

# MICHIGAN FARMER

AND LIVE STOCK JOURNAL.  
PUBLISHED WEEKLY. ESTABLISHED 1843.

The Only Weekly Agricultural, Horticultural, and Live Stock Journal in the State.

VOL. CL. No. 3  
Whole Number 3976

DETROIT, MICH., SATURDAY, JANUARY 19, 1918

\$1.00 A YEAR  
\$5.00 FOR 5 YEARS



# The Michigan Farmer

Established 1843. Copyright 1918.

## The Lawrence Publishing Co. Editors and Proprietors

39 to 45 Congress St. West, Detroit, Michigan  
TELEPHONE MAIN 4525.

NEW YORK OFFICE—381 Fourth Ave.  
CHICAGO OFFICE—111 W. Washington Street.  
CLEVELAND OFFICE—1411-1415 Oregon Ave., N.E.  
PHILADELPHIA OFFICE—261-263 South Third St.

M. J. LAWRENCE..... President  
M. L. LAWRENCE..... Vice-President  
P. T. LAWRENCE..... Treas.  
F. H. NANCE..... Secy.

I. R. WATERBURY..... Associate Editors  
BURT WERMUTH.....  
FRANK A. WILKEN.....  
ALTA LAWSON LITTELL.....

I. R. WATERBURY..... Business Manager

### TERMS OF SUBSCRIPTION:

One Year, 52 issues.....\$1.50  
Two Years, 104 issues.....\$2.50  
Three Years, 156 issues.....\$3.00  
Five Years, 260 issues.....\$3.00  
All sent postpaid.  
Canadian subscription 5c a year extra for postage.

### RATES OF ADVERTISING

45 cents per line agate type measurement, or \$6.30 per inch (14 agate lines per inch) per insertion. No adv't inserted for less than \$1.35 each insertion. No objectionable advertisements inserted at any price.

Member Standard Farm Papers Association and Audit Bureau of Circulation.

Entered as second class matter at the Detroit, Michigan, post office.

DETROIT, JANUARY 19, 1918



## MR. E. H. HOUGHTON'S RESIGNATION AS MANAGER OF THE MICHIGAN FARMER.

Detroit, Mich., Dec. 15, 1917.

M. J. Lawrence, President The Lawrence Publishing Co.:

My Dear Mr. Lawrence:

I know you will not be surprised that I decide to tender my resignation as manager of the Michigan Farmer, to take effect on 31st inst., as we have been considering it for some time. In justice to myself and family I must retire from active work. I shall leave behind the great pleasure I have enjoyed while working very closely with you for over 36 years. But myself and wife think my health should be the first consideration and I know that you and my other friends in the business feel the same. Knowing and heartily wishing that the great business of the Lawrence Pub. Co. will go on in its successful career the same with me retired, and assuring you of my never ending interest in the same, I am, with best personal good wish to you,

Very truly yours,  
E. H. HOUGHTON.

It is with much regret that, on account of the conditions I am forced to accept the resignation of Mr. E. H. Houghton from the Lawrence Pub. Co. He has for over 36 years been an important element and able assistant in the growth of all three of our papers and in his retirement he takes with him the very best wishes of myself and all of our organization for his improved health and the real happiness of a long continued life. In this connection I announce that Mr. I. R. Waterbury has been appointed manager and editor of the Michigan Farmer. All of our readers know him, as his connection as chief editor is many years old. That he will meet with a hearty welcome and support from both subscribers and advertisers, I feel assured.

M. J. LAWRENCE,  
President.

The most instructive reading for a person of any age, old or young, is that in which the author's tone of thought is above the average tone of the reader's thought, and yet not beyond his grasp.—Selected.

### CURRENT COMMENT.

#### A Federal Road Policy.

A resolution asking the government to outline a federal road policy was recently presented to the government through the director general of railroads by the American Association of State Highway Officials. The text of this resolution follows:

Whereas, the proper construction and maintenance of the highways of the country is necessary to the successful conduct of the war; and,

Whereas, the plans of all highway authorities in the country, all users of highways, and all citizens interested in any way in highway construction and maintenance, are at the present time upset and tied up; and,

Whereas, there is need for a definite policy so that plans can be formulated for the coming year; and,

Whereas, a properly outlined policy directing the construction and maintenance of such roads and streets as are of general economic and military value will conserve the resources of the country, and will greatly facilitate the transportation of freight over highways and streets,

Therefore be it Resolved, that the American Association of State Highway Officials request the United States Government to formulate and promulgate, as soon as possible, a definite policy for road and street construction and maintenance, and

That it is requested that said policy contain a statement that freight cars shall be furnished next spring for the transportation of the necessary materials for the construction and maintenance of streets and roads of economic or military value.

This move is undoubtedly in line with the best thought of the country on the highway question. Unquestionably state plans should in the present emergency provide, first for the improvement of highways of special value from a military point of view. If the work of state highway officials can be co-ordinated under a general policy outlined by the government, this will not only be accomplished, but the character of improvements made is likely to be more uniformly satisfactory. The outlining of a policy relating to the use of cars for transporting materials is also most important. In many localities in this state serious inconvenience was caused for unreasonable periods of time owing to the impossibility of moving material for the building of permanent roads where the roads had been closed and the grading already finished.

There cannot be too much cooperation between state and government officials along this line. The association of state highway officials is to be congratulated for taking the initiative in the matter.

#### Community Fairs.

The Office of Information of the U. S. Department of Agriculture has issued a bulletin in which the advantages of community fairs, so-called, are set forth. The community fair as described is in the nature of a county fair with commercialized amusement features omitted. The proper sphere designated for the community fair is as a feeder to the county and larger fairs. The statement is made that one middle western county recently had a county fair composed of seventy-two community exhibits. There were neither races nor side shows as an attraction, yet some 10,000 visitors attended the fair.

In this connection, it is interesting to note that the Michigan Association of Fair Officials recently decided in favor of a more rigid censoring of amusements at Michigan fairs. This is in line with public sentiment, which has been freely expressed on this subject for many years. The elimination of midway features might properly be made a condition of the extension of such state aid as is given more important agricultural fairs of the state.

A purely agricultural and industrial exhibit properly staged will command an extensive patronage as repeatedly proven, whether it is a local or general exposition. There are plenty of exam-

ples to prove the truth of this statement. The step announced by the Association of Fair Officials is a step in the right direction, and one which will be appreciated by the better element of agricultural fair patrons.

The community fair idea has been satisfactorily worked out in many communities by the Grange, Farmers' Club or other local organization. These community exhibitions are of special value in promoting community effort along other lines, and are worthy of general encouragement.

#### Anticipate Your Needs.

Transportation difficulties which are pronounced at all times, have been aggravated by the cold wave and blizzard prevalent over wide areas of the country last week. The congested condition of traffic everywhere is greatly hampered by unfavorable weather conditions which are likely to recur throughout the winter. With transportation facilities inadequate to meet the necessities of the present emergency, there is the greatest reason why farmers, as well as other business men, should anticipate so far as possible, their transportation needs by ordering all supplies which will be required for next season's use at the very earliest possible date.

In practically all cases arrangements can be made to have the goods required billed for future payment, but even where this cannot be done, it will be better to have the goods on hand even at the cost of an interest charge if necessary, than to have their late arrival delay farm operations, as is almost certain to be the case if ordering is delayed until near the time when supplies will be needed.

This precaution should be taken with all kinds of farm supplies, but more particularly with materials of which a considerable tonnage will be needed, as fertilizers, ground limestone, land plaster, feeds and other similar materials. The same precaution should be taken with regard to implements or other supplies which must be shipped from a distance by local freight in which there is likely to be as great if not greater delays than in the movement of carload shipments.

An increasing number of farmers are annually adopting the plan of carrying a bank account and paying all bills by check. This is the best plan for several reasons. There is less chance of errors where this plan is used. The cancelled check is in effect a receipt for the bill, and may be easily and conveniently preserved. Relations are established with the banker which make it easy to secure credit when same is needed for the payment of bills which are due.

Successful business men everywhere who realize the value of their credit always pay bills as soon as they are due, and make a practice of taking the cash discount where one is offered, using their credit at the bank to supply the funds for prompt payment when necessary. Cash buyers can nearly always do better in any market, and more than enough better to cover any item of interest which may be required to keep the bank account intact.

There is now an added reason for paying all bills by check and transacting all business on the farm through the medium of the bank. The income tax as present applied will affect many farmers, and it will be to their advantage to have an accurate check on their year's business. A fairly accurate check of a farm business can be secured through the deposit slips and cancelled checks or check stubs, particularly if a note is made on same of the items for which each check is drawn and the source from which the money contributing to each deposit was received. This practically shifts the task of bookkeeping from the farm to the bank.

Many farmers who do a fairly extensive business find that this simple method of accounting gives them satisfactory results. Every farmer should keep a bank account and pay by check. If this has not been a general practice, time will present no more favorable opportunity than the present to begin it.

### HAPPENINGS OF THE WEEK.

#### Foreign.

The European War.—Winter has settled down on all the war fronts and as a result there has been very little fighting except by the aviators and artillery squads. Along the British front in the west only patrol encounters have been reported. This front has been snow-bound for the past month and has delayed the expected German drive for that length of time. Recent storms here have added to the difficulty of moving troops and munitions. Notwithstanding these conditions the allies report continued preparations for an offensive by the Germans. The latest news has it that the Teutonic plans include a great naval drive in cooperation with the land forces.—In Italy the terrific artillery fighting has given way to spasmodic efforts of small import. Storms have practically closed the passes through the Alps and are hindering the movement of German and Austrian supply trains.—No changes of moment have been reported in Palestine or Mesopotamia.—The Russian situation remains as unsettled as a week ago. The armistice between that country and the central powers has been extended to February 18. Russian delegates have returned to Petrograd with the idea of holding a conference in Moscow later. Predictions are that because of the anti-German feeling among the masses of Russian people that the Bolsheviki government will be obliged to reject the terms offered by Germany in order to keep control of the domestic situation. Peace has been agreed upon by Bulgaria and Russia.

The Irish question will come up for final adjustment in London this week. Much apprehension is expressed regarding the outcome.

When the new Canadian cabinet council is called together, one of the important subjects for consideration will be the matter of free trade in food stuffs between that country and the United States, in order to better meet the demands of the Allies for more of the food staples.

#### National.

Last week the lower house of congress passed a resolution providing for the extension of suffrage to women in this country. The bills is now before the senate.

Railroad executives representing 177 roads and ninety per cent of the mileage of the country have decided at a conference in New York, to ask congress to limit government control of railroads to the period of the war.

The recent severe storm covering the central and eastern states, caused much suffering because of the extremely low temperatures prevailing, the driving wind which, in many instances attained a velocity of sixty miles per hour, and the scarcity of fuel. Many deaths from exposure are reported. Traffic has been generally delayed on both electric and steam lines. The increased fuel required to keep homes habitable and the delay occasioned by the demoralization of transportation, have counteracted the progress made by the government fuel agents.

More big fires are reported this week. A blaze in the Industrial Building at Indianapolis, which housed 23 manufacturing concerns, many of them working on machinery for the government, did damage to the extent of about \$1,000,000. The fire is reported to have been of incendiary origin. The plant of a pasteurizing machine concern, of Canton, Ohio, was also destroyed Sunday. The company is believed to be working on war orders. The origin is unknown.

In conjunction with the investigations by congress into the progress made in the manufacture of equipment and munitions for the American army units, a bill has been introduced in that body providing for a new cabinet member to be known as the secretary of munitions.

The Cunard liner Vinovia was sunk by a German U-boat in the barred zone of the British Isles. The boat was loaded with food and munitions from New York to London.

Reports are current of the assembling early this week of a war council at Mexico City in conference with a Mexican agent who has since last February been in Germany and Austria. Generals from the different military districts constitute the council.

# The Farm Seed Situation

By PROF. J. F. COX  
Farm Crops Dept., M. A. C.

It appears certain that Michigan farmers will be faced with a serious difficulty in securing seed for next spring's planting. With the exception of oats and potatoes, there is a scarcity of sound seed of practically all the major spring-planted crops. All other obstacles in the way of a great war crop next year, such as labor shortage and difficulty of securing supplies, fertilizer, etc., are comparatively small compared to this appalling condition which strikes at the very root of crop production, and hence at the dairying and live stock industries of Michigan. This grave condition demands the serious and immediate attention of all Michigan farmers and grain dealers. The vigorous prosecution of the great struggle in which we are involved calls for the utmost in the way of crop production. No stone must be left unturned to prevent the disastrous situation which will certainly result if Michigan farmers find themselves inadequately supplied with seed during the coming season—a situation as disastrous, comparatively, as a shortage of ammunition on the firing line.

### The Seed Corn Situation.

If the German propagandists had directed a campaign in Michigan inimical to corn production, they could hardly have accomplished more direful results than adverse circumstances have brought about.

The growing season of corn was deficient in warmth and sunlight—the immature crop of September seriously damaged by early frosts—October remained wet and cold and corn did not dry out; the November and December freezes practically ruined for seed all field, and almost all crib corn. Only the corn which was properly harvested and stored for seed at an early date, and the small amount of 1916 corn available, is fit. It cannot be safely said that there is enough good seed in any Michigan county to plant a normal acreage and the majority of Michigan corn-growing counties report extreme scarcity.

Extension Specialist J. W. Nicolson reports that the farm survey crossing Saginaw county from east to west, showed only forty-two per cent of the farmers provided with sufficient seed, for their own planting; fifty-eight per cent had no seed. In Wayne county in a survey bisecting the county north and south and east and west, less than ten per cent were provided with sufficient seed corn.

Germination tests at the college show that corn in the shock is worthless for seed. Numerous tests from corn taken in the field from outside the shock gave a germination of five per cent; inside the shock seven per cent; new crib corn exposed to last freeze, ten per cent; well-stored corn, eighty per cent.

Serious seed corn shortages are reported by competent authorities in Minnesota, South Dakota, Wisconsin northern Iowa, northern Illinois, northern Indiana, northern Ohio and Canada. No great supplies are likely to be bought from these sources, but all that can be secured of corn adapted to Michigan must be located and purchased.

Michigan farmers must meet this situation for the most part locally. Old corn of good germination must be carefully conserved for seed. No corn fit for seed should be fed or exposed to adverse conditions. Corn of doubtful seed condition must be worked over ear by ear by the ear germination test, and ears which will grow saved for seed. In grading next spring butt and tip kernels will be too valuable to discard, but should be saved for planting. They will yield almost as well as other kernels on the ear, but should be planted by hand or with adjusted planter plates to get a fairly uniform stand.

For silage purposes as an emergency

measure, corn from localities of longer growing season should be utilized extensively, reserving for grain and seed for next year's crop the adapted varieties of Michigan.

Those not able to secure seed corn adapted to Michigan to plant for grain purposes will find it advisable to substitute barley, oats, or buckwheat, to supply grain feed.

Begin now to get your seed corn if you are not provided, for in the spring scramble for seed corn the majority may be left out.

### Seed Barley.

Barley, next to corn, is the most valuable grain crop to supply grain feed for hogs, sheep and cattle. Many will remember the difficulty in securing barley for seeding last spring. At the present time a number of Michigan communities are not sufficiently supplied with seed barley. The past season's crop was, however, a large one in Michigan and the great barley states of Wisconsin and Minnesota. The market is well supplied with barley, but it is being rapidly used for feeding, brewing and milling.

Immediate steps should be taken by seed dealers, elevator men and millers to secure enough barley for local use in anticipation of an abnormally strong demand. Those wishing barley for seed should order immediately. The famous Wisconsin pedigree barley is recognized



A Two-year-old Field of Grimm Just Before the First Cutting.

as one of the highest yielding spring seeded varieties.

### The Bean Situation.

Frost damage, high moisture content, freezing, immaturity and disease are factors which make the seed bean situation appear dangerous.

Bean elevator men are aware of this serious condition and many are reserving clean, well matured beans for seed, but unless farmers and bean handlers cooperate in insuring a saving of the best for seed, a difficult situation may exist in many bean-growing localities.

### The Clover Seed Condition.

Clover seed is higher than ever before. Apparently the price will continue to rise, and the man who waits for the possibility of a lower price next spring will without doubt be disappointed and many will not secure seed at any price. The best seed is the cheapest. Further economy may be secured by purchasing seed which has been put through the scarifying machine which increases its germination.

