in large volume of good quality and cooperate in distribution, our chances of profitable production are rather slim.

We do not want to quit producing. We cannot and will not. But strong competition will eventually force us to compete amongst ourselves only in the quality we raise. Use a united, intelligent and efficient sales department to make our products and proceed to reap the benefits that all engaged in the laudable labor of feeding the world are entitled to.

These are the days when the fruit man should get into the orchard and cut out the blight cankers from trunk, limbs and branches.



Kelly-Springfield--a name that inspires confidence

Kelly-Springfield is one of the oldest and most respected names in the tire industry.

Ever since the days when the carriages of President McKinley, President Faure of France, the Prince of Wales and other notabilities rolled on Kelly-Springfield tires, Kelly products have had an international reputation.

Until about two years ago, the Kelly output was so comparatively small and the prices so much higher than those asked for other tires that Kellys necessarily were sold principally in the larger cities.

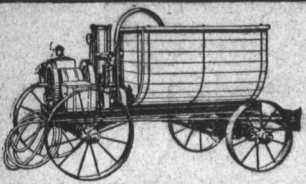
So great, however, was the demand for Kellys that a huge new plant was built. This plant, with its far larger output and more efficient equipment, has made it possible to build even better tires than before at a lower cost.

Today, the farmer can equip his car with the finest tires built for no more than he would have to pay for tires that never have had the Kelly reputation.

*It costs no more
to buy a Kelly*

KELLY  TIRES

"BEAN" SIMPLICITY SPRAYER



A Money Maker for the Grower

A complete high-grade, high-pressure, one-man power sprayer for the grower with limited acreage who wants clean trees, fancy fruit, and top prices. Capacity of

5½ Gals. a Minute at 250 Lbs. Pressure

Biggest money's worth known to the spraying world. Bean quality thru and thru. Equipped with 2 H. P. Sprayer Engine, Complete Rotary Agitator, Built-in Pressure Regulator, Special Steel Platform, Threadless Ball Valves, Porcelain-lined Cylinder and other valuable features found on no other low-priced outfit. Hundreds now in operation. Can be had without truck, if desired.

SEND THIS COUPON NOW

BEAN SPRAY PUMP CO. 50-510

105 Homer St., Lansing, Mich.

251 W. Julian St., San Jose, Calif.

Gentlemen: Send me full details of the Bean Simplicity Power Sprayer.

Name.....

Address.....

9516 STATE FAIR WATERMELON

HENRY FIELD

Will Give You Three Gladiolas FREE. Send for catalog and include the names and addresses of two friends who buy seeds and get Gladiolas FREE.

Redhead Tomato
One of the many specials in my catalog that are different. GIANTS in size, blood red color, meaty, fine flavor, holds record of 9,000 lbs. on one-fourth acre. You can do as well with Field high quality seed, famous for big yields.

Giant Watermelons
Another wonder. Exhibited 2 melons at fairs, weighed 95 lbs. each. They surprised everybody. After the fairs we cut them and fed 100 people. They were solid, sweet, juicy. Grow some yourself and surprise your neighbors. Have only a limited supply of seed, so act quick.

CATALOG FREE

Write Today
Get my seed catalog, filled with surprises, on special and standard varieties: VEGETABLES, FLOWERS, FRUIT TREES, SHRUBS, TREES, FRUITS, ETC. Tells story how quality and low price gave me one million customers.

HENRY FIELD SEED CO.
Box 7, Shenandoah, Iowa

More and Better Home Grown Fruit to eat and preserve.

Flowers to beautify the grounds.

Our New Catalog

Illustrated in natural colors from actual specimens, is yours for the asking.

CHASE BROTHERS COMPANY
The Rochester Nurseries
Service Dept. D Rochester, N. Y.
Sixty-seventh Year

CLOVER CHEAP
Now is the Time to Buy

Crop very short. Buy before ad-vance and save money. Get our special low prices and free samples of our pure Iowa grown, New Crop, Re-cleaned Tested Clover and Timothy Seed. Also Alfalfa, Alsike, Sweet Clover. All kinds grass seed. 116-page catalog free, quoting all field seeds. Save money by writing at once. Can ship eastern orders from eastern warehouse.

A. A. Berry Seed Co., Box 131 Clarinda, Iowa

CLOVER

Michigan-Grown

Beware of imported clover seed offered this year because of shortage of domestic supply—it is not adapted to our soil and climate. Use only Isbell's Bell Brand Clover—red or alsike—all Michigan-grown, pure, true to strain, hardy and big yielding—record producers for 45 years.

FREE Samples of any field seeds to show quality sent on request with Isbell's 1924 Seed Annual. Big savings on sterling quality direct-from-grower seeds. Write today.

S. M. ISBELL & COMPANY
105 Mechanic St. (59) Jackson, Mich.

CLOVER

Michigan-Grown

Beware of imported clover seed offered this year because of shortage of domestic supply—it is not adapted to our soil and climate. Use only Isbell's Bell Brand Clover—red or alsike—all Michigan-grown, pure, true to strain, hardy and big yielding—record producers for 45 years.

FREE Samples of any field seeds to show quality sent on request with Isbell's 1924 Seed Annual. Big savings on sterling quality direct-from-grower seeds. Write today.

S. M. ISBELL & COMPANY
105 Mechanic St. (59) Jackson, Mich.

OUR SERVICE DEPARTMENT

Always Give Name and Address When Sending Inquiries as Satisfactory Service Cannot be Given to Unassigned Letters

STARTING ALFALFA.

Which way do you get the best results from alfalfa, seeding it with wheat or with oats? Please tell the proper way to plant it, and how much per acre.—C. L.

As a general rule, best results are secured from alfalfa seedlings made on wheat in early spring, as compared with seedlings made with oats, at the usual rate of planting. However, if only one bushel of oats is used per acre, and the seeding of oats and alfalfa is made as early in April as it is possible to get on the land, equally good results can be secured.

Ten or twelve pounds per acre of Grimm seed, or from twelve to fifteen pounds of northern-grown common seed should be used. The Grimm or Michigan-grown seed, if available, is preferable. Care should be taken not to plant seed at too great depth, from one-half to three-quarters of an inch is sufficient.

Culture for the inoculation of alfalfa may be secured from the department of bacteriology of the Michigan Agricultural College, East Lansing. The price is twenty-five cents per bottle, and one bottle contains sufficient material to inoculate a bushel of seed. Directions for application accompany the material. Alfalfa seed starts best on a firm seed-bed.—J. F. Cox.

NON-PAYMENT OF CONTRACT.

A. bought a farm from B. on contract, terms a sum each year and interest payable semi-annually. A. did not meet payment when due, but through C. (a brother), who is living on the place, agreed to pay interest, which B. refused. Has B. a right to eject C., or must notice be given? How long after can C. stay on the place if a notice is necessary? Has B. a right to sell again without notice to A. or C.? A. lives in another state.—W. M.

Notice of forfeiture of the contract for non-payment of past due installments must be served on the purchaser, directly, or in some other manner before the seller is entitled to possession. After notice of forfeiture the seller can recover possession only by summary proceedings before a circuit court commissioner or justice of the peace. This takes about forty days to complete.—Rood.

LESSOR'S OBLIGATIONS.

A. rents a house of B. Does B. have to furnish screens for windows and doors in the summer, and storm doors in the winter?—E. H. H.

The lessor does not have to furnish anything that he did not agree to furnish. The bare ground is enough to sustain the promise to pay rent, and there is no implied covenant of fitness for occupation.—Rood.

SPELTZ IN A DAIRY RATION.

Could you give me a balanced ration for my dairy cows of grain, made up of corn (no cob), speltz and oil meal? Would be willing to add some commercial feed if advised to do so. Am feeding alfalfa hay. Please state the proportion to give, in weight or measure.—R. M.

Speltz has a protein feeding value nearly as good as oats and better than corn. The following ration is suggested:

Mix in proportion of fifty pounds of speltz, twenty-five pounds of cornmeal and twenty-five pounds of oil meal.

Fifty pounds of speltz containing ten per cent protein equals 5.00 pounds of protein; twenty-five pounds of cornmeal containing 6.7 per cent of protein equals 1.67 pounds of protein; twenty-five pounds of oil meal containing 31.5 per cent of protein equals 7.87 pounds of protein. This makes a total of 14.54

pounds of protein in 100 pounds of feed, or 14.54 per cent of protein. This is a very good proportion of protein for a grain ration and no other feed seems to be necessary. You could leave out the oil meal and use the other feed in its place if you can get it cheaper. But you would reduce the amount of protein.

A PRACTICAL AND BALANCED RATION.

Please tell me if I can better my dairy ration. I am feeding corn silage twice daily, clover hay or shredded cornstalks at noon. For grain I am feeding by weight, two parts oats, one part rye, ground, and one part cottonseed meal, feeding one pound of grain to four pounds of milk daily. Also, four quarts of potatoes twice daily to each cow. Would you advise adding wheat bran or middlings to grain?—J. C. H.

This ration is about as nearly balanced as one can well get without weighing accurately every feed and every ration, and that is not practical and not necessary. One hundred pounds of your ration contains the following:

Fifty pounds of oats containing 10.1 per cent protein equals 5.05 pounds of protein; twenty-five pounds of rye containing 9.5 per cent protein, equals 2.37 pounds of protein; twenty-five pounds of cottonseed meal containing 37.6 per cent protein equals 9.40 pounds of protein.

The mixture, therefore, contains a total of 17.82 pounds in each 100 pounds, or it contains 17.82 per cent protein, which is a well proportioned grain ration.

If a cow gives forty pounds of milk a day, and gets ten pounds of this mixture, she will get 1.78 pounds of protein. With fifteen pounds of clover hay, 7.1 per cent of protein, or 1.06 pounds of protein; with thirty pounds of silage, 1.4 per cent protein, or .42 pounds of protein; and eight pounds of potatoes, 1.1 per cent protein, or .08 pounds of protein.

It will make a total of 3.34 pounds of protein per day, which would be ample for any ordinary cow.

TAX EXEMPTION FOR WIDOW.

I am a widow, own forty acres of land, but have no way of supporting myself. Do I have to pay taxes on the land? There are no buildings on it. I shall have to build, but have no means to do it with.

The statutes contain no exemptions from taxation because the owner is a widow.—Rood.

RIGHT OF POSSESSION.

If A. sells a farm to B. and leaves hay, lumber and a few tools which he does not reserve, and has not come after them for nine months, can A. still hold them, or would they belong to B?—A. B.

If the title to the tools did not pass by the sale, title would not pass by their being left upon the premises, and the only bearing of that fact would be if anything as indicating the intention of the parties at the time of the sale.—Rood.

COLLECTING ON SHARE CONTRACT.

I let Mr. M. a number of sheep on shares. He is now deceased and they have sold the sheep. They were not due until May 1, 1924. Could I collect the price they are then selling for? I have written agreement bearing his signature.—D. S.

If the papers were properly drawn, title to the sheep was retained by D. S., and any person buying them without his consent would be guilty of conversion and liable to him for the value of the sheep at that time.—Rood.

More Money from Your Crops

You can do it with seeds that have vitality and life—that are of high germination and adapted to the soil. The work of preparing the land and planting is the same whether you use ordinary seed or pedigreed seed. But the crop tells the story; added profit—often double or triple—comes from using hardy, big-yielding, Michigan-grown, Isbell's seeds.

45 Years of Better Seeds

For nearly a half century, Isbell's have been developing yield, vitality and hardiness in seeds. Ceaseless experimenting, careful selection, better growing, sorting and cleaning methods have done this. 200,000 customers have proved this profit-building quality—they plant Isbell's seeds year after year and get bumper crops. We grow our own seed—you buy direct from us, saving money and eliminating all risk of substitution.

This Valuable Book—

The 1924 Isbell's Seed Annual tells how to select seeds how to prepare soil, gives cultural directions, and quotes direct-from-grower prices. The coupon brings it Free.

S. M. ISBELL & COMPANY

104 Mechanic St. Jackson, Mich.

Send your 1924 Seed Annual quoting direct-from-grower prices on Quality Seed. (59)

Name.....

Address.....

Plant our Giant Roots—and profit immediately

Don't wait 2 or 3 years before you begin to profit from asparagus. Plant our Giant Washington Roots—cut asparagus next year.

Our Giant Washington Roots are sure to live—rust resistant, vigorous growing, big producers. Giant green stalks, 1" to 2" thick, exceedingly tender and delicious, always commanding a premium price.

A \$1.00 packet of seeds or 50 roots for \$5.00 will plant sufficient to supply an average family for 20 years. Or send \$3.00 for 25 roots. Orders post-paid, cultural directions included. Attractive prices for 1 to 10 acre plantings.

Write to-day for price list and valuable free booklet.

RIVERVIEW FARMS
Box 16 Bridgeton, N. J.

PLANT TREES THAT GROW

Standard varieties. Shade, ornamental and fruit trees, shrubs, plants, flowers, seeds. CHERRY, 2 year old trees, 2 to 3 ft., 40¢ each, 10 for \$3.50. Montmorency and Early Richmond. All sizes and kinds listed in catalog. APPLE—a fine clean stock of apple trees, all varieties, 100 trees, \$15.00. See complete list in catalog. SEEDS—25 packets vegetable seeds, \$1.00. Enough for a complete garden. Flower seed bargains listed in catalog. Every customer must be satisfied. Write today for the big free book of bargains.

SPRING HILL NURSERIES
Box 82 Tipppecanoe City (Miami Co.) Ohio.

NORTHERN GROWN FRUIT TREES

Small fruit plants, Grape vines, Ornamental trees, and shrubs of all kinds. Established a third of a century. Send for Catalog.

T.B. West & Sons, Maple Bend Nursery
Lock Box 142, Perry, Ohio.

APPLE AND PEACH TREES: Improve your property. Increase your income. Plant fruit trees and plants this spring. Our trees grow. Free catalog. MITCHELL'S NURSERY, BEVERLY, O.

GOOD SEEDS

Grown From Select Stock—None Better—54 years selling good seeds to satisfied customers. Prices below all others. Extra lot free in all orders I fill. Big free catalogue has over 700 pictures of vegetables and flowers. Send your and neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

MICHIGAN GRANGERS BUSY.

OUT of twenty new granges organized in the country during the last quarter of 1913, seven of these were born in Michigan. Idaho follows with four, and Massachusetts comes third with two. In the Juvenile class, Michigan ties for first place with Ohio, having started four new organizations in that period for the boys and girls. A constructive membership campaign is being put on for the first quarter of 1924.

MARKET FROM FARM IN WINTER.

A WAYSIDE farm market in winter! Seems a trifle incongruous, doesn't it, for a farmer to be conducting a roadside mart when the snow is on the ground and the wintry winds are whistling shivery tunes across the barren landscape?

But that's just what thousands of farmers the country over are doing—perhaps not displaying their wares, at the roadside, as in summer, but selling farm products of one sort and another in their homes, through the efficient aid of the "silent salesman, always on the job,"—the handy little bulletin board.

In the list of commodities offered for sale by the winter farm markets are to be found potatoes and other vegetables, apples, honey, dairy products of all sorts, poultry, eggs, preserves, jellies, nuts of various kinds,



After All, This is Our Most Important Crop.

vinegar, sausage, and even baked goods. No farmer sells all of these articles, of course, but each specializes in some one or more of them.

While the bulletin board is a distinct aid to marketing farm produce in summer, through the medium of the roadside mart, in the winter it becomes an absolute necessity, as in no other way can the farmer herald to the public the fact that he has some form of "pedigreed produce" for sale. And it brings results—usually within a brief space of time.

A few years ago, comparatively, the wayside farm market was all but unheard of. It came with good roads and automobiles. Farm market experts estimate that the summer of 1924 will see more than five hundred thousand of them in successful operation throughout the country. And now comes the winter farm market. It will be interesting, indeed, to watch its growth, which promises to be rapid.

HOLDS WASHINGTON MEETING.

THE National Federation of Farmers' Cooperative Marketing Associations will hold a meeting in Washington on February 8-10. This is the organization which grew out of the cooperative marketing conference held in Washington last winter, and which includes the Sapiro-Peteet group that recently failed in their efforts to win control of the American Farm Bureau Federation.

A problem soon to be undertaken by the department of agriculture is to standardize grades of live stock, meats and wool.

Some Things You Should Know

Facts furnished by the Research Department of the National Association of Farm Equipment Manufacturers

- 1 Investigations made by the American Farm Bureau Federation and the U. S. Government show that of each dollar the farmer received from the sale of all farm products in the crop year 1922-'23, only 3 1/3 cents was paid out for farm operating equipment—and that covered not only implements but everything from silos to beehives. A pretty small percentage for the things that help the farmer make his money.
- 2 The volume of sales of all farm equipment manufacturers for 1922 was 53% less than their sales for 1920. The sales of all farm products by American farmers for the crop year 1922-'23 were only 18% less than in the crop year 1920-'21. These are reliable figures.
- 3 Approximately 80% of all money received by the manufacturer from the farmer for farm machines goes to labor—not to workers in the implement factories alone, but in the steel mills, the mines, the forests, and the railroads. These workers and their families return much of this money to the farmer for his products.
- 4 Twenty of the leading companies in the farm equipment industry lost over \$50,000,000 in the past two years. Some of the other companies fared even worse in proportion.
- 5 The material which goes into the making of farm machines now costs an average of twice what it cost in 1914. The price of oak lumber is three times as high as it was in 1914, soft center plow steel and cold rolled steel twice as high, steel bars, coke and cotton duck more than twice as high. Labor which is a large item in manufacturing costs, is considerably more than double what it was in 1914.
- 6 A 7-foot binder would cost you \$350 if it were priced on a pound for pound basis with the average kitchen range—and that would not take into account the complexity of the binder and the service that goes with it. It would cost \$430 if it were priced like the world's cheapest car. A 5-foot mower at lawn mower prices would cost \$174.

The Farm Outlook for 1924

The Government says that crops for 1923 show an increased value of \$1,600,000,000 over 1922 [Oct. 1st estimate]. Farm conditions from many points of view show a decided improvement. Good planning and good management should mean good profit for this year.

Money-making farms are those on which most work is done in least time, with least labor. Try to increase your crop yield per acre, cut down your labor cost, diversify. Plow more furrows as you go along, cultivate more rows, cut wider swaths. Plant every hill full—the missed hills in a field have a surprising effect on the season's yield. Save extra pounds of butterfat by efficient cream separation. Spread manure by the load instead of by the forkful. Let tractor and engine power help you. Modern equipment, well handled, is the key to profitable farming, and makes farming pleasanter, too.

Your McCormick-Deering Dealer handles most of the 54 kinds of machines and implements that make up the McCormick-Deering line. See him for the most up-to-date equipment—plows, tillage tools, cream separators, spreaders, engines, tractors, belt and drawbar machines. McCormick-Deering is the old reliable line.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave.

of America
(Incorporated)

Chicago, Ill.

Peerless FENCE

Now Sold Direct from Factory

Our New Plan of selling the famous Peerless Fence direct from three big factories is "glad news" for farmers. It means the cutting out of all "in-between" profits and a slash in prices that will save farmers thousands and thousands of dollars. Now you can get this well-known, high-standard fence, also gates, steel posts, barb wire, smooth wire, paints and roofings, at the

Lowest Prices Ever Quoted

on Peerless Fence, Gates, Roofing and Paints. Don't fail to send at once for our New, Direct-from-Factory Peerless Catalog—over 100 pages of sensational bargains—prices that will be a glad surprise to you. For example:

Peerless Farm Fence, per rod, 19 cts and up	
Steel Farm Gates, each . . . \$3.65	Lawn Fence, per ft. . . 7 1/2c
Steel Posts, each . . . 24 1/2c	Paint, per gallon . . . \$1.28
Barb Wire, 60 rod spool . . . \$2.70	Roofing, 100 sq. feet, roll . . . \$1.25

And so on, throughout this great money saving book, our prices will be a revelation to you. The same, old time, high quality—the prices cut to rock bottom through our change in selling direct from factory to you.

FREE, Send For It TODAY

Just drop us a post card for this big money-saving book. See for yourself the money you can save. Everything you buy is backed by a "money-back" guarantee. You take no risk. Write for catalog today.

PEERLESS WIRE & FENCE CO.
Dept. 2333 Cleveland, Ohio
Factories at Cleveland, Ohio, Adrian, Mich. and Memphis, Tenn.

19¢

A Rod and Up

(33)

Why Peerless Fence Satisfies

PEERLESS WIRE & FENCE CO., Cleveland, O.
Having a general acquaintance with the desirability of Peerless Fence and the well managed company, I can highly recommend it as the best all-purpose fence in this country. I know of fence still in use which has been up for 20 years.
Yours truly,
Henry W. Stevens,
Tecumseh, Mich.

\$1200⁰⁰ Log-Saw Profit

"I think you can easily make \$1,200.00 to \$2,000.00 log-sawing profit with the WITTE Log and Tree Saw, says Wm. Middlestadt of Iowa. It's easy to make \$40.00 a day with the WICO Magneto-Equipped

WITTE Log and Tree Saw

Cuts down trees and saws them up FAST—one man does the work of 10—saws 15 to 50 cords a day. Thousands in use today.

FREE Just send name for full details, pictures and low prices. No obligation by writing.



WITTE ENGINE WORKS
7191 Witte Building, Kansas City, Mo.
7191 Empire Building, Pittsburgh, Pa.

WONDER FORGE

"Better than I expected," says Carl Jeffry. "Certainly worth the money." writes Fred Harford. "Good as the day I bought it, twenty yrs. ago" says Wm. J. Johnson.

A Wonder Forge saves time and money. Made of steel. Portable. Highly geared. Delivers terrific blast. Extra large blower. Produces a white heat. Is ideal for welding, shaping, dressing and tempering tools. Guaranteed to equal any \$15 forge on the market. Price \$4.85 shipped direct to you on receipt of order and name and address of your dealer. Send for free catalog today.

C.A.S. FORGE WORKS
Box 420 SARANAC, MICH.

81 INCHES HIGH

11 1/2 INCH BLOWER

PRICE \$4.85

WILL LAST A LIFE TIME

WILL WELD A 4 IN. WAGON TIRE

What We Forget Between 15 and 50

Schools teach, and nearly every home applies the rule against coffee and tea for children.

When middle age comes, a great many people remember the facts about the caffeine drug of coffee and tea, and how its regular use may disturb health. Often they have cause to remember what it *has done* to them.

How much better it would be not to forget—and avoid the penalties!

Postum is a pure cereal beverage—delightful, and *safe* for any age—at any time. Good for breakfast at home, for all the family; good for lunch at the club or restaurant; good with the evening meal; good with a late night dinner—good on any occasion. Postum *satisfies*, and it never harms.

Why not be friendly with health, *all* the time?

Postum

for Health

"There's a Reason"

Your grocer sells Postum in two forms: Instant Postum [in tins] prepared instantly in the cup by the addition of boiling water. Postum Cereal [in packages] for those who prefer the flavor brought out by boiling fully 20 minutes. The cost of either form is about one-half cent a cup.



I Will Condition a Horse or Cow in Twelve Days
Put flesh on its bones. Give it life and vigor. Can add 50% to looks and value. Satisfaction guaranteed or no pay. Send postal for free offer.
P. M. FAUST, BRYN MAWR, PA.

Patents
Write today for free instruction book and Record of Invention blank. Send sketch or model for personal opinion. **CLARENCE A. O'BRIEN, Registered Patent Attorney, 65B Security Savings & Com'l Bank Bldg., directly across St. from Patent Office, Wash., D. C.**

AUTO OIL
Buy direct from Refinery
Save money on oil at our winter prices. We ship at our risk one drum of Parker's Non-Carbon Super-Refined Motor Oil—you use 5 gallons as free trial and test. Return balance if not satisfied and pay us nothing. \$10.00 robe or sweater given with free trial order. Yours to keep, even if oil is returned. Write today for full details.
The Parker Refining Co., 1003 Main Ave., Cleveland, Ohio

Auto Robe or Sweater FREE

BARGAINS

High Prices Smashed

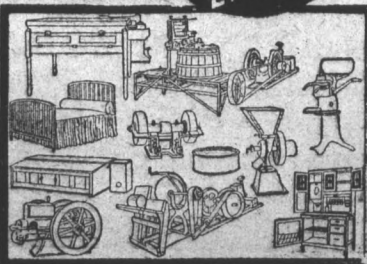
I'm celebrating our 18th anniversary—going to be a big party—a merchandising, price-cutting, bargain-giving event that will live long in the minds of all who take advantage of it. Engines, Separators, Spreaders, Incubators, Saw Rigs, Grinders, Washing Machines, and other high-class farm and home merchandise at prices you cannot equal. Bargains you can't match—value that will make your buying dollar one-third bigger on my factory to farm plan.

Don't Miss This Chance

No matter where you trade, what you need, let me show you how much my direct from factory to farm plan saves you. I have demonstrated to thousands of farmers that my plan is safe, sound, practical. Just like cooperative marketing for you means greater profit. Get more for what you produce by cutting wasteful marketing. Save more on what you buy and you'll be more successful, more prosperous, more contented. You'll be saving your share of the millions that my customers have been saving for eighteen years on my factory to farm plan.

FREE ALUMINUM TO CUSTOMERS

In addition to the bargains being offered—to make the event more satisfactory—to spread the name of Galloway—and make my customers, friends, boosters of Galloway's 18th anniversary—I am going to distribute aluminumware and other presents to all good customers for next 90 days. Anniversary presents you'll be glad to own. Can't tell you all about it here. Write me today and get full particulars of this great Anniversary Gift Distributing Offer. Address **WM. GALLOWAY, Pres., WM. GALLOWAY CO., Dept. 187, Waterloo, Iowa**



THE HANDY MAN'S CORNER

Doing Farm Work Now

HERE are a bushel of suggestions for the farmer who has gotten into the habit of forgetting his farm during the cold weather. If one cleans up all the loose jobs and available work, he will have very little time to loaf; but, next season he will, no doubt, discover that he will have his crops in more nearly on time and that without the usual expenditure of extra help. Here are the five letters selected for this week:

GIVES SPECIAL ATTENTION TO SEEDS.

FIRST we plowed this fall for all of our spring crops. Furrows were afterwards drawn through the low places to carry off all surface water. Then the tile drains were looked after and any necessary ditching done to give us the best possible chance in the spring for getting on the land. Fences were next repaired, and all machinery and tools put in sheds. Fruit pruning is now done, also the old bark is scraped off and prunings burned up. Our

Why Grow Oats

NOT infrequently we meet farmers who believe that oats should not have a place on the average farm of Michigan. So this week I am asking you to give the reasons why you do, or do not, grow oats in your rotation.

State these reasons briefly in a letter and mail on or before January 30, to The Handy Man, Michigan Farmer, Detroit. To each of the writers of the five best answers we will send \$1.00.

potato seed is ready in crates, oats are cleaned and ready to be treated. The seed corn is waiting to be shelled and run through the fanning mill to be graded. Beet, carrot, onion, mangel, and other garden seed are all in their places, so it will not be necessary to waste time on them next spring. The harnesses are greased and repaired, and soon the horses will be put in condition for the spring campaign. The manure is being hauled out every week.—R. Vandersutte.

KEEPS AS BUSY IN WINTER AS IN SUMMER.

YES, we are doing and will be doing, farm work all winter. We butcher, cure our beef, pork and bacon; cut and fill the wood-house with wood; trim the thirty-five acres of fruit trees; draw all the manure and lime, fertilizer and spray material—storing it where it will be convenient in the spring. We market the wheat, potatoes and apples; repair the out-buildings; dehorn the cattle; fill the ice-house; clean cistern, chimneys, etc. These are jobs which we do on fine or reasonably nice days.

On stormy days we work in the shop. The harnesses are oiled and repaired; two or three extra halters are made; power sprayer, truck, auto, mower, binder, and seeding tools are all overhauled and repaired. Knives for mower and binder are ground; crates are fixed up and new ones made; special fruit packages gotten ready. A new tongue was put in the wagon, a rack finished for the sleigh, fruit ladders are put in ship-shape, grain sacks and horse blankets mended, shop and carpenter tools sharpened, a few extra whiffletrees were made

and old ones mended, painted and papered three rooms in the house, and repainted the silent salesman—bulletin board.

On evenings we take inventory, read the Michigan Farmers—papers which we filed away last summer when we were too busy to read them, order supplies, go over our insurance and other papers, look after small accounts, like farm bureau dues. It is during these days, also, that my wife and I attend horticultural and other farm meetings and get filled full of enthusiasm for the next summer. By this system we can pay our expenses and that enormous farm tax. Anyone can do this if his head and back are in working order.—C. T. Schmeiding.

FINDS WORK APLENTY.

IN the winter time work looms up a plenty, and it all seems to fall upon the man, as there is no possibility of making the horse do it. We are digging up seventy rods of tile, put in over twenty-five years ago, to clean them out as they are practically filled up. The ground does not freeze hard where these tile are, and it therefore makes an ideal winter job; in summer it is too hot to do such work. Our intentions are to put in a supply of wood for the furnace and kitchen stove; repair every implement; paint where needed; grind harvester knives; convert a building into a tool shed; haul manure one day in every week; put in a litter carrier; market wheat and potatoes; get horses in condition; prune the fruit trees; plan crops and methods of handling the different fields; secure supplies such as bolts, oils, binder twine, hay ropes, etc.—Enrich Carlson.

DIGGING IN NOW WILL HELP TO DIG OUT NEXT SUMMER.

THERE are many things that I can just as well do now as to wait till summer time is here. Putting the farm tools in shape is one of the first of these. Doing this work now gives us time to get repairs and to do the repairing as it should be done. Another is getting the manure out of the yards and onto the fields. We draw it out as fast as it accumulates. Thus handled the manure is of more value to the fields, keeps yards in better shape and next summer will be less of the fly nuisance about the premises. A third duty for the cold months is the putting of the fences in order. This will save much annoyance and waste of time by keeping the live stock in place.—J. Meyers.

GETS A NEW SUPPLY OF WATER.

I HAVE a fruit farm, which in my case, means about 2,500 fruit trees, cherries and apples. They all need pruning, and I am doing that now. I am also providing a supply of water for making spray dope to put on the trees. Heretofore, I have had to drive about three-eighths of a mile to a lake for water, but late last fall I sunk a well in the barnyard, and curbed it with stone. The water does not flow in very fast, so I am going to make two more of them. The cost is negligible, just a little cement for the curb above ground. I will get the stones in place this winter. Those three wells will allow me to do a third more spraying with no more expense for labor. Pruning the trees now saves hiring next spring or summer. I also keep all stable manure hauled out as it is made.—D. Tibbits.



STAR BOARDERS IN ORCHARD.

CAMPAIGNS against star boarders are no longer confined to dairy herds and poultry flocks. Orchards are next on the list.

To cull all star boarders from an orchard, the most efficient way is to keep tab on individual trees. Such records, experience has proven, will quickly point out the unprofitable trees and varieties.

One Ohio man who has started to keep records on the individual trees in his orchard, using the record blanks and instructions provided by the extension folk, finds that some trees show a gain of \$33.95 on market value over production cost, while others in the same orchard show a loss of \$2.05 in a year. These figures do not include harvesting and marketing costs.

Of the 417 trees in this farmer's orchard, 102, or more than twenty-five per cent, showed a loss. He found that for his locality the Grimes, Wealthy and Duchess varieties were the most profitable. Certain varieties not so well known, like Wolf River, Summer King, Bell Flower, Babbit, and Black Twig, proved consistently unprofitable.

Orchardists who keep such individual tree records, the specialists in horticulture point out, can readily pick out the star boarders. Then they can topwork these to desirable varieties, or else remove them to make way for young trees of profitable varieties adapted to the locality.

BEST STRAWBERRY VARIETIES.

FOUR varieties of strawberries stand out as the most dependable varieties for both commercial and amateur general planting in Michigan as a result of variety tests conducted during the seasons of 1922 and 1923 at the Graham Horticultural Experiment Station near Grand Rapids, according to the report of Superintendent, H. D. Hootman, of the station.

These varieties are Senator Dunlap,

Dr. Buddill, Kellogg's Premier, and Kellogg's Prize strawberries. These varieties were superior in amount of yield, size, uniformity, color, firmness, and flavor.

Twenty-two different varieties were set in the spring of 1921 in typical Michigan clay loam soil at the experiment station. After preparing a firm seed bed, the plants were set in rows each three feet apart, and each row being 225 feet in length, a total of 75 plants being set in each row. The plants were cultivated frequently during the summer and by fall all the varieties had formed well matted rows with the exception of Progressive, Superb and Peerless. A heavy mulch of wheat straw was applied to the entire plot late in November, which was raked between the rows in the middle of the next April when growth was starting.

The Kellogg's Premier variety was far superior to any other variety of the 25 planted, yielding approximately a third more berries than the Senator Dunlap. Its crop was distributed well throughout the picking season and nearly all its berries were developed to marketable size.

Of the three everbearing varieties, Progressive was the most productive, although its berries are inclined to run small. Its picking season was earlier than that of most other varieties. Superb and Peerless both produced berries of more satisfactory size. The tests indicated that these everbearing varieties can be recommended only for special conditions.—B. V. H.

TEMPORARY SECRETARY.

PROF. R. F. GARDNER, of the horticultural department of M. A. C., has been appointed temporary secretary of the Michigan State Horticultural Society by its executive committee. The office of secretary was recently left vacant by the death of Mr. T. A. Farrand, of Eaton Rapids. A permanent secretary will be elected by the society at its spring meeting.

Our Seed Gets a Boost

(Continued from page 103).

fact that the plot sown with Michigan seed had so many more blossoms than was found on the European plot. These men are like a great many thousand other New York farmers, viz: they have located the cause of many of their past clover failures and now know the first step toward growing profitable crops of clover—namely, "be sure of your seed."

The Duty of Michigan Farmers.

Up to a year or two ago, farmers of New York, Pennsylvania, New Jersey New England states and Virginia were not aware of the fact that Michigan grew much clover-seed. Today, you can find thousands and thousands of farmers in this same territory who positively know the productive value of Michigan-grown clover-seed.

This means that the Michigan clover-seed grower has an excellent market for his product. He should take advantage of this opportunity and raise his standards of seed growing and producing a better grade. He should hold his market by keeping it well supplied with hardy, high-quality seed. If the Michigan growers increase their standards of quality, they will be able to command a fair premium for their product.

Weeds should be kept in control by well-balanced rotations and clean cultivation. Noxious weeds, particularly Canada thistle, wild carrot, and catch-fly should be pulled. It is difficult for

machinery to make a clean separation of these weed seeds and the presence of them in the clover-seed means discounting the price of the seed.

The use of lime and acid phosphate will not only enable you to produce larger yields, but will aid in the production of a plumper berry, which means better prices.

The Farm Crops Department of the Agricultural College and the members of the Michigan Crop Improvement Association have already given Michigan a wonderful name as a producer of high-quality and productive seed grains and beans. Here is another opportunity for profitable and honest endeavors in seeds. To succeed, the same high standards must be maintained—the individual grower must believe in the value of high quality seed. He should work closely with the agricultural college and the county agricultural agent and learn all that is to be known concerning the growing and handling of seed.

Do this, not only for yourself, but because your brother eastern farmer needs just that kind of seed. He cannot economically produce milk and potatoes unless he has a good legume crop as a background for his farming. Treat your eastern farmer fairly—give him this hardy adapted seed of superior quality. He is in the market every year for it and will gladly pay you the price.



Tells How to Get Big Crops and Big Profits from

Kellogg's Strawberries

Big Profits! That is what you want and if you have a piece of ground—no matter how small, which is bringing you only a small profit, or no profit at all—then send at once for our new, big book "Great Crops of Strawberries and How to Grow Them."

This valuable book tells how you can set your unprofitable land to Kellogg's Thorobred Strawberry Plants and make it pay you **BIGGER PROFITS** either per square rod or per acre than any other crop you can grow.

This Strawberry Book was written by F. E. Beatty, America's greatest Strawberry Expert, and it tells how to grow strawberries successfully from planting time to market time. It gives his secrets for growing the big fancy kind of berries, which won him fame and fortune, like those in the hand above.

You Can Make \$500 to \$1200 Per Acre Growing Strawberries the "Kellogg Way"

Thousands of folks who have sent for this **FREE** Book are now making big money from Strawberries. Read in this book how other people are making from \$500 to \$1200 and more per acre—EASY, from Kellogg's Thorobred Strawberry Plants, grown the "Kellogg Way." Here are a few examples:—W. L. Forbes of Vermont, has grown Kellogg Strawberries for 15 years and seldom makes less than \$1200 per acre. One year he made \$1500 per acre. Henry Clute, of New York, realized \$888.17 from one acre. J. A. Johnson, of Nebraska, made \$670.00 from ¾ of an acre. E. D. Andrews, of Michigan, says that his 2 acres of Strawberries fully paid for his \$4000 home in a few years. G. M. Hawley, of California, sold \$3000 worth of berries off of 2 acres and Z. Chandler, of Oregon, made \$4390.50 in 5 years from less than one acre of Kellogg Plants.



7 SEVEN Strawberry Gardens at BARGAIN PRICES

This year we have had Mr. F. E. Beatty, the Strawberry Expert, personally make up Seven Special Strawberry Gardens. There is a garden in this group to fit every need and every pocket-book, and we are offering them at **Special Reduced Prices**. Our big, **FREE** Strawberry Book pictures all of these seven different gardens in beautiful colors and fully describes each of them. Why pay big prices for ordinary strawberries? Grow Kellogg's delicious berries and pick them fresh from the vines from June to November—and have canned berries, preserves and jam throughout the winter. Write for our Strawberry Book today. It's **FREE**.

Send for This FREE BOOK

This wonderful strawberry book costs you nothing. Just fill out the coupon below and we will send it to you **FREE** and Postpaid. It is beautifully illustrated in colors and fully describes the 18 best Standard Varieties of Strawberries and also tells about Kellogg's famous Everbearing Strawberries which produce a continuous flow of big luscious berries from June until snow flies. Another big feature of this book is the seven (7) Special Strawberry Gardens we are offering at **Bargain Prices**. Now is the time to send for this handsome illustrated Strawberry Book and learn how easy and profitable it is to grow strawberries the "Kellogg Way." Whether you want strawberries in the spring or fall—for home use or market—whether you are a beginner or seasoned grower you need this book. Fill out the coupon today, or send us your name and address on a postal, and we will send you your copy **FREE** and **POST-PAID** by return mail.

R. M. KELLOGG COMPANY
Box 3613 Three Rivers, Michigan

FREE BOOK COUPON

R. M. Kellogg Co., Box 3613 Three Rivers, Mich.

Please send me your big, new Strawberry Book which fully describes the "Kellogg Way" of growing strawberries and tells how to make from \$500 to \$1200 per acre.

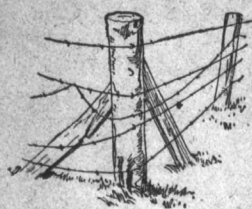
(Write plainly, please)

Name.....

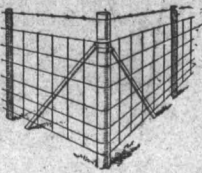
St. or R. F. D.....

Town..... State.....

THE RED TOP STEEL FENCE POST



**Lasts Twice as Long
Makes Stronger Fences
Looks Very Much Better
Is Set 10 Times As Fast
Holds Fencing Tighter
Makes Wire Last Longer
Costs Less in Fence Line**



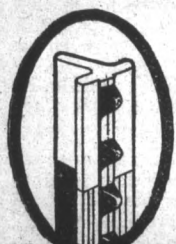
THAN THE OLD-FASHIONED WOOD POST

NO MATTER from what angle you look at it, the RED TOP Steel Fence Post is a better proposition than the wood post. The RED TOP actually costs less installed, thus reducing fencing costs at the very start. Since the RED TOP holds the fence wire securely during its life, it reduces fence repair work and costs to almost nothing. RED TOPS save big money on replacements because they last twice as long as wood posts.

RED TOPS are guaranteed not to rot, burn, break or frost-heave in the fence line. They protect stock in the field from lightning and they permit burning of the fence lines. Fence building with RED TOPS is a one-man odd-time job. One man can drive 200 to 300 RED TOPS in a day. No holes to dig, no heavy posts to lug, no setting or tamping to do.

The RED TOP has been the standard fence post on American farms for years. And now with the Double Strength Studded Tee its leadership is more secure than ever. See this new post at your RED TOP dealer before you buy another post. *It is worth your while to get the Original and Genuine RED TOP Studded Tee, patented and trade-marked for your protection.*

RED TOP STEEL POST COMPANY
38-L SOUTH DEARBORN STREET CHICAGO, ILLINOIS



Red Top
GUARANTEED

**Double Strength Studded Tee
Steel Fence Posts**

Save 1/2 on your Fence Bill

Use Rust-Proof Fence

WE GUARANTEE "Galvannealed" (newly discovered rust-proof fence wire)—to last 2 to 3 times longer by any standard test, and to carry 2 to 3 times more zinc coating than any ordinary galvanized fence wire made.

This means "Galvannealed" should last 2 to 3 times longer in actual use and, therefore, costs 1/2 to 1/3 as much as you now pay.

In "Galvannealed" wire the extra heavy zinc coating is amalgamated INTO the steel body of the wire. In ordinary galvanized wire the thin zinc coating is merely laid ONTO the wire—"Galvannealing" goes IN, galvanizing only goes ON.

Square Deal Fence

is now made up from both "Galvannealed", the Triple-Life Wire and from the regular quality of galvanized wire.

Farmers who know how to save money buy Square Deal fence. Stiff, picket-like stay wires make fewer posts necessary; wavy or crimped strand wires provide springiness and keep the fence tight and trim; the famous Square Deal Knot holds stay and strand wires in a vise-like grip, positively guaranteed not to slip.

Two Fine Books FREE

Ropp's New Calculator—valuable farm book. Instantly figures cash value of crops; capacity of cribs, bins, silos; answers 75,000 farm problems. Write for it. Post card will do. Send no postage. Get this 50c book and Square Deal catalog that tells all about "Galvannealed", the Triple-Life Fence.



Keystone Steel & Wire Co.
4926 Industrial Street, Peoria, Illinois

NEWS FROM CLOVERLAND

DAIRY MEETINGS ARE WELL ATTENDED.

DURING the second week of January, a group of men interested in improving dairying in the Upper Peninsula, held a series of meetings with farmers and business men at several points in the district. Such gatherings took place at Brimly, Manistique, Stephenson, Hermansville and Iron Mountain. All these meetings were well attended by both farmers and business men, and at Brimly and Stephenson, where agriculture is featured in the work of the schools, a goodly number of high school pupils were also present.

Mr. O. I. Bandeen, secretary of the Chamber of Commerce of Escanaba, explained in detail the Escanaba plan for financing the purchase of purebred and high-grade dairy cattle. Mr. Bandeen has had a prominent part in the formulation of the Escanaba dairy financing plan. Much interest was exhibited by farmers and bankers. The meetings were held under the auspices of the Upper Peninsula Development Bureau.

The long deferred winter snows came on the peninsula in good shape during the week the party was en route, and it is interesting to note that the trip from Powers to Hermansville was made by the speakers in a four-seated sleigh drawn by a tractor with caterpillar attachment, the roads not being open for automobiles.

PRACTICAL SCHOOLING FOR FARMERS.

AT the winter term of the Menominee County Agricultural School, short courses are being given in dairying, poultry, bees, auto and tractor mechanics, feeds and feeding, farm management and radio. In the auto mechanics course students are permitted to practice on their own cars which may be in need of repair. The dairy course is designed to equip the student to be a licensed cream tester and butter-maker. Residents of Michigan are given free tuition at this school, which also can provide board and room at the school itself. This institution is supported by Menominee county with state aid. To take these courses no preliminary schooling is required.

HOME DEMONSTRATION WORK GROWS.

MISS SYLVIA WIXSON, the home demonstration agent for Marquette county, will, on February 1, assume her new duties as state leader of girls' club work for the Michigan Agricultural College. In accepting Miss Wixson's resignation the Marquette county board of supervisors unanimously voted to continue the employment of a home demonstration agent. It was announced that her successor would probably be Miss Mary Ryder, of Almont, Michigan, who received her training at M. A. C. and Columbia University. It was stated by Mrs. Louise H. Campbell, state leader of home demonstration agents, that there are eight full-time home demonstration agents in the state, and that additions to this number are anticipated during the year.

During the past year, Miss Wixson in Marquette county, carried out a program of work in nutrition through the schools, working in cooperation with 182 teachers, and reaching 4,637 children. The present year there are 248 teachers engaged in this work, and over 6,000 children are being reached. The cooperation of parents and the

county nurse is also sought. In Michigan, last year, over 47,000 children were enrolled in nutrition classes, Mrs. Campbell, state leader, reported on at her recent visit to Marquette. There were last year fifteen girls' garment clubs in Marquette county, enrolling 160 members.

SNOW HELPS LUMBERING.

REAL snow did not reach the Lake Superior country until after Christmas. It was welcomed by loggers and lumbermen, who had been making large preparations to get out a big crop of logs this winter. The demand for woods labor was reported strong well before the holidays, and the local railroads were anticipating a great demand for cars as soon as the condition of the ground made it possible to get logs to their right-of-ways. Cutting goes forward here the year round but much hauling has to wait until the snows come. There is now great activity in the woods from many parts of the peninsula.

Some are said to be holding off on the cut of pulp-wood until the Canadian situation clears, it being the reported intention of the Canadian government to place an embargo on pulp-wood, thus compelling American mills to rely more on the domestic supply with a tendency to enhance the domestic price. This is a matter of interest to farmers who have pulp-timber to sell.

There was a very heavy cut of Christmas trees, which went south by the carload. One local paper calls attention to the fact that local farmers were paid an average price of \$1 per tree from outside cutters, who received a price running as high as \$25 in some cases from city buyers in the big centers to the southward. Farmers are advised to be more particular in making prices for this product.

GOGEBIC GIVES GOOD REPORT.

IN Gogebic county, according to the annual report of Mr. C. E. Gunderson, county agricultural agent, there are eight live stock clubs, consisting of fifty-seven boys and girls, while the cow-testing association is composed of thirty-four members. Fifty-seven boys and girls attended the Chatham farmers' round-up in August, who produced two winning judging teams. Two milk distributors' associations were also formed during the year.

BUREAU HAS ACTIVE YEAR.

THE annual report of the Upper Peninsula Development Bureau, which is closely identified with the agricultural growth of the Upper Peninsula, shows that during the past year, the financial secretary gained about \$13,000 in subscriptions to the funds of the bureau and that the membership has increased from about 600 to about 800. Additional funds were received from county appropriations. These county appropriations ranged from \$200 to \$2,000—each of the fifteen counties having made its contribution through the board of supervisors. These county contributions are based on area, population and assessed valuation. The state administrative board also made an appropriation of \$3,000 for the work of the bureau.

During the past year the secretary-manager of the Development Bureau has made some thirty addresses to farmers, business men and other organizations, has assisted in purchasing improved dairy stock for club members, has driven 17,000 miles in carrying on his work, with an additional 10,000 miles by rail.

COURT UPHOLDS POOLING PLAN.

IN a New York case brought against the Dairymen's League, the courts approved the legality of the pooling plan and of the types of contract used in arranging for the sale of milk. Similar contracts have been upheld by the highest courts of several states in the Union.

LIKE NORTHERN-GROWN SEED.

WITH but five exceptions among 131 cooperators, in fifty-one counties of Iowa, northern-grown seed potatoes have proven during the past year far superior to home-grown potatoes. Extension men in that state are now recommending that farmers go to northern latitudes to secure their supply of seed potatoes.

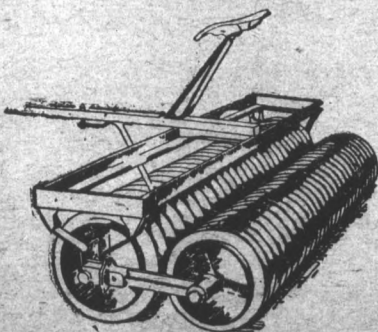
MICHIGAN CROP VALUES ADVANCE.

THE various crops, not including live stock or live stock products, produced in Michigan during 1923, have a total estimated value of \$242,472,000, as compared with 214,899,000 in 1922, and \$183,685,000 in 1921. This represents a gain of nearly thirteen per cent over 1922, and thirty per cent over 1921.

The valuations were computed on the basis of the December 1 price, except for such fruits as were out of season. In those cases the price was that received in the marketing season. Wheat, barley, rye and beans commanded lower prices on December 1 than on the same date in 1922, all other crops showing a higher price. Corn, oats, potatoes, hay, beans and apples brought a larger total monetary return than in 1922, and winter wheat, corn, buckwheat, potatoes and hay returned a larger value per acre than in 1922. These larger returns were mainly due to better prices rather than larger yields, as only winter wheat, barley, beans and apples showed a greater production, as shown by the annual report prepared by L. Whitney Watkins, State Commissioner of Agriculture, and Verne H. Church, United States Agricultural Statistician.

Notwithstanding this apparent improvement in the general agricultural situation, Michigan farmers were compelled to pay approximately twenty per cent higher wages for their hired labor than in 1922. On October 15, the average farm price of crops and live stock was twenty-one per cent higher than in 1913, but the wholesale cost of all commodities was fifty-three per cent higher than in 1913. Therefore, the purchasing power of farm products on that date was only seventy-five per cent of that in 1913. This is seven per cent higher than it was at the beginning of 1923 and eleven per cent higher than the lowest point, which was touched in August and September, 1922. The trend being upward, conditions may be said to be improving but the increase has been discouragingly slow, especially to those farmers having heavy financial obligations.

For 1923, the state ranked seventeenth among the states in the production of all crops. Last year it held twenty-second place, although it usually holds eighteenth place.



A CORRUGATED ROLLER.

Properly used, this implement helps in raising profitable crops on sandy soils.

LOOK FOR THE RED BALL

"BALL-BAND"



A Promise That Has Never Been Broken

You buy a promise when you buy "Ball-Band" (Red Ball) Rubber Footwear.

A promise of More Days Wear that has never been broken.

Over ten million people have some kind of "Ball-Band" Footwear right this minute. That means confidence and this confidence was earned by unvarying high quality for thirty-seven years.

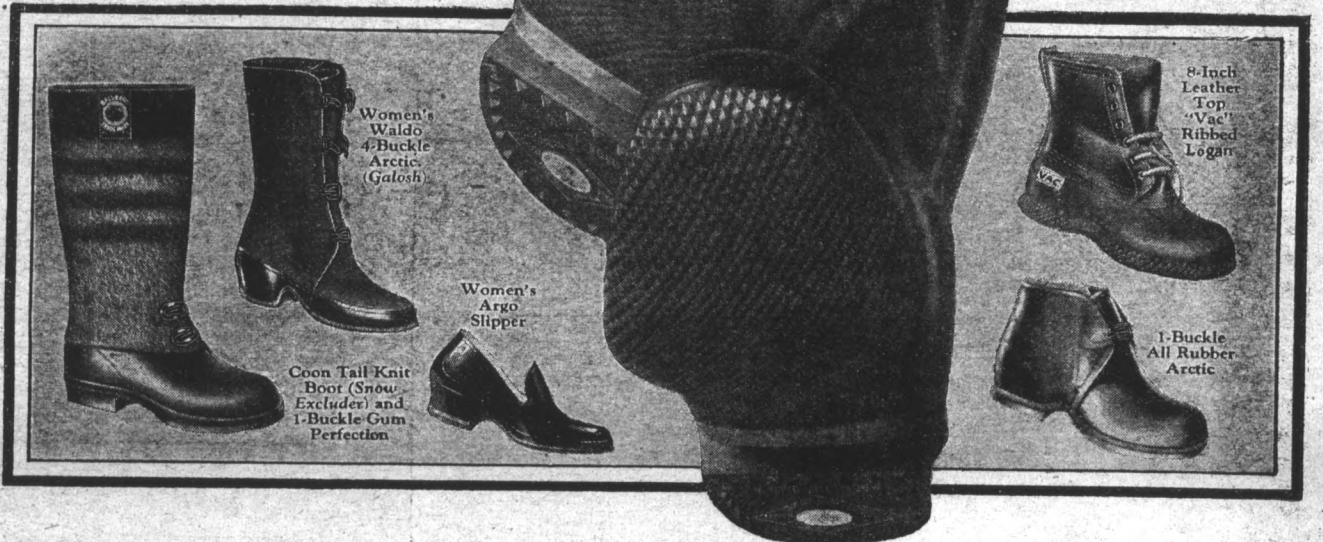
When you buy rubbers for every member of your family—and if you don't buy them you will buy more shoes—ask for "Ball-Band" (Red Ball).

The extra wear in every pair will be a worth-while saving.

We make nothing but footwear—and we know how

Mishawaka Rubber & Woolen Mfg. Co.

328 Water Street Mishawaka, Ind.
"The House that Pays Millions for Quality"



DIRECT TO YOU AT MAIL ORDER RATES

For healthy orchards plant handsome, thrifty, Michigan-grown trees, grape vines, berry bushes, roses and shrubs. Raised in Kalamazoo County—famous for hardy, well rooted stock. Guaranteed healthy and true to name. Buy in your own State and insure prompt arrival in vigorous condition. Special prices on orders sent now. Ask for our handsome catalog of dependable trees—it's free.

Celery City Nurseries, Box 208, Kalamazoo, Michigan

Purchase Celery City Trees
Direct from Grower to Planter



STRAWBERRY PLANTS

Raspberry, Blackberry, Grape, etc. Complete line reasonably priced. Thirty years experience. Illustrated Catalog free. J. N. Rokely & Son, R. 6, Bridgman, Mich.

SEEDS that Repay the Farmer

There's an unusual variety of dependable seeds and an abundance of hardy fruit trees listed in our

70TH ANNUAL FREE CATALOG
1200 fertile acres give wide selection. Let the S. & H. Catalog help you select the best. Write to-day.

THE STORRS & HARRISON CO.
Nurserymen and Seedsmen for 70 Years
Box 463 Painesville, Ohio

Grow KEITH'S STRAWBERRIES

ALL for big crops and big profits. There is big money in growing strawberries when strong, healthy, large-rooted plants are set. Our plants are grown on new land near the Lake shore in fresh virgin soil, filled with nature's plant foods, making them big, deep-rooted, full of life and vigor, just the best that Nature can do where conditions are ideal. Some of our customers last year made from

\$500 to \$700 Per Acre

growing strawberries from Keith's new-land plants. We guarantee our plants to be strong, healthy, true to name and to give entire satisfaction or we refund your money. No better plants are grown anywhere. They are certainly the best you can buy and they are guaranteed to reach you in good growing condition. We ship them well packed, direct from our Nursery. We supply you with a free copy of Keith's Ways to Successful Berry Culture with your first order. We have a splendid stock of Keith's Everbearing strawberry plants, as well as the well-known standard varieties, also grapes, raspberries, blackberries and other small fruits, all illustrated and plainly described in our handsome new catalog which is now ready for you. It is full of valuable information. Illustrating growing fields and fruits.

Write for it before placing your order. We advise you to let us have your order as quickly as possible so that you may be sure of just the kind you want. It's FREE, send today, receive it tomorrow.

KEITH BROTHERS NURSERY, BOX 902, SAWYER, MICHIGAN

PLANT KEITH'S PLANTS FOR PROFIT

Such Berries Will Pay You

Beautiful Colored Catalog FREE

Shows fruit trees, small fruits, shrubs, evergreens, etc. all varieties—in actual color. Landscaping sketches and collections for beautifying city, town and country lots. Shows how a few dollars properly spent for the right varieties will add hundreds of dollars to your property value. A book full of nursery stock bargains from grower direct to you at big savings. Note these

BARGAINS

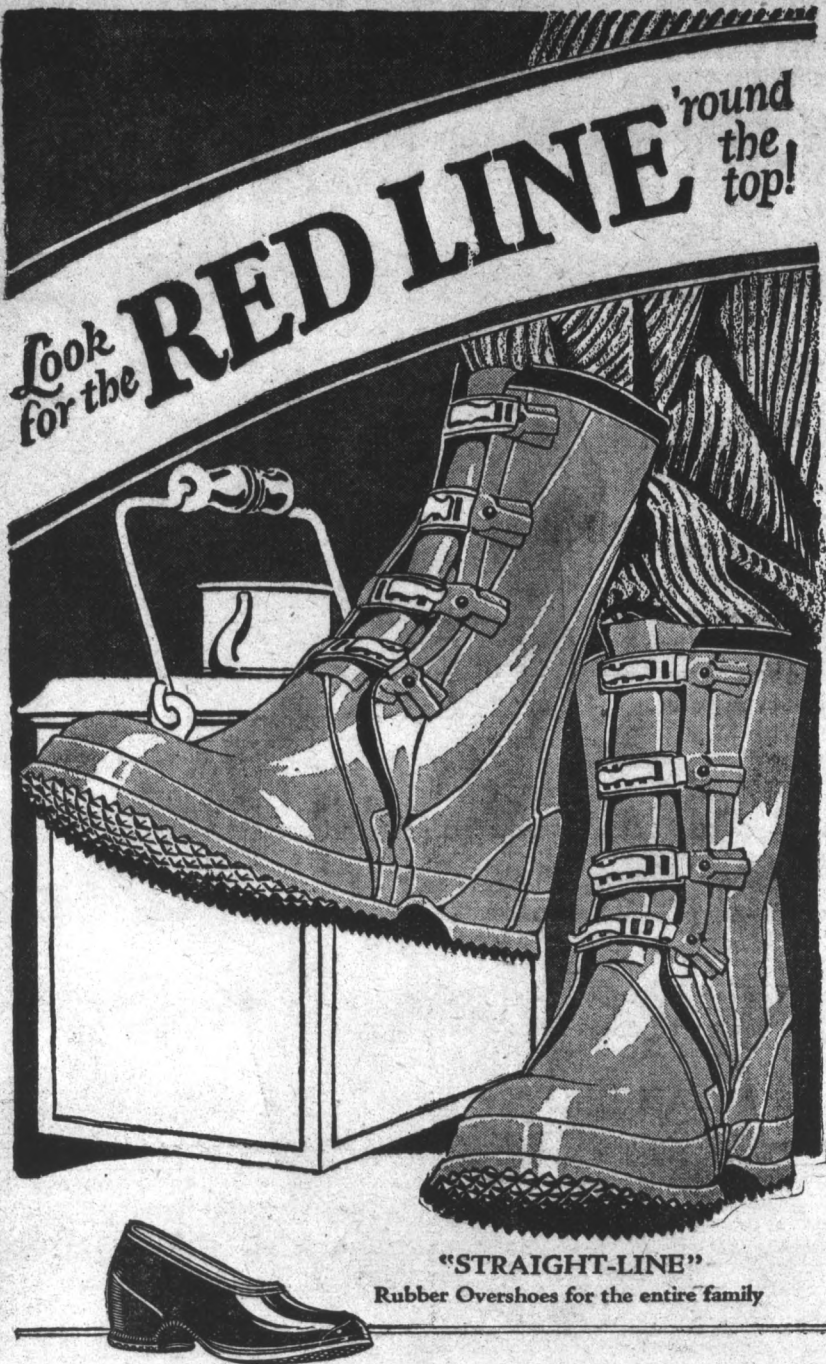
100 Strawberry plants of 3 varieties, \$1. Red or Black Raspberries, 20 for \$1. Concord Grapes, 12 for \$1. Blackberries, 12 for \$1. Snowberry 6 for \$1. Rosebushes, 3' or 4' \$1. Gladiolus Bulbs, 25 for \$1. 33 Spirea Van Houttei (Bridal Wreath) for \$1. 5 Indian Currants for \$1. Write for bargain catalog Earl Ferris Nursery Co., 606 Bridge St., Hampton, Iowa

12 Apple Trees Standard varieties, \$3.15 each. Big bargain! 6 CHERRY TREES \$1.48

100 Evergreens 2 years old Northern grown at price of 100 for \$2.50

ROSES FREE to make new customers and advertise Ferris Bargains. Write for details.

Wonder Raspberry FREE to customers only small supply of these raspberries available. Will be given away to customers.



That Red Line 'round the Top of Rubber Boots or Shoes is of actual value to you.

It protects you against imitation—only the genuine "Hi-Press" are so marked.

It is a Goodrich pledge of supreme quality, backed by fifty-four years' experience in making rubber goods.

And it reminds you that millions of users, appreciating the longer service and greater economy of "Hi-Press," insist upon it as their guide to best value.

Sixty-five thousand dealers

THE B. F. GOODRICH RUBBER COMPANY

Goodrich
HI-PRESS
Rubber Footwear

Rural Health

By Dr. C. H. Lerrigo

LEARNING TO BE A NURSE.

A MICHIGAN girl writes to know how she may learn to be a nurse and if it is possible to be admitted to a hospital for training, in spite of the fact that she is not a graduate of a high school. She explains that she is twenty years old or she would take the high school first, and she would like to know what difference it makes anyway.

The profession of nursing has risen to well-earned importance as one of the higher professions, in the last decade. There are many reasons why a young woman who expects to make a really first-class nurse should get a thorough preliminary education. For one thing, a graduate nurse, nowadays, is paid very well, with the understanding that she shall be able to do many things that were formerly left to the doctor, and her education must compare in some degree with that of the doctor. The text books that she studies in her training are not such as to be mastered by an ignoramus. They are written with the expectation that they will be used by intelligent girls of a high type and good education; a grade school education is hardly sufficient preparation. Then, too, the nurse is no longer ranked as a servant. She goes into some of the finest homes in the land, is treated by the inmates as an equal, and must be a person of some education in order to meet them as such. Some of the very best training schools now expect their girls to have college work before entering upon the course of study, and I personally know that many girls with college training are attracted to the profession and help to make the standards high.