### A Just Price for Seed.

In view of the scarcity and great demand for good seed corn and other seeds, there is a grave danger of unjust inflation of prices. In normal times supply and demand alone have set the price. In these war times a just price only must be asked. Without a doubt it has cost more to secure good seed corn this season. Farmers have had to pick over large areas to secure fit seed. Extra care in drying and storing have been necessary. Seed men have gone to greater expense than ordinary in

gathering seed owing to necessity of picking up small lots and there has been greater loss due to poor condition. It is right that the expenses of these operations with a just profit shall be returned in the price asked. To ask more is profiteering of the most unpatriotic kind. One man in Michigan with two hundred bushels of corn to sell, is asking twenty-five cents per pound, or \$14 per bushel, for what he claims to be an extraordinary variety. One seed company is reported to be selling Illinois corn in southern Michigan counties at \$8.00 a bushel. Is this the way to meet the country's call for patriotic service?

The food administrator of Indiana has fixed a maximum price of \$5.00 as a just price for seed corn. Unless those who sell seed in Michigan ask a just price only, based on cost and a fair profit, without a doubt drastic measures will be in order to check and punish profiteers. The great majority of those with seed to sell will keep in mind the fact that our entire state, as

well as our armed force, is at war, and will deal justly in naming their price. Let those who take undue advantage of the present extreme condition bear in mind that they must face trial before the bar of a public opinion molded by men who are doing their utmost, and whose sons are even now on the firing line in France. On the other hand, farmers must be prepared to pay a higher price than usual and must consider that the cost per acre of planting corn, even at prices several times above normal is much less than in the case of other grains and beans and potatoes.

The necessity for early action in providing for your next spring's seed needs, is made even more imperative by the difficulty which may exist in securing prompt shipment, due to the inordinate war traffic. To make your demands known and buy or order early is one of the most important ways of preventing in so far as possible, the impending disaster of a wide spread lack of good seed.

# The Source of Alfalfa Seed

By H. W. HULBERT

A FEW years ago the farm crop section of the Iowa Experiment Station obtained 250 lots of alfalfa seed from farmers and seed dealers in many different sections of this country and Europe. This seed then was produced under a large number of varying conditions, and any of it might have been obtained by any farmer on

ter killing is shown in Table I, where the different plots have been grouped according to the source and the conditions under which the seed were produced. The especially hardy varieties as Grimm and Baltic are grouped separately in Table II, where they are compared with plots seeded with common commercial seed grown in the Dakotas and Montana and with imported seed, most of which had its origin in Turkestan.

### Yield.

From Table I it will be observed that there is practically no difference in the yield of hay secured from Dakota, Nebraska and Kansas seed. The seed secured from Oklahoma did not yield quite so well as that produced further north, while the irrigated seed from Utah made a much lower yield. It is possible that these lower yields may be accounted for by injury during the first winter, although such injury was not sufficient to be noticed. The Imported alfalfa made a very poor yield as compared with American grown seed from any source. This fact was true, not only as an average for all of the imported varieties, but was true for practically each and every one of these varieties, the imported plots being very uniform in their yield, no matter the source of the seed.

### Winter Killing.

Under ordinary conditions the plots seeded with the Nebraska and Kansas seed came through the winter practi-

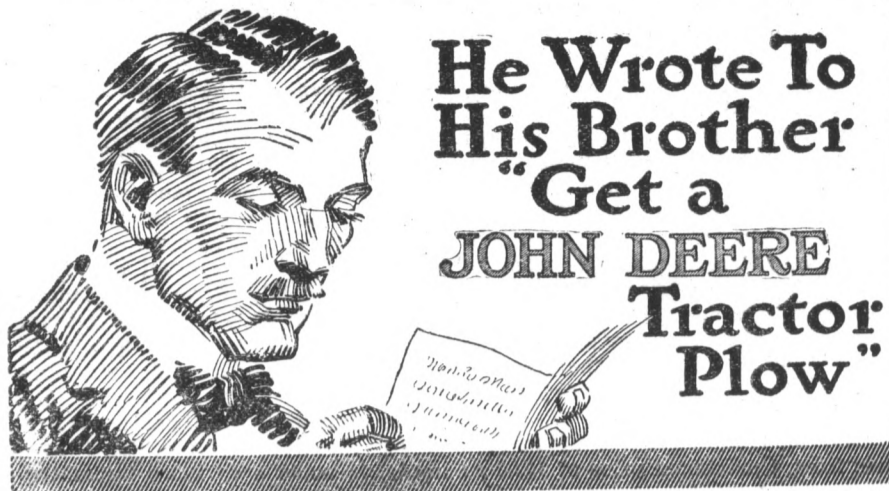
Table I.—Showing the comparative yielding power and per cent of winter-killing of alfalfa seed secured from different sources.

Source of Seed.	No. of Lots.	Irrigated or Non-irrigated.	Yield in Tons of Hay per A.	Per Cent Winter Killing.
Dakota and Montana.....	58	Non-irrigated .....	6.47	45
Nebraska .....	11	Non-irrigated .....	6.84	67
Wyoming .....	2	Irrigated .....	6.29	88
Colorado .....	7	Not indicated .....	6.77	47
Kansas .....	20	Non-irrigated .....	6.62	59
Kansas .....	11	Irrigated .....	6.73	54
Okla., Texas, N. Mex., Ariz.	7	Non-irrigated .....	6.36	85
Utah .....	14	Irrigated .....	5.78	86
Utah .....	2	Non-irrigated .....	5.74	57
Imported .....	57	Not indicated.....	4.86	33

Table II.—Showing the comparative yielding power and per cent of winter killing of Grimm and Baltic alfalfa, and imported and common types.

Source of Seed.	No. of Lots.	Yield in Tons of Hay per Acre.	Per Cent Winter-killing Ordinary.	Per Cent Winter-killing Severe.
Grimm, Baltic and other hardy strains	25	6.57	19	40
Common, Dakota and Montana.....	58	6.47	35	56
Imported .....	57	4.83	27	39

tions. Late in the fall of 1915, about December 10, one-half of each plot was cut close to the ground with a lawn mower, in order to present the most adverse winter conditions possible. The rest of the plot was allowed to go into the winter in a perfectly normal condition. The average yield in tons per acre and the average per cent of winter-killing is shown in Table I, where the different plots have been grouped according to the source and the conditions under which the seed were produced. The especially hardy varieties as Grimm and Baltic are grouped separately in Table II, where they are compared with plots seeded with common commercial seed grown in the Dakotas and Montana and with imported seed, most of which had its origin in Turkestan.



"You ask me what I think about your buying a tractor.

"Judging by my own experience, I'll say that you have done the right thing. But I want to give you some good advice that a neighbor gave me when I decided on tractor farming. 'Remember,' he said, 'that the tractor only pulls. It's the plow that makes the seed-bed.'

"You ought to get the best plow you can buy to use with your tractor. That's just as important as buying the tractor itself.

"I bought a John Deere plow when I bought my tractor and I am mighty well pleased with the work it does. It is unusually strong and light running. It saves fuel, and fuel costs a good deal these days. It doesn't have any chains and sprockets to cause trouble. It is so easily operated and dependable that I can keep my attention on the tractor while plowing. And best of all, it leaves a perfect job of plowing behind it. The best advice I can give you in connection with your tractor is 'Get a John Deere Plow.'"

And that is the best advice anyone can give to a man who intends to buy, or already owns, a tractor—get a

## JOHN DEERE TRACTOR PLOW

Successfully Used With Any Standard Tractor

### Makes a Good Tractor Pay

A John Deere Tractor Plow repeats its first great value to you year after year. It continues to make better seed beds. Its use means repeated plow profits for you instead of repeated plow investments by you. Its seed bed-making service makes a good tractor pay.

### Operating Economy

A John Deere Tractor Plow in your fields saves time, labor, fuel and plow up-keep. You operate it from the tractor seat. It requires little or no attention as you drive down the field. Its extra-quality bottoms scour perfectly. Its extra clearance prevents clogging. In turning at the end of the field, a slight pull on the trip rope causes the powerful power lift to raise the bottoms high and level.

Because of the location of the axles, the bottoms, when lowered, reach full depth instantly and stay in the ground. Perfect balance and superior bottom qualities make the plow extremely light draft—fuel-saving. There are no chains or sprockets to cause trouble. Every part is as strong as the best of material and workmanship can make it.

### Use It With Any Standard Tractor

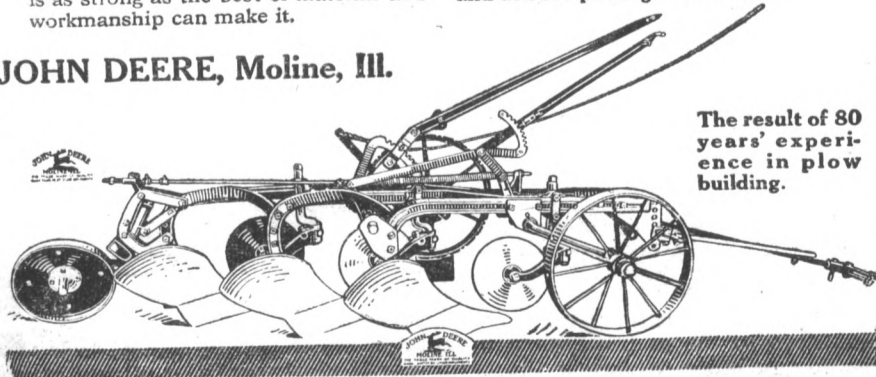
You can use a John Deere Tractor Plow successfully with any standard tractor. If your tractor is small, get the No. 5, carrying two to three bottoms. If your tractor is of the larger type, get the No. 6, carrying three or four bottoms. Insist on a No. 5 or No. 6—see them at your John Deere dealer's.

### Get These Free Books

Write today for our free booklet describing both the No. 5 and No. 6 John Deere Tractor Plows. It has a message on tractor plow value that you will find profitable reading. Ask also for our big free book, "Better Farm Implements and How to Use Them." Its 156 pages describe a full line of labor-saving implements—tells how to adjust and operate many of them. It is full of practical information that will help you. Use it as a reference book. Worth dollars.

To get these books, indicate the farm implements in which you are interested and ask for package TP-221.

### JOHN DEERE, Moline, Ill.



The result of 80 years' experience in plow building.



### Earn Big Money Cutting Wood

With a Howell Drag Saw Machine. Turn your timber into cash. Big coal shortage. The demand and prices for fire wood are greater than ever. Our drag saw cuts more wood in less time and at less expense than any machine built. Send today for our FREE catalog K and prices. R. R. Howell & Co., Mfrs., Minneapolis, Minn.

Investigate Now.

alfalfa was put through a very severe winter test, the Dakota and Montana grown seed showed considerable more hardiness than that grown in Nebraska or Kansas. Under these same severe conditions the plots put in with the seed from Utah and Oklahoma were almost entirely killed during the winter.

Only sixteen lots of irrigated seed were secured for the test, which is probably insufficient for a safe average, but which nevertheless would prove in some measure that they were not desirable for non-irrigated sections, for in practically every case these strains winter-killed very badly. This was undoubtedly due to the different conditions under which this seed was produced.

Occasional lots of seed sold at average prices and supposed to be common American, but which showed unusual hardiness, were secured from the far south, and on the other hand, some lots which lacked hardiness to a marked degree were secured from the Dakotas and Montana. This would seemingly show that the source of seed has much less to do with hardiness than the particular strain or variety. It would appear, however, that there is a greater chance of getting the more hardy seed from the north than from the south. This last fact is one that is commonly recognized by most growers.

### Hardy Varieties.

The Grimm and Baltic varieties are noted for their hardiness to the most severe winter conditions, but do not appear to be superior to the imported alfalfa in this respect. However, the Grimm and Baltic varieties are much superior to the imported strains in other ways. The Grimm and related types made a yield of 6.57 tons of hay per acre, while the imported types yielded only 4.86 tons under identical conditions. Besides, the Grimm made a heavy growth after the third and last cutting, enabling it to go into the winter in the best of condition. In fact, a possible fourth cutting might have been secured without injury to the stand. Then, too, this growth might have been easily used for fall pasture. The imported strains on the other hand, made very little growth following the third cutting, which was made at the same time as the Grimm and this early in September. Another point in favor of the Grimm is the fact that it produced seed abundantly, while the common American strains produced only a few scattering seeds and the imported varieties scarcely produced a blossom. The imported strains were easily crowded out by Kentucky bluegrass, when, under identically the same conditions, the bluegrass did not make a showing at all in the Grimm alfalfa.

In three years after seeding the imported types were the poorest plots of all of the different seedings. During this time the bluegrass had made a perfect sod and all of the alfalfa was practically crowded out. The common types which did not show the extreme hardiness, yet which under ordinary conditions, came through three winters satisfactorily, showed much less bluegrass, while the Grimm type showed practically none. This fact, while it shows that Grimm and its related hardy types are really the best alfalfas to grow, also shows that in a series of years the common types of alfalfa are better than the imported types for all practical purposes, even though they do not show such extreme hardiness.

### BY-PRODUCTS OF THE FARM AND THE WAR.

We are at present engaged in the most important, as well as destructive war of history which it is absolutely essential that we win, and in order to do so one of the very necessary things is the production of more food in this country than has ever been produced to date.

We must produce this food in most

cases at least upon land which is already far from being what it was in the virgin state as far as fertility or productivity is concerned.

We are asked to conserve in every possible manner the present food supply, and it is the very thing to do without any question, but is it not equally important that we take the very best possible care of those things which food is of, i. e., plant food in its several forms.

It looks as though very shortly we may be told by our government, what, when and how much we may eat. Is it anything out of the way to think it might be best for the cause to tell us, as farmers, what we may do with the plant food our soil contains and that contained in the by-products of our business, farm manures and the soluble plant food left in the fields which have been cropped with a cultivated crop through the summer?

It fairly makes the heart of men, who understand somewhat about plant food in farm manures, ache to see how the same is being wasted on the average farm by improper methods of handling same from the day it is made until returned to the soil.

The results of experiments carried on by experiment stations in this country and Canada show that anywhere from twenty to sixty per cent of the real plant food contained in manure is lost where the manure is exposed to the leaching and wasting of the weather, for from two to eight months, as the manure on so many farms is allowed to be before being returned to the soil.

So many of the farmers in Michigan do not to date realize this fact, or at least are not yet deeply enough impressed to plan upon handling their manure in the best possible manner. It is not enough to know what is best to do and how to do it, the whole thing is in the doing.

Without doubt the best way to handle manure where the land is not rolling, is to spread directly on the field within a week after being made, not only as far as the saving of plant food is concerned, but also from the viewpoint of economy and care in handling. When this cannot, because of existing conditions, be done, the covered manure pit is indispensable. However, it is best to spread as soon as produced, not for the plant food saved alone, but it is most desirable to have the rotting or decomposition of the manure take place in or on our soil. In the first place, we secure far more humus, the great moisture retainer, from a given lot of fresh manure than we can ever again secure from the same lot of manure.

In the second place, manure decomposing gives off carbon dioxide which causes the unlocking of the invaluable mineral elements, potassium and phosphorus contained in the soil, making the same soluble in water and then available for the coming crop.

Too much cannot well be said about the importance of having manure thinly and evenly spread on the fields at the earliest possible date after being made. It is just as important to conserve the things food is made of as the food itself for next year and for untold numbers of years we will need food as badly as now, and perhaps more so.

In addition to the waste in farm manures our farmers are allowing to take place they are not doing the best possible in the way of increasing the supply of organic matter in the soil by at every possible opportunity sowing a crop to be plowed down as green manure. Every farmer who has a field bare through winter would, if he knew of the loss to himself and children, feel guilty and ashamed.

Let us, as farmers, do our full share towards winning the war, by saving all this year's food possible, taking the best possible care of all manure produced, planning now on using cover crops to the greatest possible extent next year, and by growing a large crop by balancing up the nitrogen in our farm manure and legume crops plowed down with acid phosphate or other supplementary fertilizers.

Berrien Co.

W. C. ECKARD.

# Cooperate In Cutting Ice

By EARL W. GAGE

WE have a splendid system of team-work in ice harvest down this way. One farmer helps the other, and all have plenty of ice and do not feel the labor shortage or the "high cost of ice."

But a few tools are needed to cut the ice. A steel scraper is useful; some types of small road scrapers may be used for this, or a very good home-made scraper may be fashioned of wood and faced with a strip of steel, such as the back of an old cross-cut saw. An ice plow is almost essential if any quantity of ice is to be harvested, though for small jobs it is not necessary. This aids in removing the porous surface ice and simplifies cutting into blocks. Half a dozen ice pike poles, bearing vertical points and horizontal hooks, are necessary in floating the ice to the loading platform. An ice saw may be useful or an ordinary cross-cut, one handle removed, may be substituted.

### Dividing the Work.

Three squads of men have been found best in this section, each with a team. The first squad removes the snow or spongy ice from the surface of the field and plows, saws and cuts the ice into blocks of a size most convenient to handle and for the purpose for which the ice is intended. Larger cakes are best if they can be used, since the waste will not be as great. If the ice is more than twelve inches thick blocks two feet square on the surface are more convenient to handle; if it is thinner than a foot thick three feet square can be packed well.