On the other hand, there are not many hospitals that will absolutely refuse training to a bright, intelligent girl, because she has not had the good fortune to be able to take the time for a high school or other course of preliminary education. Let her apply to the superintendent of nurses and be able to show that she is capable of grasping the principles of the worthy profession that she desires to enter, and is enough in earnest about it to be willing to study and make up past deficiencies, and a way will be made for her admission.

GETTING RID OF LICE.

Will you please tell me a way to get rid of head lice? My little girl caught them at school and I have tried about everything, but can't seem to get rid of them. Also, how can I get the nits off of the hair, as they will not comb out with a fine comb?—R. C.

Kerosene will kill the lice. If a child's scalp is tender it is well to dilute the kerosene with half sweet oil. In order to get rid of nits use a fine-tooth comb and dip it into hot vinegar or hot alcohol as you work.

PROBABLY HEART TROUBLE.

I have had stomach trouble for fifteen years. Have tried everything. No help. Tired all the time. Play out easy. Short-winded. Stomach feels full all the time. Pain around the heart. Don't sleep well. Tired in the morning.—P. M. R.

I am inclined to think that valvular heart disease is at the bottom of your trouble. This is serious enough to demand the personal attention of the best doctor within reach.

WHEN SHOULD THE BABY BE WEANED?

At what age should a baby be weaned? My baby is fifteen months old. Do the mother's periods poison the milk for a nursing baby?—Michigan Mother.

You should begin the weaning at about ten months of age and the baby, if strong and healthy, should be fully weaned at twelve months. A nursing mother may continue to nurse her baby even though her menstrual periods return, but no child should be nursed after one year of age, excepting for some weakness that seems to make weaning inadvisable.

CHILD HAS ANEMIA.

We are told that our little daughter, aged eight, has anemia. She is pale, languid and has no appetite. She has bad tonsils and adenoids, too. Please tell me what to do.—C. E. L.

The first thing is to have the diseased tonsils and adenoids removed. Then see that she gets plenty of nourishing food of the kind that makes good blood and tissue. This will include one quart of milk a day; oatmeal and bread and butter, green vegetables, fruit and some meat and eggs. But no child should have to overcome the handicap of diseased tonsils.

RUPTURE.

I am a young farmer twenty-nine years old. For quite a long time I have had a hurting in the left groin that would be very bad when I lifted. Our doctor says it is a rupture and will get worse instead of better. He tells me to be operated on. What is your advice? Isn't there some other way?—B. L. O.

Yes, there are other ways; but none so good, so safe, so prompt and so cheap in the long run, as that of surgical operation. When you contemplate wearing a truss or other device for some fifty years, taking the risk of the rupture getting worse at some time when the truss is not in good working order, buying new trusses from time to time, and everlastingly having the bother of adjusting the thing, it really seems to be a small matter to go into the hospital for two weeks, get the rupture repaired, and be soundly and safely fixed for a lifetime. Many persons have lost their lives from strangulated hernia. It is not a thing to take a chance on.

THE RELATION OF THE MOON TO THE HAIR.

Please say whether it makes any real difference to the growth of the hair whether it is cut at a certain stage of the moon. This is perhaps a foolish question, but I have heard that it makes a difference, and my hair is getting so thin that I don't want to miss any chances.—Bachelor.

Not a bit of difference. Keep it cut fairly short, no matter what the stage of the moon. Get a pair of good brushes and spend five minutes every night and morning with them. Change your condition and you won't care so much.

PNEUMONIA CONTAGIOUS.

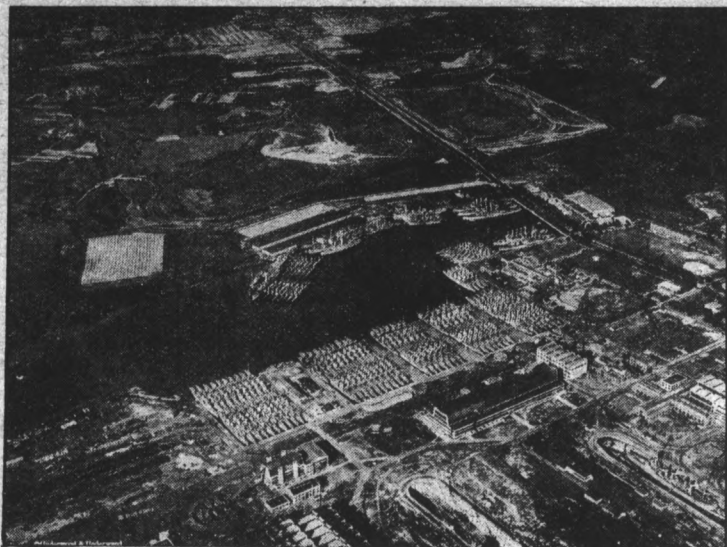
Please say if pneumonia is contagious at any time, and if so, what steps should be taken to prevent its spread.

There is no doubt about the fact that pneumonia is a contagious disease, although the contagion does not spread so rapidly as that of such diseases as measles, scarlet fever, etc. The patient with pneumonia should always be placed in a quiet, comfortable room away from the rest of the household, both for his own sake and that of the family. The room should be kept well aired. Linen from the sick-room should be boiled. Dishes should be kept separate. Those in attendance need have no fear of ordinary contact but should not sleep in the same bed with the patient, or indulge in any unnecessary contact. The attendants should be particular about washing up after waiting on the patient, making the bed.

WORLD EVENTS IN PICTURES



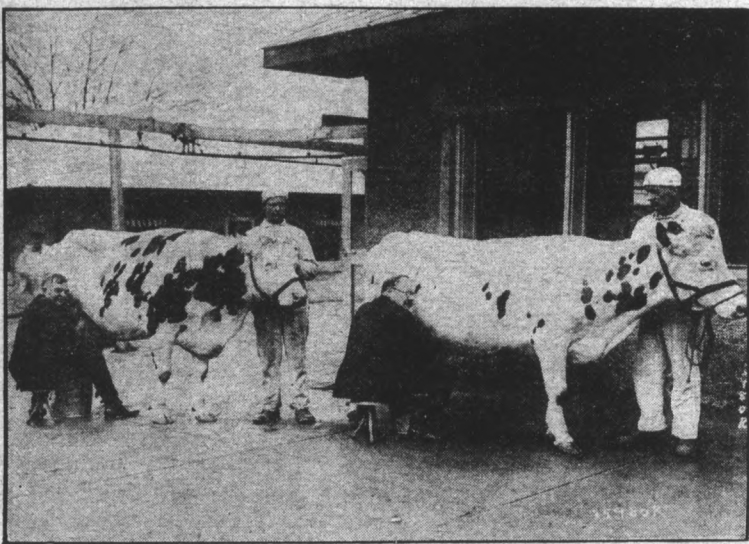
Scientists claim this new X-ray tube, invented by C. T. Ulrey, will benefit cancer sufferers.



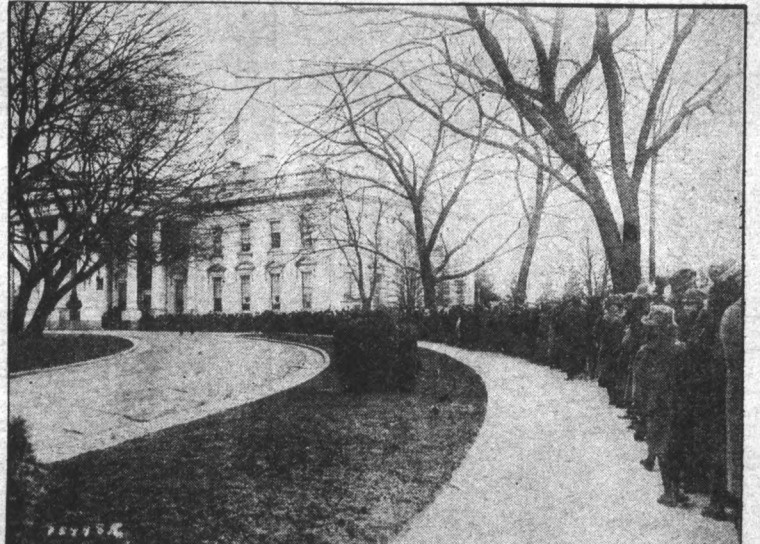
From the air, the Philadelphia Naval Yard looks like this. There are 115 greyhounds of war held in inactivity and several cruisers and "mother ships" in dry dock.



Radio waves travel through 500 miles of air, 70 feet of water, 30 feet mud to this instrument.



Senator Magnus Johnson, of Minnesota, challenged Secretary of Agriculture Wallace to a milking contest and they settled the argument with the aid of two prize Holstein cows. Wallace won.



At an official New Year's reception held at the White House, nearly 4,000 filed through the executive mansion to wish President and Mrs. Coolidge a Happy New Year.



Mme. Marie Currie's eldest daughter has been appointed as her assistant in radium work.



Mario Korbel, celebrated sculptor, is working on a creation, "The Three Graces," for which the Duncan sisters are posing.



The old English home where the Live Stock International was organized twenty-five years ago.



Even the tea table goes on skis up in the Adirondacks so the ski fans may enjoy their afternoon tea without interruption from their favorite sport.



A part of the residents of Pittsburgh were forced to use boats as a means of transportation when the Allegheny overflowed its banks.

THE fight grew more intense, then died out, as Ba'tiste, seizing the smallest of the men, lifted him bodily and swinging him much after the fashion of a sack of meal, literally used him as a battering ram against the rest of the attacking forces. For a last time, Houston hit a skirmisher and was hit in return. Then Ba'tiste threw his human weapon from him; straight into the mass of men whom he had driven back for a second, tumbling them all in a scrambling, writhing heap at the edge of the flume.

"Climb up me!" he bellowed, as they struggled to their feet. "Ah, oui!" And the big arms moved threateningly. "Climb up me!"

But the invitation was not accepted. Bloody, eyes discolored, mouth and nose steadily swelling, the foreman moved away with his battered crew, finally to disappear in the forest. Ba'tiste reached for the cant hook, and balancing it lightly in one hand, sought a resting place on the edge of the flume. Houston sat beside him.

"What on earth can it all mean?" he asked, after a moment of thought.

"They go back—get more men. Mebbe they think they whip us, oui? Yes? Ba'teese use this, nex' time." He balanced the cant hook, examining it carefully as though for flaws which might cause it to break in contact with a human target. Barry went on:

"I was talking about the flume. You heard what fellow said—that they had the woods, the lake and the flume to use as they pleased? How—"

"Mebbe they think they jus' take it."

"Which they can't. I'm going back to the camp and get more men."

"No." Ba'tiste grinned. "We got enough—you an' Ba'teese. I catch 'em with this. You take that club: If they get 'round me, you, what-you-say, pickle 'em off."

BUT the expected attack did not come. An hour they waited, and a hour after that. Still no crowd of burly men came surging toward them from the Blackburn camp, still no attempt was made to wrest from their possession the waterway which they had taken over as their rightful property. Houston studied the flume.

"We'll have to get some men up here and rip out this connection," came at last. "They've broken off our end entirely."

"Ah, oui! But we will stay here. By'm'by, Medaine come. We will send her for men."

"Medaine? That was she I heard talking?"

"Oui. She had come to ask me if she should bring me food. She was riding. Ba'teese sen' her away. But she say she come back to see if Ba'teese is all right."

Houston shook his head.

"That's good. But I'm afraid that you won't find her doing anything to help me out."

"She will help Ba'teese," came simply from the big man, as the iron-bound cant hook was examined for the fiftieth time. "Why they no come, huh?"

"Search me. Do you suppose they've given it up? It's a bluff on their part, you know, Ba'tiste. They haven't any

legal right to this land or flume or anything else; they just figured that my mill was burned and that I would not be in a position to fight them. So they decided to take over the flume and try to force us into letting them have it."

"Here comes somebody!" Ba'tiste's grip tightened about the cant hook and he rose, squaring himself. Houston seized the club and stood waiting a few feet in the rear, in readiness for any one who might evade the bulwark of blows which Ba'tiste evidently intended to set up. Far in the woods showed the shadowy forms of three

to the rear, allowing the two officials to take the lead—and evidently do the talking. The sheriff grinned as he noticed the cant hook on the ground. Then he looked up at Ba'tiste Renaud.

"What's been going on here?"

"This man," Ba'tiste nodded grudgingly toward the angular form of Fred Thayer, "heem a what-you-say a big bomb. This my frien', M'sieu Houston. He own this flume. This Thayer's men, they try to jump it."

"From the looks of them," chuckled the sheriff, "you jumped them. They've got a young hospital over at camp. But seriously, Ba'tiste, I think you're

The White Desert

By Courtney Ryley Cooper

Right Where You Are

By James E. Hungerford

Right where you are, if you'll "git-up-and-git,"
And hustle and rustle and do,
And put your heart in it, and never say "quit"—
There's plenty of good things for you!
The prizes are waiting right there to be got;
You'll find them wherever you are,
By proving if you're a "go-getter," or not—
A "flash-in-the-pan"—or a "star."

The "croakers" are croaking about the "hard times,"
And how things are hopelessly "punky;"
They're mourning the shortage of nickles and dimes—
But that kind of "bunk" is the bunk!
And while they are buzzing 'bout biz' being bad,
The "wise ones" are hopping about,
And copping the prizes right there to be had—
And putting old "hard times" to rout!

It's always "hard times," if you're thinking that way,
And prospects are "gloomy" and blue,"
But, while the sun's shining, if you will "make hay"—
You'll get what is coming to you!
Don't let "hard times" floor you, and steal your good "rep";
Don't dream about "green fields afar";
We know you're a winner—now show us some "pep"—
Make good on the job where you are!

men, approaching steadily and apparently without any desire for battle. Ba'tiste turned sharply. "Your eye, keep heem open. Eet may be a blind."

But Houston searched the woods in vain. There were no supporters following the three men, no deploying groups seeking to flank them. A moment more, and Ba'tiste, with a sudden exclamation, allowed his cant hook to drop to the ground.

"Wade!"

"Who?" Houston came closer.

"Eet is Thayer and Wade, the sheriff from Montview, and his deputy. Peuff! Have he fool heem too?"

Closer they came, and the sheriff waved a hand in friendly greeting. Ba'tiste returned the gesture. Thayer, scowling, black-faced, dropped slightly

on the wrong track. Thayer and Blackburn have a perfect right to this flume and to the use of the lake and what stumpage they want from the Houston woods."

"A right?" Barry went forward.

"What right? I haven't given them—"

"You're the owner of the land, aren't you?"

"Yes, in a way. It was left to me conditionally."

"You can let it out and sell the stumpage if you want to."

"Of course."

"Then, what are you kicking about?"

"I—simply on account of the fact that these men have no right to be on the land, or to use it in any way. I haven't given them permission."

"That's funny," the sheriff scratched

his head; "they've just proved in court that you have."

"In court? I—?"

YES, I've got an injunction in my pocket to prevent you from interfering with them. Judge Bardley gave it in Montview about an hour ago, and we came over by automobile."

"But why?"

"Why?" the sheriff stared at him. "When you give a man a lease, you have to live up to it in this country."

"But I've given no one—"

"Oh, show it to him, sheriff," Thayer came angrily forward. "No use to let him stand there and lie."

"That's what I want to see!" Houston squared himself grimly. "If you have got a lease, or anything else, I want to look at it."

"You know your own writing, don't you?" The sheriff was fishing in his pockets.

"Of course."

"You'd admit it if you saw it?"

"I'm not trying to hide anything. But I know that I've not given any lease, and I've not sold any stumpage and—"

"Then, what's this?" The sheriff had pulled two legal documents from his pocket, and unfolding them, had shown Houston the bottom of each. Barry's eyes opened wide.

"That's—that's my signature," came at last.

"This one's the same, isn't it?" The second paper was shoved forward.

"Yes."

"Then I don't see what you're kicking about. Do you know any one named Jenkins, who is a notary public?"

"He works in my office in Boston."

"That's his writing, isn't it?"

"Yes."

"And his seal."

"I suppose so." Bewildered, Houston was looking at the papers with glazed eyes. "It looks like it."

"Then," and the sheriff's voice went brusque, "what right have you to try to run these men off of property for which you've given them a bona-fide lease, and to which you've just admitted your signature as genuine?"

"I've—I've given no lease. I—"

"Then look'em over. If that isn't a lease to the lake and flume and flume site, and if the second one isn't a contract for stumpage at a dollar and a half a thousand feet—well, then, I can't read."

"But I'm telling you that I didn't give it to them." Houston had reached for the papers with a trembling hand. "There's a fraud about it somewhere!"

"I don't see where there can be any fraud when you admit your signature, and there's a notary's seal attached."

"But there is! I can't tell you why—but—"

"Statements like that don't count in law. There are the papers and they're duly signed and you've admitted your signature. If there's any fraud about it, you've got the right to prove it. But in the meanwhile, the court's injunction stands. You've leased this land to these men, and you can't interfere with them. Understand?"

"All right." Houston moved hazily back, away from the flume site. Ba-

AL ACRES—Slim Should Have Put In An Electric Warming Pad.

By Frank R. Leet



tiste stood staring glumly, wondering, at the papers which had been returned to the sheriff. "But I know this, that it's a fakery—somehow—and I'll prove it. I have absolutely no memory of ever signing any such papers as that, or of even talking to any one about selling stumpage at a figure that you should know is ridiculous. Why, you can't even buy the worst kind of timber from the government at that price! I don't remember."

"Didn't I tell you?" Thayer had turned to the sheriff. "There he goes pulling that loss of memory stunt again. That's one of his best little bets," he added sneering, "to lose his memory."

"I've never lost it yet!"

"No—then you can forget things awfully easy. Such as coming out here and pretending not to know who you were. Guess you forgot your identity for a minute, didn't you? Just like you forgot signing this lease and stumpage contract! Yeh, you're good at that—losing your memory. You never remember anything that happens. You can't even remember the night you murdered your own cousin, can you?"

"That's a—"

"See, sheriff? His memory's bad." All the malice and hate of pent-up enmity was in Fred Thayer's voice now. One gnarled hand went forward in accusation. "He can't even remember how he killed his own cousin. But if he can't, I can. Ask him about the time when he slipped that mallet in his pocket at a prize fight and then went out with his cousin. Ask him what became of Tom Langdon after they left that prize fight. He won't be able to tell you, of course. He loses his memory; all he will be able to remember is that his father spent a lot of money and hired some good lawyers and got him out of it. He won't be able to tell you a thing about how his own cousin was found with his skull crushed in, and the bloody wooden mallet lying beside him—the mallet that this fellow had stolen the night before at a prize fight! He won't—"

White-hot with anger, Barry Houston lurched forward, to find himself caught in the arms of the sheriff and thrown back. He whirled—and stopped, looked with glazed, deadened eyes into the blanched, horrified features of a girl who evidently had heard the accusation, a girl who stood poised in revulsion a moment before she turned and, almost running, hurried to mount her horse and ride away. And the strength of anger left the muscles of Barry Houston. The red flame of indignation turned to a sodden, dead thing. He could only realize that Medaine Robinette now knew the story. That Medaine Robinette had heard him accused without a single statement given in his own behalf; that Medaine, the girl of his smoke-wreathed dreams, now full and thoroughly believed him—a murdered!

CHAPTER XII.

DULLY Houston turned back to the sheriff and to the goggle-eyed Ba'tiste, trying to fathom it all. Weakly he motioned toward Thayer, and his words, when they came, were hollow and expressionless:

"That's a lie, Sheriff. I'll admit that I have been accused of murder. I was acquitted. You say that nothing counts but the court action—and that's all I have to say in my behalf. The jury found me not guilty. In regard—to this, I'll obey the court order until I can prove to the judge's satisfaction that this whole thing is a fraud and a fake. In the meanwhile—" he turned anxiously, almost piteously, "do you care to go with me, Ba'tiste?"

Heavily, silently, the French-Canadian joined him, and together they walked down the narrow road to the camp. Neither spoke for a long time. Ba'tiste walked with his head deep between his shoulders, and Houston knew that memories were heavy upon him, memories of his Julianne and the day that he came home to find, instead

of a waiting wife, only a mound of beneath the sighing pines and a stalwart cross above it. As for Houston, his own life had gone gray with the sudden recurrence of the past. He lived again the first days of it all, when life had been one constant repetition of questions, then solitude, questions and solitude, as the homicide squad brought him up from his cell to inquire about some new angle that they had come upon, to question him regarding his actions on the night of the death of Tom Langdon, then to send him back to "think it over" in the hope that the constant tangle of questions might cause him to change his story and give them an opening wedge through which they could force him to a confession. He lived again the black hours in the dingy courtroom, with its shadows and soot spots brushing against the window, the twelve blank-faced men in the jury box, and the witnesses, one after another, who went to the box in an effort to swear his life away. He went again through the agony of the new freedom—the freedom of a man imprisoned by stronger things than mere bars and cells of steel—when first he had gone into the world to strive to fight back to the position he had occupied before the pall of accusation had descended upon him, and to fight seemingly in vain. Friends had vanished, a father had gone to his grave, believing almost to the last that it had been his money and the astuteness of his lawyers that had obtained freedom for a guilty son, certainly not a self-evidence of innocence that had caused the twelve men to report back to the judge that they had been unable to force their convictions "beyond the shadow of a doubt." A nightmare had it been and a nightmare it was again, as drawn-featured, stoop-shouldered, suddenly old and haggard, Barry Houston walked down the logging road beside a man whose mind also had been recalled to thoughts of murder. A sudden fear went over the younger man; he wondered whether this great being who walked at his side had believed, and at last in desperation, he faced him.

"Well, Ba'tiste," came in strained tones, "I might as well hear it now as at any other time. They've about got me whipped, anyway, so you'll only be leaving a sinking ship."

"What you mean?" The French-Canadian stopped.

"Just the plain facts. I'm about at the end of my rope; my mill's all but gone, my flume is in the hands of some one else, my lake is leased, and Thayer can make as many inroads on my timber as he cares to, so long as he appeases the court by paying me the magnificent sum of a dollar and a half a thousand for it. So, you see, there isn't much left for me."

"What you do?"

"That depends entirely on you—and what effect that accusation made. If you're with me, I fight. If not—well frankly—I don't know."

"Member the mill, when he burn down?"

"Yes."

"You no believe Ba'teese did heem. Oui, yes? Well, now I no believe either!"

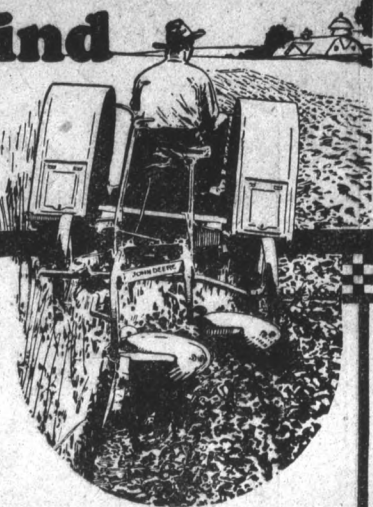
"Honestly, Ba'tiste?" Houston had gripped the other man's arm. "You don't believe it? You don't—"

"Ba'teese believe M'sieu Houston. You look like my Pierre. My Pierre, he could do no wrong. Ba'teese satisfy."

IT sent a new flow of blood through the veins of Barry Houston—that simple, quiet statement of the old trapper. He felt again a surge of the fighting instinct, the desire to keep on and on, to struggle until the end, and to accept nothing except the bitterest, most absolute defeat. He quickened his pace, the French-Canadian falling in with him.

(Continued next week).

What's Behind Your Fordson?



You can't farm better than you plow. Which means that you can afford to use only a mighty good plow.

Even a little better plowing means much in eighty acres of seed beds; a little lighter draft means a considerable saving in fuel and tractor wear in a year's run; a little advantage in operating ease means much every day.

THE JOHN DEERE "40"

—the three-wheel plow with the self-adjusting hitch—gives Fordson owners a real advantage in good work, light draft and easy handling.

Watch it at work in the field—that's the convincing test of the "40".

Note how the genuine John Deere bottoms cut and handle the furrow slice in the way that has made John Deere plows famous.

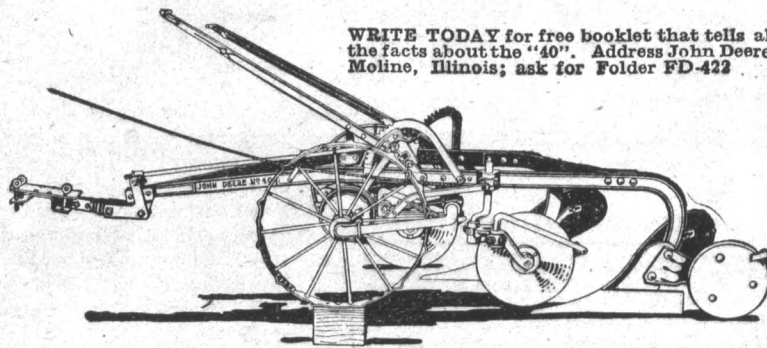
Note the great draft reduc-

ing combination—rolling landside and self-adjusting hitch. No other plow for the Fordson has it.

Rear weight rolls on the rolling landside instead of being dragged, thus greatly decreasing draft.

Hitch adjusts itself to correct line of draft when depth is changed—bottoms run true and level at all depths, doing good work and pulling light all the time.

WRITE TODAY for free booklet that tells all the facts about the "40". Address John Deere, Moline, Illinois; ask for Folder FD-422



JOHN DEERE
THE TRADE MARK OF QUALITY MADE FAMOUS BY GOOD IMPLEMENTS

Please Mention The Michigan Farmer When Writing Advertisers

Montgomery Ward & Co. Wall Paper

3¢ per single roll

You, too, may as well save from one-third to one-half on YOUR wall paper.

Ward's paper is not cheap paper. It is all standard quality, made lower in price by manufacturing in immense quantities. Think of papering an entire room 10 x 12 feet, side walls, border and ceiling, for only 82 cents. Choose your paper from actual free samples of all the newest, best patterns—tapestries, fabrics, "all-overs" and stripes. Prices from 3 cents to 35 cents per single roll.

Sample Book Free—Over 100 Actual Samples

This sample book will go into over one million homes. Why not into your home, too? Why not see the best new patterns and save one-third to one-half? Why pay almost double for your paper? Write today for your copy of this free book of wall paper samples.

Address Our House Nearest You.

MONTGOMERY WARD & CO.
Chicago Kansas City St. Paul
Portland, Ore. Ft. Worth Oakland, Cal.

Write today for Free Wall Paper Sample Book No. 37-W

Sample Book FREE



"NOT A KICK IN A MILLION FEET"



MULE-HIDE Roll Roofing and Shingles

When you roof with Mule-Hide you roof with assurance. Its built-in quality is your protection for years of service—and the original cost is very little more than that of average roofing.

THE LEHON COMPANY
Chicago

KITSELMAN FENCE

GET IT FROM THE FACTORY DIRECT "Saved \$22.50 on 150 Rods," says William J. Heft, R. 2, Wyandotte, Mich.

"Saved \$25 on 125 rods" declares Charles Renville, Pence, Indiana.

You, too, can save money on Fence, Gates, Posts and Barbed Wire by buying direct from our great mills. **Lowest Factory Prices.** Prompt shipments. Every article guaranteed satisfactory.

Better Fence—Greater Savings
New Fences have been added to our big line; many present styles have been made heavier. More than 100 styles and heights from which to choose. Every rod made to give you longest service at lowest cost.

Direct from Factory to Farm
We Pay the Freight

Write now—today—for our Free 100-page catalog filled with real money-saving values in Farm, Poultry and Lawn Fence, Gates, Steel Posts and Barbed Wire.

KITSELMAN BROS., Dept. 278 MUNCIE, INDIANA
America's Oldest Fence Manufacturers

GET MY LOW PRICES on FENCE GATES, POSTS, ROOFING-PAINTS

My Big NEW catalog is filled from cover to cover with Bigger, Better values than ever this season. You'll be glad you sent for my New Bargain Book when you see the big savings I am giving my customers. My plan of selling Direct From Factory saves you 1/3 or more. Write today for my 104 page catalog giving low

FREIGHT PREPAID
prices on Fencing, Gates, Steel posts, Barb Wire, Roofing and Paint. Every page a page of real bargains. Quality and satisfaction guaranteed. Write for catalog today. **JIM BROWN, BROWN FENCE & WIRE CO., Dept. 2808 Cleveland, O.**

Israel Saved at the Red Sea

Our Weekly Sermon—By N. A. McCune

THE account of the crossing of the Red Sea is one of the most picturesque narratives in the Bible. Also it is one of the most meaningful. How did the crossing take place? Was it a piece of supernatural intervention? The "strong east wind" that blew looked like a bit of natural force. That it came at exactly the time when most needed smacks of the supernatural. But where is one to draw the line? In the sense that God is the author of all physical forces, are they not supernatural? And because they operate in a certain definite order they appear to us as natural. "We speak of the volume of nature," says Carlyle; "and truly a volume it is—whose Author and Writer is God. To read it, dost thou, does



man, so much as know the alphabet thereof?" Let those who can draw a precise line where the natural leaves off and the supernatural begins, amuse themselves

by doing so. One thing we know: God does care. The Israelites believed that, and we can believe it too. There is the famous siege of Leyden, when the God-fearing Hollanders defended themselves against the Spanish, in 1574. The hand of God is as apparent as it was at the Red Sea, three thousand years before. From the last of June till the third of October no food was brought into the city. All bread and meat was consumed, and the famished populace lived on dogs, cats, vermin and refuse. People fell dead in the streets.

In the meantime a Dutch fleet had been attempting to get to the city. The dykes were opened and the ocean was invited in to assist the fleet and fight the enemy. But the water was only nine inches deep, over the fields, and the ships could not proceed. Suddenly the wind shifted, a storm broke over the dykes, and the waters began to rise rapidly. The Dutch sailors pushed their craft onward toward the beleaguered city. There were several dykes to be cut, some forts to be passed, but the greatest obstacle between them and the heroic citizens of Leyden was a fort, held by the Spaniards. Morning came, and as the fleet approached the fortress to begin the assault, the sailors were amazed, not to be greeted with shots. Not a cannon spoke. The silence was eerie. A man was seen wading breast high toward the boats, and a boy stood on the fortress waving his cap. The Spanish army had fled during the night. Motley says, "The hand of God, which had sent the ocean and the tempest to the deliverance of Leyden, had struck her enemies with terror likewise." Scenes of indescribable rejoicing welcomed the arrival of the ships, not unlike the rejoicing of the Hebrew emigrants when they saw their ancient enemies devoured by the sea.

THE song of victory in the fifteenth chapter of Exodus is one of the greatest battle songs known. It must have been a favorite with the people, always. Probably it was repeated and sung for many generations before it was written down. Whoever wrote such a martial song was a true poet. Miriam led in singing it and if she wrote it, what a poignant story lies here! During the long years that her brother was dwelling in the hills of Midian did she pray for the time when he would come to the assistance of his people? Did she keep the fire of hope burning by secretly writing patriotic verse? When the Egyptian cavalry perished and she led the exultant hosts, "Sing ye to the Lord, for He hath triumphed gloriously; the horse

and his rider hath He thrown into the sea," it looked as though she was playing a very familiar part. She and her brother understood the full significance of what had happened.

There is a martial stride in the song like that of the Marsellaise or the Star Spangled Banner. It should be read aloud. It would lend itself easily to music.

The Bible progresses. The Hebrews of that day thought of God as a war God. He was the Deity of the Israelites, not of other nations. This thought occurs in many other passages also. But when the reader passes on to Isaiah, Jeremiah and the other prophets he finds a deeper and wider conception. Jehovah is no longer a tribal God, but the God of all the earth, the Creator of all things. "Am I a God at hand, saith the Lord, and not a God afar off?" "Hast thou not known? has thou not heard, that the everlasting God, the Lord, the Creator of the ends of the earth, fainteth not, neither is weary? There is no searching of his understanding." And Christ goes still further and declares that God is a Father: "Our Father, who art in heaven." People of all races can pray in those words. "If ye, being evil, know how to give good gifts unto your children, how much more shall your Father"—that is a long, long advance over, "The Lord is a man of war, the Lord is His name."

THE story of the manna will be told as long as religion endures. "Small as the hoar frost on the ground," it spelled the difference between starvation and life. When the homesick, travel-sore emigrants ate it, they knew that the God who had befriended them at the Red Sea was to be with them to the end. The miraculous side of the giving of the manna is usually emphasized, and we have no quarrel with that at all. But wait. Are there no miracles now? Was it any more marvelous than what we see every season?

Each year the world is within a few months of starvation, but the sound of the self-binder and the threshing machine is heard, the tall elevators are filled, and the miracle has happened once more. Because this is all so familiar we discount it. But because an event is common ought not to blind us to the wonder and magic of it. The farmer is always dealing with vast forces; as vast and marvelous as were the forces that produced the manna. "Am I to view the stupendous with stupid indifference," cries Carlyle, "because I have seen it twice, or two hundred, or two million times?" God is as truly the God of the wheat crop as He was of the manna crop. And if the church could maintain an attitude of thankfulness for all the gifts of God, Christians would indeed be a happy people, and the church would be a source of undreamed light and joy throughout the world.

SUNDAY SCHOOL LESSON FOR JANUARY 27.

SUBJECT:—Israel saved at the Red Sea. Exodus 12:37 to 18:27.
GOLDEN TEXT:—Jehovah is my light and my song, and he is become my salvation. Ex. 15:12.

Mike Albaugh recently paid the price of four bushels of wheat for a new Sunday hat. In discussing general conditions the clerk told Mike a lot of things about running a farm which would make the business more profitable. Mike didn't tell him anything about how to run a store business, decorate a window or make hats, which was very gentlemanly of Mike under the circumstances.—Sunshine Hollow.

Olde-Tan Team Lines

1 Inch Wide, 20 Feet Long



Only \$5.45 a Set

These lines are offered to you at price which represents only the actual cost plus mailing. We are making this offer to put a sample of Olde-Tan leather in your hands. We want you to see and feel this real old fashioned white oak bark tanned leather, the very same leather used in Olde-Tan harness. This offer will not appear again except as an advertising offer, so take advantage of it now before it is gone. Write today. Ask us to send you a set of lines.



\$7.50 down puts this Olde-Tan metal-to-metal harness on your horses. We trust you wherever you live. Only \$7.50 down. Pay the rest monthly. Write for free harness book. Learn all about this improved metal-to-metal harness construction. Metal wherever there is wear or strain. No old-fashioned buckles. Ask for free harness book. Learn all about our \$7.50 down and easy payment offer and the Olde-Tan metal-to-metal harness.

Babson Bros. 19th St. & Marshall Blvd. Dept. 81-01 Chicago, Ill.
Distributors of Melotte Cream Separators and Edison Phonographs

Please send me free your Olde-Tan Harness book and all about your \$7.50 down and easy monthly payment offer on Olde-Tan Harness.

I am enclosing \$5.45 for lines
Print name and address plainly (initials)

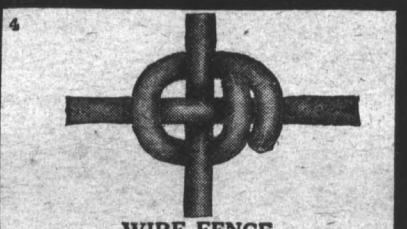
My Name.....

My Address.....

.....

FARM BARGAINS NEAR WASHINGTON

Let me send you this interesting free booklet, telling why Southern Md. farmland offers the greatest opportunities to the ambitious farmer. K. A. McRae, Exec. Sec. Southern Maryland Immigration Commission College Park, Md.

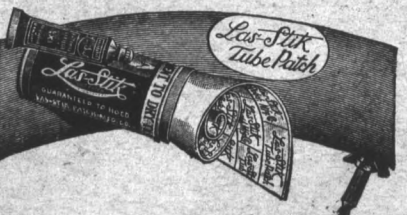


WIRE FENCE

SHOULD LAST 20 TO 30 YEARS

if made of the RIGHT KIND OF WIRE. If well galvanized the other kind will last half as long. Learn about the two kinds in our circulars. Write today.

BOND STEEL POST CO., 31 East Maumee St., ADRIAN, MICH.



Carry this patch always

LAS-STIK adheres without heat or gasoline. It soon becomes self-vulcanized by road heat so that it cannot be pulled off with pliers without tearing the tube.

Las-Stik won't blow out over a puncture because it stretches no more than the tube. It won't tear out or creep because it stretches no less.

Buy it now for your immediate peace of mind and your great convenience in emergencies; 50 cent and dollar sizes.

LAS-STIK PATCH MFG. CO., Hamilton, O.

Las-Stik
TUBE PATCH

For the Little Folks

Doings In Woodland

THE GREEDY MOUSE.

LATE one afternoon Rolly Rabbit and Bruin sat reading the latest edition of "Woodland News."

"Little Glennie Squirrel, who lives near Woodside, fell out of a hickory nut tree and broke his leg. Doctor Woodchuck set it for him and he is now doing nicely," said Bruin, reading a part of the latest news.

"Too bad for such a little fellow. Perhaps we can get over to see him tomorrow. Here it says that a robber held up Jimmie Fox and stole his gold watch and chain, when he was returning from Glenwood. That is not far from here. We must be careful, Bruin," said Rolly.

Then a gentle "tap, tap, tap."

When Rolly opened the door there stood a little mouse with his clothes all ragged, his face dirty, and with a very hungry look upon his thin face.

"Oh, please, Mr. Rabbit, I'm hungry. Could I please have something to eat? It is little I have eaten for several days," begged the little mouse.

"Come right in, poor little mouse, and we shall see what we can find," said Rolly kindly.

Soon a bountiful meal was prepared for the hungry mouse, and how he did eat. When he had finished, his little stomach was so full he just could not



"Come Right in, Poor Little Mousie."

eat another crumb. With an envious eye, he looked at the remaining food and Rolly's well-filled cupboard. He wished he could eat more.

"Oh, Mr. Rabbit, thank you so much. Already I feel much better," said the mouse.

"You are welcome, Mousie. I am always glad when I can share with others," answered Rolly. And Mousie went on his way.

Late that night Mackie Mouse (for that was his name) met an old friend, Billy Mouse. He, too, was very hungry, just as Mackie had been that afternoon.

"I know where there is a lot of good things to eat," said Mackie Mouse.

"Do show me where," said Billy Mouse, "I am nearly starved."

Right then Mackie began to feel as if he could eat a little more himself, so off they started for Rolly's house. Quietly they tip-toed clear around the house, but could find no way to get in.

"Let's climb in the bed-room window. It's not closed," whispered Billy.

"All right, but we must be awfully quiet," answered Mackie.

In a very few minutes they were both nibbling cheese and all the other goodies. Suddenly they heard a noise.

"Run, Mackie, run," said Billy, in a hushed voice.

"Yes, but where?" asked Mackie. "That noise was in the bed-room and we can't go out the window."

"Here is a knot-hole, we will run in here for a while until everything is quiet," said Billy.

But right in that little knot-hole, Rolly had set a trap for naughty thieving mice, so that was the last of Mackie and Billy mouse.

The answer to our last riddle was water. The only two to get the right answer were Paul Ramsdell and Richard Ashmore, of Stockbridge, Mich.

47 DAYS THEN OWN Your Own Garage or Business!



LISTEN MEN: I tell you that I can take you into the biggest and finest auto and tractor school in the world and in 47 days make you ready to own your own garage or business—just as I have 60,000 other men like you. I only ask that you risk two cents to find out what I have to give you. Read this offer right now!

BEFORE you start just understand one thing: I don't ask you to spend a cent. I ask you to send for my book—read all the facts—investigate—take your time to decide—then if you believe that you have as much gumption and as much intelligence as these other men who go out and make big money—then you can come and I'll do for you all that I did for them.

I Mean What I Say—47 Days—THEN SUCCESS

Listen: When I tell you that I can fit you for any auto job or fit you to start right out in your own business in 47 days I mean it! And I'm not making any wild offer either. I've done it for thousands of men and I know I can do it for you. Don't get me wrong! You can stay here longer if you want to—a year if you like—but you can be thorough and know the game from "a to izzard" in 47 days—just like others have!

What Business Do You Want to OWN?

Tire shops, garages, vulcanizing shops, repair shops, filling stations, that's what my students start. And I tell you they've got the edge on the white collar boys when the money starts coming in. You can have an income, be independent of any boss—have a business of your own with absolutely unlimited future to grow. And I'm proud to point to you and say "He's another Sweeney man that I trained."

What Job Will You Take?

I can't promise you a job. I won't. But I will tell you that there are plenty open at from \$150 to \$600 a month that are crying for men. Although I have more men in my million dollar school than there are in all others combined, the automobile, tractor, aviation and radio fields are crying for men who have the training.

LEARN A TRADE
Sweeney
SCHOOL OF AUTO-TRACTOR-AVIATION
35-A SWEENEY BLDG. KANSAS CITY, MO.

WHICH JOB DO YOU WANT?

Chauffeurs . . . \$90 to \$150
Truck Driver . . . 125
Tire Vulcanizers . . . 100 to \$200
Welders . . . 140 to 200
Battery Man . . . 150 to 200
Auto Mechanic, \$6 to \$10 a day
Auto Electrician . . . \$225
Tractor Engineers, \$10 a day
Garage Manager . . . \$150 to \$400
Demonstrator and Salesman . . . \$150 to \$500

You Don't Need Experience or Education

You don't have to be a high brow here. You know how to read and write. But you learn here without even that. Know why? I teach with tools. Not books! And that's just what makes my men successful so quick. Garages at the left owned by men I trained. They were taught with tools. This is the only school in the country where SWEENEY SYSTEM is taught. I developed it myself and I am the only man that teaches as you will learn here.

Expert Teachers—Perfect Equipment

The men who help me teach are the best in the world. And I've spent two hundred thousand dollars for the equipment you work with. You can't beat that anywhere. You get personal supervision and work on motors—not plans. When you get through you know your stuff.

I Pay YOUR R. R. FARE

If you haven't got enough extra money for your fare, don't worry. I pay your fare even if you live in Maine or California. I provide you with the lowest cost meals and lodging in the United States. You are looked after every minute you're here and you leave ready for success with a big "S."

FREE CATALOG Costs me a dollar to print—I risk my dollar against your 2c Stamp

All I ask you to do is to risk a two cent stamp in mailing that coupon. I'll send you a catalog that costs me a dollar to print. You read it and then decide. I want you to know every inch of the way. And the big book tells the whole story. All these other men started that way. They sent a coupon for two cents and now look where they are. Next time I write an ad be sure that you've finished and in business so I can put your garage or station in and tell how well you have done.

For Big Offer and Catalog mail this Coupon



Emory J. Sweeney, President, Dept. 35-A, Sweeney Bldg., Kansas City, Mo.

Send me your Free offer of R. R. Fare, your Big \$1.00 Catalog Free and full details of the Sweeney 47 day course leading to an immediate money-making opportunity.

Name.....Age.....

Address.....



Fine Fresh Frozen Large Round Herring, 4c; 100-pound lots \$3.50; Large Dressed, 5c; 100-pound lots, \$4.50; Round Carp, 5c; Dressed, 6c; Round Pike, 13½c; Round, 9c; Round Perch, 6½c; Dressed Pickrel, 12c; Round Blue Pike, 12c; Flounders, 10c; Sole, 14c; Salmon, 14c; Steak Cod, 12c; Mackerel, 14c; 10-pound Basket Smoked Bluefish, \$1.00. Packing Charge, 100 pounds, 30c; 25 pounds or less, 25c on Frozen Fish only. For finest Quality at right price Mail your Order or send for complete catalog of all kinds of fresh, salt, spiced, smoked and canned fish. Badger Fish Co., Dept. 5, Green Bay, Wis.

NEW LAMP BURNS 94% AIR

Beats Electric or Gas

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

The inventor is offering to send a lamp on 10 days' FREE trial, or even to give one FREE to the first user in each locality who will help introduce it. Write today for full particulars. Also ask us to explain how you can get the agency and without experience or money make \$250 to \$500 per month. Address J. O. Johnson, 609 W. Lake St., Chicago, Ill.

FARMS AND FARM LANDS FOR SALE

PAY NO ADVANCE FEE; don't give option or tie up real estate for any kind of contract without first knowing those you are dealing with are absolutely honorable, responsible and reliable.

Convenient Detroit 60 Acres with 3 Cows, 3 Horses

Eight hogs, poultry, tools, furniture, 50 cords wood, etc., included if taken soon; onions yielded \$750 acre in 1921; excellent farming country, schools, stores, churches; 5 miles to college city; splendid markets; 50 acres loamy tillage for 2 tons hay acre, 10-cow pasture, 36 apple trees, pears, cherries, berries, nuts; good 10-room house, elm shade, large hip-roof barn, poultry house, etc. To settle affairs, all only \$5,800, about one-third cash. See picture and details page 31 Illus. Catalog. Bargains—many states. Copy free, STROUT FARM AGENCY, 427KH, Marquette Bldg., Chicago, Ill.

Buy a Virginia Farm Now

Now is the time to buy a farm in Virginia. Prices are reasonable. You can grow fine crops of corn—all grain and grass crops. Types of soil especially adapted to fruit growing. Opportunities for live stock and dairying unexcelled. Virginia offers more advantages to the farmer than any other state—variety of soil, mild winters, long growing season. Why farm where you can grow only two or three crops and be far away from good markets, when you can grow a variety of crops in Virginia and be near the great consuming markets. The healthiest climate in America, free from disastrous storms. Write now for Hand Book, Maps, etc. G. W. Keiner, Commissioner of Agric., Richmond, Va.

For Rent

102-acre Farm in Monroe County, Ash Township, nine miles north of Monroe, 25 miles from Detroit, on good roads (telephone road). Good land and buildings. Inquire C. W. Grow, 739 Waterman Ave., Detroit.

Bargains In choice farm and corn land in North Dakota. Sold on small annual payments or on amortization payment plan, with small cash payment down. Lands are owned by this company, no commissions. FARGO LAND CO., Fargo, N. D.

For Sale By owner, 320-acre farm. An ideal place, fully equipped. Write for description. Elmer Belden, Whitney, Mich.

FOR SALE or EXCHANGE

Eight hundred eighty (880) acres of land, partly cut over, in Sanborn township, Alpena County. This land is free and clear and is in one parcel, one-half (½) mile from the D. & M. Railroad, and on highway known as M-10. Considerable timber left, and the land itself is above the average for this section. CITY SUBURBAN REALTY COMPANY, 615 Oakland Building, Lansing, Michigan.

For Sale A Splendid Dairy Farm

of 110 a. in Livingston Co., 6 miles from Howell. Good buildings, orchard, small fruit, near church and school. R. F. D. With or without equipment. Write for particulars. R. G. BROWN, Fowlerville, Mich.

You Are Tired AND WEARY of the severe winters up there. COME TO STUART. You will be delighted with the climate here. A haven for farmers. For information write CIVIC COMMITTEE, STUART, FLA.

Sell your property quickly

for cash, no matter where located. Particulars free. Real Estate Salesman Co., 515 Brownell, Lincoln, Neb.

Would you Buy a Home? With our liberal terms. White people only, good land, healthy progressive country. Write for list. Mills Land Co., Booneville, Ark.

IF YOU WANT TO LIVE in California write Kings County Chamber of Commerce, Hanford, California, for free booklet.

WANT TO HEAR from party having farm for sale. Give particulars and lowest price. John J. Black, Copper St., Chippewa Falls, Wis.

101 Acres Well imp. 55 acres bottom, well located. \$3,500. Jenkins & Jones, Ava, Mo.

160 A 120 under cultivation; 40 pasture; electric lights and running water. \$102 per A. Guy R. Bell, Snover, Mich., R. 2.

Michigan Farms and Ranches Priced right. James Spence, Lake, Mich.

80 Acres for sale or trade for city property, 55 cleared. Buildings, 1½ miles from town. Write J. A. Suber, 1511 5th St., Detroit, Mich.

Aspirin

Beware of Imitations!



Genuine "Bayer Tablets of Aspirin" have been proved safe by millions and prescribed by physicians over twenty-three years. Aspirin is the trade mark of Bayer Manufacture of Monoacetic-acidester of Salicylic acid.



She trusts you

Childhood ills, mother, nearly always begin with a cold. Give immediate attention to it, but avoid dosing with strong medicines. Use Muco Salve; apply in nostrils, rub on chest; breaks the cold instantly. Muco Salve contains the very things your mother used for your colds—menthol, oil eucalyptus, oil turpentine, etc. Pleasant, quick, sure relief.

Muco SALVE

Color Your Butter

"Dandelion Butter Color" Gives That Golden June Shade which Brings Top Prices

Before churning add one-half teaspoonful to each gallon of cream and out of your churn comes butter of Golden June shade. "Dandelion Butter Color" is purely vegetable, harmless, and meets all State and National food laws. Used for 50 years by all large creameries. Doesn't color buttermilk. Absolutely tasteless. Large bottles cost only 35 cents at drug or grocery stores.

Wells & Richardson Co., Burlington, Vt.

Stevensville Strawberry Plants Produce Bigger Profits

Grow berries that bring top prices. Our select varieties are large in size, firm, wonderfully luscious, big yielders. Healthy, vigorous, deep rooted. Ideal for all soils. Cash in on our 50 years experience in developing big pay strains. **Cooper, World's biggest berry.** Champion, the ever-bearing sensation. Premier, earliest of all. Splendid line of Red and Black Raspberries, Blackberries, Currants, Dewberries, Gooseberries, Ornamental Shrubs, Gladioli, Tulip Bulbs, Roses. Tremendous stock. All at big savings. Satisfaction Guaranteed or money back. Send for large beautiful FREE Catalog in true colors. Tells how to plant, care for and raise big crops. Valuable book to own.

STEVENSVILLE NURSERIES, Box 13 Stevensville, Michigan

KNIGHT'S PLANTS

Strawberry—Raspberry—Blackberry
Currant—Gooseberry—Grape—Asparagus
25% reduction in price on some varieties
No reduction in quality. Our catalog describes Champion, The Best Everbearer and other best standard varieties. It tells you how to grow berries successfully; contains information to be had from no other source. Worth much to you, but is free.

DAVID KNIGHT & SON, Box 26, Sawyer, Mich.

THREE TIMES THE LIGHT
FROM YOUR LAMP WITH
STEEL MANTLED BURNERS
ASK YOUR DEALER for them. If he can't supply you send us his NAME and ADDRESS and YOUR NAME and ADDRESS and 50c for SAMPLE or THREE BURNERS for \$1.00.
AGENTS WANTED. BIG MONEY MAKER.
STEEL MANTLE LIGHT CO., (INCORPORATED)
4264 DREXEL BLVD. CHICAGO, ILLINOIS



Woman's Interests



City Conveniences on the Farm

The Installation of Running Water and a Bathroom Need Not Be Expensive

By H. O. Scott

A ROOM six-by-six feet—such a small room, and yet what a lot of work and discomfort it saves!

We live on a farm six and one-half miles from the city where household conveniences are a common thing. Our house is small and when one day my wife said we ought to have a bathroom, straightway I had the excuse that "we couldn't find room for one."

But we started to figure, measure and plan until we found that we could have a bathtub, lavatory, toilet seat and cistern pump in a room no larger than six-by-six feet. At once we set about to establish such an outfit as seemed to fit our needs.

We hadn't the six-by-six-foot room, so we built it in one corner of the kitchen of wall-board and two-by-

to the barrel is in the wall directly behind the lavatory, so we have a faucet running out and emptying into the lavatory.

The waste from the lavatory and bathtub run into a tile drain. They may be run into the same pipe with outlet for the toilet, but care must be taken to use traps to keep the odor from coming back into the house. A septic tank took care of the sewage from the bathroom.

If one does not have a windmill, a gasoline pumping outfit will give very good results. Or it can be pumped by hand; but this method becomes a real bother at times. Whatever method is used, a check valve should be used in

ing. This is done by placing them in a galvanized pail and covering with cold water to which two teaspoons of ammonia has been added. This is left over night and in the morning it is poured off and strong hot soap suds is used instead. After an hour or two they are rubbed out lightly in a clean suds, rinsed and hung in the sunshine to dry. Sunshine, you know, is one of the best disinfectants known.

TESTED RECIPES.

Chinese Dumplings.

eggs	1 pound sausage
1 1/2 cups milk	1 can tomatoes
3 cups flour	3 onions
3 tsp. baking-powder	1 cup sugar
1 tsp. salt	

Cook tomatoes and onions and mix with the other ingredients, and boil.—Mrs. R. G.

APPLE PUFFS.

PARE, core and cut into small pieces, six apples. Add one-half cup of brown sugar, a few grains of salt, one tablespoon of butter, one-half cup of water, and bake until apples are soft. Mash and use for filling.

Make enough paste for one pie; roll out as for pie covering, and cut into rounds the size of a large biscuit. With a knife make two slits in centers of one-half the pieces.

On the remaining pieces place the apple sauce, having it piled in the centers and not coming too near the edges. Wet the edges with cold water, cover with the pieces from which pieces have been cut, press edges firmly together, and bake.

Dark Cake.

2-3 cup lard and but-	powder
ter mixed	1 tsp. cinnamon
2 eggs	1/4 tsp. cloves or all-
1/4 to 2-3 cup of mo-	spice
lasses	1/2 tsp. ginger
1 cup buttermilk or	Flour to make quite a
sour milk	thick batter. Raisins can
1 scant tsp. soda	be added if so desired.
1 heaping tsp. baking-	

Is fine with whipped cream or white powdered sugar icing.

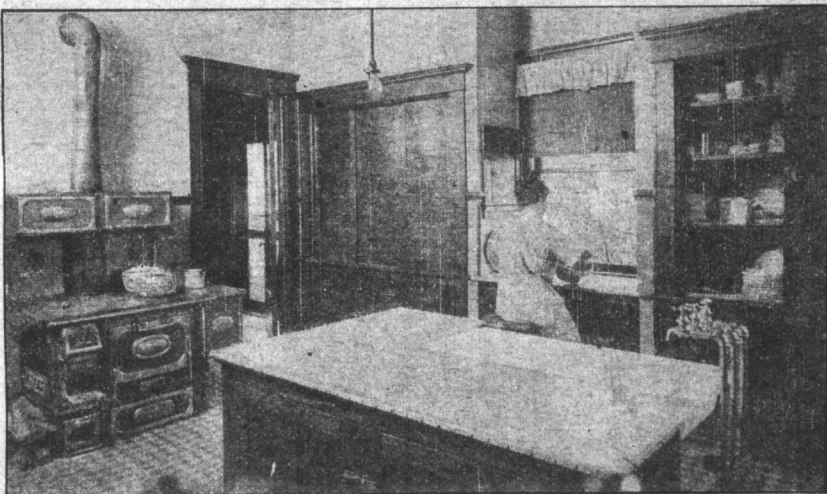
DON'T WASTE OLD HYACINTH BULBS.

TO not throw away the old hyacinth bulbs after they have bloomed in the house. They will grow and bloom for years outside. If you do not have a place for them give them to some flower-loving boy or girl who does. I never realized how much children want plants and bulbs until I had them come and ask for plants I had thrown out from my greenhouse, and one fall I watched the children come by hundreds to the park in a city for the plants that were to be given away when the park was cleared for the winter. Hyacinth bulbs are hardy and will send up blooms outside for several springs and will finally divide up into small bulbs that will grow again into blooming bulbs in time if they are not destroyed by mice or grubs. I have had some very pretty beds and rows from old forced bulbs.—Agnes Hilco.

FRESH AIR MAKES WORK SEEM LIGHTER.

GOOD ventilation at small expense is possible by tacking thin muslin or cheesecloth on a wooden frame that fits under the lower window sash when it is raised six or eight inches. This avoids a direct draft.

For the housewife working in a hot kitchen, it is well to lower the windows a few inches from the top, or open a transom over an outside door. Heated air rises and passes out at the upper part of the window or transom. This will prevent the steam or odor from spreading through the house.



Here is Running Water with a Conveniently Arranged Sink. Reinforcement was put on the wall to hold the lavatory tank for the toilet seat, etc.

Our windmill is about thirty feet from the house, and as I already had the water piped to the barn, I had a force pump; but could pump only one way under ground with it. At the hardware store I supplied myself with a three-way cock with which I could direct the water either toward the barn or the house, by turning a lever.

For a pressure tank I used a galvanized steel, air-tight barrel holding perhaps fifty gallons. We find that this is large enough, especially in the summer, and furnishes all the hard water we use in the house. In a larger tank the water would become stale.

We placed the barrel over the bathroom with the feed pipe running through one of the inside walls to prevent freezing. The water is forced up into the tank through the hole intended for the faucet. At the top of the barrel is a plug screwed in to remove when filling with oil. We took this plug out and put in a short piece of pipe, about four inches long; then screwed onto this a right-angle elbow and into this a piece of pipe long enough to run out through the side of the house for an over-flow.

The pipe used to fill the tank was the one that let the water down for use in the house, toilet, etc. We used one-inch pipe throughout excepting through the lower opening of the barrel and the pipe from the main pipe to the tank of the toilet. The barrel supplies plenty of pressure to fill the toilet tank. It is not advisable to use soft water for this purpose, because there may be times when you do not have soft water.

Our cistern happened to come nearly under the bath room. We piped it up and used a pitcher pump that emptied into the lavatory. The feed pipe

the pipe to keep the water from coming back into your pump.

We made the mistake at first, of not putting the pipe deep enough underground and it froze several times. Later we put it down to a depth of about five feet and have had no trouble since.

One does not need many tools to install this outfit. The pipe we had cut and threaded at the place we bought it. A good pipe wrench is most necessary, besides the usual farmer's tools: hammer, handsaw, jackknife and shovel.

The bathtub was four and one-half feet long by twenty-six inches wide, outside measurements. The toilet was regular size, with low tank. The lavatory was about eighteen inches outside.

We built a septic tank to take the sewage from the toilet.

WASHING AND STERILIZING HANDKERCHIEFS.

ONE of my most disagreeable tasks during winter months, when colds are frequent, has always been the washing of the handkerchiefs used by those afflicted with grippy colds; you all know what a disagreeable task it is, but I have found that much of the unpleasantness of it may be taken away by using a little thought and care. There is also danger of taking a cold from the careless handling of these handkerchiefs before they have been washed and sterilized.

For everyday use, for very severe colds we always use pieces of old soft linen or cotton, cut in convenient sized pieces. These are burned as soon as they are used and save just that much of the disagreeable washing.

To prevent catching colds from the germs in the mucus on the handkerchiefs, we sterilize them before wash-



Use this department to help solve your household problems. Address your letters to Martha Cole, Michigan Farmer, Detroit, Michigan.

TO BAKE LARGE FISH.

Would you please tell me how to bake a large fish for company dinner?—Mrs. O. F.

Clean the fish well, leaving on the head and tail, but remove the eyes. Stuff with a dressing made of:

1 cup mashed potatoes	4 tb. butter
1 1/2 cups bread crumbs	2 tb. cream
2 tb. minced onion	1 egg
1/2 cup celery	Salt and pepper

Truss fish in the shape of the letter S by means of a long skewer. Cut three gashes in each side of the fish and insert a thin slice of salt pork in each. Dust with salt, pepper and flour and place on buttered cheesecloth on rack in roaster. This will insure the fish being removed to serving platter without being broken. Bake in a hot oven, allowing fifteen minutes to the pound, and baste frequently. Remove to serve and take out slices of salt pork, fill gashes with minced parsley and garnish with lemon.

REMOVING SHINE FROM SUEDE.

Could you tell me what to do for suede which becomes shiny on the toes after wearing only three times?—Subscriber.

If you will brush the spots lightly with a fine grade of sandpaper before applying the cleaner, the nap of the suede will be brushed up and the waxed finish will be gone. Do not brush too hard or very often with the sandpaper as it tends to remove the nap of the suede.

BOILED CIDER MINCEMEAT.

Would you please send me a recipe for making mincemeat with boiled cider?—Mrs. F. H.

This recipe comes to me well recommended.

8 lbs. meat	4 lbs. suet
6 lbs. currants	2 lbs. citron
6 lbs. raisins	20 lbs. raw apples
12 lbs. sugar	2 gals. cider
12 tb. cinnamon	4 tb. salt
8 tb. mace	4 tb. grated nutmeg
4 tb. allspice	

Use either boiled beef or pork for this purpose, and put through the food grinder with the currants, seedless raisins, citron and apples. Add the spices and sugar. Bring the cider to the boiling point and add the other ingredients. Boil one hour, stirring frequently. Can while hot in air-tight

and sterilized glass fruit jars. These jars may be sterilized by boiling in water fifteen minutes.

MACHINE HEMSTITCHING.

I WOULD like to hear from readers of this department who have had experience with a hemstitching attachment for a sewing machine. I saw one advertised recently, but have lost the address.—Mrs. W. J. D.

If you will address your experiences in care of Mrs. W. J. D., I will be pleased to forward them to her.—Martha Cole.

PUMPKIN PIE MADE THIS WAY, NEVER FAILS.

Would you please tell me how to make a good pumpkin pie? I have tried several recipes, but do not have good success.—Mrs. J. B.