The second squad of the community cooperative ice party cuts loose the blocks and floats them to the side of the open water, where they are ready to be loaded on sleighs. Here a tramway with a pair of ice hooks attached to a rope will make loading a relatively easy matter. Let the rope extend across the sled-box from the tramway; hitch one horse to it and drag the blocks from the water to be loaded. This saves heavy lifting and keeps the men from becoming unnecessarily wet. Ordinary ice tongs may be attached to the cakes.

The third gang of men work in the ice-house. They place each load into position in the house, pack sawdust as rapidly as the ice is delivered. Eight men and three teams can work most rapidly in harvesting a crop of ice by this method.

January and February are the best months for the ice harvest, although in this section of New York some very good ice, the best of the season, was put in during March. It is best to start cutting ice the afternoon before storing it, so that a good supply will be on hand to complete storing in one day with two teams hauling to the ice house. In case the weather is clear when beginning to cut, it is best to leave the cakes in the water until evening, when they should be drawn out to prevent freezing in, and to permit the water to freeze again.

### Packing the Ice.

In conveying the ice from the sled to the house two chutes may be used to advantage; one about twelve feet long for low work and another about twenty feet long to be used above eight or nine-foot doors. The smaller chute may be made of two-by-four's for sides, with one-inch stuff nailed lengthwise of the chute. The long chute had better be made of two-by-six for the sides, with cross braces nailed about every four feet. Make the chutes strong to prevent breaking and injuring the workmen. Fasten with a two-by-four nailed across the top underneath to hold it against the door. Place the other end on the rear of the sled gate so that the ice may be placed on the other end on the rear of the sled gate. It is much easier to handle the ice this

way than over the sides of the sled.

The best method is to pull the ice into the house by hand. Use about thirty-five feet of three-quarter-inch rope, the end at the house being hitched to a rafter so it will be handy and not slip. An ice tong should be tied to the other end, and with this arrangement one man can pull up large-sized cakes to a height of twelve feet on a twenty-foot chute. The tongs must be good and sharp to prevent slipping, as handling ice is dangerous work, and light tongs are preferable to heavy ones. It is well to have an assortment of sizes on hand.

Some farmers think it is too expensive to cut ice, yet ice is the only crop we may say truthfully that may be secured on the farm or near it at cost of taking it away. And ice increases the value of farm products many times, and is especially useful in handling milk, cream and fruits, to say nothing of aiding the farm family in supplying their table with delicious ice cream and cool drinks in summer.

### The Amount Required.

The dairy farmer should put up about 1,000 pounds of ice for each cow, if used to cool cream. For a twenty-cow herd, ten tons of ice will be needed. If whole milk is cooled, considerably more ice will be needed. Under average conditions it will take from two to two and a half tons per cow for milk cooling. As from forty to fifty cubic feet are required for a ton of packed ice, for ten tons 500 cubic feet of space must be filled.

The sides of the ice house should be well insulated to protect the ice from summer heat. Sawdust is good for this purpose. About a foot should be allowed for the two outside walls, which are filled between with sawdust.

When filling the house, keep the top level, and with a light stick tamp a liberal quantity of broken, chipped, and shaved ice into the joints. An adz is handy for shaving and leveling the ice. Square cakes are used in the middle and uneven ones are trimmed for the edge. Good tight joints are necessary. As the ice is laid and swept with a broom plenty of water is thrown over the ice to freeze the cakes into a solid mass.

### Caring for the Product.

Not more than twelve to fourteen inches should be left between the walls and the ice, the intervening space being filled with sawdust or clover chaff; straw is too loose and will not pack tight enough. Sawdust is preferable to chaff, and both are better than straw. Tar paper tacked on the walls provides further insulation against the heat.

When the ice house has been filled, if the weather continues cold, it is well not to cover the top for two or three days; but before the weather moderates the top should be covered with two feet of sawdust or clover chaff. This covering should be redistributed and packed into the sides about once a month until the house is opened for summer ice.

Ventilation is an important provision in an ice house owing to the presence of warm air which is certain to accumulate on top of the ice. In the newer ice houses it is necessary to place a small ventilator in the center of the roof which carries off this warm air. An opening of this sort will not melt the ice, as an opening in the end would, yet provides space for the warm air to pass out. Cold air is heavier than warm air and because of this fact the cold air which tends to keep the contents of the building from melting, sinks to the floor and from there adjusts itself around the sides of the ice. The warm air, on the other hand, rises to the top and escapes through the ventilator.

# The Day for Fertilizers

The Breeders Gazette of Nov. 1 says:

"There never was a day when fertilizers would do so much good on the lands of this country as during this war. We need still greater yields. Fertilizers produce them without causing much extra work excepting to harvest the increased crops. With the scarcity of farm labor it is difficult to increase the acreage of land which any farmer can operate next season. With the high prices prevailing for crops it is possible to make a profit on the fertilizers used even on ordinary grain crops."

Practically every farmer realizes the truth of this. Hired help can get more per acre from land that is well fertilized. A bushel of wheat, corn, oats or potatoes now buys more fertilizer than ever before.

## A·A·C· FERTILIZERS

produce more fodder, hay and grain; the farmer can keep more stock to make more manure; and he is using the fertilizers. They pay him. We only wish we could produce more of them. In view of the abnormal war conditions, our friends must get their orders in early and bear with us in patience if delivery is late; for there never was a time when every condition affecting the fertilizer trade was so much upset as right now. *Don't drive home an empty wagon. Order early.*

If we have no agent in your town, we want one. Write us for agent's name or ask for an agency yourself. It is paying 50,000 others. Why not you?



### READ THIS BOOK

No matter how many other books about fertilizer you have read, *read this one.* It is a new and different book. There isn't any advice in it for one thing. Probably you have about all the advice you need already. This is just a common sense book. You will read it and say: "That's so! Why haven't I thought of that before." If you are using fertilizers you are probably making money with them, but *are you making enough?* How do you know? By making little changes here and there, as you sometimes shift your farm labor and teams, perhaps you can make more. This book may help you.

### SEND THIS COUPON

Send me "How to Make Money with Fertilizers." I expect to use.....tons of fertilizer this season. MF 6

My Name .....

My Post Office Address.....

My County.....State.....

My Crops for 1918.....

## The American Agricultural Chemical Co.

Detroit Sales Department  
Detroit, Mich.

The Company maintains an Agricultural Service Bureau conducted by Dr. H. J. Wheeler, (for many years Director of the Rhode Island State Experiment Station), whose Crop Bulletins, services and advice are free to all farmers.

We ship from 60 different centers east of the Mississippi. This means good service for you wherever you live.

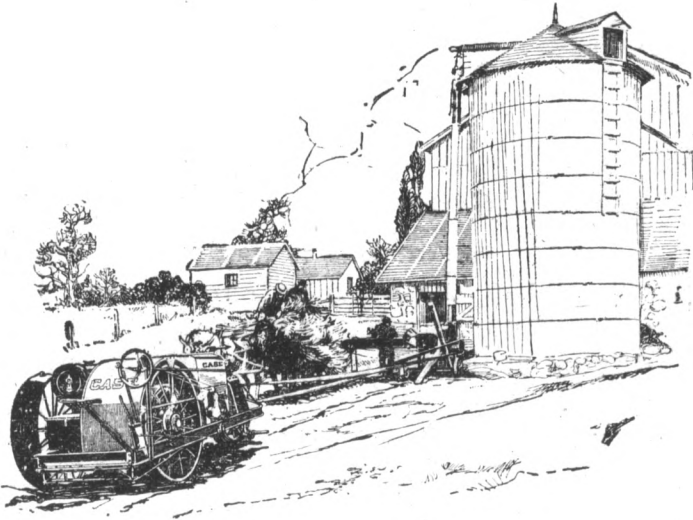




Founded  
1842

# CASE

Famous  
the  
World  
Over



## Never Before Have Silo Fillers Been Built the Case Way

In sturdiness and construction, in ability to do good fast work, Case Silo Fillers cannot be equaled.

All are built to withstand the severe strain put to a machine of this kind. Case Silo Fillers all have large throat capacities.

A simple gear-shift permits cutting four different lengths. The boilerplate knife-wheel prevents dangerous breakage.

Case Silo Fillers are made in three sizes—the 12-inch, with a capacity of 8 to 12 tons per hour; the 16-inch, with a capacity of 15 to 20 tons per hour, and the 20-inch, with a capacity of 20 to 30 tons per hour. This affords a size for any silo.

A complete description of Case Silo Fillers, with pictures, will be sent free upon request. Don't buy any Silo Filler until you have investigated the Case.

**J. I. CASE THRESHING MACHINE CO., Inc.**  
(Founded 1842)

741 Erie Street, Racine, Wis.

Send for This Descriptive Printed Matter—All Free

Below are listed the different series of booklets and folders. Tell us which interest you.

**FREE  
Books**

- |                      |                  |
|----------------------|------------------|
| 1—Kerosene Tractors  | 5—Hay Balers     |
| 2—Steam Tractors     | 6—Silo Filler    |
| 3—Grand Detour Plows | 7—Road Machinery |
| 4—Threshers          | 8—Automobiles    |

Or, if you wish, ask for our General Catalog, describing the entire Case line. It is free.

**Write  
Today**

## MORE WORK FROM YOUR HORSES

Heavy spring work takes the surplus flesh from the horse. His collar no longer fits. His neck and shoulders chafe and gall. He can't do his full share of work and you lose money. Prevent these evils by using TAPATCO Pads.

### A NEW AND BETTER HOOK ATTACHMENT

Consisting of wire staple, reinforced with felt washer (note where arrows point). This gives the hook a better hold and prevents pulling off. The weakest point is made strong and life of pad greatly lengthened.

Found Only on Pads Made by Us.

Look For The Felt Washer.

**SOLD BY DEALERS EVERYWHERE**

**The American Pad & Textile Company**

GREENFIELD, OHIO

Canadian Branch: Chatham, Ontario.



Pat. in U.S. Dec. 1, 1914.  
Pat. in Can. Apr. 8, 1915.

## Farmers and the Anti-Trust Laws

By JAS. N. McBRIDE

AMONG some writers there is an inclination to impute the violation of law when farmers collectively advise the prices they will ask for their products.

Do the Michigan milk producers, in setting a price for milk, violate the Michigan statute of 1899 or the federal law if the product is a matter of interstate commerce?

The technical lawyer sees an infraction, but at the same time is sufficiently candid to admit that there are others doing the same thing, but that he was expecting the farmers to take a higher view and be law abiding.

### Privilege is Extended to Others.

The isolation of the farmer compels him to openly cover a longer period of time in the application of the prices he names for his products. Bids on the Bean Board at Detroit or offers of beans and to the extent that their quotation fixes prices for cash, or for a month, is in no way different from the bean growers, where they name a minimum season's price, except the number of persons engaged on one side and the period of the offer quoted or made.

The Bean Board among themselves are both buyers and sellers, but in their relation to the producers are buyers always and it is in this capacity that their knowledge of supply and demand is expressed in price. To deny an association of growers from the right to express their ideas of supply and demand in terms of price, is unreasonable. In addition to the growers' knowledge of supply and demand they, and they alone, are acquainted with the cost of production which is coming more and more to be the prevailing element of price determination.

### Not a Restraint of Trade.

That such action in collectively setting prices constitutes a restraint of trade is, however, not held by the United States Supreme Court, which set forth that the rule of reason must be applied. Just what is that rule of reason might still be debatable, were it not for the Clayton amendment to the Sherman anti-trust law.

This specifically exempted agricultural organizations, not organized for profit and not having capital stock. The idea being that the profit was to attach to the product sold rather than to the selling agency. If profit came through enhancement of the product it would stimulate production. If the profit came through a selling agency to the benefit of those who held stock and acted as distributors, this would discourage production. This was the rule of reason founded upon the nature of the industries which were exempted.

Agriculture is an industry made up of small units, and decentralized. Hence very few corporations engage in farming for the reason that it does not easily lend itself to corporate action. Competition stifled without this Provision.

A condensary handling the milk of a thousand farmers, would be one unit which could of its own volition fix prices, because restraint of trade always assumes a collective activity. The one thousand or any two of the producers of milk under the letter of the law without the rule of reason being applied, would if demanding a fixed price jointly, be guilty of restraint of trade and of conspiracy to fix prices. To carry out the strict letter of the law would be to legislate in favor of the large unit of business by preventing the mobilization of the equal volume of smaller units to successfully compete. The law, then, would be really one to prevent competition than to encourage it. The technical legal mind would deny in chemistry the right of molecules to be made up of a different number of atoms. It would also recognize as equally destructive in warfare the smallest and the largest size cali-

ber of guns. This is not reason nor is it sportsman like.

The supreme court and congress have made distinctions and decisions, viz., that farmers can fix prices, and these are the laws, notwithstanding some preconceived ideas, which are not the laws nor facts.

Where state statutes to the contrary are still unrepealed these are now obsolete and not enforced.

The Civil war settled once for all the priority of the citizen's dual relation to the national government first, and secondly to that of the state. While the federal government has gone far toward recognizing each state's power along police lines it has never recognized the right to declare a crime by a state what was distinctly declared to be right by the United States. To argue otherwise would be the arrogance of states' rights in the extreme.

The recently enacted child labor laws was a distinct step in advance of the assumption of federal jurisdiction over products which might become subjects of interstate shipments, although they were not at the time of manufacture. In like manner the collective action in regard to any product purely within the state would be a subject of federal jurisdiction, when it might become a matter of interstate commerce.

There are few products that are not being shipped beyond state lines or on railways engaged in interstate commerce. State judicial processes are not likely to be invoked which are contrary to that of the United States and also to the economic spirit of the times.

### A CAPTAIN OF THE COMMISSARY.

The county agents constitute American agriculture's first line of defense.

They are the men in the first line trenches, zealously guarding the farmer's interests and bringing to his attention all that is of immediate practical value in our scientific teaching, and fortifying this with results from the experience of the most successful hard-headed practical farmers of each county.

At a time like the present when the nation is engaged in a great war wherein food production is of vital military importance, the value of the county agent to the government can hardly be over-emphasized.

Since the United States became a belligerent, the county agent has done valiant war service. In counties having agents, it was possible during the past summer to secure truly wonderful results, in quickly and adequately meeting a difficult labor situation; in locating available seed stocks; in arranging for farm credits for the purchase of machinery and fertilizer; in supplying tractor power, and in other forms of effective leadership, all contributing to a great increase in the production of spring wheat, oats, corn, potatoes and other food crops; and, finally in assisting in facilitating marketing.

Some of the most important battles of this war will be won during 1918 in the furrows and fields of America. The county agents will be the captains of the soldiers of the commissary who will make these victories possible.

CARL S. VROOMAN,

Asst. Secretary of Agriculture.

Demand and shipping movement continued very slow in the bean producing sections. Navys were reported selling at \$12.10@12.30 per cwt. f. o. b. Michigan shipping points. Colorado Pintos displayed a wider, higher range of \$6@6.75 per cwt. in bulk, re-cleaned basis but trading movement was too light to establish exact quotations and many growers were reported unwilling to sell. Demand continued slow in most distributing markets. A jobbing range of \$13.50@14.25 per cwt. ruled for Michigan pea beans and \$13.25@14 for Michigan Navys. New York pea beans ranged \$14@14.25.

**THE FUTURE SOURCE OF OUR DAIRY PRODUCTS.**

There appears to be a tendency on the part of the general public to think that a larger and larger portion of dairy products is coming from what we term strictly dairy farms. We question very much that this is the case, and are rather inclined to believe that the opposite not only has been true up to the present time, but will be more evident in the years to come.

In a recent survey in which an attempt was made to learn the number of cows in the different counties of Michigan, it became apparent that the increase in the number of these animals was proportionately greater in the counties remote from our large cities. We do not think that this is a mere accident, but that it is due to the working out of the purely economic conditions of cost of production and the presence in sufficient quantities of the different factors of production.

In the first place, practically every farmer sees to it that his home needs for dairy products are supplied from his own farm. The presence of a single cow on the farm makes it necessary that someone be there to care for her. There are also other animals that must be looked after. This makes it possible for the general farmer to provide for the care of from four to ten cows without adding a great deal to his equipment or his supply of labor. With young folks on the farm, it is usually an easy matter to arrange for performing the work in connection with a small dairy herd.