A tested recipe for pumpkin pie calls for:

2 cups stewed pumpkin	2 tb. sugar
1 egg	1/2 tsp. ginger
1 cup milk	1/2 tsp. cinnamon
1 tb. flour	1/4 tsp. salt

Combine the ingredients, beating the egg well, and pour in a pie pan lined

The One-dish Meal

DURING the shorter winter days, it keeps the housewife busy to prepare the "three squares" a day and do the numerous odd jobs. In time and labor, the "one-dish meal" is a real saving. By this I mean, a dish which, with the addition of a light dessert, makes a satisfactory meal.

For the five best recipes for a "one-dish meal" we will send a nest of yellow and white mixing bowls.

Address your letters to Martha Cole, Michigan Farmer, Detroit, Mich., before February 1.

with pastry. Have the oven rather hot at first to set the crust before any of the pumpkin filling can soak into it. Lower the heat and bake rather slowly.

Sharpen the knives of the food grinder by running bits of sapolio through it.

so my work came to naught.—Mrs. D. F.

CAN THE LOAFERS.

IF you have a few extra chickens that you are keeping to grace the table when company comes, why feed them longer? They may be canned and will be ready for company when they arrive unexpectedly. Incidentally the canning will cut the high cost of living for the chicken flock.

Directions for canning chicken so that it will keep as long as you can "keep" it on your canning shelf, is given in a bulletin which will be forwarded to you at your request if you will inclose five cents to cover postage and cost of mailing.

This bulletin also tells how to cut up, cure and can all other kinds of meat, and gives numerous recipes for varying the meat dishes on the daily menu.

Send your request to Martha Cole, Michigan Farmer, Detroit, Michigan, Desk M.



Bran muffins cooked in the Florence Oven are evenly browned all over

Who has to get up to start your kitchen fire?

There is no labor nor dirt nor delay if you have the sensible kind of stove

A STOVE that you have to shake is as old-fashioned as a car you have to crank. The work and the waiting to get a fire ready for business are work and time wasted.

You can have intense heat in almost no time when you own a Florence Oil Range. Furthermore, there is no hard work about it, no soot or ashes. You merely touch a match to the Asbestos Kindler. The result is a clean blue flame, close up under the cooking. You can cook every dish on a Florence, from soup to dessert, quickly and well.



The Florence Leveler

on each leg enables you to set the stove level on an uneven floor.

Does not burn from a wick

The flame is a blue gas flame. It is not a wick flame, such as you see in the ordinary oil lamp. The vapor from kerosene is what burns. The flame can be regulated from intense to a mere simmering heat.

You burn it only when cooking. A turn of the wrist puts it out. This means both comfort and economy.

Kerosene is an inexpensive

fuel and it is always easy to get. You will be delighted with the economy of a Florence Range even if you buy one solely for its convenience. You will also find it a decided addition to the attractiveness of your kitchen. It comes in blue or white satin enamel, with nickel trimmings.

Many special features

You will appreciate the many refinements of the Florence—its strongly built metal oil-reservoir with the glass bull's-eye; its beautiful finish; the leveling device for use when the floor is uneven.

You can bake food perfectly in the Florence portable oven. The "baker's arch" and patented heat-spreader distribute the heat evenly.

Go to a hardware or furniture store and see for yourself how the Florence works. Examine it critically. If you don't know the nearest Florence dealer, write us for his address. And in any case, let us mail you our booklet, "Get Rid of the 'Cook Look.'" It is full of useful information and will be sent free on request.



Florence Stove Co., Dept. 630, Gardner, Mass.

Makers of Florence Oil Ranges, Florence Ovens, Florence Water Heaters, and Florence Oil Heaters

Made and Sold in Canada by McClary's, London, Canada

FLORENCE

OIL RANGE

Entire Contents
© 1924, F. S. Co.

Herold-Bertsch Shoes



Wears like Iron

standshardest outdoor service. The farmers' favorite.

Most wear per dollar.

The Famous

H-B Hard Pan Ask for it by name.

Soles made from best part of hide. Uppers specially retanned to resist water and barnyard acids. Roomy, comfortable. Your store sells it, or can get it for you.

All leather and all good leather

The guarantee of 30 years of honest workmanship are behind H-B dependable service and dress shoes for men and boys. Good looking, long-wearing, fairly priced. They satisfy your feet and pocketbook.

HEROLD-BERTSCH SHOE CO. Grand Rapids, Mich. Send for free booklet.

LET US TAN YOUR HIDE.

Horse or Cow hide, Calf or otherskins 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 Sole or Belt Leather; your calfskins into Shoe Leather. Colors, Gun Metal, Mahogany, Russet or lighter shades. 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

freshen, 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 and get our estimate of cost then we will hold them aside awaiting your decision. If you say "go ahead," very well; we will do so and hold them free of storage until you want them. If you say "no," we will return them post-paid.

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 taxidermy and Head Mounting.

The Crosby Frisian Fur Company, 571 Lyell Ave., Rochester, N. Y.

Corrugated Metal ROOFING

Think of it. We can now sell Excell Metal Roofing, 23 gauge corrugated at only \$3.45 per 100 sq. ft. painted. Galvanized, only \$4.50. If you have been waiting for metal roofing prices to come down, here they are—direct from factory prices—lower than you can get anywhere else. Send for our New Catalog covering all styles Metal Roofing, Siding, Shingles, Kidding, Ceiling, etc., will save you money. **PREPARED ROOFING ONLY \$1.05** Don't buy Roofing, Paints, Fencing, Gas Engines, Tires—anything you need until you get our latest catalog. You can see and try our roofing before you pay. All sold on money back guarantee. Write for Money Saving Catalog today. The United Factories Co., 395 Marion Bldg., Cleveland, Ohio

Chillblains

Frosted Feet Corns Bunions

Send your name and address and we will send you large size can of Corona Healing Ointment on 20 Days' Free Trial. Try it on Chillblains, Corns, Bunions, Cuts, Burns or Wounds of any kind.

CORONA

is different from any other preparation. It is made from oils extracted from wool of sheep—wonderfully healing. If after trial you find it the greatest healing ointment you ever used, send 65c in payment at end of 20 days—if not, you won't owe us a cent. **THE CORONA MFG. CO.** Dept. 14, Kenton, Ohio

OUR BOYS AND GIRLS

Some of the Lucky Ones

A Few M. C. Letters that Escaped W. B.

Dear Uncle Frank:

This is the fourth or fifth letter I have written, and not one of them was printed. But our motto is "Work to Win." So I will work until one is printed.

My father has a store. I have to stay at the store after school every night. I like to clerk in a store, and my father says I am a good little girl. Well, I will close. Good-bye. Your truly little niece, Dora Bauer, M. C., Hillman, Michigan.

Clerking in a store is good experience, and besides it helps your father out. I am very glad to know you are a good little girl. That is what I want all M. C. girls to be.

Dear Uncle Frank:

I just received my Merry Circle pin and card and wish to thank you for them. It's very lonesome out in the city, without the cows, horses, sheep or swine.

Gee, but I had a swell time when the International Stock Show came. All the horses, swine, cattle, you couldn't tell which would win, they all were in prime condition.

Please don't let Mr. W. B. get this, as it would break my heart.—Sincerely yours, John Borkowski, M. C., 4738 S. Crawford Avenue, Chicago, Ills.

I am glad you are lonesome for the cows and horses, and hope you will always be while you are in the city. Be careful of that heart, my boy. It must be very tender to be so easily broken.

Dear Uncle Frank:

Thought I would send our "most noble and wise waste basket" one of "his daily thousand." But just tell him for me that, although I have written several times and my letters are still being devoured, I am far from being discouraged. Being an M. C., my motto is, of course, "If at first you don't succeed, try, try again."

I thought that Eddie Blake poem, "The Waste Basket," was very good.—A niece, Berenice Wright, M. C., Saranac, Michigan.

Thanks for your contribution to W. B.'s daily thousand. However, as he has already had his thousand today, he can spare this one. I like your persistency.

Dear Uncle Frank:

How are you and that detestful friend of yours getting along? Fine, I hope. I received my membership card and button, and want to thank you for them. I think the colors, blue and white, are lovely.

Our school gave a banquet Friday



Dorothy Siens, Fremont, Mich., at Two Years of Age. She's Nine Now.

night for all the teachers of consolidated schools. We also gave a program. There was a lecture, violin and piano music, the boys' chorus, the Japanese drill, and my sister gave some readings. The program was fine. Say, Uncle Frank, you ought to come and visit our school sometime. We have lots of things going on over to the school. Our Sunday School class is going to give a chicken-pie supper Saturday evening at the school.

Tonight is boys' and girls' club meeting night at the school. We have mov-

ing pictures. I go most every time, but it was so rainy I thought I would not go tonight.

Thanking you again for the pretty membership card and button, I remain, your loving niece, Wilma L. Van-Orler, Okemos, Michigan.

I am glad you live in a community where life is worth living. All communities ought to have such social events, as they help the community spirit.

Dear Uncle Frank:

I have answered several contests and in one I won a Merry Circle pin and membership card. I thank you very much for it. I am very proud of it, too. When some of the boys saw it, they smiled and said, "So you're one, too."

Well, I must close, hoping that Old Mr. Waste Basket is not hungry.—Yours respectfully, Menno Martin, M. C., Brutus, Mich.

"So you're one, too," shows that the M. C. is growing. Come again, Menno.

Dear Uncle Frank:

I have belonged to quite a few clubs around here. But I believe the boys' and girls' department is much more interesting to me. The boys and girls write very interesting letters. Don't they? My brother and I both wanted to write. But we never found enough courage.

I have been going to high school for one year, but mother was so sick this year that I couldn't go. I don't know for sure if I will go any more or not.—From a long-to-be-niece, Leatha Loackridge, Rushton, Mich., R. 1.

It pleases me to know that the M.

C. compares so favorably with other clubs in your estimation. Yes, its the boys' and girls' letters which make this department so interesting.

Dear Uncle Frank:

Here I am, trying my fifth contest. Must I try seven times, as King Alfred did, before I win? I will if I must.

I am another "freshie" that likes algebra.

I was very glad to see your picture, but should like to know your real



Gladys Desermean and Her Calf Live at Spratt, Michigan.

name, but I do not expect to find it out. Good-bye for tonight, your niece, Evelyn Harriman, M. C., Rochester, Michigan, R. 1.

It is hard telling, sometimes one must try seventeen times before winning out. I am glad to know that you will if you must. I don't see as my name is of any consequence. I'm the same fellow, whether my name is Uncle Frank or Puddin' Tame.

Clarissa's Vision

I HAVE noticed lately that there has been less and less letters in the page, and I was thinking that if some of the members didn't live up a bit, you'd certainly have to do something, take this example, for instance, if the club got pokey.

If I should happen to be visiting in Detroit and I thought I would look up the club and see our Uncle, I would be ushered from a hall four stories high, into a large room. Then my usher would disappear and I would look around the room and see a desk, much worn, and a chair beside it, while by the desk would stand a waste-basket full of years-old letters. Then I would see a large fireplace and a big Morris chair in which would be seated an old man.

The man would be gazing absently into the fire, which would be dying out slowly, while the coals were heaps of red, smoldering quietly. Then as I would enter, the man would turn and gaze on a young girl, perhaps of fifteen years, (though I am only thirteen now, and I don't think you are thirty-five yet), and would continue to gaze at me. Then I would tell him I was an old member of the once "Merry Circle." Then he would smile, a rather sad smile, to think that I would remember him after so many lonely years. In his lonesomeness he would see every day, hundreds of people, once Merry Circle members, who never once glanced at him.

They had not even called for him, to let him know that they wanted the club opened again. People went by him without a nod, without a thought but for themselves. Then, as he greeted me happily, I would say, "Well, Uncle, why did you stop your famous club?"

Again the sad smile would flit across his face as he would say, "Well, my dear, all the members slowly but surely stopped writing and stopped an-

swering contests, so I thought I would have to stop. They quietly and silently slipped away from me."

I would stand still and ponder for a moment what to do. Then I should say, "I will wake them up myself."

So saying, I would shake hands and depart from him, promising him that I would return and get the club started again. So, after many months the club would come to life again and many interesting contests and debates would follow. But now that the club has been awakened a bit, let's all of us old members try and get the smoldering fire in the fireplace to live up and become warmer, but let's bring back more warmth to the kind heart of the old man (that's in the story) we call 'Uncle.'

Well, good-bye, Uncle, I'll hope forever that you won't ever be as lonesome as I have described in my story, so once again I'll say good-bye—always faithful to you and "our" club.—Old Faithful, Clarissa Englebert, M. C., R. 2, Concord, Michigan.

My! My! Clarissa, where did you get those dark blue glasses you wore when you wrote the above. It's so lonely and shivery-like.

I have labelled your writing, "A Vision;" I think I should have called it a nightmare. Could it be possible that you wrote it after you ate too much mince pie?

No, Clarissa, the Merry Circle isn't dying, but it's a good, husky youngster that is growing well. I wish you could see the pile of letters on my desk, and the hundreds of contest papers in the drawer. For instance, there are 225 letters of this morning's mail I have not had time to open yet. I just counted them, so I know.

As for Old Unk. Well, by gum, I'm just as young as I used to be. I still have all my teeth, and all my hair, and I can still read without using specks.

But then, when age does come, the solitude and the fireside are comforts. I like them sometimes, now.

Of course, I'll have to grow old, but I hope the Merry Circle never will.

READ-AND-WINNERS.

THE following are the lucky ten in the last Read-and-Win Contest.

The last Read-and-Win was a humdinger. It was the best in the number of replies that we ever had. Also, the number who got the answers correct was very great.

Most of those who failed could not find the answer to number two, and I am really surprised, as I thought all boys and girls looked at Al Acres.

Several answered number six with "eighteen gallons." Eighteen gallons would be about the right amount of water in the body of a person weighing about two hundred pounds, but if I had eighteen gallons of water in me I am sure I would die of drowning. One girl said in answer to number four, that the chest should be examined for appendicitis. Perhaps she has her heart and appendix confused.

It was hard to pick the winners, but in the final picking, the Lucky Ten are, as usual, mostly girls. The prize winners are as follows:

Fountain Pens.

Nora Halpin, R. 2, Lapeer, Mich.
Frances Hibbard, R. 3, Sturgis, Mich.

Flashlights.

Ardis L. Bisbee, Moline, Mich.
Grace Head, Fair Haven, Mich.
Charles Gregory, 808 Bethune Avenue, Detroit, Mich.

Candy.

Alta E. Downey, R. 8, Owosso, Mich.
Thursa Brugge, R. 5, Freeland, Mich.
Elizabeth Walt, R. 4, Reese, Mich.
Roma Blocher, R. 3, Woodland, Mich.
Edna Kern, Allen, Mich.

THE CORRECT ANSWERS.

Here are the correct answers to the Read-and-Win Contest of two weeks ago:

1. Yes—64-32.
2. A cold clammy breath—48-16.
3. Fred Walker—62-30.
4. Surgical operation—54-22.
5. Yes—60-28.
6. Three-fourths—56-24.
7. No—5-37.
8. Bon-Ton Garage—13-15.
9. A. C. Lytle—11-43.
10. "Bill" Livingston—3-36.

THE WINTER SPORT I LIKE BEST.

By Caroline Ballantyne, Ewart, Mich.

Of all the winter sports, I like the old-fashioned one best, that of riding down hill.

There are many different ways of getting to the bottom of the hill. Some like the Indian runner best, because it has great speed. Others like to go skimming or whirling over the crust in a large butter bowl. It is great fun.

I like the community bob-sled. It will hold about ten. If properly guided it will nearly reach the top of the opposite hill, about forty rods from where we started.

Then we all race to the top of the hill again; or perhaps we ride from the opposite hill, which is not as long or as steep.

Sometimes we get nicely started, or perhaps nearly to the bottom of the hill when, oh! we go tumbling head foremost into a large drift, or make a rough heap of humanity at the bottom. No one has ever been hurt. We all scramble to reach the crest of the hill first, blaming the guide for the overturned sled.

I like this sport because it creates a friendly spirit in the community. It also is a good, clean sport, and the bracing winter air makes our cheeks rosy, and our bodies strong and healthy. Come and try a trip down one of these rugged hills of northern Michigan. You will surely want a good supper when you arrive home.

KITCHEN FOX FARMING.

(Continued from page 105).

necessary to show conclusively the quality of stock before it can be sold at quality prices. Registration of foxes by the various associations of fox breeders has done much to improve conditions and assure a prospective rancher a square deal.

Throughout the west and middle west the industry is growing by leaps

and bounds. Wisconsin, Minnesota and states farther west are now investing in foxes as Michigan did four or five years ago. Michigan ranchers may have to go farther from home to sell their breeding stock than they formerly did, but it still is in demand.

The supply of wild furs is rapidly decreasing as the population increases. While the demand for fur grows, the fur-bearing animals which once were abundant in this part of the country are becoming extinct. It is up to fur ranchers to meet this demand. The

Lincoln Contest

LINCOLN'S birthday will soon be here and I think it fitting that we recognize it in some way. Lincoln was a great man but he is more than that. He is probably the greatest example of what equal rights in a free country like ours will do, for he rose from the humblest source to the highest position in the land.

Please write for this contest 250 words or less, on **Lessons I Have Learned From Lincoln's Life**. The two best papers will win handsome nickled fountain pens; the next three, tubular flashlights, and the next five, cute little boxes of candy. All not "inside the Circle" who send in good papers will get Merry Circle memberships and buttons. Those who are M. C.'s should follow the M. C. custom of putting M. C. after their names.

This contest closes February 1. Send your letters to Uncle Frank, Michigan Farmer, Detroit, Michigan.

United States last year spent three hundred million dollars for furs, and very little of this went for silver fox, for practically all silver fox pelts marketed in this country now are sold in Europe.

American furriers have made no effort to interest American women in silver fox fur. The supply at present does not warrant any expenditure of money to create any additional demand. America, with its great wealth, wears muskrat, skunk, raccoon, rabbit and even cat fur, while Europe—starving Europe—pays as high as \$1,500 for a prepared silver fox fur. There are few American women who have ever seen a silver fox pelt.

What this means to the silver fox farmer when the time comes to sell his foxes for their pelts, can readily be seen. Many ranches in western Michigan are holding all their foxes each year, awaiting the time when American women become interested in silver fox. The fact that silver fox is practically the only fur that cannot be imitated makes it so valuable.

Haughty women of wealth can rest assured that their laundress or maids will not appear on the street wearing a skillful imitation of their mistress' silver fox fur. The peculiar way in which the guard hairs are sprinkled with white and black assures her of this.

The kitchen ranch probably would never produce any millionaires, such as were made in the flurry and rush of the industry a few years ago, but several Michigan farmers and many Canadian ranchers have found that foxes are a nice "crop" to harvest in the winter season when the fields are ice-bound, potatoes are in the pit, the hens stop laying, and all the income of the farm turns into "outgo."

Old Stingy Bunkum, who lives over by Squash Corners, died the other night. He was buried a couple days later. Folks say that the roads were so rough for the flivvers they were almost sorry that old Stingy died.—Sunshine Hollow.



ALPHA

For improvements that last a lifetime and longer.

The local ALPHA Dealer is a cement-service man.

See him.

Alpha Portland Cement Co.

CHICAGO, ILL. EASTON, PA.

Battle Creek, Mich. Ironton, Ohio
St. Louis, Pittsburgh, New York,
Boston, Philadelphia, Baltimore

CEMENT

PAPEC

The Cutter for Profit

To get the most profit out of your silo, fill it with the simplest, strongest and most economical Cutter made.

The Papec's few parts and correct design reduce draft and lengthen life. Equipped with positive self-feed that is saving a man for hundreds of farmers. The Papec never clogs on any silo! Its performance is continuous. That one fact has made thousands of Papec sales and Papec boosters. The Papec is built by people who have long specialized in ensilage cutter construction. And the output is increasing every year. Write today for our new Catalog and U. S. Gov't Bulletin "Making and Feeding of Silage." Both free to silo owners.

Throws
And Blows
Saves One
Man



PAPEC MACHINE COMPANY

150 Main St.

Shortsville, N. Y.

De Luxe Quality Silver Fox



Get Rich Raising Foxes

We Show You How—We Start You Right

The money you can make raising foxes if you get the right start is so enormous when compared to ordinary farming, as to be almost unbelievable. Let us teach you how you can make more money from one acre raising foxes than from 100 acres by dairying or growing farm crops. It is an easier way to make big money than the endless toil rising at daylight and working long after dark—just to make a fairly good living. **We Teach You This New Way Of Getting Rich Free.**

The Secret of Success

depends entirely on getting the right start—begin with the right foundation stock—De Luxe Silver Foxes are strictly QUALITY BREEDING stock—second to none in the United States—Fox with show ring records. De Luxe Silver Foxes won 10 PER CENT of all first prizes at the recent National Fox Show at Milwaukee.

We are booking orders now for 1924 cubs. Our supply will be limited, so we advise that you write promptly—we will supply you with the right stock—breed them for you—give you the benefit of our advice and experience.

Why plod along, just making a living when you can become independently rich in a few years raising foxes? Write today for full particulars.

De Luxe Silver Fox Ranch,

Manistee, Michigan

WYNGARDEN'S "EGG-BRED" BABY CHICKS



Are the best laying strains on earth. Egg-Bred Barron English White Leghorns, Brown Leghorns and Anconas backed by 19 years' actual breeding on our farms. Experts cull out our flocks yearly, and mate them with large, vigorous 260-288 Egg Pedigreed Males from Hollywood & Funk Farms direct. This guarantees — not a few high record birds — but an extraordinary flock average. During 1924 we will sell 30,000 weekly of these active, healthy, carefully hatched baby chicks — the kind that will keep your Egg Basket full. Hundreds of our customers are making Big Profits. It will pay you to buy our Egg-Bred Chicks. Our 1924 catalog tells the whole story, it's free — write for your copy tonight.

WYNGARDEN FARMS & HATCHERIES
Box M
Zeeland Mich. U.S.A.



Highest Quality Certified Baby Chicks



From Michigan's Old Reliable Hatchery, the best equipped and most modern Hatchery in the State. Pure-bred Tom Barron English and American White Leghorns, Anconas, Barred Plymouth Rocks and Rhode Island Reds. Strong, well-hatched chicks from tested Hogenized free-range stock, that make wonderful winter layers. Chicks sent by Insured Parcel Post, Prepaid to your door. 100 per cent live delivery guaranteed. Sixteen years of experience in producing and shipping Chicks, giving absolute satisfaction to thousands. Write for valuable illustrated free catalog and price list. Get lowest price on best quality chicks before placing your order.

W. VAN APPLIEDORN, R. 7, Holland, Mich.

HUBER'S RELIABLE CHICKS OUR 15th. YEAR

Y 10000000 for 1924

Postpaid. 100 per cent live delivery. Give us your order for our reliable chicks and we will prove to you, if better chicks could be hatched for the money we would be hatching them.

FLOCK PURE BRED CULLED BY EXPERTS

Fine Illustrated Catalog Free. Tells how we produce Reliable Chicks that have pleased thousands of customers. We hatch 13 Varieties. Combination Offers. Valuable book given FREE with each order. **HUBER'S RELIABLE HATCHERY, East High St., Fostoria, Ohio.**

JUST RITE BABY CHICKS Grow Lay Pay

PEDIGREE, EXHIBITION and UTILITY Matings

20 popular breeds, high power layers, 20 rare breeds, 4 breeds ducklings. Nabob Quality, none better at any price. 97 per cent live arrival guaranteed; Postage Paid. Free Feed with each order. Catalogue free, stamps appreciated. Nabob Hatcheries, Ave. 20, Gambier, Ohio. Member International Baby Chick Association.

WORLD'S CHAMPION LAYERS

Hollywood and Improved English S. C. WHITE LEGHORNS. The American Business Hens: 250-300 egg-bred line. Large White eggs. Winners at National Shows and Egg-Laying Contests.

HIGHEST QUALITY CHICKS from certified tested hens mated to high power pedigreed sires. Discount on early orders. Valuable instructive CATALOG FREE.

DAVIES' GRANDVIEW POULTRY FARM, R.R. 6, Zeeland, Mich.

PURE BRED BABY CHICKS

We have been carefully developing our flocks for eight years. Every chick pure-bred and from stock carefully culled, for type and production. Our chicks give satisfaction. Order today and get chicks when you want them.

Wh. Leghorns	\$7.00	100	500
Bd. Rocks, R. I. Reds	8.00	13.00	\$62.00
Wh. Wyandottes, Wh. Rocks	8.50	15.00	72.00
		16.00	77.00

Postpaid. 100 per cent live delivery. You take no chances. Ref. Farmers' & Mechanics' Bank, this city. No catalog. Order from this ad. **WASHTENAW HATCHERY, R. 5, ANN ARBOR, MICHIGAN.**

Baby Chicks S. C. W. Leghorns

—Only Pedigreed Certified

Michigan's Largest S. C. W. Leghorn Farm, over 2000 Birds. Hatch our own eggs only. Supply limited. Order early. One trial will convince you. Free Circular.

SIMON HARKEMA and SON, R. 1, Holland, Michigan

64BREEDS Most Profitable chickens, Choice, pure-bred northern raised. Fowls, eggs and incubators at low prices. America's great poultry farm. At it 31 years. Valuable 100-page book and catalog free.

R.F. NEUBERT Co., Box 814, Mankato, Minn.

BABY CHICKS

Send for descriptive matter and price list of our Pure Bred Practical Poultry

10 LEADING VARIETIES.

Some fine breeding this year in improved egg quality stock; customers' egg records from stock of last year. Cockerels, a few unsold in Barred Rocks, White Wyandottes and R. C. Reds, \$3.00 and \$4.00.

STATE FARMS ASSOCIATION, Masonic Temple, Kalamazoo, Michigan.

Whittaker's Reds Chicks

And eggs for hatching. Rose and Single Combs. Michigan's greatest color and egg strain. Bred from fourteen generations of winter layers. Write for free catalog. Interlakes Farm, Box 39, Lawrence, Mich.

Big 5 To 6 Lb. English White Leghorns.

Larger hens, better winter layers. Chicks, hatching eggs. Free catalog describes them in full of practical money-making poultry information. Send for it. **A. Wauchek, Gobles, Michigan.**

Pure Bred Big Value Chicks

Best paying standard varieties from healthy free range utility flocks, carefully inspected, culled, and Hogen tested. Quick maturing. High Egg Production. Each

S. C. White, Brown and Buff Leghorns	14c
S. C. Anconas, S. C. B. Minorcas, Barred Rocks, S. Reds	15c
White Rocks, R. C. R. I. Reds, White Wyandottes	17c
S. C. Buff, S. C. White, Orpingtons	20c
Assorted Varieties Broilers	12c

Get our big illustrated catalog and prices on our Hi-Quality Chicks. It is Free. Big Offer on Brooders.

Wolf Hatching & Breeding Co., Dept. 5, Gibsonburg, Ohio



WHAT I FEED FOR WINTER PRODUCTION.

I HAVE read a good many formulas for feeding the layers during the winter and sometimes I have wondered how a poor farmer, who happens to have a flock of a few hundred hens and desires that they return him a little profit, is going to follow any such program and have his balance come on the right side of the ledger. Maybe it can be done, but I don't know just how to do it.

My program of feeding includes the buying from my local farmer's exchange and mixing the feeds myself. I want a clean, tight floor, where the grains can be heaped in a great pile and shoveled over. For scratch feed I know of nothing better than equal parts of good whole oats, clean cracked corn, and wheat. I will let the other fellow have the other things. I feed this grain in deep litter and keep the birds just hungry enough to eat up what I give them and work diligently for the scattering grains. Scratch feed is fed twice a day, only. At times when wheat was high in price, I have fed a mixture composed of one hundred pounds each of wheat and barley. At present prices, I am leaving out the barley.

Dry mash is kept in the hoppers all the time and the birds have the privilege of eating as much as they will. A very fine laying mash is made by mixing one hundred pounds each of gluten feed, wheat bran, ground oats and beef scrap, and two pounds of fine salt. I used that ration for a number of years. Later I cut out half of the beef scrap and fed the birds all the skim-milk they would consume. This is a very intensive egg-making ration and birds must be kept in good health to consume it, hence I feed a wet mash once a week, composed of equal parts of bran, middlings and corn meal, the liquid used to mix the mash containing epsom salts at the rate of one pound for each one hundred birds. I measure out the amount of grain to be prepared, dissolve the salts with water and mix the mash. I like this way to administer the salts rather than in the drinking water.

Every day, unless the weather is very cold, I feed something in the line of green stuff. This is grown on the farm. Cabbages are used during the fall and early winter and mangels are stored to round out the latter part of the cold season. I simply hang up a head of cabbage, leaves and all, or a large mangel wurzel and the hens do the rest. Every year I grow sunflowers and the heads are cut and thrown to the hens during the moulting season. There is always a box of wood ashes for the hens to flutter in and pick out the bits of charcoal. Hoppers of grit and ground oyster shells are also always at hand. Clean water rounds out the bill of fare. There must be plenty of it, and I warm it during the cold weather.—Charles H. Chesley.

WHY MASH HOPPERS CLOG.

DRY mash hoppers often clog if the feed packs in the corners and the throat is not large enough to enable the hens to work it down into the trough by constant pecking. This condition can be avoided in home-made wooden hoppers by cutting a piece of galvanized iron the width of the inside of the hopper. Curve the iron around the base of the hopper and tack it down. The mash strikes the smooth curved surface and slides toward the front more readily.

Large open mash hopper troughs

may result in the hens scratching out the mash and wasting it in the litter. Insert stiff wires every four inches. Run them from the front of the hopper to the base of the throat. This keeps the hens from digging out the mash with their feet or bills.

The commercial dry mash hoppers made of galvanized iron are practical for farmers who are busy and lack scrap lumber. The metal hoppers will last a lifetime and are built so the mash falls down as used and cannot be wasted by the hens. At a price of three to four cents per pound the hens will soon waste enough feed to pay the difference between a cheap scrap hopper and one that is properly made. In hoppers that clog it is necessary to poke down the mash with a stick every day or the birds are soon without the materials needed for egg production.—Kirby.

BOURBON RED TURKEYS.

I have a chance to purchase some turkeys of the brown type for breeding. As I never had experience with this type, would you please advise me whether it is a hard-raising type, or is it as profitable as any other kind of turkey? Is this type demanded as much as any other?—H. L.

By brown turkeys I assume that you mean the breed known as Bourbon Reds, which have a deep brownish red plumage. They do not have as large a standard weight as the Bronze turkeys, but I know breeders of Bourbon Reds who like them very much and say they do not range as far as the Bronze. The Bourbon Red adult cocks should weigh thirty pounds and the hens eighteen pounds. The cockerels should weigh twenty pounds and the pullets twelve pounds.

Many breeders like medium-sized turkeys and find that their customers are well satisfied with a plump bird of medium weight. Some breeders have claimed that Bronze turkeys have the most vigor because they contain some of the blood of the wild turkeys but there is no definite proof that other breeds are not just as vigorous when properly managed.

HENS WITH THROAT TROUBLE.

My hens sneeze and their heads turn pale. On examining them, we find a little lump in the throat or wind pipe. They seem to eat good, and are laying some.—E. E.

Sometimes a kernel of corn or some foreign material may lodge in the trachea of a hen, causing inflammation and the gathering of a small lump in the throat. Sneezing is usually due to a cold, and accompanied by running of the nostrils. Remove the mucous with tissue paper and inject commercial disinfectant into the nostrils with a medicine dropper. Several treatments may be necessary to dry up the trouble.

If a hen's head turns pale and the bird seems unthrifty it should be isolated from the flock. When the bird dies naturally, or is killed, always perform a postmortem and study the conditions in the internal organs. This is the most sure way of determining a poultry trouble and preventing it in the remainder of the flock.

FEEDING RYE TO HENS.

I have bought some rye, intending to feed it to my hens, some people say it is not good to feed rye to chickens this time of the year.—Mrs. A. S.

We find that hens do not like rye and many will not eat it unless starved to the diet. Egg production and rapid growth of the pullets depends on having them eat plenty of nourishing feed. So any feed that is not appetizing to them is not profitable to

10 Cents

worth of ordinary fuel will keep this Sunray lamp or lantern in operation for 30 hours. Produces 300 candle power of the purest, whitest and best light known to science. Nothing to wear; simple, safe; 10 days' trial.



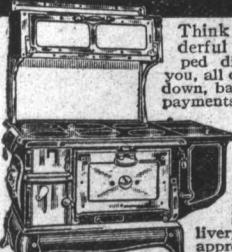
FREE Lantern

As a special introductory offer, we will give you a 300 Candle Power Sunray Lantern FREE with the first purchase of a Sunray Lamp.

Lights up the yard or barn like a search light. Write today for full information and agency proposition.

KNIGHT LIGHT CO., Dept. 31-01 Chicago, Ill.

\$5.95 DOWN Direct to You from Manufacturers



Think of getting this wonderful quality range, shipped direct from factory to you, all complete for only \$5.95 down, balance on easy monthly payments. Save 1/4 to 1/2.

200 other styles and designs—Gas ranges, Combination Gas, Coal and Wood Ranges, Stoves, Furnaces, Oil Stoves, Refrigerators, etc. Easy payments. 24 hour shipments. Safe delivery guaranteed. 30 days approval test.

Write Today for Catalog—FREE

A Kalamazoo Kalamazoo Stove Co. 123 Rochester Ave. Kalamazoo, Mich.

Barrel Pump Only \$48.75

(Without Pressure Gauge) Easiest-working pump ever made; double-acting; no cross heads; made like power pump. A big seller. Write for catalog. Hardie Mfg. Co., Hudson, Mich.

Get More Eggs!



Hang a Quick-Lite in your hen house for a few hours morning and evening. Increase egg yield 15 to 20%. Keep hens on a spring laying schedule.

Coleman Quick-Lite

Just the lantern you need for every farm use. 300 candle power. Wind-proof, rain-proof, bug-proof. For sale by dealers everywhere. If yours can't supply you write Dept. MF-69 THE COLEMAN LAMP CO. 3617 So. Ashland Ave., Chicago, Ill.

You Can Save Money by buying your implements under the MOLINE Plan

See a Moline Dealer or write for details

NEW MOLINE PLOW CO. Moline, Ill.

use. Some poultrymen have used rye fairly successfully by grinding it with the egg mash. In general, I think it will pay best to sell the rye at the elevator and buy wheat for the hens.

SCALY LEGS.

I have some chickens in my flock that have scabs on their legs. Some are worse than others. Is it catching to the other chickens, and can it be cured? Please tell me what to do for them, or would you advise me to kill off the ones with the scabs?—J. N.

The hens probably have scaly leg, due to a parasite which burrows under the scales of the leg causing the rough scaly encrustations. Wash the legs with warm soapy water to remove the accumulations of crusty material as much as possible. Then rub the legs with kerosene oil or a solution of coal tar dip. The scaly leg parasites seem to spread on the roosts. Spraying the roosts for red mites also helps in preventing scaly leg parasites from spreading over the roosts.

POULTRY TROUBLES.

I have had some disease in my flock of Rhode Island Reds for about four years, and lose about two dozen a year. They are taken differently, some can't see, but the eyes look the same as usual. Some droop around, act weak, and walk slowly. Some lose the use of their legs and look healthy until just before they die. Some droppings on dropping board are light yellow, and some a bright green. Can you tell me what is the matter with them, and is there any remedy?—A. T.

The loss of two dozen hens per year is from a variety of causes which cannot be definitely determined without performing a postmortem examination on some of the birds. Make a special examination of the liver. Observation of the internal organs will be of some help in determining the cause of the losses.

The condition of the bowels can probably be improved by using a balanced dry mash. When hens are weak and emaciated and lame, it pays to examine the liver for the greyish spots which may indicate tuberculosis. Cases of leg weakness where the bird appears normal except for the paralysis of the legs are difficult to treat and must be prevented by careful feeding.

CARE OF TURKEYS.

Will you please tell me what to do for turkeys with the cholera and blackhead? I have three Bronze turkeys. One of the hens didn't act good; it got the cholera. Please tell me how to prevent it, and raise little turkeys. —J. M.

The ipecac treatment may and may not help you in treating blackhead, but it may be worth trying. Use ten drops of fluid extract of ipecac per bird three times a day for three days. Then give it twice a day for three days, followed by once a day for the next three days. As a preventive, use the powdered ipecac in the turkey mash and give a teaspoonful twice a week for each twenty birds. One-third of a teaspoonful of catechu in a gallon of the turkey's drinking water has sometimes given good results. Blackhead must be very largely controlled by prevention. This is done by using vigorous breeding stock, feeding sour milk and buttermilk, and using a range that is free from the disease. Medicines do not seem to be of much value in treating blackhead.

Dry bread that has been soaked in milk and squeezed dry, is a good first feed for turkeys. Plenty of sour milk helps to stimulate a rapid growth. After three or four days on bread and milk the poults can eat fine chick scratch feed and finally work over to wheat and cracked corn, as they become large enough to like it.

Turkeys are seed eaters and need grains, but they do not thrive on sloppy mashes.

It will help fill the egg basket if you will give the hens warm water in cold weather. It takes energy to heat water. When the hen has to do it with her energy, she needs more food.

Healthy Hens and More Eggs

Get them with DICKINSON'S **Globe Egg Mash**

The Albert Dickinson Co. Chicago Minneapolis

140 Egg Incubator

EXPRESS PREPAID \$13.85

Made of California REDWOOD, covered with galvanized iron, double walls, air space between, built to last for years; deep chick nursery, hot water heat, copper tanks.

140 Egg Incubator with Brooder \$19.75
260 Egg Incubator, ALONE, ONLY \$23.50
260 Egg Incubator, WITH BROODER \$32.90
30 days' trial—money back if not O. K.—FREE Catalog Ironclad Incubator Co., Box 91 Racine, Wis.

\$13.95 Champion Belle City 21.95

140-Egg Incubator 230-Egg

Hot-Water, Copper Tank, Double Walls Fibre Board, Self-Regulated Safety Lamp, Deep Nursery, Thermometer & Holder. Hatches chicks, ducks, turkeys and geese \$6.95 buys 140-Chick; \$9.95 buys 230-Chick Hot-Water Incubator; Double-Walled Brooder, Save \$1.95—Order Both. A complete hatchery.

140 Size Incubator and Brooder, \$18.95
230 Size Incubator and Brooder, \$28.95

Express Prepaid

East of Rockies and allowed to points beyond. Low prices on Coal and Oil Canopy Brooders come with catalog. With either of these Guaranteed Hatching Outfits and my Guide Book, your success is assured. Save Time—Order Now—Share in my \$1000 in Prizes

Or write me for Free Poultry Book, "Hatching Facts," Jim Rohan, Pres. Belle City Incubator Co. Box 14 Racine, Wis.

140 Egg Incubator \$13.25

30 Days Trial

Both Machines Made of California Redwood

Freight Paid east of the Rockies. Hot water, copper tanks—double walls—dead air space—double glass doors—a real bargain at \$13.25.

Shipped complete, set up ready to use.

140 Egg Incubator and Brooder - \$17.75
180 Egg Incubator Alone - 15.75
180 Egg Incubator and Brooder - 22.00
250 Egg Incubator Alone - 22.75
250 Egg Incubator and Brooder - 31.00

Made of California Redwood. Positively the best value on the market. Order direct from this ad. 30 days trial—money back if not pleased. If not ready to order now, don't buy until you get our 1924 catalog which shows larger sizes up to 1000 eggs.

WISCONSIN INCUBATOR CO. Dept. 120 Racine, Wis.

UNBREAKABLE FIRE SHOVEL

By Mail

Patented locking corner makes it unbreakable. By long-heavy—will last a lifetime. Send 25c. G. W. Stallings, Mfr., 108 West Atwater St., Detroit, Mich.

POULTRY

Lee's Quality Chicks

Eight varieties, all from pure-bred, selected stock. We guarantee satisfaction and 100% live delivery. Write for our FREE catalog.

Lee's Poultry Farms & Hatchery Box B, Edison, Ohio

2 1/2 Million for 1924. Certified, vigorous, healthy, early layers, 95 p. c. alive delivery shipped most anywhere postpaid. 9th season.

THOROBRED QUALITY CHIX—PRICES Pens A

White or Brown Leghorns	25
Barred Rocks, S. C. Reds, Anconas	\$3.75
Rose Comb Reds	4.25
White Rocks	4.50
White Rocks	4.75
Wh. Wyand., Buff Orp., Bl. Min.	5.00

D. T. FARROW CHICKENRY, DEPT. N.

DAY OLD CHICKS

S. C. Barred Rocks, S. C. White Rocks, S. C. Rh. I. Reds, White Wyandottes, Orpington, S. C. Eng. White Leghorns, S. C. Br. & Buff Leghorns, S. C. Anconas, S. C. Minorcas.

Strong, sturdy, heavy-laying strains, from large, vigorous yearling hens raised on our farms, and culled by expert poultry men, to a high quality of Certified Utility Flocks, also, Extra Selected Flocks and from Blue Ribbon Pens.

Babions Fruit and Poultry Farms
FLINT, R. 7, MICH.

CERTIFIED CHICKS "BRED TO LAY" STRAINS

Best Quality Certified Chicks pay biggest profit. Our Chicks are from our own Free Range flocks of Sheppard's Famous 331 egg strain of Anconas, heavy winter layers of large white eggs; Hollywood and Tom Barron S. C. White Leghorns; and Everlay S. C. Brown Leghorns. Carefully selected and rated by experts and certified by Michigan Baby Chick Ass'n. Bred for quality and high egg yield for 11 years on our own farm. Strong, vigorous, full of vitality. 100 per cent live delivery guaranteed. Low prices. Illustrated catalog Free.

Townline Poultry Farm & Hatchery, Dept. M, Zeeland, Mich. Member Mid-West and International Baby Chick Ass'n.

S. C. WHITE LEGHORNS



Bred for egg production since 1910. Our 13 years of experience in hatching and shipping chicks gives you the big, strong, healthy chicks that grow to maturity in the shortest possible time. 100 per cent live delivery guaranteed. Let us mail you our 32-page catalog with price list.

WOLVERINE HATCHERY, R. 2, Box 20, Zeeland, Mich.

PURE BRED CHICKS

Real producers. Flocks culled by export. Beautiful breeding stock. Barred Rocks, R. I. Reds, 50, \$8; 100, \$15; 500, \$25.00. Wh. Leghorns, Anconas, 50, \$7; 100, \$13; 500, \$25.00. Leghorns are Barron stock. None better. 100 per cent live delivery guaranteed. Order from this ad and get chicks when you want them. You take no chances. Ref., McLachlin State Bank, this city.

Petersburgh Hatchery, Petersburgh, Mich.

Early Maturing BABY CHICKS

These chicks are from flocks headed by cockerels of high producing blood lines. Culled by experts. Each flock personally supervised. Pure-bred. \$13 per hundred up.

Special: We have a limited number of superior grade chicks from special matings. Write for description and prices. 100 per cent live delivery. Ref. Milan State Savings Bank.

Milan Hatchery, Box 4, Milan, Mich.

EGG-BRED CHIX

200-egg Strain S. C. English Type White Leghorns and Brown Leghorns. Large looped-comb, deep-bodied type, 12 years of breeding for high egg-production. Carefully selected breeders, headed by large, vigorous males, combined with many years of highly successful hatching methods, gives you chicks that will bring you success 100 per cent live arrival guaranteed. Write for catalogue and prices today.

ROYAL HATCHERY AND FARMS, R. 2, Zeeland, Mich. S. P. Wiersma, Owner.

STURDY CHICKS

From high grade, heavy egg producing strains of S. C. White Leghorns, S. C. Rhode Island Whites and White Wyandottes. All from pure bred, healthy, vigorous stock, carefully culled and tested to insure your getting chicks that will be easy to raise, develop rapidly and become heavy winter layers. Shipped postpaid, 100% live delivery guaranteed. Catalog Free.

COLUMBIA HATCHERY, HOLLAND, MICH.

DUNDEE CHICKS

PURE-BRED CULLED FLOCKS

Our chicks are from pure-bred flocks, carefully culled by experts. Anconas are direct from Sheppard. Leghorn flocks headed by males from Michigan Ag. College. Rocks are from a 230-302 egg strain. Reds are Liddicott's best. Write for catalog and price list. It will save you money. Ref., Dundee State Savings Bank, this city. DUNDEE HATCHERY, Box A, Dundee, Michigan.

Highest Quality Chicks

Feb.-March prices. Heavy broiler chicks 12c. Barred Rocks or Reds 17c; Anconas, Black Minorcas 16c; White or Brown Leghorns 15c; White Rocks, White Wyandottes, Buff Orpingtons 17 1/2c. Extra selected chicks, built directly from contest winners. 4c per chick more. Add 30c if less than 100 wanted. Hatching eggs. Catalog. Good reference. Beckmann Hatchery, TMF, 26 Lyon St., Grand Rapids, Mich.

Poultry Miller's Guide

tells all about chickens—care, feeding and raising for profit. Also describes IDEAL INCUBATORS, Hot Water and Electric IDEAL BROODERS, ERS—Coal and Oil Burning—Baby Chicks, Eggs for Hatching, Special LOW PRICES.

J. W. MILLER CO., Box 67, Rockford, Ill.

FARROW CHIX FOR SUCCESS

Pens A	Pens A	Pens B	Pens B	Pens B
50	100	25	50	100
\$7.00	\$13.00	\$4.75	\$9.00	\$17.00
8.00	15.00	3.25	10.00	19.00
8.50	16.00	5.50	10.50	20.00
9.00	17.00	5.75	11.00	21.00
9.50	18.00	6.00	11.50	22.00

PEORIA, ILLINOIS.



Make Your MILKERS PAY

Every cow in your herd can be made to produce up to her full capacity

—if you look well to her ration, her health, her appetite and her digestion.

Balance the ration. Feed bran, oats and corn, or their equivalent, cottonseed or linseed meal, clover hay, alfalfa, silage—pasture in season.

Remember, the better the appetite the greater the food consumption, the greater the milk production.



I spent 30 years in perfecting this Tonic.
GILBERT HESS,
M.D., D.V.S.

DR. HESS STOCK TONIC

Keeps Cows Healthy Makes Cows Hungry

It conditions cows to turn their ration of grain, hay and fodder into pails of milk.

It contains *Nux Vomica*, greatest of all nerve tonics. *Quassia* produces appetite, aids digestion. *Salts of Iron* keeps the blood rich. There are *Laxatives* for the bowels, *Diuretics* for the kidneys, to help throw off the waste materials which so often clog the cow's system.

Excellent for cows at calving. Feed it before freshening. Good alike for all cattle.

Tell your dealer how many cows you have. He has a package to suit. **GUARANTEED.**

25-lb. Pail \$2.25 100-lb. Drum \$8.00

Except in the far West, South and Canada.

Honest goods—honest price—why pay more?

DR. HESS & CLARK Ashland, O.

Dr. Hess Dip and Disinfectant

Keeps the Dairy and Stables Healthful and Clean Smelling

Please Mention The Michigan Farmer When Writing to Advertisers

FARM WAGONS
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. 35 Elm St., Quincy, Ill.
Electric Wheel Co.

Only \$2 DOWN ONE YEAR TO PAY
\$44 Buys the New Butterfly Jr. No. 2½
Light running, easy cleaning, close skimming, durable. **EASY TO CLEAN**
NEW BUTTERFLY Separators are lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 5½ shown here; sold on 30 DAYS' FREE TRIAL and one plan whereby they earn their own cost and more by what they save. Postal brings Free Catalog Folder. Buy from the manufacturer and save money.
ALBAUGH-DOVER CO., 2165 Marshall St., Chicago

\$24.95 Sent On TRIAL
American CREAM SEPARATOR
A SOLID PROPOSITION to send well made, perfect skimming separator for \$24.95. Skims warm or cold milk. Makes heavy or light cream. Different from picture, which shows large capacity, easy running New L.S. Model. See our easy **Monthly Payment Plan**
How a sanitary marvel, easily cleaned. Whether dairy is large or small, write for free catalog and monthly payment plan. Western orders from Western points.
AMERICAN SEPARATOR CO.
Box 3061 Bainbridge, N.Y.

INVENTORS

who derive largest profits know and need certain simple but vital facts before applying for Patents. Our book Patent-Sense gives those facts; free. Write Lacey & Lacey, 795 F St., Washington, D. C. ESTABLISHED 1869.



For 23 years Blue Valley has given farmers a high direct cream market. No useless profit takers between them and Blue Valley—between Blue Valley and retailers. Blue Valley butter, the National brand, brings farmers bigger cream checks direct.

Another Blue Valley Booster

"We certainly are more than pleased with Blue Valley. They have always used us right." Mrs. Geo. Colwell, Lake Ann, Mich.

Thousands of B.V.'s (Blue Valley Boosters) will tell you it pays to ship your cream yourself direct to Blue Valley.

For Bigger Cream Checks

Ship to BLUE VALLEY CREAMERY CO.
Ship to Blue Valley Creamery in City nearest you:
Detroit, Mich. Grand Rapids, Mich. Milwaukee, Wis. Duluth, Minn. Also creameries in 16 other cities. General Office: CHICAGO

BLUE VALLEY BUTTER
is good butter
—that's why millions use it



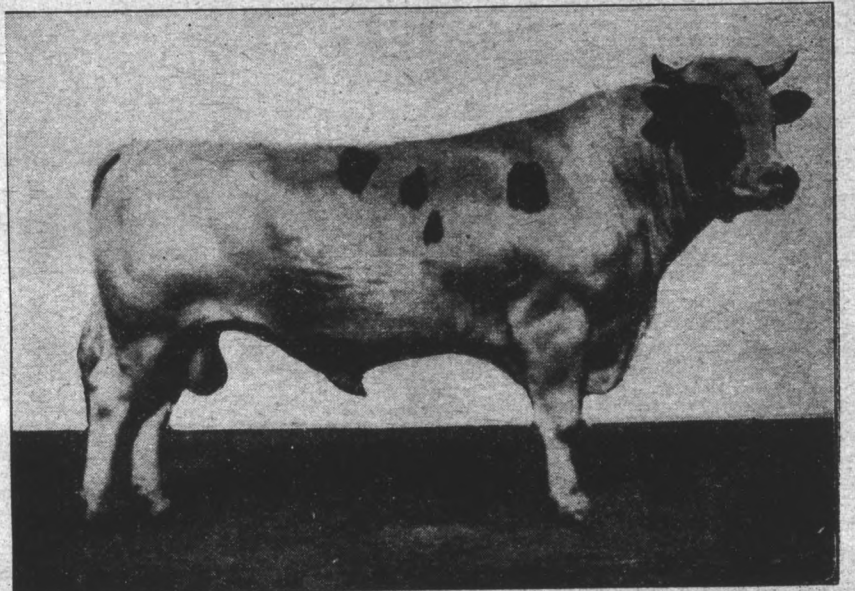
Keep the Source Clean

By W. A. Freehoff

THE milk-consuming public is demanding better milk every year.

If the dairymen desire to see their business grow, they must provide that better milk. Only too many of them still believe that no matter how dirty the milk they ship to the creamery, the cheese factory, the condensery, or milk distributing plants, that these various organizations are able by some kind of scientific magic to cleanse and renovate the products so as to make it satisfactory. While it is true that clarification and pasteurization can do wonders in that direction, they cannot do it all. This

none of the droppings remain where the cows can lie down upon them, but pushes them into the gutters. Plenty of bedding follows as a matter of course. But in addition to the prompt removal of the manure, clipping the flanks and udders of the cows makes it much harder for filth to attach itself. Then if the cows are groomed or brushed so as to remove all loose hair, clean milking is much easier. It is even a good plan to take a steel wire brush and wash the cow's tails thoroughly about once a month in soap and hot water. If the cows are groomed a short time before milking, they



Dudley Waters' Grand Champion Bull. Sires of this Type Are the Kind that Are Needed to Make the Greatest Improvement in Our Dairy Herds. After the Scrub Bulls Are Well on their Way to the Butcher, the Next Big Fight is the Weeding Out of Scrub Pure-bred Bulls.

was brought home to me most forcibly not so long ago on inspecting a farm where milk was bottled for city delivery.

Everything about the dairy or bottling house was above criticism, the equipment was ample, and the methods good. In the barn conditions were by no means as satisfactory. Every experienced milkman knows that unless he gets clean milk to start with, that later precautions are only partially satisfactory. Inasmuch as the average dairy farmer is not concerned with bottling his own milk, he is able to concentrate his attention upon maintaining satisfactory barn conditions. When the milk comes from the barn it must be "right," or the best quality of milk cannot be set before the consuming public.

There no longer is any dispute about the right type of barn. In the modern dairy barn the floors are of concrete, and ample gutters are provided. Most new barns which are being built have sanitary steel stanchions. In other words, the cows are given a chance to stay clean. Chutes are provided, so that hay, bedding, and feed can be taken into the stable without raising a great amount of dust. Many large windows provide ample sunlight. In this kind of barn odors are reduced to a minimum. Nothing worse could happen to the milk than to have it contaminated with foul stable odors. A good ventilation system, which may be home-built, is almost a necessity, and will eventually be required by city inspectors.

There is nothing more disgusting than to go into a stable and see the cows covered with manure which is matted into the hair. Manure is removed at least twice daily out of every well regulated stable. The attendant also watches carefully to see that

should be chained up in the stanchion so they cannot lie down until milked. This is easily accomplished with a strap around the cow's neck, with a snap to fasten the strap to a little chain at the top of the stanchion.

The habits of the milker are important. I am not an advocate of absolute dry-hand milking, but like to wipe off the udder of the cow with a damp cloth just before milking, and to wash my hands after every cow. To keep enough milk in your hands so that it can drop into the pail is a filthy habit. Semi-covered pails, tests show, will keep most of the dust and hair from falling into the milk.

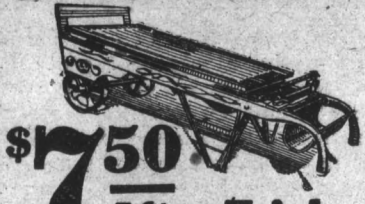
JOHNE'S DISEASE SPREADS.

WHAT is known as "John's Disease" appears to be spreading, according to reports from Wisconsin. The disease is similar to tuberculosis but acts more slowly upon the animals. Cows may be infected for several years before symptoms are noticeable. Recently a product, called Johnin, was developed, which, when injected into the blood stream of infected animals, raises the body temperature several degrees above normal in from three to ten hours after the injection. No cure is known. Specialists advise that infected animals be removed from the herds.

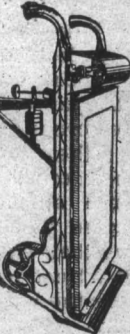
REDUCES MILK PRICES.

TO further protect its market, the Dairymen's League, of New York state, announces a reduction for class one, or fluid milk, to \$2.33 per hundred pounds, which is forty-seven cents below the price which went into effect November 12. This cut is made in order to protect their market for fluid milk.

RENFREW Truck Scales



\$1750 After Trial



The first time the famous Renfrew scales have been offered on such liberal terms.

A portable weighing machine as easily handled as a wheelbarrow, weighs with absolute accuracy anything from one pound to 2000 pounds. Guaranteed to be the equal in capacity and accuracy of any farm scale, regardless of price.

Saves Its Price!

Users everywhere tell us that it saves money and makes money every day. In three deals alone one buyer reports a saving of \$50.00.

30 Days Trial

Try it absolutely free for 30 days. If it cannot prove itself in that time don't keep it. We ask you to send no money—not a cent.

Write and we will send you full information. Do this today. Sending the coupon does not obligate you in any way.

Babson Bros. 2843 West 19th Street
Dept. 51-01 Chicago, Ill.
Distributors of Melotte Cream Separators and Edison Phonographs

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 pinion bearing subject to wear. This is oilless, and easily replaceable. Covers by dependable weight without springs. Fits any 4-post steel tower. Why not shorten your churning hours 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.
Dept. 44, Albion, Michigan, U.S.A.

Cut Your Feeding Cost

Kalamazoo Silos will not only cut your feeding costs but will increase the output of your herd from 25 to 50%.

Kalamazoo

Tile and Wood Silos Have many special features, which are the product of thirty years experience making silos. Used and endorsed by thousands of most progressive feeders and agricultural stations. Special terms to early buyers. Write for free catalogue. Glazed Tile for all kinds of buildings.

Kalamazoo Tank & Silo Co.
Dept. 223 Kalamazoo, Mich.

HIDES TANNED \$3.50 to \$5.50

Tan Hide and Make Robe Complete, using No. 1 Plush Lining, \$10.00 to \$12.50. All work guaranteed. Write for samples and prices.

Badger Robe & Tanning Co., Stevens Point, Wis.

MINERAL COMPOUND

in use over 50 years

FOR SYMPTOMS OF HEAVES

Booklet Free

\$3.25 Box guaranteed to give satisfaction or money back. \$1.10 Box Sufficient for ordinary cases.

MINERAL REMEDY CO., 463 Fourth Ave., Pittsburgh, Pa.

BOLENS POWER HOE

and Lawn Mower Tractor

It seeds, it cultivates, it mows the lawn. It supplies power for operating light machinery.

The BOLENS has a patented arching axle for clearance and a toll control for accurate guidance in close weeding and cultivating. A differential drive makes turning easy. All attachments have snap hitches and are instantly interchangeable. A boy will run it with delight. Send for full particulars.

315 PARK ST., GILSON MFG. CO. PORT WASHINGTON, WIS.

MICHIGAN FARMER
Classified Ads. pay well.
Try one.

CAN DETECT RE-MADE MILK.

THE extensive manufacture of milk in various forms has brought a demand for some practical test whereby this milk can be distinguished from natural milk. Such a test has recently been devised by Oscar Evenson, of the Bureau of Chemistry. By its use, the admixture of as little as ten per cent of "re-made milk" mixed with natural milk can be detected. This test should aid in the work of preventing the substitution of re-made for natural milk.

A GOOD RULE FOR FEEDING COWS.

PERHAPS one of the easiest rules to follow in feeding the dairy herd is to give each animal all the good roughage, such as legume hay and silage, that she will consume, and feed one pound of grain per day for each three or four pounds of milk, depending upon its richness, which the cow gives. In figuring silage, the rule is to feed about three pounds per each 100 pounds of live weight. With some animals these rules can be varied, but the average cow will usually produce a satisfactory return when they are followed.

WILL TWINS, BULL AND HEIFER, BREED?

I have a pair of twin Hereford calves, a bull and a heifer. Will they breed? Some tell me the heifer is a free martin and won't breed.—H. B.

The bulls in twins are always normal, that is, they are the same as bulls of single birth. Twin heifers are also normal. Twins, a bull and a heifer, are sometimes normal and will breed the same as calves of single birth. But in most instances, in the last mentioned case, the heifer will not breed. As a matter of fact, this heifer is not a true female, but an hermaphrodite or "free-martin." Both male and female organs are found, the male organs on the inside; in a sense, such twins are both bulls.

MICHIGAN FAIR SECRETARIES MEET.

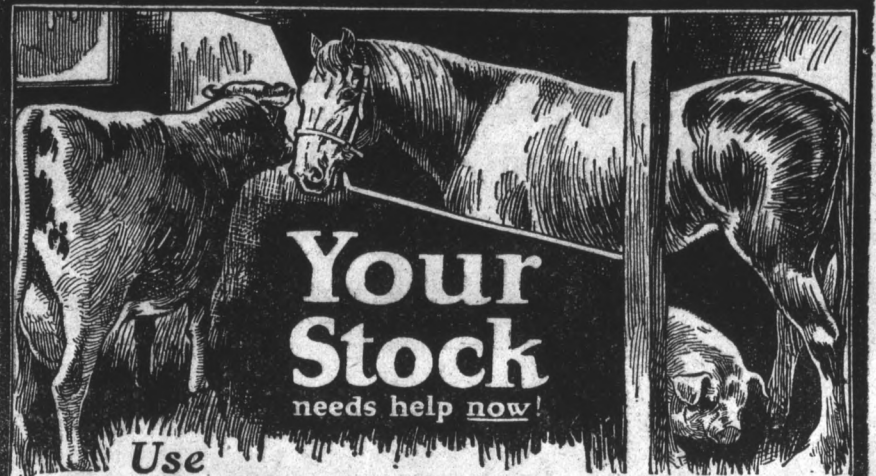
DELEGATES to the annual meeting of the Michigan State Association of Fair Secretaries and officials, held at Michigan Agricultural College, January 16-17, voted to adopt a standardized and uniform premium and classification list for 1924 fairs, which was formulated and presented to the delegates by officials and department heads of M. A. C.

High tribute was paid to the standing of the state agricultural college in live stock and agricultural matters, President Burton announcing that the program presented by the college officials and the recommendations made by the department heads have been the most valuable feature of the convention, and that efforts will be made to secure an even larger attendance of fair officials for a similar meeting and program next year.

Officials of the association for the last year were re-elected for 1924, including President Burris, of Jackson, and Representative Chester Howell, of Saginaw, as secretary.

The necessity of utilizing the knowledge and facilities of M. A. C. by fair officials was emphasized by Secretary Howell, who said, "If any fair wants to get closer to the people in exploiting those things which make for education and betterment, the aid of the Michigan Agricultural College offers the solution to the problem. The day of carnival and offensive midway as parts of fairs, is past. Fairs seeking to exist must be built to educate and instruct and develop the people and interests with which they deal. Through such agencies as the M. A. C. these improvements are made possible."—B. V. H.

The reading habit is a profitable one to cultivate.



Use Dr. LeGear's Stock Powders

The beneficial effects of these powders at this time of year are especially remarkable.

Mid-winter is the meanest time for stock. Indoors! Inactive! On dry feed; no pasture.