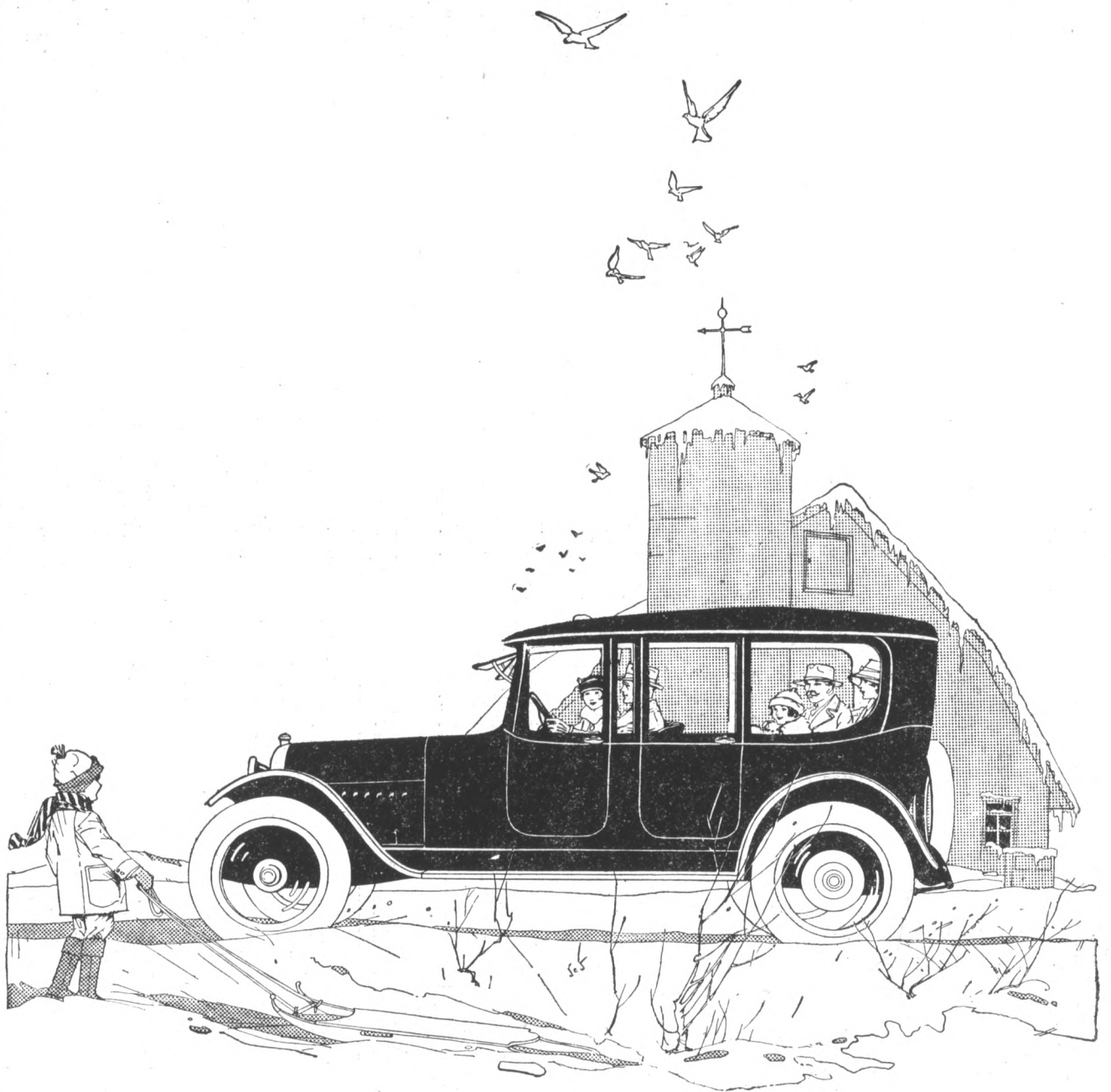
Then there is the question of feed. The majority of our farms will provide a sufficient amount of pasture, for instance, to carry a small dairy herd through the summer with very little supplementary feeding. The large dairyman, however, cannot do this. His pasture lot is usually little more than a source of tonic to keep the digestive system of his animals in condition to consume feeds that are gathered either on his farm or outside farms by expensive man labor and horse labor.

Secondly, in practical farm work there is always more or less of unmerchable feeds collected. These become practically a total waste unless they can be fed. The average farmer usually finds that he can market this inferior feed through the dairy cow to his financial advantage. While the supply of such feed is not provided in a uniform quantity from year to year, the unconscious working out of the law of saving among the rank and file of farmers, is to have a sufficient number of animals to care for the average bulk of this feed which, in years of plenty may be fed a little more generously, while in other years when scarce, may be supplemented by imported feeds or by unmerchable feeds from the farmer's own store.

This economy in the use of labor and feeds that might otherwise be wasted is such that it will likely enable general farmers with a few cows to produce dairy products at a lower net cost than is possible on the purely dairy farms. The dairyman with a large herd has advantages in buying feeds, delivering milk, and providing for the grading up of his herd. However, the recent development of the cooperative idea is enabling the man with a small dairy herd to compete in this field also. By working together the farmers of a community can buy the supplies needed, deliver their milk and grade up their herds through the assistance of breeding clubs and cow-testing associations almost as effectually as the dairyman with large herds. Consequently there is good reason for believing that the future of the dairy business is going to depend very largely upon the general farmer.

Wayne Co. W. TRUB.

Look backward only to correct an error of conduct for the next attempt.—George Meredith.



**Why This Oakland Wins Wide Favor**

IT is no accident, nor mere caprice of opinion, that has given the Oakland Sensible Six its high place in the regard of the American farmer.

It is, rather, that this car more ably meets his wishes and his needs than any other, and better serves him at a lower upkeep cost.

Although built on an extraordinarily strong and serviceable chassis it carries no unnecessary weight, and its high-powered engine is free from handicap of any sort.

Its slightly and comfortable body is swung on long springs over a generous wheelbase—on the roughest roads the car travels with sureness and ease.

The high-speed overhead-

valve engine of the Oakland Sensible Six is simple and efficient; at 2600 r. p. m. it delivers 44 horsepower, or one horsepower to every 52 pounds of car weight.

It is quick, capable and positive in action; under all conditions it is exceedingly sparing of fuel.

The body of the car is handsome in line and proportion; it is carefully made, very roomy and exceptionally comfortable.

Concentration of the entire Oakland manufacturing forces upon one chassis as the foundation for several body models has resulted in a value not equaled in the present car market.

OAKLAND MOTOR CAR CO.  
PONTIAC, MICHIGAN

**Owners of the Oakland Sensible Six throughout the country enjoy uniformly high mileages from fuel and tires.**

- Touring Car . . . \$ 990
  - Roadster . . . . . 990
  - Roadster Coupe. 1150
  - Sedan . . . . . 1190
  - Sedan (Unit Body) 1490
  - Coupe (Unit Body) 1490
- F. O. B. Pontiac, Mich.

**OAKLAND SENSIBLE SIX**

# Stock Owners— Here's Your Answer

## What is Pratts Animal Regulator?

Not a food. A general conditioner and tonic for horses, cattle, sheep and swine of all ages. A health builder and preserver.

## What does it contain?

Medicinal herbs, roots, etc. Natural tonics, appetizers, digestives, blood-purifiers, worm-expellers. A scientific, perfectly-balanced combination needed by working, producing and growing animals.

## What does it do?

Pratts Animal Regulator improves and preserves health and, *in a natural way*, increases strength, growth and production. Prevents most diseases. Saves feed by aiding digestion. Makes rich, red blood and improves circulation. Regulates the bowels. Expels irritating worms. Makes livestock more profitable.

## Does it give satisfaction?

*Satisfaction guaranteed or money refunded.* The user to be the judge. America's original stock tonic and conditioner, widely used for nearly fifty years.

## How is it used?

Daily, in small quantities, mixed with the feed. Full directions with each package.

## What does it cost?

The price is low—large packages most economical. Pratts Animal Regulator actually *costs nothing*, since increased production returns the investment with *big profits*.

## Where can I get it?

From 60,000 Pratt dealers. There is one near you. Direct from manufacturers, prepaid, if your dealer can't supply you.

## Can I learn more about it?

Yes! Write the Pratt Food Co., Philadelphia, for valuable **FREE BOOK** on profitable management of live stock. Mail your request today.

**PRATT FOOD COMPANY**  
Philadelphia Chicago Toronto



571

## GRASS SEED FREE SAMPLES

Wonderful Value Wholesale Prices Profits Divided with customers. Don't fail to investigate these bargains. Recleaned, Tested Timothy, \$3.25 bu., Clover \$14 to \$16, Alfalfa \$8.50, Alsike Clover and Timothy, Sweet Clover and other Grasses and Field Seeds at unusually low prices. All sold subject to State or Government Test under an absolute money-back guarantee. We are specialists in grass and field seeds. Located so as to save you money and give quick service. Send today for our big profit-sharing, money-saving Seed Guide which explains all, free. Buy now and save money. Write American Mutual Seed Co., Dept 31 Chicago, Illinois

**WERTHAN PAYS HIGHEST PRICES FOR EMPTY BAGS**

**CASH FOR EMPTY BAGS**

We pay highest prices and also freight charges. Be sure to get our prices before disposing of your bags. They're worth money to you and we'll pay you best cash price for them as soon as received and assorted. Write us at once stating how many you have.

**WERTHAN BAG COMPANY**  
61 Dock Street St. Louis, Mo.

**MASON'S FENCE BARGAINS**

Bigger than ever on full gauge, full weight, guaranteed fence. Don't buy until you have Mason's special direct from factory prices and **60 DAYS' FREE TRIAL OFFER**. Send for our new Free catalog showing fencing and gates for every purpose. It points the way to fence well and save big money.

**THE MASON FENCE CO.**  
Box 68 Leesburg, Ohio

47 inch PER ROD **37¢**

**Get Silver's NEW BOOK ON SILO FILLERS**

Now ready to mail. Learn how "Silverized Silage" increases yield of farm stock. This 52 page catalog covers all styles hand or power cutters. Send for it.

**The Silver Mfg. Co.**  
390 Broadway, Salem, O.

## Save the Soil

**N**EVER before in the history of American agriculture has there been any such a tendency toward the depletion of soil fertility. Thousands of farmers in our richest agricultural regions who were at one time growers of good cattle, sheep and hogs are becoming soil robbers. The high price of grain is tempting them to sell instead of feed out the crops. One may build up his bank account by that process for a few years, only to find that he has really been selling his farm by the wagon-load. Every consideration present and prospective, points to the importance of maintaining and increasing the fertility of the land, and this is just the reason why every farmer in America whose land will support live stock ought to find some way of utilizing good animals in his system of farming. The farms on which some sort of live stock may not profitably be maintained are few and far between.

The high price of grain has not continued long enough to enable anyone to measure its full effects, nor have we any means of determining whether the conditions which are holding the price of grains to their present level will continue long enough for the full effects to be realized. One effect, however, is plain, that it is checking the movement toward crop rotation, stock feeding and maintaining the fertility of the soil. Should this continue for years to come, we fear that this terrific waste of fertility that is going on will not only continue but actually increase.

### The Effect is Certain.

It is going to take a number of years to measure the effect of this drifting away from live stock on the land. It has been with the utmost difficulty, even when grain was bringing moderate prices, that farmers could be persuaded to change from growing grain for the market to stock farming. Nor is this to be wondered at; for the growing of cattle, sheep and hogs is an entirely different type of farming. It is an easy matter to develop a profitable system of grain farming on productive land, but it requires exceed-

ingly good judgment to make live stock yield maximum returns. And when a man has once drifted away from live stock it is all the more difficult for him to take up the work where he left off. Another question arises: What is going to be the result of the present generation of farmers drifting away from live stock farming on the future generations of farmers? The difficulty of teaching the coming generation how to care for live stock is sure to hold back the development of the industry for many years. Therefore, grain must be grown until the farmer is affected by reduced fertility and consequent declining yields. Then when the tide does turn, as it eventually must turn, there is going to be a mighty problem of restoring the wasted fertility and a mighty hunger for knowledge of live stock feeding and soil management.

One thing is certain, that unless there is a complete change in our methods of farming, grain will never be as cheap as it has been in former years. There are too many demands for it besides feeding it to live stock. The grain growing area cannot be increased to meet the requirements of our growing population. In fact, there are only two ways of increasing grain production; one by increasing soil fertility; the other by better methods of culture. Both of which are educational processes and necessarily slow.

### Live Stock Means Soil Insurance.

Live stock raising is the best insurance against an impoverished agriculture. Those who have studied the problem know that this is true. Do not increase your acreage of grain crops, but improve your methods. Grow fewer acres and more bushels to the acre. Do not keep too much live stock, but use better blood and give them better care. Do not break up good pastures and put them in grain because they offer a profitable rotation of crops and become a soil robber and a price chaser. The scales are sure to turn in favor of the live stock grower, and as live stock cannot be increased rapidly there is sure to be some good years ahead. It is claimed that hogs are an exception to this rule, that they can be increased very rapidly, but, even with hogs, when the supply of breeding stock becomes reduced it requires two or three years for production to get back on a normal footing.

New York. W. MILTON KELLY.

### CURE BEEF AT HOME.

Farmers cannot only reduce their living expenses, but they can perform a patriotic service by curing their own meats.

Any of the brine or dry mixtures which give good results in curing pork can be used satisfactorily for beef, but since beef is leaner than pork, it should not be allowed to remain in the brine or mixture quite so long or it will become hard and salty.

Dried beef should have the same cure as corned beef, but it should not be allowed to become too salty. It should then be washed to remove the excess of the cure, and smoked if the smoke flavor is desired. A very good country practice is to dry-cure the beef with salt and brown sugar, using about a fifth as much sugar as salt, rubbing the meat very thoroughly with the cure every two or three days for about two weeks. It should then be washed, wiped, and hung up to dry in a warm place or transferred to the smoke house and given a light smoke.

Corned beef is at its very best when it has been in the cure about ten days. If kept in the cure more than a month, it needs considerable freshening before cooking. If the red color of the beef is to be preserved, use a small amount of saltpeter, not more than two ounces to each hundred pounds of the meat. This improves the color of the meat but is detrimental in that it tends to harden the lean fibers.

## There's "Body" To Instant Postum

and "snap" to its taste.

Try a cup and notice the charming flavor and substantial character of this table beverage.

Postum is a true "man's" drink, and women and children delight in it.

"There's a Reason" for POSTUM

Sold by Grocers Everywhere!

## Community Clubs

Form a Michigan Farmer Community Club in your neighborhood. It means a saving for you and your neighbors on Michigan Farmer subscriptions. These clubs are easy to form because there are a lot of people in your neighborhood who are interested in the Michigan Farmer and want to take it. Those who are now subscribers will also want to take advantage of these club rates when renewing their subscriptions.

### Community Club Rates.

2 yearly subscriptions.....\$1.50	5 yearly subscriptions.....3.00
3 yearly subscriptions.....2.00	8 yearly subscriptions.....4.25
10 yearly subscriptions.....5.00	

All Community Club orders must be sent direct to the Community Club.

**The Michigan Farmer**  
Detroit, Michigan



WOULD IT PAY TO FATTEN PIGS?

Can I afford to fatten shoats that would weigh about sixty pounds at this writing, on soft corn? I haven't any too much of that to winter my stock through this winter. Would it pay me to buy hard corn at \$2 a bushel, that is, if people that I know of here want to sell? Middlings sell here at \$3 per cwt. Would also like to know which has more fattening food, soft corn or cull beans?

Barry Co.

P. Q.

These pigs ought to be grown and fattened. The world needs the pork. As time goes on we see more and more clearly that the question of food is going to be a prime factor in the winning of this great war. We are told that it will be impossible for England and France to produce enough food to maintain their armies and their people to win this war. They must have food from the United States. Therefore, a great responsibility rests upon the American farmer. It looks as if in the final analysis of this great struggle that the battle would be a battle of the farmers.

Many years ago, the German chancellor who finally succeeded Chancellor Bismark, in a public address, gave it as his opinion that the war of the future would be won by that nation best prepared to feed its army and its people. Modern war seems to take into consideration the people just as well as the army. The people are just as necessary in the winning of war today as the army. The nation must be organized. It is said that one-third of the German people are in the army, one-third in the munition factories and one-third trying to produce food to win the war. That being the case, that is what we have got to do because we have got to win this war.

Hogs are the most essential of all animals for the winning of the war, because their products can be shipped to Europe to better advantage; they don't spoil on the way. You don't have to have all refrigerator cars for shipping hams nor bacon nor barreled pork. Therefore, I believe that you ought to fatten these pigs and that every other farmer ought to fatten some pigs and leave the profit as a secondary consideration.

But our government is doing all that it possibly can to protect the farmer from loss in the production of meat, especially hogs. Mr. Cotton, who has charge of the meat division of the food administration, has met with prominent live stock men and they have figured out that the farmer, in order to make a profit ought to get a price for his live hogs per 100 pounds equal to the price of thirteen bushels of corn. This will give him cost and profit. At the present price of corn, this would be about 15½ cents per pound, f. o. b. Chicago, and this is to apply more particularly to the future. It was based on the idea that this year's corn crop would be sufficient for the feeder's needs, and that the hogs that are fattened on this year's corn crop for next summer's delivery will bring a profit at 15½ cents per pound. And since Mr. Cotton is the purchaser of the entire meat supply of our army and the armies of the allies it does seem that this would control the market in this respect and I don't believe there is any danger of feeding these hogs at a loss. If you haven't got the corn yourself or if you cannot purchase it in your neighborhood, then buy western corn, and I believe you will not only make a profit but that you will be doing your bit toward winning the war.