The whole system gets out of condition—bad digestion, poor assimilation, impure blood. All stock are affected, but some show it more—spiritless, hide-bound, run-down, wormy. No wonder feed is wasted, flesh gains are slow and milk yields low.

This condition is costing you money. Don't lose another day in getting Dr. LeGear's Stock

Powders in their feed daily.

The laxatives will correct bowel troubles. The diuretics will regulate the kidneys. The tonics will sharpen appetite, aid digestion and purify the blood. The vermifuges will drive out worms. The minerals build bone and blood tissues.

Results are more milk, faster growth and sleek, strong, well-conditioned animals.

For 30 years this personal prescription of Dr. LeGear has been "first aid to farm stock."

Get it now. Satisfaction guaranteed or money refunded.

Small, medium and large packages. 25 lb. pails. 100 lb. drums.



FREE Sample Coupon

Hand this coupon to my dealer in your town and get FREE Sample of Dr. LeGear's Stock Powders. [Also my 128 page Stock and Poultry book free.] Use sample, then buy the size package you need.

If dealer is out of samples, send us 10¢ to mail sample and book to you. Dr. L. D. LeGear Medicine Co., St. Louis, Mo.

Keep your hens busy laying—use Dr. LeGear's Poultry Prescription Ask at store about my Free Poultry Course



Dr. L. D. LeGear, V. S.
(In Surgeon's Robe)
Trade-Mark Reg. U. S. Pat. Off.

LAXOTONIC

Will prevent and overcome constipation and paralysis of the bowels in cattle. Salts or Oil are Dangerous.

Never Drench Cattle

Give Dr. David Roberts Laxotonic dry on the tongue. For sale by dealers or postpaid 50¢. Ask for FREE copy of The Cattle Specialist and how to get The Practical Home Veterinarian without cost.

Veterinary Advice Free

Dr. David Roberts Veterinary Co.
124 Grand Av., Waukesha, Wis.

Plan NOW for Your 1924 Barn Equipment Needs

Don't put it off until you get into the rush of Spring work. Just check (✓) the items in which you are interested, tear out this page, write your name and address in the margin and mail it back to us. We'll give you complete information and prices on everything you need to make your barn modern and convenient.

- ☐ Steel stalls and stanchions
- ☐ Litter carriers
- ☐ Feed carriers
- ☐ Steel cattle pens
- ☐ Steel hog pens
- ☐ Automatic drinking bowls
- ☐ Hay tools
- ☐ Barn door hangers
- ☐ Garage door hangers
- ☐ Cupolas and ventilators
- ☐ Barn plans

The Porter line has been standard equipment for 56 years—simple, modern, practical, moderate in cost.

Going to Build or Remodel?
The Porter Plan Book will help you to get a better barn or hog barn, at lower cost. Ask for it.

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

PORTER
"Dependable Since Sixty-Eight"

INDIANA SILO

Silage is the Money-Maker

SILAGE turned to milk and cream or into beef is the biggest profit maker today. It beats hogs or grain—and builds up the farm. Indiana Silos, standard for a generation, are used on more farms than any other Silo.

Early buyers get a real bargain, because we can make their Silos during the dull season. Write today for facts.

The Indiana Silo & Tractor Co.
Dept. 47 Anderson Ind.

Feed Grinder

Cuts Grinds Mixes Anything Grown

The Letz Dixie is guaranteed to increase production 15 to 30% and cut feeding costs 25 to 50%. Send for valuable feeding booklet.

LETZ

116 West Road, Crown Point, Indiana



10% More Milk
Doubles Dairy Profits

A penny a day per cow invested in KOW-KARE works wonders

A poor milker costs just as much to house, feed and care for as a good producer. For this reason just a slight increase in the milk yield makes a big difference in the net profit. Dairy experts say an increase of 10% in the milk yield will double the profit.

How important it is, then to get from your cows every pint of milk of which they are capable.

The chief cause—almost the only cause—of poor milkers is the condition of their health. Particularly the health of the milk-making organs.

Kow-Kare, the famous cow medicine and conditioner, acts directly on the milk-producing organs. It tones up the genital and digestive functions, makes them sturdy and active. More milk and better health must result. Feed Kow-Kare one week out of each month (a tablespoonful twice a day) and the result will surprise you.

For the treatment of Barrenness, Abortion, Retained Afterbirth, Scours, Bunches, Milk Fever, Lost Appetite, etc., Kow-Kare has a well-earned reputation. No dairy barn should be without it. For twenty-five years it has been the chief reliance of thousands of dairymen, when cows are sick.

Feed dealers, general stores and druggists sell Kow-Kare; \$1.25 and 65c sizes. Write for our free book, "The Home Cow Doctor." It is full of information valuable to cow owners.

DAIRY ASSOCIATION CO., Inc. Lyndonville, Vt.
Makers of Grange Garget Remedy, Bag Balm,
American Horse Tonic and Horse Comfort.

Unprofitable Cows are often sick without appearing so!

Watch the milk pail closely. The rise and fall of the yield indicates the health condition of the cow. A cow may look well, yet be suffering from sluggish digestive or genital organs. Kow-Kare acts directly on these organs. Its use restores normal milk yield and enables the cow to throw off disease.



BREEDERS' DIRECTORY

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

Brookwood Farm

Registered Guernseys of both sexes for sale at reasonable prices. Young stock from A. R. dams. Herd is Federal Accredited.

JOHN ENDICOTT, Owner
BIRMINGHAM, MICH.

For Sale Pure Bred Guernsey Bull eight months old. May Rose and Glenwood breeding. Fine individual. Also herd bull and bull calf, three months old. Tuberculin-tested. Maple-Kist Guernsey Farm, Elsie, Mich.

Wallinwood Guernseys

Young bulls from A. R. cows for sale.
F. W. WALLIN, Jenison, Mich.

10 Reg. Guernsey cows, some A. R. Record May Rose breeding, \$2,600 for all; herd bull \$100. John Ebels, Holland, Mich., R. 2.

Reg. Guernseys Two Nice Bulls, nearly ready for service. Special terms if desired. J. M. Williams, North Adams, Mich.

REGISTERED GUERNEYS—T. B. Tested. Young Bulls, \$50; 5 Cows and 5 Heifers. Prices reasonable. Dr. W. R. Baker, 4900 Fort St., West, Detroit, Mich.

A Great Opportunity.

We are offering a young Holstein bull ready for service, by a 32.63-lb. son of Matador Segis Walker, a brother to Segis Pieterje Prospect, the World's Champion. The dam is sired by a 35.73-lb. bull, King Segis blood. Also some fine heifers for sale. HILLCREST FARM, KALAMAZOO, MICH.

\$300. Buys two good, large, Registered Holstein cows, due to freshen soon. Good for 150 pounds of milk per day. Registered heifer calves, \$50 each. Registered bull calves, \$30 each. Bulls ready for service, priced to sell. B. B. Reavey, Akron, Mich.

Registered Holstein Bulls Up to eleven months of age. Good individuals and good breeding, at low prices. Also a few young cows or heifers soon to freshen. A healthy herd. I. M. SHORMAN, Fowlerville, Mich.

ANNOUNCEMENT

The Michigan State Administrative Board has recently placed the State Institution Dairy Herds under general supervision of the Bureau of Animal Industry. These herds include 1,000 registered Holsteins, over 300 with A. R. O. records.

Bulls for sale. Write

BUREAU OF ANIMAL INDUSTRY
DEPARTMENT C.,
LANSING, MICHIGAN

STOCK FARMING

MICHIGAN STOCK SHIPPERS TO GET \$10,000 REFUND.

A PATRONAGE dividend representing a net saving of \$4.00 per car of stock shipped, has just been announced at Buffalo by the officials of the Producers' Cooperative Commission Association, with headquarters at East Buffalo yards.

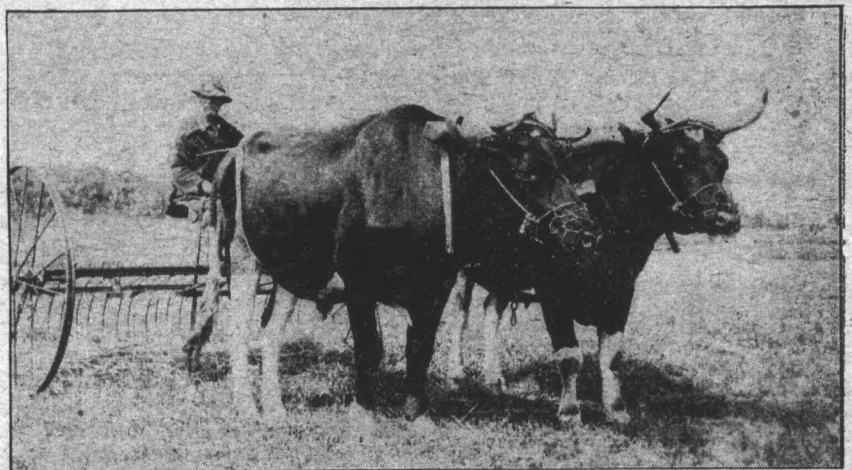
This firm is a cooperative commission institution handling stock from local cooperative associations in Michigan, Ohio, Indiana and New York. More than one-third of the shipments come from Michigan and shippers from this state will receive nearly \$10,000 of the "melon" to be cut and distributed some time in February.

A report of the year's business shows that the Buffalo association has sold an enormous volume of live stock. It is now handling over twenty per

\$1.10 for each bushel of corn fed, as compared to ninety-nine cents per bushel returned by the others. Furthermore, the animals kept in close confinement are more susceptible to disease than are those in the open air.

PARTING OLD FRIENDS.

DIRT and hogs have long been closely associated. In fact, the average person would guess that they were intimate friends. This, however, does not seem to stand the scrutiny of our scientific observers. They hold that one way to reduce loss from hog diseases is to remove the animals from the mud holes and give them a clean place to live and have their bath. These men declare that the treatment for round worm, considered the cause of more swine diseases than all other sources combined, can only be kept in



A Type of Farm Power Popular with the Pioneer Farmer, But Too Slow for the Modern Agriculturist.

cent of the live stock receipts at the East Buffalo yards. Since its organization, November 1, 1921, the total value of all sales has reached the staggering sum of \$11,027,480.51.

The annual meeting of the Buffalo producers will be held at Buffalo on February 12. Michigan will be entitled to five delegates at this meeting, Indiana five, Ohio two and New York one. Each state has a delegate, regardless of the amount of business done, and additional delegates for each 600 cars of stock shipped. At a recent meeting of the Michigan Live Stock Exchange, held in Lansing, F. King, of Charlotte; E. E. Donough, of Hudson; W. W. Billings, of Davison; R. H. Brubaker, of Gladwin, and J. I. Post, of North Adams, were elected as delegates from this state. E. A. Beamer, of Blissfield, Michigan, president of the Michigan Live Stock Exchange, is also president of the Producers' Cooperative Commission Association. J. H. O'Mealy, of Pittsford, and P. M. Granger, of Charlotte, are directors for Michigan.

STEERS WITH PLENTY OF AIR LAY ON MORE FAT.

SOME experiments carried on at the Pennsylvania station give feeders a measure of value of fresh air in feeding steers. One lot was housed in a basement of a "bank" barn, and fed silage with sixteen pounds of shelled corn and two and one-half pounds of cottonseed meal. A second lot of steers, with the same ration, occupied an open shed facing the south.

The cattle in the shed, with ample protection from rain and snow, gained 2.36 pounds a day, while the steers fed in the basement gained only 2.13 pounds per day. Then further, at the end of a 140-day feeding period, the steers from the open shed sold at \$7.75 per cwt., while those from the basement brought \$7.60 on the market.

Reduced to bushels of corn, the steers kept in the open shed returned

check by keeping pigs clean and free from sources of infestation. Hog men should start cleaning up immediately in order to prevent the usual heavy spring loss of pigs, a fact which forces production costs above income from the hogs sold.

UNHOGGING THE HOG.

THE hog is too hoggish in the amount of cost required to bring his anatomy to a condition where Mrs. Consumer will eagerly crowd her way to the edge of the counter in her favorite butcher shop and willingly pay the top figure for a roast or chop. At least, so thinks K. K. Vinning, the active county agent of Kent county, who is now holding swine meetings in various barnyards of the several townships of his county to stress the importance of efficient pork production. These meetings are patterned after the famous and successful dairy and alfalfa campaigns. The idea will be extended to other counties by the extension department of the M. A. C. should it prove out in Kent county.

SUGGESTS HOG GRADING DEMONSTRATIONS.

HERE comes a suggestion from Walter Simmons which would seem to have merit. He states that demonstrations on grading hogs for market would be real helpful in enabling farmers to feed their animals to better advantage. For instance, many may not be aware of the fact that the best bacon and the best hams do not come from the same animals. In seeking top bacon, packers buy light-weight hogs, those averaging 175 pounds; whereas, when they are in the market for hogs to produce top hams, they look for good animals weighing around 250 pounds. There is a real chance for our live stock shipping associations to hold demonstrations on shipping day.

GRASS SEED

Wonderful Values
Wholesale Prices
Highest Quality

We specialize in
grass and field seed.
Located to save you
money and to give
quick service. We
expect higher prices
—Crops short—Buy
now and save big
money.

Don't fail to investigate
these bargains. Reclaimed
Timothy, \$3.50 bu.
Sweet Clover, white blossom,
\$2.00. Alsike Clover and Timothy (10 to
15 per cent Clover), \$4.40 bu. Alfalfa,
\$3.50 bu. Have high quality of Clover
and other Grass and Field Seeds at low
prices. All sold subject to State or Gov-
ernment Test under an absolute
money-back guarantee. Send today
for our big money-making Seed Guide,
explains all. FREE.

American Field Seed Co.
Dept. 631 Chicago, Ill.

CLOVER AND TIMOTHY BARGAIN

\$4.80
4 Per Bu.

Red Clover and Timothy mixed—the standard
Grass cannot be surpassed for hay and pasture.
Contains 10 to 15 per cent clover, just right to
sow. Thoroughly cleaned and sold on approval
subject to government test. Ask for this mixed
seed if you want our greatest bargain. Have Pure
Clover, Sweet Clover, Timothy and all Field and
Grass Seeds. Buy now. Prices are advancing.
Ask for SAMPLES and 116-page catalog FREE.
Can ship from eastern warehouse if desired.

A. A. BERBY SEED CO., Box 631 Clarinda, Iowa

EVERGREENS Hill's Hardy
Fine for windbreaks, hedges and lawn plant-
ing. All hardy, vigorous and well rooted. We
ship everywhere. Write for free Evergreen
book. Beautiful Evergreen Trees at moder-
ate prices. S. Hill Nursery Co., Box 230, Dundee, Ill.

BARGAIN CATALOG

of Fruit Trees, plants, Ornamentals, Garden and
Flower Seeds, 3 to 4-foot Apple 25c; 3-foot Peach 20c
each postpaid. Send for 1924 catalog of Reliable
Trees and Seeds. Allen's Nursery & Seed House,
Geneva, Ohio.

C SWEET CLOVER

Unhulled. FREE SAMPLES.
Highest quality, scarified hulled
seeds at amazingly low prices.
Grow Sweet Clover. Best crop
known for fertilizing and pasture.
Much cheaper than Red Clover.
Our prices will save you big
money. We specialize on Clover,
Sweet Clover, Alsike, Honeylocust, etc.
Write today for special prices and Seed Guide.
AMERICAN FIELD SEED CO.
Dept. 991 Chicago, Ill.

CATTLE

Reg. Holstein Sale
Thursday, Jan. 31, 1924
12 o'clock, noon
32 Reg. Cows and Heifers,
2 Bull Calves

Offering includes 13 granddaughters of King of the
Pontiacs, mostly from dams with 7-day butter-fat
records of from 30 to 34.98 lbs. Also 3 daughters
and 5 granddaughters of Winnie Vale Korndyke De
Kol 191820, holding the world's milk record at 11
years. Sale at farm 6 miles east of Howell, Mich.
on Grand River Highway, 10-m. L. W. LOVEWELL,
Auctioneer. CHAS. H. RISCH, Prop.

Jersey Cattle Hood Farm breeding. Cows and
bred heifers, bull calf for sale.
Herd under state and federal supervision. Address
inquiries to W. Jayne, County Building, Detroit.
Jayne Hill Farm, (one mile south), Fenton, Mich.

Brookwater Jerseys

Bull calves for sale. Majesty breeding. Herd tuber-
culosis free. Come or write. Brookwater Farm, Ann
Arbor, Mich.

FINANCIAL KING BULLS

We have for sale a few bulls ready for service, also
bull calves sired by Financial King Sensation, son of
Financial Sensation, the \$50,000 sire. These bulls are
from R. of M. cows. Write to Coldwater Jersey
Farm, Coldwater, Mich.

Registered Jersey cattle, young bulls, for
sale. Tuberculin tested
J. L. CARTER, Lake Odessa, Mich.

15 Cows, 4 bulls from R. of M. Cows. Chance
to select from herd of 70. Some fresh, others 1 year
for fall freshening. Colon C. Lillie, Cooper'sville, Mich.

Thumb Hereford Breeders' Association
can supply your needs with outstanding, well-bred
registered Herefords, either sexes, polled or horned
at reasonable prices. Inquire of E. E. TWING, Sec-
Treas., Bad Axe, Huron Co., Mich.

HEREFORDS

Registered Breeding cattle, T.B. Tested
at practical prices for production of
Hereford Baby Beves profitably, all ages.
T. F. B. SOTHAM & SONS
(Herefords since 1889)
St. Clair, Mich.

Stanway Bred Herefords

Breeding stock, either sex, for sale. Come and see
them. JOS. FELDPAUSCH, Fowler, Clinton Co.,
Michigan.

HEREFORDS

Bulls, Heifers and Cows with Calves by side. Most
popular strains. Allen Bros., 616 S. Westnedge St.,
Kalamazoo, Mich.

BIDWELL SHORTHORNS

Revolution Jr. 573928
heads accredited herd
28917. Now offering 2 January born bull calves of
exceptional merit, reasonably priced.
BIDWELL STOCK FARM, Box D, Tecumseh, Mich.

Milking Shorthorn Bulls 3 weeks to 8 mo.
Sired by Country-
man's King, a great son of Glenside Dairy King and
out of Bessie Thorndale 3rd, record 12,759 pounds.
From Daughter of General Clay, Glenside Bull Boy,
etc. \$75 to \$150 each. Herd Tested. Irvin Doan
& Sons, Crosswell, Mich.

Wildwood Farm Milking Shorthorns. An accredit-
ed herd bred for beef and milk.
Headed by King Sales, grandson of Glenside Dairy
King. Fresh cows and heifers priced reasonably. Vis-
itors welcome. Beland & Beland, Tecumseh, Mich.
Paved Road No. 50.

When In Need of Red Polled Bulls.
Cows or Heifers. Buy
from Michigan's leading herd, owned by Westbrook
Bros., Ionia, Mich.

For Polled Shorthorns Milk strain, either
Sault Ste. Marie, Mich. sex. Paul Quack.

RED POLLED CATTLE Males and Females
Swine. E. S. CARR, Homer, Mich. Large Yorkshire

HOGS

Berkshire Hogs Yearling, spring and fall pigs of
either sex, priced very reasonable.
R. B. Reaves, Akron, Mich.

DUROC JERSEY GILTS

Especially long in body and well developed in form;
a valuable, practical type. Send for photos and full
description and price of this exceptional practical
stock. **STATE FARMS ASSOCIATION, 307 North**
Rose Street, Kalamazoo, Michigan.

**Raise a Topmast Sensa-
tion Litter and
raise the best.**

We are offering bred sows and gilts. Let us quote
you prices on a real boar pig sired by TOPMAST
SENSATION. Write us your wants.

LOEB FARMS
Virgil Davis, Supt. Swine
Char'voix Michigan

Registered Durocs

FOR SALE.—Young boars and gilts bred from the
best herds in Michigan and Ohio, at reasonable prices
and fully guaranteed. W. E. Bartley, Alma, Mich.

DISPERSION SALE

Michigan Farm is disposing of its entire herd. Sows
and gilts bred to a great son of Supreme Col. Fall
boars and gilts. All registered in your name. Prices
are very attractive—hogs more so. Come or write.
Michigan Farm, Pavilion, Mich.

DUROC JERSEYS Spring pigs either sex of March
April and May farrow, sired by three outstanding
herd boars. If you want size type and quality combined
come and see or write us. F. J. Drott, Monroe, Mich. R. 1

Duroc Jerseys Bred Sows and Gilts, \$25 to \$40
each. Fall pigs, \$12. All Reg. and
guaranteed. Write's Top Col. breeding. None better.
Write us. Jesse Bliss & Son, Henderson, Mich.

DUROC fall and spring boars of the best breeding
and quality, at prices to sell. Fall pigs at bar-
gain prices. W. C. Taylor, Milan, Mich.

DUROC JERSEYS AND DELAINE MERINOS
CAREY U. EDMONDS. Hastings, Mich.

Chesters Spring boars from prize winning stock.
will ship on approval. Cholera Immuned.
Fred L. Bodimer, Reese, Mich.

Chester Whites Farrowing. Aldrich &
Williams, Tekonsha, Mich. Farrowing. Aldrich &

O. I. C.'s 25 choice young boars for fall
service. Clover Leaf Stock Farm,
Monroe, Mich.

O. I. C.'s 75 spring pigs, pairs not akin, from
3 good sires, also fall pigs, recorded
free. Otto Schulze & Sons, Nashville, Mich.

O.I.C's Sept. pigs, Sired by "Giant Boy," Senior
Champion at West. Mich. State Fair, 1923.
Milo H. Peterson, R. 2, Ionia, Mich. "Elmhurst Farm."

25 Reg. O. I. C. Sows, Bred for April and May
Farrow. All Stock Shipped on Approval. Priced
Right. Fred W. Kennedy, R. 2, Plymouth, Mich.

L. T. P. C. Bred Gilts out of the most pop-
ular blood lines. They have al-
ways made good and will again. Write your wants,
also for plan of selling. M. M. PATRICK, Grand
Ledge, Mich.

BIG T. P. C. Aug. and Sept. pigs sired by our
herd boars at \$75 each. Winter sale Feb. 20, 1924.
Order quick for choice. E. A. CLARK, St. Louis, Mich.

L. T. P. C. Boars and Gilts all go at private
man, \$40. Michigan Champion herd for 3 years.
A. A. Feldkamp, Manchester, Mich.

Large Type Poland Chinas

Bears \$25 each. Satisfaction guaranteed, all stock
shipped on approval. Bred Sow Sale Jan. 30.
DORUS HOVER, Akron, Mich.

Big Type Chester White bred sows and gilts.
Sired by and bred to State Fair
prize winners. Lucian Hill, Tekonsha, Mich.

Fall Pigs either sex, by the great Boar, The
Wolverine. Priced reasonable. Best
of dams. W. E. Livingston, Parma, Mich.

Hampshires Spring Boars and Gilts, and fall pigs.
Pairs not akin; 11th year. 150 to
select from. John W. Snyder, St. Johns, Mich., R. 4.

Hampshires Of Best Blood lines; 100 Bred Gilts
and Sows, some fine Boars. Luck-
hard's Model Farm, Bach, Mich.

SHEEP

Registered Hampshire Ewes

I have for sale a few registered Hampshire ewes, all
ages, bred for last of April and first of May lambs
to, an excellent heavy breed good woolled and short
legged ram. A First Prize winner. C. U. Haire,
Boyne City, Mich.

Choice Bred Ewes

400 for sale in carlots, yearlings to solid mouths,
black-faced, in good condition, bred to lamb April
19th. Located 25 miles south of Detroit on Detroit
& Toledo Electric, and on Dixie Highway. Telegraph
Address, Rockwood, Phone Newport. Post Office,
South Rockwood. **ALMOND B. CHAPMAN & SON.**

Shropshire Rams and Ewes

write of call on Dan Booher, R. 4, Ewart, Mich.

S HROPSHIREs—Am offering 10 young ewes of
Buttar and Senator Bibby blood lines for \$20
each. C. J. Thompson, Rockford, Mich.

HORSES

For Sale Cheap. Horse, large, harness
and wagon. Max Bartholomae
Son & Co., 1574 E. Warren Ave., Detroit.

Shorthorn SHOW and SALE

by Michigan Shorthorn Breeders' Association
at Michigan Agr'l. College, East Lansing, Mich.

Friday, Feb. 8, 1924

Show 9:00 A. M. Sale 11:00 A. M.

48 Females 14 Bulls

CONSIGNORS:

H. B. Peters & Son, Garland, Mich. McLachlan Brothers, Ewart, Mich.
Carr Brothers & Co., Bad Axe, Mich. Michigan Agr'l. College, East Lansing, Mich.
John Lessiter's Sons, Clarks- L. C. Kelly & Son, Plymouth, Mich.
ton, Mich. S. H. Pangborn, Bad Axe, Mich. G. H. Parkhurst, Armada, Mich.

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

The BEST BREEDERS in MICHIGAN are contributing to this
sale. Several animals are out of STRONG SHOW HERDS. A few
were shown at the 1923 International.

A number of each of the following POPULAR FAMILIES are
offered: Rosewood, Augusta, Mina, Rosemary, Village Maid, Orange
Blossom, Claret, Nonpareil, Miss Ramsden, Lovely. Many are sir-
ed by GRAND CHAMPION BULLS.

This is an Outstanding Opportunity to get Show Animals
of Best Blood Lines

Auctioneers: Carey M. Jones Dr. J. P. Hutton

Write for Catalogue

W. E. JUDSON EDWARDS, Mgr.,

EAST LANSING, MICH.

FAIR VIEW STOCK FARM

Sells 45

Big Type Poland Chinas

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

Wednesday, Jan. 30, 1924

At the Farm in Basement Barn regardless of weather.
This offering is bred to four different boars. There will be some to please
everyone.

Ambition Again, The Undeclared Senior Pig at 5 Fairs.
Peter The Great 3rd, a Grandson of Liberator.

Double Buster, a grandson of Peter Jones also a Grandson of Giant Buster.
Orange Boy, our first prize pig at our county fairs. Sired by M. & W's Orange.

Write today for Catalog. It describes them all.

AUCTIONEERS: Wm. Waffle, Coldwater, John Hoffman,
Hudson, L. S. McEldowney, Caro.

DORUS HOVER, Akron, Mich

FOURTH MICHIGAN STATE SALE

Monday Afternoon, February 4th,

In the Steam-Heated Judging Pavilion, M. A. C.

East Lansing, Michigan

45 Selected Holsteins. Are They Good?

INDIVIDUALLY? The Inspector drove 1500 miles to locate the right kind.
HEALTHY? Half come from accredited herds, the balance from herds under
state and federal supervision.

BACKING? Every animal in milk, except three 3-year olds whose dams have
big records—has a record. Five have 30 lbs., 2 have 29 lbs. (one a Jr. 3),
3 have 28 lbs., 3 have 27 lbs., etc. Four have five semi-official records, 7 have
good Cow Testing Ass'n records. One mature bull has 1231 lb. dam; 5 young
bulls have 30 lb. dams, two of which have great C. T. A. records,
Send for catalogue to

Michigan Holstein-Friesian Association
J. G. Hays, Sales Mgr., East Lansing, Michigan

NOTE: State Holstein Banquet, night of February 4. State Annual Meeting,
February 5, with Judging School by Wm. Moscrip, famous Holstein Judge.



THE LATEST MARKET REPORTS



GRAIN QUOTATIONS

Wednesday, January 23.

Wheat.

Detroit.—No. 1 red \$1.13; No. 2 red \$1.12; No. 3 red \$1.09; No. 2 white \$1.13; No. 2 mixed \$1.12.
Chicago.—May \$1.08½@1.09; July at \$1.07¼@1.07½; September \$1.06¼.
Toledo.—Cash \$1.13½@1.14.

Corn.

Detroit.—Cash No. 3 yellow at 84c; No. 4 yellow 82c; No. 5, 76@78c; No. 6, 73@75c.
Chicago.—May 79½@79¾c; July at 80¼@80½c; September 81c.

Oats.

Detroit.—Cash No. 2 white at 51c; No. 3, 50c.
Chicago.—May at 47½c; July 45½c; September 43¾c.

Rye.

Detroit.—Cash No. 2, 74c.
Chicago.—May 73½c; July 74½c.
Toledo.—73½c.

Barley.

Barley, malting 72c; feeding 68c.

Buckwheat.

Buckwheat.—New milling \$2 cwt.

Beans.

Detroit.—Immediate and prompt shipments \$4.80@4.85 per cwt.
New York.—Choice pea \$5.75@5.90; red kidneys \$7.30@7.40.

Seeds.

Detroit.—Prime red clover cash at \$13.40; alsike \$9.30; timothy \$3.95.

Hay.

Strong.—No. 1 timothy at \$24.50@25; standard and light mixed \$23.50@24; No. 2 timothy at \$22@23; No. 1 clover \$21.50@22.50; No. 1 clover mixed \$21.50@22.50; wheat and oat straw \$11.50@12; rye straw \$12.50@13.

Feeds.

Bran \$35; standard middlings \$34; fine do \$35; cracked corn \$37; coarse cornmeal \$35; chop at \$33 per ton in 100-lb. sacks.

Apples.

Chicago.—Barrels, "A" grade Greenings at \$5@5.50; Jonathans \$5@5.50; Grimes \$4; Spies \$4.50@5.50; Kings at \$5@5.50; Baldwins \$4@4.50; Spitzenberg \$4@4.50.

WHEAT

The wheat market was firm early last week in sympathy with corn, but softened toward the close. Increasing pressure from Argentine wheat which is being offered abroad considerably cheaper than Canadian and about ten cents cheaper than our wheat was a factor.

The rate of flour mill operations is up to normal for the corresponding season of the year, but mills report flour business as rather disappointing. Primary receipts of wheat have increased slightly since the holidays but are less than half of last year's volume. Japan and China are still active buyers of Pacific Coast wheat and a heavy tonnage of Canadian is booked for clearance via Vancouver during the winter. European buying of Manitobas has subsided as a result of the heavier offerings from Argentina.

The Argentine surplus is estimated at about 190,000,000 bushels and clearances are increasing rapidly. Reports on winter wheat acreage in all countries are uniform in showing reductions compared with last year. In addition, average yields per acre may not be so favorable as in the last two years. A few damage reports are coming from our winter wheat belt.

RYE

The visible supply of rye is extremely large and still increasing, although it is probably near its peak. Exports are small, Russia still has a moderate surplus for sale and reports on the new crop in Europe are favorable.

CORN

Corn prices advanced last week to the highest point since new crop grain began to dominate in the receipts. The movement to primary markets thus far has failed to show the usual January increase and the visible supply is too small for comfort. The latter declined last week instead of gaining as it usually does at this season. Since November 1, primary markets have received less corn than a year ago, in spite of the increase in the crop in the main surplus states. Exports have been smaller but increased distribution to the domestic trade has made up for much of the loss of foreign business. Corn producers appear to look for a partial repetition of the advance which occurred in corn prices last year and

the improved tone in the hog market probably is causing them to hold more firmly. Feeder demand from the western edge of the corn belt is keen and is not far from last year's volume. The advance in prices was checked at the end of the week when country selling increased slightly and demand slackened.

OATS

Primary receipts of oats have been below normal during the last several weeks while shipments from these markets have been heavy and another start has been made toward cutting down the visible supply. Prices advanced last week to the highest point in three years.

BEANS

The bean market has turned firm in the last few days, with choice hand-picked whites quoted at \$4.90@4.95 per 100 pounds f. o. b. Michigan shipping points. Cold weather has stimulated the demand. Beans are not being distributed as rapidly as would be desirable, however, in view of the rather large supply still to be moved. On the other hand, there appears to be a fairly large latent demand from wholesalers who are waiting for lower prices but if the market remains steady, they will probably come in on the present basis.

SEEDS

The clover seed market declined last week, losing about half of the upturn since the first of the year. Domestic seed prices are more stable than the markets on which foreign seed may be delivered. The cash demand for seed seems to be improving and it is probable that prices will work higher as the seeding season approaches. It is estimated that 75 per cent of the crop had been sold by growers up to December 26. Fairly large shipments of foreign seed are arriving each week but there is little new contracting for additional quantities.

FEEDS

Feed markets generally are inactive although there is some show of life in the demand for wheat feeds at western milling centers. Buying of oil meals is quite limited. Stocks of all feeds are ample but production normally declines during the winter and spring months while there are several months ahead in which the demand for feeds usually is fairly good so that prices appear more likely to advance than to decline.

HAY

Larger receipts have taken the edge from the timothy hay market, but the demand is fairly broad and both alfalfa and prairie hay are firm.

POULTRY AND EGGS

Egg prices made some wide swings last week. With heavy receipts, mild weather and reports of a continued heavy lay, prices declined sharply early in the week. Cold weather throughout the producing belt stimulated prices, however, so that the losses were more than regained. A progressive increase in receipts during the next few months probably will not be more than temporarily halted; however, the present cold wave has already broken and storage holdings are burdensome, so that lower prices are to be expected except when buoyed from time to time by unfavorable weather conditions.

Chicago.—Eggs, miscellaneous 38@39c; dirties 22@24c; checks 20@21c; fresh firsts 40c; ordinary firsts 35@37c. Live poultry, hens 22c; springers 20c; roosters 14½c; ducks 22c; geese 16c; turkeys 20c.

Detroit.—Eggs fresh candled and graded at 38@39½c; storage 24@26c. Live poultry, heavy springers at 21c; light springers 16@20c; heavy hens at 22@23c; light hens 21@22c; roosters 14@15c; geese 15c; ducks 23@26c; turkeys 25@30c.

BUTTER

Butter prices worked materially lower last week. Receipts were large, reflecting the increased production shown by reports from both the American Creamery Butter-makers' Association and the Minnesota Cooperative Creameries. Buyers took only enough butter to supply immediate needs and stocks of foreign butter available for consumption at attractive prices were rather heavy. Lower prices probably will stimulate consumption to a point where the heavy receipts can be more nearly absorbed. Prices on Danish butter declined last week, making it even more attractive to dealers who believe that domestic butter must work down more closely to the foreign level. Imports during the week were not large but heavy purchases to arrive within the next few weeks are reported.

Ninety-two score at Chicago 50½c; New York 51c. In Detroit tubbed fresh creamery sells for 48@50c.

POTATOES

Potato prices declined last week as consuming markets were feeling the effect of recent heavy shipments from producing sections called forth by the advance in prices early in January. The movement is falling off again and it is probable that the main late potato producing states are more completely shipped out than at this time a year ago. Eastern round whites are quoted at \$1.75@1.95 per 100 pounds sacked

and bulk in consuming centers. The northern round whites, sacked, are quoted at \$1.35@1.50 in Chicago.

WOOL

Prices for all kinds of wool are reported firm at seaboard markets and a slight upward tendency was apparent in the medium and lower grades. Manufacturers are buying on a moderate scale in anticipation of future orders for cloth. The response which cloth buyers make at the openings scheduled for the present week will determine the demand during the next two or three months. Fine and one-half blood wools are quoted below foreign wool of similar grade. Foreign markets are firm to higher everywhere.

APPLES

The apple market is firm, although prices are at a rather low level. New York Baldwins are quoted at \$3.50@4.50 per barrel in eastern markets. A 2¼-inch Northern Spies are bringing \$5.50@6 at Chicago; Greenings \$5@5.50, and Baldwins \$4.50@5.

Cold storage holdings of apples on January 1, 1924, consisted of 4,489,000 barrels, 14,107,000 boxes, and 1,323,000 bushel baskets. This makes a total equivalent to approximately 9,641,000 barrels, compared with 6,431,000 barrels on the same date a year ago, and a five-year average of 6,624,000 barrels. Clearances of apples for export are running rather large, with a total for the season to January 5 equivalent to 3,030,000 barrels.

DETROIT CITY MARKET

The quick clean-up of nearly all of the moderate supply of apples on Saturday morning's market proved to be the surprise of the day. Prices were advanced some before all were taken. There was a liberal supply of garden truck and potatoes. Carrots sold fairly well, but parsnips and cabbage were slow to move.

Potatoes moved fairly well, with most sales at 80@85c a bushel. Dressed hogs were easy sellers, but veal had little call. The supply of dressed and live poultry was moderate and the demand was mostly for hens. Eggs had good sale.

Saturday's morning's prices were. Apples, fancy \$2@2.50 bu; No. 1, \$1.25@1.50 bu; beets \$1.25@1.50 bu; cabbage \$1.25@1.75 bu; red \$2 bu; carrots \$1.50@1.75 bu; celery 40@85c a dozen; onions \$1.25 bu; parsley 50c dozen bunches, \$1.50@2 bu; potatoes 80@95c bu; parsnips \$1.25@1.75 bu; horseradish \$3@5 bu; bagas 75c bu; kale 75c@1.10 bu; eggs, retail 55@75c dozen; old hens, retail 25@30c pound; springers, wholesale 20@22c lb; retail 22@25c lb; ducks 35 lb; veal 18c lb; hogs 11@12c lb.

GRAND RAPIDS

Heavy receipts of fresh eggs unsettled this market early this week and paying prices to farmers had a wide range. Some buyers were taking in limited quantities at 33@34c a dozen, while others were not anxious to buy at 30@32c a dozen. Buyers seem to fear a break in the market and are therefore handling eggs conservatively. Poultry buying was erratic with bidding for heavy fowls fairly active in a range of 18@24c a pound. Hot-house leaf lettuce was unsettled at 14@15c a pound. Low priced western iceberg head lettuce has weakened the demand for leaf. Radishes, however, are gradually swinging upward, prices rebounding from 50@60c and 65c a dozen bunches. Otherwise the market was unchanged from last week.

COMING LIVE STOCK SALES.

Holsteins.

Feb. 4.—Michigan State Holstein Association, East Lansing, Mich.

Shorthorns.

Feb. 8.—Michigan Shorthorn Breeders' Association, East Lansing.

February 19-21.—American Shorthorn Breeders' Association, J. L. Tormey, Secretary, 13 Dexter Park Avenue, Chicago, Ills.

Durocs.

Feb. 20.—Detroit Creamery Farm, Mt. Clemens, Mich.

February 11.—H. F. Cramton, H. B. Kelley and W. H. Schroy, Hillsdale Fair Grounds.

Poland Chinas.

Jan. 30.—Doris Hover, Akron, Mich.

Feb. 5.—Detroit Creamery Farm, Mt. Clemens, Mich.

Feb. 20.—E. A. Clark, St. Louis, Mich.

Chester Whites.

March 6.—Alexander & Bodimer, Vassar, Mich.

Live Stock Market Service

Wednesday, January 23.

DETROIT

Cattle.

Market slow and 25c lower.

Good to choice yearlings.	\$ 9.50@ 9.75
Best heavy steers	8.00@ 8.50
Handyweight butchers	7.00@ 7.75
Mixed steers and heifers	6.00@ 6.50
Handy light butchers	4.50@ 5.50
Light butchers	3.75@ 4.50
Best cows	4.00@ 4.50
Butcher cows	3.75@ 4.50
Cutters	2.50@ 3.00
Canners	2.00@ 2.50
Choice bulls	5.50@ 5.75
Bologna bulls	4.50@ 5.25
Stock bulls	3.25@ 4.25
Feeders	5.50@ 6.25
Stockers	5.25@ 6.00
Milkers	\$ 45@ 85

Veal Calves.

Market steady to 50c higher.

Best	\$15.00@15.50
Others	5.00@13.00

Sheep and Lambs.

Market steady.

Best lambs	\$13.75@14.00
Light to common	7.00@10.00
Fair	11.50@13.00
Fair to good sheep	5.50@ 7.00
Culls and common	1.50@ 3.50

Hogs.

Market steady.

Mixed and heavies	\$ 7.75@ 7.80
Pigs	6.50
Roughs	6.00
Yorkers	7.40
Stags	4.00@ 4.50

CHICAGO

Hogs.

Receipts 33,000. Market is uneven, mostly steady to 5c lower. Big packers bidding 10c lower. Bulk of good 240 to 300-lb. butchers at \$7.25@7.30; practical tops \$7.30; bulk of good 160 to 225-lb. average \$7@7.25; packing sows \$6.60@6.70. Killing pigs are dull; butchers lower. Valuable weight at \$5.75@6.25.

Cattle.

Receipts 13,000. The market on beef steers and fat she stock semi-demoralized. Yearlings and handyweight steers about steady. Few early sales at \$10@10.25; some held higher. Canners and bulls slow and steady. Calves are strong to 25c higher.

Sheep and Lambs.

Market active. Fat lambs and yearlings weak to around 15c lower. Sheep and feeding lambs are steady. Good woolled lambs \$13.50@13.75; tops to shippers \$13.90; yearling wethers at \$11.60; good handyweight fat ewes and feeding lambs \$13@13.25.

BUFFALO

Cattle.

Receipts 20 cars. Market slow. Calves at \$15.

Hogs.

Receipts 30 cars. Market is higher. Heavy and yorkers \$7.85@7.90; pigs at \$7.

Sheep and Lambs.

Receipts 15 cars. Market is strong. Top lambs at \$14.35; yearlings \$11@12.50; wethers \$9@9.50; ewes \$7@8.50.

Free Information On Fur Tanning



Send for circulars, tell us what you have to tan. We answer.
W. W. Weaver, Reading, Mich.

You furnish the raw beef or horse hides or raw furs; we do the tanning in our own plant. We make up coats, robes, gloves, mittens, caps, vests. The finest kind of fur work done on ladies' fine furs coats, capes, chokers, horse hide shoe leather, coats, finest of sheep lined coats.

This Year Try Stahelin's Big Yield Strawberry Plants

Gladioli, Roses Ornamental Shrubbery

Splendid variety, adaptable to any soil. Grow Stahelin's Strawberries this year—they will make Big Money—up to \$1200 per acre; the new varieties: The EATON, DELICIOUS, PREMIER, MARVEL, COOPER and the CHAMPION—world's greatest ever-bearing strawberry; are all robust, healthy, well-rooted plants, readily adaptable to your soil. Thousands of our customers are coming big money in strawberries. So can you. **START THIS YEAR!** of the big fruiting variety at special price, per thousand \$30 and up.

Send for our BIG FREE full colored catalog of Strawberries, Raspberries, Blackberries, Asparagus, etc.

F. C. Stahelin & Son, Props. of BRIDGMAN NURSERY CO., Box 42, Bridgman, Mich.

The Eclipse Spray Pump is simple in construction, durable and efficient. Made in several sizes to meet the various needs.

SPRAY THE MORRILL & MORLEY WAY

ASK FOR CATALOG
MORRILL & MORLEY MFG. CO.
Box 23 Benton Harbor, 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	One time	Four times
10.....	\$0.80	\$2.40	26.....	\$2.08
11.....	.88	2.64	27.....	2.16
12.....	.96	2.88	28.....	2.24
13.....	1.04	3.12	29.....	2.32
14.....	1.12	3.36	30.....	2.40
15.....	1.20	3.60	31.....	2.48
16.....	1.28	3.84	32.....	2.56
17.....	1.36	4.08	33.....	2.64
18.....	1.44	4.32	34.....	2.72
19.....	1.52	4.56	35.....	2.80
20.....	1.60	4.80	36.....	2.88
21.....	1.68	5.04	37.....	2.96
22.....	1.76	5.28	38.....	3.04
23.....	1.84	5.52	39.....	3.12
24.....	1.92	5.76	40.....	3.20
25.....	2.00	6.00	41.....	3.28

Special Notice

All advertising copy discontinuance orders or change of copy intended for the Classified Department must reach this office ten days in advance of publication date.

MISCELLANEOUS

GERMAN ALMANAC 1924. Containing over 100 pages fine German reading matter. We have several hundred copies to distribute to those sending their name. Send free to your parents, relatives and friends by sending us 3c for the return postage. Detroit, Abend Post, Michigan's German Daily, 1442 Brush Street, Michigan.

GLADIOLUS BULBS—Order now for April 1st delivery. Mixed colors. \$5.00 per 100. Enjoy flowers all summer. George Hunter, 412 Evergreen Ave., East Lansing, Michigan.

TREES, Plants, Shrubs, guaranteed direct from grower. Lowest prices. New—Dr. Worcester hardy peach and Ohio Beauty Apple. Planting Book Free. Woodlawn Nurseries, 951 Garrison Ave., Rochester, N. Y.

STRAWBERRIES—Plants and all kinds of small fruit plants, thousands of plants. Get our list for cut prices. Sawyer Nurseries, Sawyer, Mich., Box 81.

ALL MEN, women, boys, girls, 17 to 65, willing to accept Government Positions, \$117-\$250, traveling or stationary, write Mr. Oment, 167, St. Louis, Mo., immediately.

LARGE OREGON PRUNES DIRECT: 100 lbs. prepaid \$11.90; special 12 1/2 lb. sample prepaid \$1.95. Kingwood Orchards, Salem, Oregon.

FREE CATALOG. Carpenter's Auction School. Largest in world. Hall Bldg., Kansas City, Mo.

PET STOCK

FERRETS, for rats, rabbits, skunk, mink, etc. Book Free. Thos. Sellers, New London, Ohio.

GERMAN SHEPHERD—Airedales, Collies, Old English Sheepdog dogs, puppies, 10c illustrated instruction list. W. R. Watson, Box 35, Macon, Mo.

BUILD ON PAPER FIRST.

COSTLY mistakes are likely to be avoided if one, in the planning of a new house, barn or other farm building, first carefully lays out the plans on paper. It is most difficult to satisfactorily alter a plan after building has once begun. Often a stairway becomes almost unclimbable, or a chimney goes up through some bedroom, or some other combination unforeseen occurs when definite building plans have not been worked out beforehand.

Ship Your DRESSED CALVES Dressed Hogs and Live Poultry to DETROIT BEEF CO.

Oldest and most reliable commission house in Detroit. Write for instructions how to dress calves. Tags and market letter on application.

Detroit Beef Co.
1903 Adelaide St. Detroit, Mich.

A GOLDEN OPPORTUNITY FOR MEN OF MIDDLE AGE

Write for particulars of our spare time proposition. It will pay you big returns. You need no experience. We ask no investment. Outfit free. A tried and true proposition, one that has stood the test of years. Write today. P. O. Box 206, Rochester, N. Y.

Golden Champlain Cantaloupe

Pay the highest returns on labor and investment of any crop you can raise; over \$1,000.00 per acre reported. We tell you how; write for proof and information on world's earliest, best and heaviest producing melon. Mention, A-3.

H. J. Walrath & Sons, R.1, Conneaut, Ohio

--FISH--

Fresh Frozen Fish, 100 lbs. net weight. Round Herring, \$3.85; Dressed Herring or Bluefish, \$4.85; Pickered Round, \$9.35; Pickered, headless and dressed, \$12.35; Salmon, \$14.35; Flounders, \$10.35; Smoked Fish, 10 lbs. net weight, Bluefish, \$1.00; Fancy Fat Lake Chubs, \$1.90. Write for complete price list all varieties, frozen, salted, spiced and smoked Lake and Ocean Fish. A satisfactory deal positively guaranteed.

JOHNSON FISH CO., Green Bay Wis.

REGISTERED COLLIE PUPPIES—Natural heelers, both sexes. Silvercrest Kennels, Gladwin, Mich.

TIROUGHBRED White Collie puppies. Write. Albert Emmons, Big Rapids, Mich.

TOBACCO

HOMESPUN TOBACCO—Five pounds chewing, \$1.75; ten, \$3.00; twenty, \$5.25. Smoking, five pounds, \$1.25; ten, \$2.00; twenty, \$3.50. Pipe and recipe free. Send no money. Pay when received. Kentucky Tobacco Company, Paducah, Ky.

LEAF TOBACCO—Chewing, five pounds, \$1.75; ten, \$3.00; Smoking, five pounds, \$1.25; ten, \$2.00; pipe and recipe free, pay when received. Cooperative Farmers' Paducah, Kentucky.

TOBACCO—Extra Fancy Smoking, 10 pounds, \$2.50; Good Smoking, 5 pounds, \$1; 10 pounds, \$1.50; 20 pounds, \$2.75. Chewing, 5 pounds, \$1.50; 10 pounds, \$2.75. Quality Guaranteed. O'Connor Smokehouse, S133, Mayfield, Ky.

HOMESPUN TOBACCO—Chewing, 5 lbs., \$1.75; Ten, \$3.00. Smoking, 5 lbs., \$1.25; Ten, \$2.00. Pay when received, pipe and recipe free. Farmers' Union Paducah, Ky.

BABY CHICKS

PURE-BRED BABY CHICKS—Barred Rock, Buff Orpingtons, White Wyandottes, Rhode Island Reds. February 15th to April 15th, \$15.00 per hundred. After April 15th, \$13.00 per hundred. 98 per cent live delivery guaranteed. Brookdale Poultry Farm, Box 522, Paw Paw, Michigan.

BABY CHICKS—Finest quality. Barred Rocks, White Wyandottes, Buff Orpingtons, S. C. Reds, Light Brahmas, White Leghorns, \$15.00 per 100, \$8.00 per 50. Hatch every Tuesday. Order from ad. Member International and Illinois Baby Chick Associations. Earlville Hatchery, 66 Ottawa St., Earlville, Illinois.

BABY CHICKS—20 leading varieties hatched from heavy laying strains. Live delivery guaranteed anywhere in the U. S. Lowest prices ever offered. Write for catalog and price list. Miller Hatcheries, Box 651, Lancaster, Mo.

BABY CHICKS—100,000 Hollywood-Barron S. C. English White Leghorns. Vigorous. Free range. 100, \$14.00; 500, \$7.50; 1,000, \$13.00, postpaid. Live Arrival. Bank Ref. Liberal discount on early orders. Catalog. Highland Poultry Farm, R. 9, Box C, Holland, Mich.

Free to Farmers



Vicious Temper



Balking



Hard to Harness

Introductory Course in Practical Horse Training

WOULD you like to be able to break colts in just a few days—to cure horses, mules or teams of bad habits forever? You can. Through This Amazing New Easy Way to Train Horses, you can quickly learn how to break or train any colt or horse.

And now you can have FREE The Introductory Course in Practical Horse Training prepared by the famous horse trainer, Jesse Beery.

HOW TO CURE BAD HABITS How would you cure a horse of shying on the road, kicking, balking, biting, running away, and other habits that make him hard to handle and damage his value?

The Free Introductory Course points the way to curing all these habits and many more. Fully illustrated and brimful of interesting pointers on horse training. Sent absolutely free to any farmer or breeder. You can't afford to be without this valuable information—it may save you hundreds of dollars—perhaps even your life!

Remember—No Cost—No Obligation. Simply Fill Out and Mail The Coupon.



How to Break and Train Horses



Kicking



Nervous Fear



Running Away

Beery School of Horsemanship
Dept. 461
Pleasant Hill, Ohio

Beery School of Horsemanship
Dept. 461, Pleasant Hill, Ohio

Without cost or obligation on my part please send me at once the Introductory Course in Practical Horse Training.

Name.....
R. F. D.....
City.....State.....

S. C. R. L. RED COCKERELS—Pure-bred, dark, even color, \$3 and \$5 each. Louis Morris, Mt. Morris, Mich., R. 1.

68 VARIETIES of Fine pure-bred chickens, ducks, geese, turkeys, fowls, eggs, chickens. Large catalog 5c. A. A. Ziemer, Austin, Minn.

RINGLET Barred Rock Cockerels. Exhibition and laying strains. Satisfaction Guaranteed. Earl Murphy, Britton, Michigan.

WHITE LEGHORN COCKERELS—Chicks, Eggs from best flock in country. Catalogue, Oak Dale Farms, Box Y, LeRoy, Minn.

BARRED ROCK—Cockerels, Chicks, Eggs, Chicago Winners, Great Layers. Catalogue, J. A. Schneider, Box Y, LeRoy, Minn.

S. C. BROWN and English White Leghorns, 332-egg, Trapnested, Pedigreed, "Free Offer." Stock Eggs, \$1 to \$3. Catalogue, Vera Fulton, Gallipolis, Ohio.

GIANT BRONZE Turkey Toms and Barred Rock Cockerels. Choice Stock. Mrs. Geo. Robinson, Lake Odessa, Mich.

MUSCOVY DUCKS—Breeders, drakes, hatching eggs and ducklings. G. E. Heneveld, R. 1, Grandville, Mich.

SILVER LACED and White Wyandotte Choice Cockerels. C. W. Browning, Portland, Mich.

SINGLE-COMB Ancona Cockerels. Sheppard's best, \$5 to \$3. H. Cecil Smith, Rapid City, Mich., R. 2.

MAMMOTH bronze turkeys from best breeding stock. Mrs. Eugene Ramsdell, Hanover, Mich.

JUMBO BRONZE TOMS—Hickory Hill strain. Archie Bennett, Rockford, Mich.

MICHIGAN'S BEST GIANT BRONZE TURKEYS—America's best strains. Vigorous breeders, both utility and fancy. Extra good values in young toms. N. Evelyn Ramsdell, Ionia, Mich.

WHITE HOLLAND TURKEYS—Large, vigorous birds. Henry Griffin, Napoleon, Mich.

PURE-BRED Bourbon Red Turkeys for breeding only. H. O. Ruggles, Milford, Mich.

GEESSE—Ducks, leading varieties. Free Circular. John Hass, Bettendorf, Iowa.

WHITE CHINA GEESSE, excellent layers, \$10.00 trio. Mrs. Alice Bonow, Mattawan, Mich.

GIANT BRONZE TURKEYS from prize winning birds. Large, healthy, unrelated stock furnished. Mrs. La Verne Brownell, Belmont, Mich.

MAMMOTH BRONZE TURKEYS—Toms, 20 to 23 lbs., \$12; hens, 12 lbs., \$7; good markings. Mrs. Walter Dillman, Dowagiac, Mich.

WHITE HOLLAND TOMS—get new blood and improve your flock. We still have over 100 toms and hens, large, healthy birds. Alden Whitcomb, Byron Center, Mich.

PURE-BRED Bronze Toms, Large Size. While they last, \$8 and \$7. John Buchner, Morley, Mich., R. 1.

HELP WANTED

WE PAY \$200 monthly salary, furnish car and expenses to introduce our guaranteed poultry and stock powders. Bigler Company, X683, Springfield, Illinois.

WANTED—Single man, reliable and experienced, to work on well equipped general farm. Good wages. O. J. Feldkamp, Saline, Mich.

WANTED—Married man, experienced, for general farm work. Box 426, Michigan Farmer.

\$40 PER MONTH and expenses paid, good men for taking orders. Steady work. Apply Protective Nurseries, Geneva, New York.

SITUATIONS WANTED

WANTED—Position as farm manager, either dairy or general farming. G. C. Kinney, R. 1, Birmingham, Michigan.

MICHIGAN FARMER
Classified Liners bring results. They cost little.

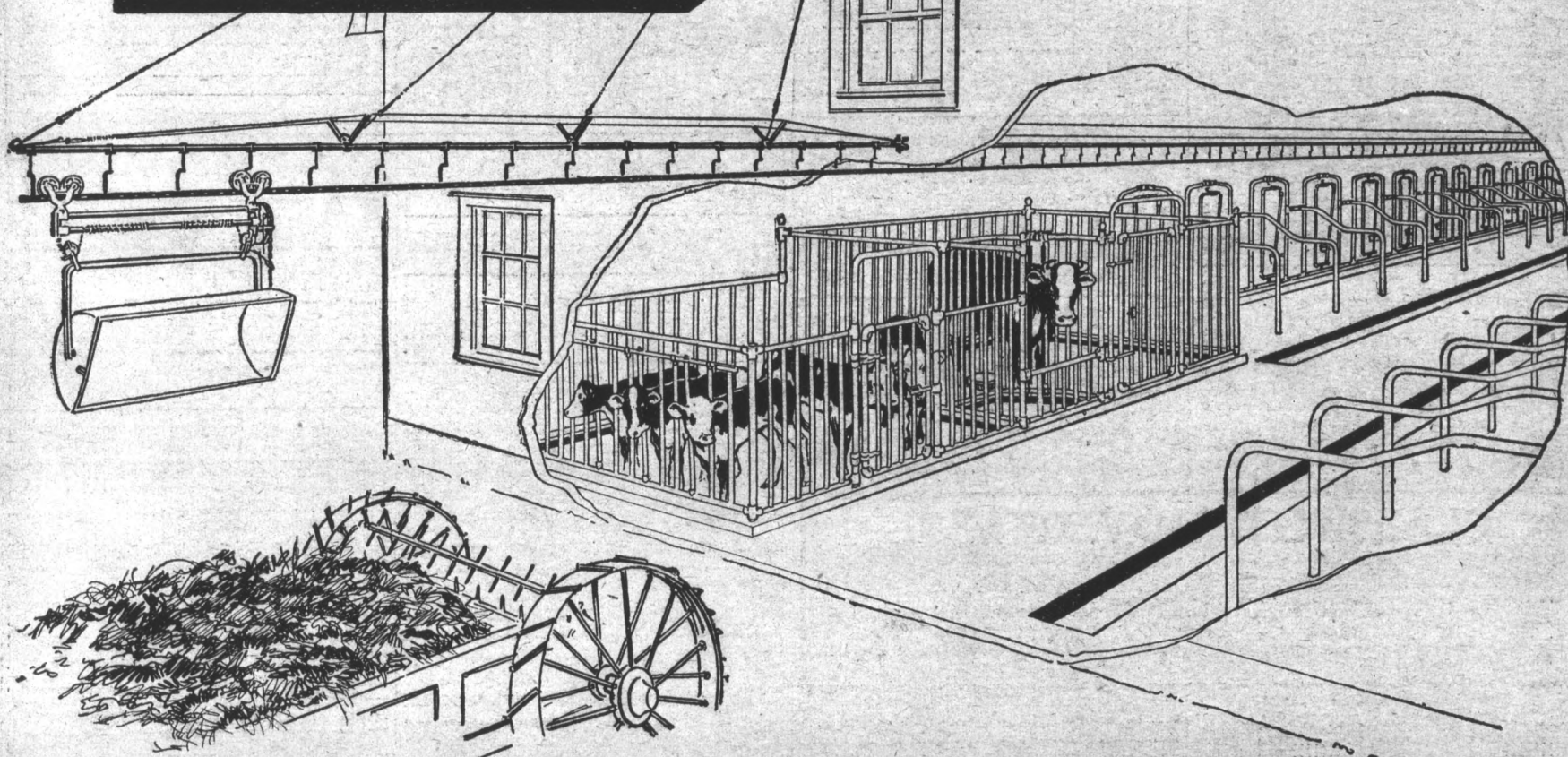
Babson Barn Equipment

\$23⁵⁰
Down

**Equips This
Barn Complete
With Stalls, Pens
and
Carrier System**

Expert Service Free

Babson Bros. offer to prospective customers expert service in helping you equip your old barn, or plan your new barn with the utmost economy and efficiency. Our experts will submit floor plans for your consideration. Or, they will lay out your present barn to give you greatest capacity—to save you steps and labor. You assume no obligation in figuring with us.



A Year to Pay!

This is just an example of the convenience and saving in buying your barn equipment the new way—on time—from Babson Bros.

Your barn may be equipped at a much smaller down payment than \$23.50. Or you may need more extensive equipment. You may want only a few stalls—a calf pen or bull pen—a carrier. But whatever you need, you can buy it of Babson Bros.—with quality and satisfaction guaranteed—and pay for it in easy monthly payments as you use it.

Built to Melotte Quality Standard

For 20 years this old established house has been selling merchandise of the highest quality to the farmers of this country. Edison Phonographs, Olde-Tan Harness, Melotte Cream Separators and other dairy equipment—all have been sold by Babson Bros. on easy

Babson Bros., 2843 W. 19th St., Dept. 31-01, Chicago

Gentlemen: I would like to get your offer on the barn equipment indicated below. It is definitely understood that I assume NO OBLIGATION in figuring with you.

I keep _____ cows. I am interested in the following:

(Please check the items you are considering.)

_____ Stalls _____ Separate Stanchions _____ Cow Pen
_____ Calf Pen _____ Bull Pen _____ Carrier System
_____ Drinking Cups I own my farm _____ I rent my farm _____

Name _____

Address _____

monthly payments. Barn equipment has invariably been sold for cash. *But now we offer our Barn Equipment on the same liberal terms.*

Everyone knows what EDISON stands for in the phonograph line. YOU know from your own or a neighbor's experience what MELOTTE stands for among separators—or what the name OLDE TAN means in harness quality. The name BABSON on Barn Equipment stands for the same thing:—The highest quality, backed by the same guarantee of satisfaction. The coupon below brings our complete proposal on your requirements. Mail it today.

Easy to Install — Do It Yourself

Everything we sell is planned to set up so easily that you can install it yourself. For instance, our arch top stall comes completely assembled—ready to set in the concrete. Our pens come in complete panels. All you do is to bolt them together and set in place after the concrete curbing is built.

Every shipment is accompanied by such detailed directions for installing that any handy man can do the job as well as an experienced contractor.

With this announcement, Babson Bros. places an unprecedented opportunity before you. Think of it! Your opportunity to buy barn equipment on easy terms! The highest standard quality. Low prices. Expert advice and service. And a Satisfaction Guarantee.

Write Today for Full Details

Get the full details of this unusual offer at once. You will find many exclusive features in the construction of Babson stalls, stanchions, pens, etc., that you will insist on having in the equipment you purchase. Let our experts help you with your plans. Let us figure with you. We can save you money. Such help is freely given. No obligation of any sort. Just mail the coupon. Do it right NOW!

Babson Bros. 2843 West 19th Street
Dept. 31-01 CHICAGO