Cull beans and soft corn are entirely different foods. Soft corn is carbonaceous food and cull beans is a nitrogenous food. One is rich in starch, the other is rich in protein, so it is hardly proper to compare one with the other. They ought to be used together. Cooked cull beans mixed with corn meal makes one of the best rations for growing hogs that you can get, while either food alone is not so good.

COLON C. LILLIE.

High in Quality



En-ar-co  
PETROLEUM PRODUCTS

A Better Lubricant for Any Motor

Let no man sell you "just oil" again. The difference between the price of En-ar-co National Motor Oil and ordinary oil is only a few dollars per year.

AND those few dollars "saved" will cost you power losses and money losses in repair and upkeep bills. In any climate, at any temperature, up grades or over level stretches, En-ar-co will conserve the power your money has bought and insure your motor's longer life and satisfactory service.

For Your Automobile, Tractor, Gas Engine And All Power Machinery

Select your motor oil as carefully as you selected the motor you must lubricate. Investigate—don't buy blindly.

For 36 years En-ar-co National Motor Oil has kept step with the onward march of motor progress. From motordom's experimental days to its present high efficiency, En-ar-co has stood for highest excellence.

If you do not now enjoy En-ar-co satisfaction, this is the season to investigate. Send in the coupon today for free handy oil can and valuable power facts.

For Other Farm Needs

These other En-ar-co products are equally important to every farmer. Only the highest quality products bear the En-ar-co brand. Try

- En-ar-co Motor Grease
- En-ar-co Black Beauty Axle Grease
- En-ar-co Black Star Harness Oil
- En-ar-co National Light Oil
- En-ar-co White Rose Gasoline

Get this FREE Handy Oil Can Now!

The National Refining Co. 1345 Rose Bldg. Cleveland, Ohio

I own.....  
(give name above)  
automobile or tractor and enclose two 3-cent stamps. Send me Handy Oil Can FREE. Please give nearest shipping point in this state and quote prices on the items I have marked. I will be in the market about

I use \_\_\_\_\_ gals. gasoline per year    I use \_\_\_\_\_ auto grease per year  
I use \_\_\_\_\_ gals. motor oil per year    I use \_\_\_\_\_ gals. kerosene per year  
I use \_\_\_\_\_ lbs. axle grease per year    I use \_\_\_\_\_ gals. tractor oil per year

My Name is.....  
Address.....  
Postoffice..... State.....

The National Refining Company

Branch Offices in 77 Cities  
General Offices, Cleveland, Ohio

Turn Cutlery Steel Into Your Fields!

Do It Early With **Cutaway** DISK HARROWS

That's what the disks are made of—a special cutlery steel—forged edge (cut out or solid)—so sharp and sturdy that mother earth crumbles into tiny particles just as you want her to. Pulverize the soil early this Spring. Get it in the best condition to give the world bigger and better crops—and make it a poor season for Lady Insect and her family.



WRITE FOR THIS BOOK

It's a valuable one to have; tells what you need to know about "The Soil and Its Tillage". With it, we will gladly send our complete Implement Catalog and names of your nearest dealers in CUTAWAY (CLARK) Implements

The Cutaway Harrow Company  
469 Main Street, Higganum, Connecticut  
Maker of the original CLARK Disk Harrows and Plows.

Guarantee SPREADER

Department B-2, Baltimore, Maryland, the largest exclusive lime and fertilizer spreader manufacturers in the world, for their spreader catalog. IT'S FREE.

Is The Spreader You Should Buy.

"IT'S the only spreader I would give room on my farm," recently wrote one of our customers. "There isn't another spreader like it." Every feature is patented or patents pending covering them. Write to

The Guarantee Manufacturing Company

KELLY-DUPLEX COMBINATION CUTTER and Grinding Mill

Grinds alfalfa, corn fodder, clover hay, pea vine hay, sheaf oats, kaffir corn, and milo maize in the head, either separately or mixed in varied proportions with corn on the cob, with or without shucks, seed oats, rye, barley, corn and all other grains. FULLY GUARANTEED Four plates—a double set, grinding at the same time accounts for its large capacity. This machine has three sets of change feed gears. Perfect regulation, fine, medium or coarse grinding. For capacity, easy running and uniform grinding, the Kelly-Duplex can't be beat. Especially adapted for Gasoline Engines. Write for free catalog. DUPLEX MILL & MFG. CO., Box 308 Springfield, Ohio

Lump Jaw

The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

Price \$2.50 a bottle. Sold under a positive guarantee since 1896—your money refunded if it fails. Write for

FLEMING'S VEST-POCKET VETERINARY ADVISER

A book of 192 pages and 67 illustrations. It is FREE

Fleming's Chemical Hornstop

A small quantity, applied when calves are young, will prevent growth of horns—no need to dehorn later. A 60c tube—sent postpaid—is enough for 25 calves.

FLEMING BROS., Chemists  
252 Union Stock Yards, Chicago, Illinois

DEHORNING STOPS LOSS

Cattle with horns are dangerous and a constant menace to persons and to other cattle. Dehorn quickly and easily with a

KEYSTONE DEHORNER

All over in 2 minutes. Not a harsh method. A clear, clean cut. Cows give more milk; steers make better beef. Send for free booklet. M. T. Phillips, Box 126 Pomeroy, Pa.

Please Mention The Michigan Farmer When Writing to Advertisers

# MORE CROP From LIME!

## Lime for Your Soil

The use of lime on your soil will both increase the yield and improve the quality of your crops. It corrects a widely prevailing condition, acid or "sour" soil. This condition may be present on even the best cared for land and should be looked for by the Litmus test.

As Fine as Flour



is superior to any similar material you have heretofore been able to obtain. It contains a very high percentage of carbonates of lime and magnesia in their proper proportion to each other, and the fact that it is FINELY PULVERIZED makes EVERY particle active for sweetening your soil.

## Does Your Soil Need Lime?

The Solvay Process Co., is a large, long-established, reputable concern. Our resources guarantee our ability to be of service to you, thru our laboratories and engineers.

Write at once for our booklet or for a package of Litmus paper for soil testing purposes

## SOLVAY PROCESS CO.

10<sup>th</sup> 580 W. Jefferson Ave., DETROIT, MICH.



### Free!

A 50-gallon barrel of Scalecide free to any one who will suggest a fairer guarantee than that given below.

### "SCALECID"®

As proof of our confidence and to strengthen yours, we will make the following proposition to any fruit grower of average honesty and veracity:

Divide your orchard in half, no matter how large or small. Spray one-half with "SCALECID" and the other with Lime-Sulfur for three years, everything else being equal. If at the end of that time, three disinterested fruit growers say that the part sprayed with "SCALECID" is not in every way better than that sprayed with Lime-Sulfur, we will return you the money you paid us for the "SCALECID".

Send for new free booklet, "Profits in Fall Spraying".

B. G. Pratt Co., Mfg Chemists  
50 Church St. Dept. 22 New York

# CLOVER

Biggest Bargain this season. Tested quality, absolutely Guaranteed. Sold subject Government test. Don't fail to write now for Free Grass Seed samples. We want you to see our quality, as we can save you money on our field seed. No risk buying from an old established Seed Company. Your money back if you want it. Satisfaction our first aim. Clover crop short. Write before advance and compare our seed with the best. You will save money. Samples free, also big 116-page catalog. OF ALL A. A. BERRY SEED CO. VARIETIES FREE Box 511 Clarinda, Iowa



Mention the Michigan Farmer when writing Advertisers



In Bulk in Box Cars, or in 100-lb. Dry, Air-tight Paper Sacks



GUARANTEE 94% Carbonates 95% thru 50-mesh Screen Furnace Dried Fine as Flour

# Planning the Farm Orchard

By L. H. COBB

THIS is a question that comes to everyone who intends to set an orchard, or even replace dying trees in the orchard they now have. It is not an easy matter to select the varieties for an orchard, and too often it is practically left to the fruit tree agent who takes the order. This is a serious mistake in most cases, for the best sorts are often the cheaper trees, and the agent is directly interested in selling the most expensive. He wants to sell the specialties his house is introducing if he can, and he will extol them at the expense of the standard varieties that you should buy instead.

### Use Recommended Varieties.

Very often it will be a good plan to get in touch with the state experiment station and find out which varieties they will recommend, for they will know which sorts will do the best in the state, and can give advice as to the selection for the special kind of soil and location you have. Another good plan is to find out the names of the most popular varieties growing in your neighborhood, and see how you like them by sampling the fruit and examining the trees. Your soil may be such that a variety that is a general favorite will not be thrifty with you; the condition of the trees of this variety in your vicinity will tell the story. It wouldn't be wise to plant a variety that is dying out right along for your neighbors, provided another variety can be had with similar qualities.

### For the Season's Supply.

The orchard should be carefully planned to meet the needs of the family during as long a season as possible. There is no need for a dearth of fruit at any season if this is done. From the time the Early Richmond cherry starts you off in the spring until the last Jeniton apple is consumed there should be no let up in the supply of fruit in a condition to use. In spite of the fact that this is not only possible but easily managed, there are seasons when it is almost impossible to buy any kind of fresh fruit locally produced and scarcely a farm will have a regular supply.

Cherries, plums, apples, and peaches have good varieties ripening in order from the time the first is ready until the latest variety ripens, while apples alone can be so planted as to ripen as wanted. This year we could buy the harvest apples for a short time in their season, but after that not an apple was offered until the Jonathan and Winesap was ready, though the good old standards—Maiden Blush, Rambo and Fameuse—as well as many others, are in fine condition for eating between these. A good market would have been at hand for a large supply of these, but very few farmers had any for their own use, let alone to sell.

### Varieties for the Home Orchard.

Fruit for storing and putting up in various ways for future use must receive due consideration, but too often the whole orchard is run to varieties best suited to this purpose. The Morello cherries, Elberta peaches, wild goose plums, and winter apples get most of the orchard. There is plenty of fruit for winter but a shortage during the summer season except when these special sorts are in condition. Many like the Early Richmond cherries better than the Morello, and the Montmorency comes between these and is superior to either for any purpose, to my mind. The Wild Goose is the poorest plum grown when it comes to quality, and it is a mystery to me why it is so generally planted when there are so many really good sorts. The Japanese are the best plums by all odds. The Elberta is a splendid peach, but there are others. There is no need to be without peaches, the big white

late clings are gone with the coming of frost.

The pear season is shorter, but there are some of the early fall pears that can be used quite well before the main varieties ripen. Keiffer is planted exclusively and is a good general crop sort and very reliable, yet I would not want to do without a few trees of Tyson, Seckel, Duchess, and others that are newer and as good or better. The Bartlett is the pear par excellence, but the tree is not a good grower.

### The Size of the Orchard.

The size of the orchard must govern the selection to an extent, as will the purpose for which it is planted. If it is intended to sell some fruit on the local market the home orchard can be relatively increased all along the line and give the best chance for a steady profitable market. If a larger acreage is contemplated with a view to selling on the general market then some standard variety will be selected for the larger portion of the orchard so the packing and grading can be done at the least expense, for it is just as easy to sell the whole crop of one kind as it would be to have it divided up among several. For the ordinary farmer, though, the local market with the smaller supply of the many varieties coming in regularly would give the best chance to get good prices.

Kansas.

L. H. COBB.

### BUY GARDEN SEED EARLY.

Reports indicate a large shortage of seed of some of the leading vegetable crops. Shortages have resulted from failures of seed crops in this country, failure to receive usual shipments of seed from foreign countries, and also to the unprecedented demand for garden seeds last spring. During the present month seedsmen are arranging their stocks for the new season, and are apportioning their surplus stocks for even distribution of the limited supply. Commercial vegetable growers can buy seed in quantity at this season, often at considerable discounts, while it may be difficult or impossible to buy garden seed in bulk after a few weeks. Therefore, the commercial grower should consider the advisability of purchasing seed stocks early this year. Nearly every regular grower can choose varieties without his seedsmen's catalog, which probably will not be issued for some time.

The seedsmen are expecting another rush of buyers of packeted seed for planting the home-garden and so are preparing to sell most of their seed that way. The home-gardner should also have his garden work for next year so mapped out that he can order seeds now. By putting the seed order early, one is more likely to have it filled and shipped promptly, also there is more certainty of receiving what is ordered. When seed becomes scarce, the seedsmen are likely to substitute varieties, also to use seed several years old. J. T. Rosa, Jr., of the University of Missouri College of Agriculture, suggests that gardeners order no more seed than absolutely necessary for their own planting. Wasting seeds by reckless buying and planting is worse than waste of actual food in this year of seed shortage. Seed supplies should also be protected from rats and mice, which are especially fond of meaty seeds, and will render a large number worthless in a single night. Put the seed in tight cans or jars, or in tin boxes, and keep in a cool dry place.

The demand for fruit will be as great or greater than ever because prosperity will prevail, and that means that people will want good things to eat. Good things to eat means fruit.

# MAULE'S SEEDS



Once Grown Always Group

Make this your best year.

Your garden will be beautiful and more productive if you plant Maule's seeds. Every lot is tested for health, vigor and growing power before the seeds are sent to you.

## THE MAULE SEED BOOK

176 pages full of valuable planting and gardening information FREE

Write for it today.

Include 10c for a packet of Maule's Giant Pansies—the largest and most beautiful known.

You save money and get fresh seeds when you buy from

WM. HENRY MAULE, Inc. 2156 Arch Street Phila., Pa.

# PLANT MICHIGAN TREES

at wholesale prices, direct from Nursery to planter. Healthy acclimated, high grade, true to name fruit trees, berries ornamentals. The nation needs more fruit. He who plants this spring serves his country. A postal today will bring prices and descriptions.

Celery City Nurseries Box 18, Kalamazoo, Mich.

**GROWING HUBBARD SQUASHES.**

The Hubbard squash is a profitable crop to grow in young orchards. The fertilizing and cultivating of the squash vines benefits the trees and the growing vines serve as an excellent cover crop for the young trees during the late summer and early autumn. Hubbard squashes thrive exceedingly well when planted in young orchards. Prepare the ground as for corn. Make the rows six feet apart and the hills four or five feet apart in the rows. Plant about the first week in June. In sandy soils plant the seed deeper than in heavier soils. The vines make better growth and yield better squashes when only two or three plants are left in the hill than when the hills are further apart and more vines left in the hill.

**Keep the Insects Under Control.**

It is an advantage to mix a spade full of well-rotted farm manure in the soil about the plants, or to use the same amount in preparing the soil under the hill where the seeds are planted. A little fertilizer will also give the plants a vigorous, early start, but care should be taken to prevent it from coming in contact with the tender plants. As soon as the rows can be followed, cultivation should begin and be continued until the vines begin to fill the spaces between the rows. As a rule, it is well to delay the thinning until the vines begin to throw out strong branches so that only the best plants will remain to bear the crop.

To keep squash bugs in control it is necessary to keep a close lookout, and when any are found, go over the vines with an effective insect powder, using it either dry or in solution. It is frequently necessary to go over the vines every day as long as the bugs are active. The eggs that are deposited on the under side of the leaves should be destroyed. Air slaked lime, while not exactly an insect destroyer, will prove quite effective in holding the bugs in check when used along with an effective powder.

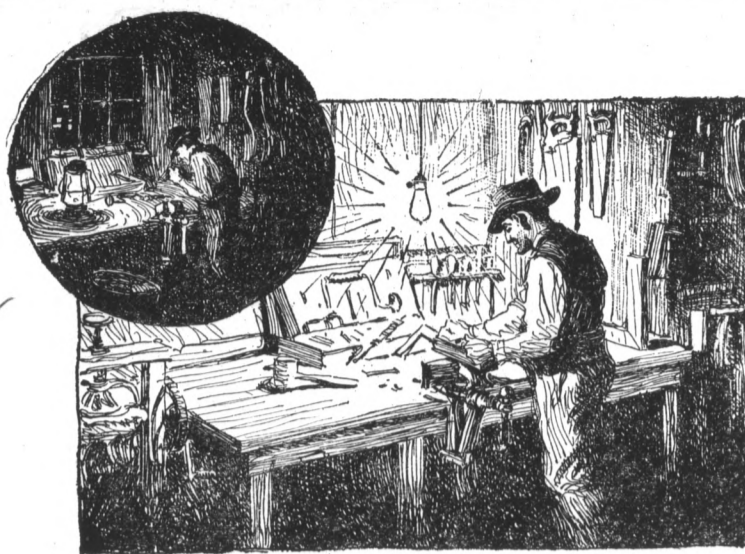
**Pinch Back the Vines.**

After the third cultivation pull the weeds about the hills. As the fruit sets watch the vines and from time to time pinch back the laterals that are running to waste, remove the inferior specimens and apply additional fertilizer if the vines are not making satisfactory growth. As the season advances and you get a few choice specimens growing in the right way, draw up the loose, rich earth over the joints in the vines between the fruit and the hill. New rootlets will form at these joints and feed the young squashes. This will aid materially in developing full-sized, fine squashes. Pinch off the ends of the vines beyond the squashes and remove robber laterals. Keeping the joints covered with loose earth will aid materially in bringing the crop to full size and maturity. As the vine weakens at the hill or the plant food is used up, the new rootlets will carry the crop through to maturity. Either for home use or a commercial crop for growing in the young orchard, the Hubbard squash ranks high in the list of cultivated crops.

New York. W. MILTON KELLY.

**LET'S GARDEN AGAIN.**

The garden will be even more important as a food supply and as a means of reducing living expenses this year than last year. The experience of last year will be a valuable asset toward a better garden for the coming season. A small garden will produce more food than an acre of ordinary farm crops. Last year the United States became a nation of gardeners. That reputation must be maintained. Every farm must have its home vegetable garden, and every foot of vacant land in the cities and towns should be planted to food crops.



He Does Better Work With Lalley-Light

**Three Moving Parts Instead of Sixteen**

On thousands of farms, Lalley-Light is known especially for its constant reliability, its economy, and its long life. Because of the engine's extreme simplicity it has gained this national reputation.

Where the ordinary electric-light-plant engine has sixteen moving parts—often more—our engine has only *three*. In fact there is no other light plant that we know of which compares with the Lalley on that score.

Think what such simplicity adds to the life of Lalley-Light—what it saves in wear and tear, adjustment and repairs.

Lalley-Light engine was designed especially to run a direct-connected electric generator.

It has big ball bearings at every point where split babbitt or roller bearings are commonly used. It has sure-fire magneto ignition. It is water-cooled.

It runs with steam-engine steadiness. That is why light direct from the generator is as unflickering as from the battery.

There seems to be no wear-out to this engine. Lalley-Light plants installed more than seven years ago are giving today the same good service they gave in their first year.

This record shows Lalley-Light reliability as nothing else can show it. Lalley-Light brings electricity to the farm—unlimited light and power in their *safest, surest and simplest* form.

It gives you clean, bright light whenever and wherever you want it.

Its power will run the pump, separator, churn, grindstone and other small machinery at a cost of a few cents a day.

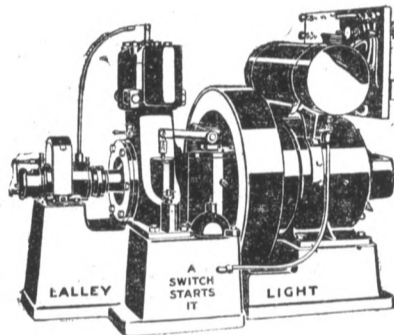
Lalley-Light furnishes electric current from *two independent sources*—generator and storage battery—actually giving the service of two plants for the cost of one.

It saves labor and improves living conditions. It increases the value of your property; it reduces fire risk and insurance rates.

This is the time to figure on installing Lalley-Light.

Write us for the illustrated booklet describing completely, Lalley-Light for your home.

If you desire, we will also advise the name of our nearest branch sales office who can show you this efficient plant in operation.



Generating plant is 27 inches long, 14 inches wide, 21 inches high. Storage battery, is included in complete outfit.

Lalley Electro-Lighting Corporation  
1823 Mt. Elliot Ave., Detroit, Mich.

**LALLEY-LIGHT**  
THE BALL-BEARING ELECTRIC LIGHT PLANT



**DRAINAGE PROBLEM SOLVED**

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

**THE Martin Ditcher & Grader**

All-Steel—Reversible—Lasts a Lifetime

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

OWENSBORO DITCHER AND GRADER CO. OWENSBORO, KY. Box 815

**SOLD ON 10 DAYS TRIAL**

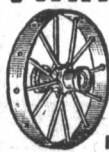
**WITTE**

**"Kero-Oil" Engines**

Immediate Shipment—All Styles—2 to 22 H.P.—No Waiting—Big Factory—Big Output—Prices most favorable. Write for my terms and prices—Cash, Payments or No Money Down.—ED. H. WITTE, Pres. WITTE ENGINE WORKS 2130 Oakland Ave., Kansas City, Mo. 2150 Emory Bldg., Pittsburg, Pa.

I Save You \$15 to \$200

**FARMERS HANDY WAGON**



Low steel wheels, wide tires, make loading and handling easier. We furnish Steel Wheels to fit any axle, to carry any load. Plain or grooved tire. Catalogue sent free. EMPIRE MFG. CO., 389 Quincy, Ill.

**LET US TAN YOUR HIDE.**

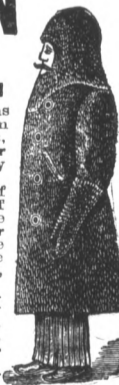
Horse or Cow hide, Calf or other skins with hair or fur on, and make them into coats (for men and women), robes, rugs or gloves when so ordered. Your fur goods will cost you less than to buy them and be worth more.

Our illustrated catalog gives a lot of information. It tells how to take off and care for hides; how and when we pay the freight both ways; about our safe dyeing process on cow and horse hide, calf and other skins; about the fur goods and game trophies we sell, taxidermy, etc.

Then we have recently got out another we call our Fashion book, wholly devoted to fashion plates of muffs, neckwear and other fine fur garments, with prices; also fur garments remodeled and repaired.

You can have either book by sending your correct address naming which, or both books if you need both. Address

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



**STAWBERRY PLANTS**

Everbearing and common varieties. Full line of Raspberry, Blackberry etc., at very reasonable prices. Write for catalog. J. N. ROKELY, R. 6, Bridgman, Mich.

**SALESMEN**—Wanted for the best nursery outfit in America. Persistent men earn large commissions paid weekly. Investigate. Address, PERRY NURSERY CO., Rochester, N. Y.

When writing to advertisers please mention the Michigan Farmer.

He turns  
pretty slow  
—but he  
gets all  
the cream!



## SHARPLES SUCTION-FEED CREAM SEPARATOR

The suction-feed principle, which insures clean skimming, no matter whether you turn fast or slow, guarantees the Sharples user a profit wasted by every other separator—a saving of not less than 10 lbs. of butter per year for every cow you own.

Other separators have endeavored to overcome some of the cream-waste evil by the use of speedometers. These simply announce the cream losses, whip you up and thus partially prevent them.

Sharples is the *only* separator that automatically and fully prevents these cream losses. Put your 10-year-old boy turning the Sharples, let him turn slow—he will still get all the cream. Over a million Sharples users! Write for catalog today.

Address: Dept. 18

The Sharples Separator Co., West Chester Pa.

Sharples Milkers—used on half a million cows daily

Branches: Chicago San Francisco Toronto

F6



### Have You Learned that KOW-KURE Can Make a Difference?

It is common knowledge in thousands of the best dairies from coast to coast that Kow-Kure has no equal as a medicine- tonic for cows that are "off color." Such common ailments as Abortion, Barrenness, Retained Afterbirth, Scouring, Lost Appetite and Bunches are promptly eliminated by the active medicinal qualities of Kow-Kure, working on the digestive and genital organs.

As a preventive of disease, the occasional use of Kow-Kure will pay big returns in increased vitality and improved milk yield. Used before and after calving, Kow-Kure will prevent Milk Fever and Retained Afterbirth, and enable the system to resist the other diseases which frequently start at this period.

If you have a cow that is not yielding as she should, something is wrong with her organs of production. Try Kow-Kure and note the prompt improvement in appearance and yield.

Sold by druggists and feed dealers; 50c and \$1.10 packages. Send for free treatise, "The Home Cow Doctor."

DAIRY ASSOCIATION CO.,  
Lyndonville, Vt.



### NEVER DRENCH CATTLE!

When your cows have stoppage or paralysis of the bowels use Dr. DAVID ROBERTS'

### LAXOTONIC

Excellent for Constipation in All Live Stock

READ THE "PRACTICAL HOME VETERINARIAN"

Send for free booklet on "Abortion in Cows"

If no dealer in your town, write

Dr. DAVID ROBERTS VETERINARY CO., Waukesha, Wis.

When Writing to advertisers mention The Michigan Farmer. please.

## Dairy Cows Need Water

By C. E. RICHARDSON

I OFTEN wonder if the average farmer realizes how important it is, for dairy cows to receive a proper supply of drinking water each day. When one understands that milk is nearly two-thirds water, it becomes evident, then, that cows ought to have plenty of it, ready when they get thirsty. I know of farmers that are extremely careful as to feeding and stabling their stock. They give balanced rations and are sure that the tie-up is warm and comfortable in the winter. They keep their cows cleaned off and provide bedding for them to lie on. But, they let the cows get what water they can, not thinking it worth considering.

I remember one day last winter, I happened to call to see a farmer friend who lived in the next town. He was just turning his cows out to water. The trough was about a hundred feet away from the stable. It was a windy day and very cold. As he let the cows out one by one, he would drive them over to the water with the help of a little stick which he used for a whip. When they got there, some would try to drink, but the wind blowing on them kept them busy holding their heads so as to protect themselves, and the water having ice in it, made it impossible for them to drink as much as they needed, so after drinking a few swallows, they would run back to the barn, cold and shivering.

"Do you think that your cows drink all the water they need?" I asked him.

"Well, I suppose they might drink a little more, if it was not so cold and windy," he answered, "but I guess they get enough to 'get-by;' anyway, cows don't need as much water in the winter as they do in the summer."

"That cow that is drinking," I pointed to a cow at the trough, "seems to drink quite a lot, even though it is cold."

"Oh, she is the fussiest cow I have!" he exclaimed. "Now, she has not drank anything for two days so I expect that she must be dry, so she has got to drink today. Yesterday and the day before she did not drink because it was windy and cold; but I knew she'd get over being fussy if I let her take her time!"

"But does she give much milk?"

"Well, she does pretty good 'til winter comes and then she drops off."

I wondered what sort of a surprise he might get, if he should weigh his cows' milk; he might find that they

also, were not giving as much milk as they might, if they could have better means to procure their water to drink.

A few weeks later, I called to see another farmer. This one kept cows similar to the farmer described above. I noticed that he had made some changes in his tie-up.

"Yes, I have built a place in the barn with a trough, so that I can now water my stock inside on cold winter days," he told me.

"Do you find that it pays?" I asked.

"I certainly do," he answered. "You know I began last fall to weigh my cows' milk. I found that after I got used to it, that it was not the bother that I expected it would be. I have had some surprises."

"Did you find that the cows needed different water arrangements?"

"I found along the first part of this winter, when the weather got cold and blowy, the cows began to give less milk. I was surprised, because I have a nice warm barn and try to have them comfortable. But I noticed that they would not drink some bad days as they ought to, and on good days they drank more. On those days they would give more milk. So I tried an experiment. When the bad days came again, I carried water in pails to them. They drank all right then. I could see by the milk scales that there was a difference in my favor when I watered them in out of the cold weather. So I decided to build this inside trough. And it has more than paid for the expense and bother."

"But what is that arrangement you have there, also?" I asked.

"That is another improvement. The county agent told me once, that all the record-breaking cows have water with the chill taken off, in the winter time. So I tried that, too. It was hard work carrying it from the house; hot water to warm the water in the trough. But I found that that also helped increase their milk flow, as they drank more. So I have installed the heater which you see, to warm the water here so I do not have to carry it any more."

"By building this you have saved much hard work and much discomfort for your cows?" I asked.

"I certainly have, but—the scales have shown me that it has paid for itself. I would not have believed it if I had not proved it that way. But, after all, 'experience is the best teacher.'"

## A Responsibility of the Dairyman

THE producer sustains somewhat different relations to each of the elements of milk quality than has been ordinarily supposed. Contrary to current belief, he is unable to control food value to any appreciable extent by his method of feeding the cow. The forces of heredity have determined what shall be the composition of the milk of a given animal, and except for slight seasonal variations or local disturbances a cow persists in giving milk of essentially a fixed composition. On the other hand, by selecting his animals he is able to produce milk of widely different food value, but at a correspondingly different cost of production. Manifestly, it must be expected that he will produce a milk having a food value which will give him the widest margin of profit.

In the matter of healthfulness, the producer has the responsibility of protecting, in so far as he is able, the milk supply from contamination by disease-producing organisms derived either from cows or people. His recognized inability to satisfactorily protect milk in this way calls for the added protection of medical supervision of the health of the cows and men, or of pasteurization; but medical inspection

and pasteurization are, manifestly, not the producer's problem.

The element of cleanliness is largely in the control of the producer. Under present economic conditions, he is producing a milk with a very high degree of cleanliness, and if any additional stress is laid upon this point he will undoubtedly produce milk which is uniformly very clean.

The element of keeping quality is the one which presents the greatest practical difficulty, because here the responsibility is much divided. Definite information regarding many details is still lacking, but the present stage of knowledge suggests that the most common contributing factor to poor keeping quality is the condition of the milk cans which are supposed to be treated at the milk plant.

The adoption by the producer of the uniform practice of rinsing his milk utensils with scalding hot water shortly before they are used, would contribute very much to the keeping quality of the milk. In practice each utensil coming into contact with the milk adds to its germ content and decreases its keeping quality. A reduction of the number of such utensils to the minimum is very desirable.—Ill. Ex. Sta.

## Points on Selecting Concentrates

**I**N determining the concentrates to use in a grain mixture for dairy cows, several things should be kept in mind. The following factors are especially worthy of being considered:

### Palatability.

A feed is said to be palatable when its flavor is pleasing. Certain feeds, like corn, are palatable, while certain feeds, like cottonseed meal, are unpalatable until the cow has been taught to eat them. Unpalatable feeds should be mixed with palatable feeds. There is some proof that the amount of digestive juices excreted depends upon the palatability of the feed.

### Bulk.

A grain mixture is said to have bulk when a definite weight takes up a relatively large space. To illustrate, 100 pounds of wheat bran will occupy much more space than 100 pounds of corn meal, hence is said to be bulky or light. It is believed by dairymen that this bulk in itself enables the digestive juices to more completely penetrate the mass and hence may facilitate digestion. At any rate, it is known that a dairy cow, to do well, must have the digestive tract well extended, and where heavy grain feeding is practiced some of the benefit of bulk ordinarily secured in the roughage can probably well come in the grain mixture. Unless the grain mixture is fed on the silage, or other roughage, it is well that it have bulk in itself.

### Variety.

In compounding a grain mixture so that it will have palatability and bulk and be properly balanced, generally three or four grains are used in the mixture. This is commonly spoken of as variety in the grain mixture. From recent investigations, it would seem well that care should be taken to see that grains of distinctly different species of plants should be used. This will help furnish the animal with needed ash ingredients and special forms of protein required by a cow in milk. It is not variety simply to feed several different named feeds all coming from the same plant, such as corn stover, corn and cob meal, corn bran, gluten, corn distillers' grains, etc.

### Effect on Health.

Each feed has its own specific effect upon the animal body. We do not yet have the specific effect of all feeds, but certain effects of particular feeds are well understood. To illustrate, cottonseed meal is known to be constipating in its effect, while linseed meal is known to have a laxative effect. Some of the roughages are laxative, such as silage, clover hay and alfalfa hay; some are constipating, such as timothy hay, oat straw and corn stover. When the roughages are constipating in their effect, a grain mixture of a laxative nature must be fed, if the dairy cow is to do her best. The bowels of a dairy cow should be in a laxative condition, if the cow is making her best production.

### Cost.

In successful farming, the business side is at least three-fifths. From the point of view of computing rations for dairy cows in order to produce milk, cost would not come in, but in actual farming it is more than half. Dairymen often believe that the cost price per ton is the most important consideration. It is important, but more important is the relative cost of net energy and digestible true protein in feeds. The farmer should calculate the cost of 100 pounds of digestible true protein and 100 therms of energy in all the feeds available, and then make the cheapest mixture that satisfies all his requirements.

### Roughages Used.

Concentrates are used to balance the roughages fed, and hence the nature of the concentrates will depend upon the roughages fed. It is easy to divide the roughages into three general groups.

Group 1 includes timothy hay, corn stover and corn silage. Any one, or any combination, of these will need a great deal of protein in the grain mixture.

Group 2 includes mixed clover and timothy hay, or any combination half leguminous and half non-leguminous. This group will require a grain mixture with a medium amount of protein.

Group 3 includes the legumes as the entire roughage. This group needs the smallest amount of protein in the grain mixture.—Pa. Ex. Sta. Bulletin.

### DAIRY FEEDS FOR WINTER.

The dairyman's problem this winter is serious. Some of the feeds used commonly have increased from twenty-five to 100 per cent in cost during the year. The prices received for dairy products have not kept pace with the prices for feeds. So what is the dairyman going to feed?

First of all, it is important that some succulent feed be given a dairy cow at all seasons of the year. This can easily be done during the summer months, but in winter it is difficult. There is no better means of furnishing a succulent feed in winter than through the use of corn silage. It must be remembered that corn silage is not a complete ration for it is high in carbohydrates and low in protein content. Furthermore, experience has shown that silage should not be fed as the only roughage in the ration. It is always advisable to feed some hay and the legume hays, such as alfalfa, clover, cowpea, or soy bean, are best adapted for use in producing milk. It is a question just how much alfalfa hay should be purchased at prices which range from \$32 to \$36 a ton. Some legume, however, should be fed if possible.

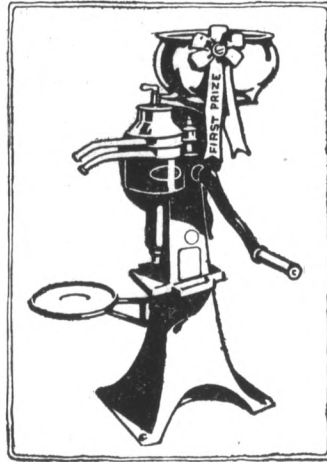
A good ration of roughage would be what silage and legume hay the cows will readily consume. This will probably be about thirty to forty pounds of silage and eight to ten pounds of legume hay for a good-sized animal.

In addition to the roughage the dairy cow should receive a grain mixture. Corn, even at its present price, is one of the cheapest and best sources of digestible food and can hardly be left out of the ration. While it is a valuable feed and is very palatable, it must not be fed as the only grain in the ration because corn, like silage, is relatively high in carbohydrates and low in protein. Silage and corn should furnish the greater part of the food nutrients in the ration, with a small amount of a high protein feed added to give the necessary protein. Cottonseed meal and linseed meal are the usual sources of protein. Corn and cottonseed meal mixed together would furnish the necessary nutrients but the mixture of these two grains is so sticky and pasty when it reaches the stomach that the digestive juices cannot readily act upon it. It is advisable for this reason to lighten it in some way, and this is usually done by feeding it on the silage with which it becomes mixed when eaten, or by adding a light feed such as wheat bran or beet pulp to the mixture.

A good grain mixture to be fed with the silage and legume hay would be one composed of four parts corn, one part wheat bran and one part cottonseed or linseed meal. These should be mixed together and the mixture fed at the rate of one pound of grain per day for each three pounds of Jersey milk or one pound of grain for each four pounds of Holstein milk produced. Another rule is to feed one pound of the grain mixture per day for each pound of butter-fat produced in a week.

Mo. Ag. College. W. W. SWEET.

Reading that does not create and foster a taste for good literature is of doubtful value.—Selected.



A PRIZE WINNING CREAM SEPARATOR

## THE DE LAVAL CREAM SEPARATOR Is a Winner!

Why don't you let it win for you?

At the great national and international expositions, the juries have invariably acknowledged the superiority of the De Laval. They awarded the Grand Prize, the highest possible award, to the De Laval at the Panama-Pacific Exposition at San Francisco in 1915, as also at Buffalo, Chicago, St. Louis, Paris, Brussels, and all the great world expositions for more than 35 years.

What the world's greatest dairy experts, the men who operate the creameries and the big milk plants and dairies, think of the De Laval is best evidenced by the fact that 98% of the cream separators in use in such plants the world over are of De Laval make.

### De Laval Produced Cream Makes the Best Butter

Since 1892 the National Buttermakers' Association has held butter-scoring contests each year in connection with its Annual Convention, and at every such Convention butter made from cream separated by a De Laval Separator has scored highest. This is a 100% record for the De Laval. No room for chance there. Only unusual merit made such a record possible.

Proof of the superiority of De Laval Separators and of De Laval produced cream has been piled up and multiplied so many times that it is no longer questioned. It is an accepted fact.

If you are without a cream separator, or in need of a better one, let the De Laval start winning a bigger cream profit for you NOW.

See your De Laval agent immediately, or if you don't know him, address the nearest De Laval main office as below for any desired particulars.

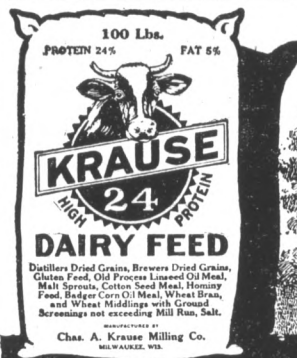
### THE DE LAVAL SEPARATOR COMPANY

165 Broadway New York 29 E. Madison St. Chicago

EVERY NEW DE LAVAL SEPARATOR HAS A BELL SPEED-INDICATOR



A PRIZE WINNING PRODUCT



## Krause Dairy Feed Means Bigger Milk Checks



### Your Cows Are A Gold Mine

Milk is a big dividend payer right now if you keep down its cost of production by selling your high priced grain and feeding KRAUSE DAIRY FEED.

Used by itself or in combination with home grown products, it is a high-grade, big-yield dairy feed on which your herd will thrive and produce to its limit without danger. Safe—sure

—profitable. Write at once for sample of KRAUSE DAIRY FEED and handy pocket record book Free. Give name of your dealer.

Chas. A. Krause Milling Co., 3708 Burnham St. Milwaukee, Wisconsin

**BROWN FENCE**  
135 Per Rod Up

**FREE!**

Get my big book and sample of Brown Fence. Compare our prices and quality with others. We save you Big Money. Prices 13c per Rod up. **DIRECT FROM FACTORY—FREIGHT PREPAID** We use heavy **DOUBLE GALVANIZED** Wire. 150 styles—Hog, Sheep, Poultry, Horse, Cattle, Rabbit Fence—Gates, Lawn Fence, Steel Posts and Barb Wire. Write today for big money saving catalog and sample to test—free. **THE BROWN FENCE & WIRE CO. DEPT. 249 CLEVELAND, OHIO**

### KITSELMAN FENCE

Get It From the Factory Direct

**HORSE-HIGH, BULL-STRONG, PIG-TIGHT.** Made of Open Hearth wire heavily galvanized—strong durable, long-lasting, rust-resisting fence. Sold direct to the Farmer at wire mill prices. Here's a few of our big values

26-inch Hog Fence—21 1/2¢ a rod  
47-inch Farm Fence—31 1/2¢ a rod  
48-inch Poultry Fence—34 1/2¢ a rod

Special Prices on Galv. Barbed Wire

Our big Catalog of fence values shows 100 styles and heights of Farm, Poultry and Lawn Fence at reduced money-saving prices. It's free. Write today. **KITSELMAN BROS. Box 278 Muncie, Ind.**

Always mention the Michigan Farmer when writing to advertisers.

# MAXWELL

Most Miles per Gallon Most Miles on Tires

## Everything That Counts for Your Profit and for the Future of Your Family Is Moving at Motor-Car Pace and Radius

You can't shut your eyes to that. Are you going to stick to horse-pace, one-fifth the pace of motor cars, and to horse-radius, one-fifth the radius of motor cars?

Are you content to see others seize the golden chances that are offered now and the untold chances that are coming in the next few months? Or will you join your neighbors who are moving at motor-car pace?

A little delay now may have results that all your future cannot repair.

Take this up now. Be fair to yourself, to your girls and boys, to your wife. Look into the changes of the last few months which have placed the whole question of motor-car service vs.

horse service in an entirely new light. We say—

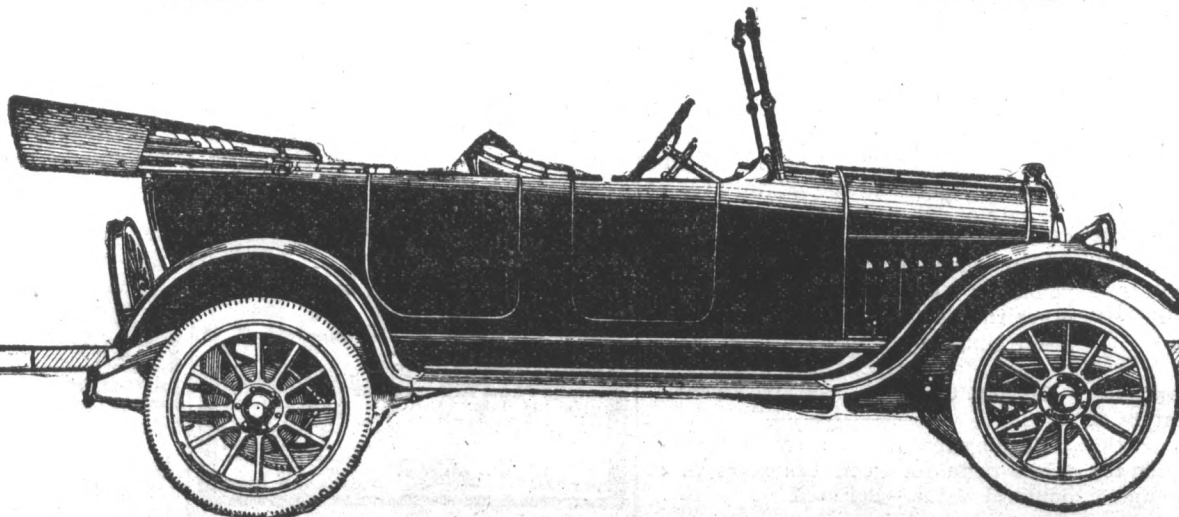
1. Motor cars are now cheaper to use than horses for all work that a motor car can do.
2. Of all the motor cars giving maximum service the one that costs least to run and use is the Maxwell.

That ought to make you think. We don't expect you to act on it until we have proved it to you. We can prove it to you. For the sake of your own work and profits, for the sake of your girls and boys and wife, take this up now. Send us a letter today. Make your decision while these cars of greatest efficiency and economy are still procurable. We will send you the name and address of the nearest Maxwell dealer.

*Touring Car \$745, Roadster \$745, Coupe \$1095  
Berline \$1095; Sedan with Wire Wheels \$1195. F.O.B. Detroit*

Write Today for Catalog N

**Maxwell Motor Sales Corporation**  
Detroit Michigan



# Magazine Section

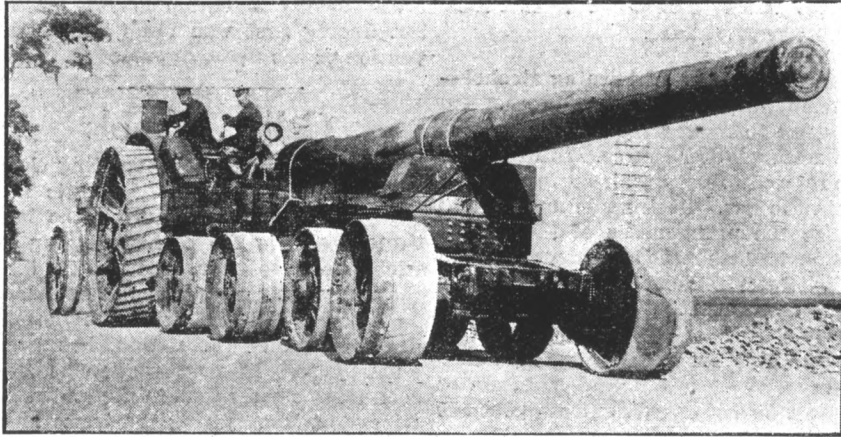
LITERATURE  
POETRY  
HISTORY and  
INFORMATION

**MICHIGAN FARMER**  
AND  
*LIVE STOCK*  
PUBLISHED WEEKLY  
**JOURNAL**  
ESTABLISHED 1843.

The FARM BOY  
and GIRL  
SCIENTIFIC and  
MECHANICAL

This Magazine Section forms a part of our paper every week. Every article is written especially for it, and does not appear elsewhere

## WORLD EVENTS IN PICTURES



A British Gun, the Greatest in Use, Being Transported Over a Road in Flanders by a Powerful Tractor.

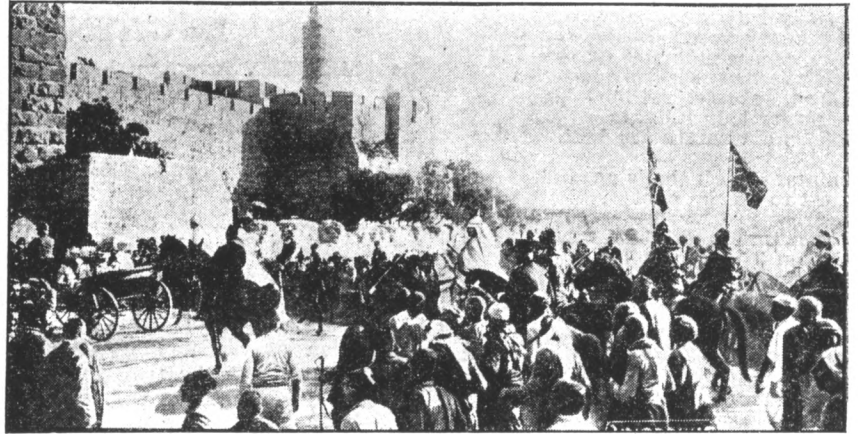
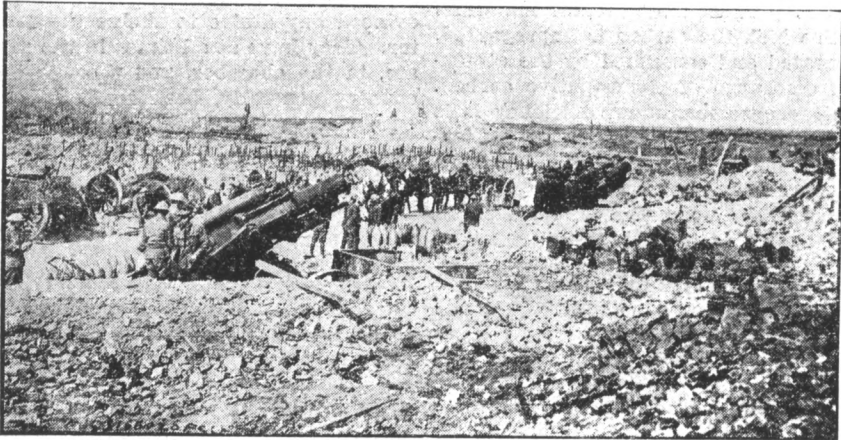


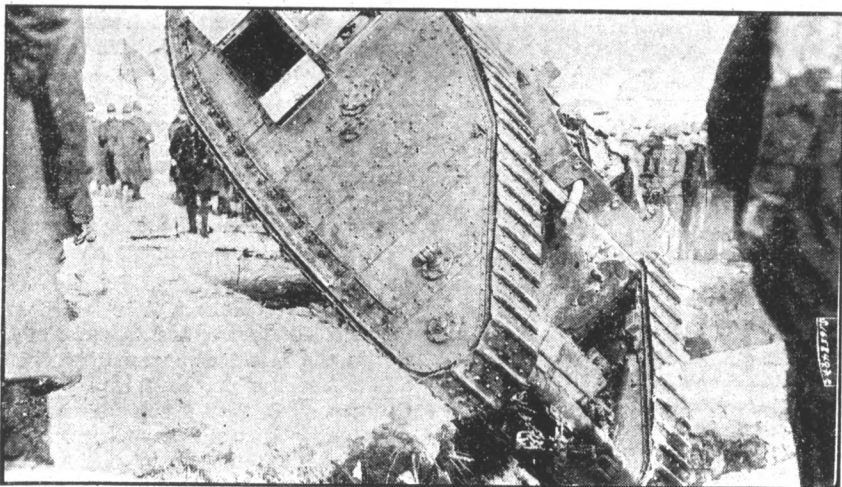
Photo Taken Twenty Years Ago Showing the Kaiser's Entrance into Jerusalem as a Peace Lord.



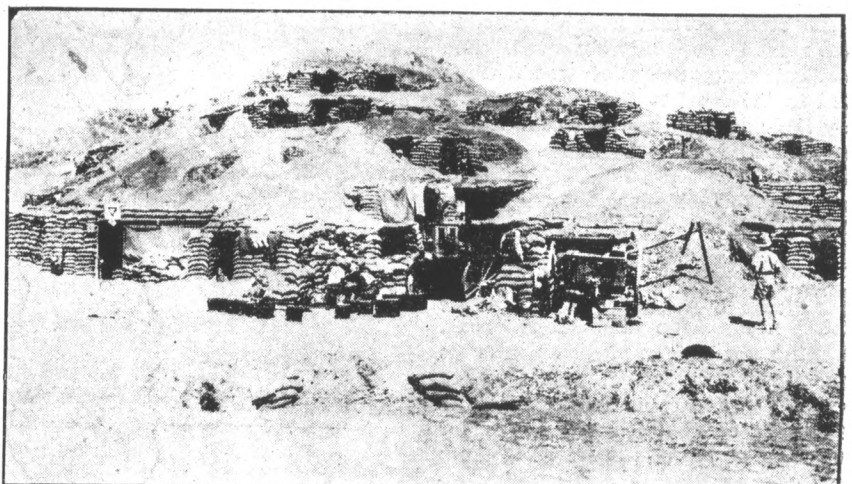
Powerful British Howitzers Keep up an Incessant Bombardment in Flanders Despite the Snow and Cold Weather.



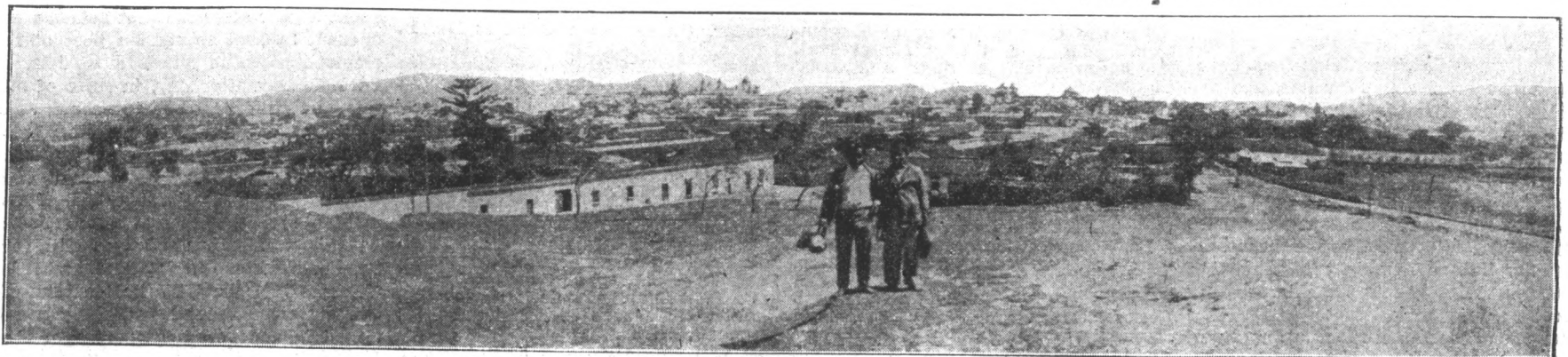
Clearing Away the Huge Masses of Debris After the Germans Have Been Driven from the Trenches and Dugouts.



A Demonstration of what the Famous British Tanks can do in Traveling Over Trenches and Uneven Ground.



Sand Hills of Palestine Transformed in "Cliff Dwellers" Residences by the British Troops.



Guatemala City, Three Times Resurrected After Being Destroyed by Earthquakes, has been Wiped Out a Fourth Time by the Same Cause. The Latest Report States that 6,000 Persons were Killed in the Disaster. Not a Single Building Remains Standing.

JANUARY.

BY F. J. YATES.

There's joy in January  
When folks live on the farm.  
You'll hear the big town dwellers  
Take pity on us fellers—  
Well let 'em—where's the harm?  
We think that January  
Is good fun on the farm.

It's cold you bet, an' colder—  
Can't be no other way.  
But we're not short on fire,  
An' when the coal mounts higher  
We saw some wood an' say,  
"Although it's cold, an' colder,  
We'll take her day by day."

An' if the snow comes pilin'  
Breast-high in road an' field,  
To keep the car from ramblin'  
The nags are keen for amblin'  
With snap galore concealed;  
So let the snow come pilin'  
An' fill each road an' field.

For jolly bells a-jingle  
Fit January best.  
We're off for sleighin' parties  
With "Yo heave ho, my hearties  
Trot on, an' later rest."  
The merry bells a-jingle  
For this old month are best.

A blizzard? All that's needin'  
Is just to do the chores.  
It's great to hear the crunchin'  
O' corn, an' cheerful munchin'  
An' then to dodge indoors,  
While knowin' all that's needin'  
Is just to do the chores.

There's time though, when we're sittin'  
Around the stove so warm,  
Our hearts get darn strong wrenches  
A thinkin' of the trenches,  
Our boys, an' some such storm—  
An' we all safe, an' sittin'  
At home, so nice an' warm.

It's then we get together  
An' plan to send a share  
Across that stretch o' water—  
Because we think we oughter—  
Of all that we can spare.  
We get our heads together  
To send 'em off their share.

For right in January  
While easy times are ours,  
For you an' me they're fightin'  
An' others' wrongs a rightin'—  
It ain't no bed o' flowers  
For them—in January—  
To save their land—an' ours.

Coal vs. Wood for Fuel

By MARK MEREDITH

THE rising cost of coal, as well as of other articles of all kinds necessary to industry have turned the attention of many users of coal to the possibilities of wood, and if the change is made from one class of fuel to the other, certain necessary conditions must be carefully observed. The chemical composition of wood, when dried to 140 degrees Fahrenheit varies very little indeed, and the constituent parts of the various woods are as follows:

	Car.	Hydro.	Oxy.	Nitro.
Beech	48.98	6.07	43.11	0.93
Oak	50.64	6.03	42.05	1.28
Birch	50.61	6.23	41.04	1.12
Aspen	50.31	6.32	42.39	0.98
Willow	51.75	6.19	10.98	0.98

The first three are hard woods, weighing about fifty pounds per cubic foot, while the latter woods weigh about thirty-five pounds, so that the reputation of the heavier woods for producing more heat must arise from their greater density and smaller capacity for holding water. Their carbon and hydrogen content, per pound, is very much alike. The ash left by wood when completely burned furnishes varies from one-half to over three per cent. Wood when felled contains from twenty to fifty per cent of water, and seldom, even after storing, has less than fifteen per cent, while if brought during the rains it may have very much more. A purchaser should therefore be very careful to ascertain the amount of water in his fuel to adjust the price properly. Wet wood when burnt, by raising half of its weight in steam that passes uselessly into the chimney may make a very unsatisfactory fuel. The amount of moisture in a supply of wood fuel may be ascertained by splitting several logs through the middle and planing an equal quantity of shav-

ings from each. Mix the shavings and select a one-pound sample to be dried in the air until it ceases to lose weight, and another pound to be dried carefully above the boiler, noting the temperature of the air among the shavings and weighing. The experimenter will then be able to ascertain the percentage of moisture in the wood when air-dried and stove-dried. In England dry wood is worth, for the purpose of steam raising, half its weight in English coal, having only five per cent of ash, but when the ash in coal amounts to twenty-two per cent the ratios of value are considerably altered in favor of wood.

Much depends on the way in which wood is burned. If used in large pieces there will be considerable spaces be-

tween them, and the total amount in the state of combustion will be reduced. There may also be an excess of air drawn through the fire. The fire bed, when wood is, used is more difficult to manage, and for the control of the draught it is well to have a door on the ashpit. When using wood fuel it is desirable to have the means of cutting it up cheaply into pieces of such a size as may be fed easily into the fire and properly managed for burning.

There is scope for a good deal of research work into the burning qualities of wood for steam raising and with the growing scarcity of coal, engineering firms using wood should certainly take careful records.

The Brightest Light In the World

By GAYNE T. K. NORTON

AMERICAN invention has scored another triumph. Elmer A. Sperry has invented a searchlight that is five times as powerful as the strongest German lights. Government officials have been following Mr. Sperry's experiments closely and New Yorkers have been amazed by the dazzling blue-white beams that have flashed through the skies.

Long study of the electric arc is the foundation of the new achievement. One familiar with the arc light knows the negative carbon is pointed, while the positive carbon is dished, or hollowed. Within this hollow is centered the luminous reaction.

Before Mr. Sperry's invention the brightest searchlight was of German origin, invented by Heinrich Beck. Mr. Beck obtained his light by an ingenious method. The ordinary incandescent arc would be brighter were it undimmed by vapor evaporated from carbon tips. Carbon fuses at 7,230 degrees F., but the troublesome vapor appears at 3,272 degrees. Beck reduces this vapor by cooling the carbon tips

in an atmosphere of burning alcohol—a temperature of 1,832 degrees. He uses fire to reduce the temperature of fire from another source. Both carbons are rotated to keep their surfaces bathed in the gas. Beck made no effort to utilize the peculiarities of the crater, but devised a method for removing the veil. Sperry discovered a means for using the crater.

The source of light always used in searchlights has been the positive crater of a pure carbon arc. This crater gives a fairly steady light of about 150 candlepower for each square millimeter. Mr. Sperry uses the crater as a receptacle in which to burn superheated vapor produced in the arc. This gas is produced by certain materials with which the carbon is impregnated, liberated and consumed by the attacking discharge of the negative carbon.

To secure maximum efficiency it is necessary that this vapor be concentrated. This is done by maintaining a deep crater, into which the vapor is pressed and compressed. As a result the mouth of the crater emits an in-

tense light—500 candlepower to each square millimeter, or 320,000 candlepower to the square inch. It is the arc flame from the negative carbon that compresses the gas. The positive carbon is cooled by air circulated by a small centrifugal blower.

The total illuminating power of this searchlight is 1,220,000,000 candles. It is visible for sixty miles. Ordinary rock melts in the crater. The beam, when focused, will fire rubbish 200 feet from the lens, which is five feet in diameter.

Had it not been for the Beck lights on the German ships, English torpedo boats would have scored more hits at Jutland. To increase, by brilliancy, the radius of the searchlight has been sought for years by inventors and physicists. The naval value of this latest Sperry invention is very great. Mr. Sperry first won fame by his invention of the Sperry gyroscope.

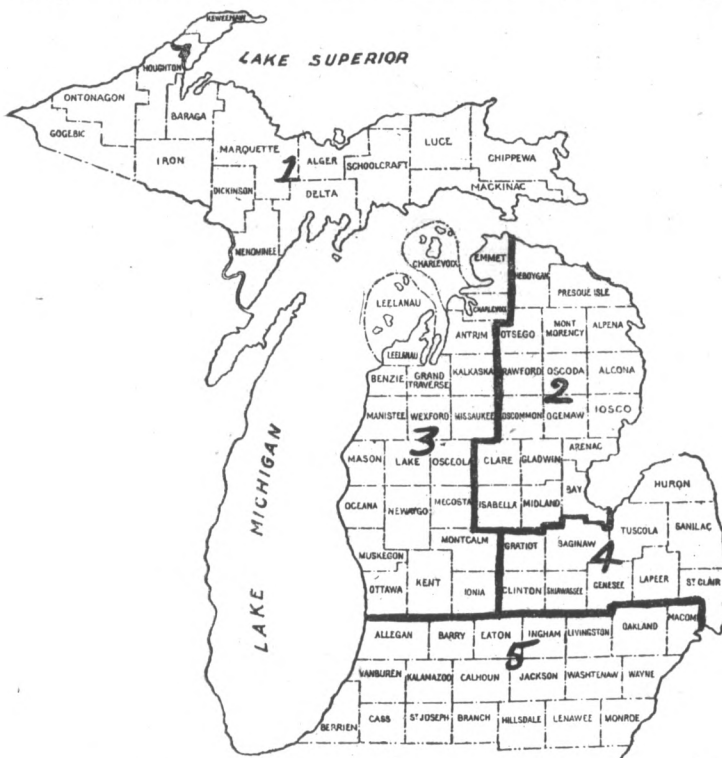
Cellar Schools

ONE of the most interesting characteristics of the domestic history of France during the last three years, is the consistent way in which the resolution, early taken, that the war should be allowed to interfere as little as possible with the normal development of the nation, has been adhered to. In no direction is this seen more clearly than in the matter of education. Recognizing the importance of the subject, and the necessity, if a just development was to be maintained, of making changes as they became necessary, Frenchmen have never evinced any desire to shelve the matter. They have at all times in the senate, in the chamber, and through the country generally, been ready to discuss the question, and, where necessary, encourage and promote legislation in regard to it.

The famous cellar schools of Rheims are but another instance, and a very striking one, of the feeling of the French people concerning this subject. M. Octave Forsan has had charge of these schools and when he decided to open schools in the cellars he made clear to each teacher what exactly his scheme was, and how desirable it was for children in the town to have something of this kind done for them, but he did not neglect to tell all of them frankly of the risks they ran. And yet, in every case the scheme was enthusiastically received. The schools are really long underground passages and rooms lighted with petrol lamps, the walls hung with mats covered with a light paper, whilst each teacher endeavors to bring some cheerfulness to these "catacombs" by placing plants or flowers on the desk, pinning pictures on the wall and erecting sheaves of allied flags.

As for the children, it is for them a glorious adventure, and in spite of living in the midst of accumulated ruins and under the constant threat of the German guns, they are not in the least affected by this and have even ceased to think anything about it. And yet so near are some of the schools to the German lines, that, in the case of Pommery, Champion and Mumm cellar schools, the post office officials for about a year after the first school was opened, refused to send a post office employe to these quarters to deliver letters. Day after day, in spite of all this, the children came to school, and went home again, and nothing was neglected, not even the examinations, the result of which is known as the "Promotion du Bombardement." It is fortunate that, although the schools have been hit by shells, no child or teacher has come to any hurt, and it is welcome to learn that the teachers of Rheims were recently specially mentioned in a government "order of the day" and that the head teacher has received the high distinction of the Legion of Honor.

Boys' and Girls' Club Leaders for Michigan



Districts in which the State is Divided for Boys' and Girls' Club Work.

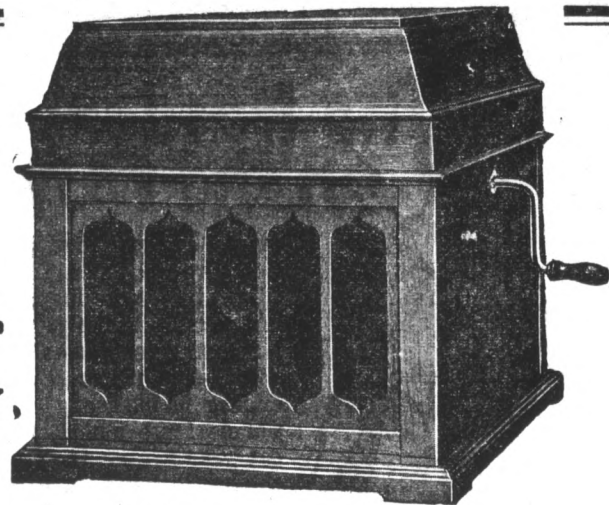
- For the convenience of club members, leaders and all others interested, the following list of Boys' and Girls' Club Workers is given:
- E. C. Lindemann, State Club Leader, East Lansing, Mich.
- C. A. Spaulding, Assistant State Club Leader, (Specialist in Handicraft and Live Stock Clubs), East Lansing, Mich.
- Anna B. Cowles, State Club Leader for Girls, East Lansing, Mich.
- Barbara Van Heulen, Assistant State Club Leader for Girls, East Lansing, Mich.
- A. G. Kettunen, Assistant State Club Leader, (Specialist in Poultry Clubs), East Lansing, Mich.
- E. C. Volz, Assistant State Club Leader, (Specialist in Gardening Clubs), East Lansing, Mich.
- R. N. Kebler, Assistant State Club

- Leader, (in charge of District No. 1, Upper Peninsula), Marquette, Mich.
- Jessie M. DeBoth, Assistant State Club Leader for Girls, (in charge of Girls' Clubs, District No. 1), Marquette, Mich.
- George D. Gilbert, Assistant State Club Leader, (in charge of District No. 2, Bay City, Mich., care Y. M. C. A.)
- B. J. Ford, Assistant State Club Leader, (in charge of District No. 3), Big Rapids, Mich.
- B. S. Tefft, Assistant State Club Leader, (in charge of District No. 4), Saginaw, W. S., Mich., Court House.
- C. E. Ackley, Assistant State Club Leader, (in charge of District No. 5), Marshall, Mich.
- It will save time and secure better results if you will correspond directly with the project leader or the district leader.



# EDISON'S NEW DIAMOND AMBEROLA

MADE IN THE "WIZARD'S" LABORATORY,  
FOR USE IN YOUR HOME. *Will you try it.*



Model 50, Edison Diamond Amberola

SEE the coupon at the bottom of the page? That little slip of paper sent to an Edison dealer, with your name and address on it, will bring to your home Edison's latest model Diamond Amberola, the wonderful phonograph with the GENUINE DIAMOND reproducer point, no loose needles or any thing like that to bother with.

NO one has to learn to play the Amberola. It is as simple to operate as A, B, C. It will give you any kind of music you like, from "rag" to grand opera. And be sure to bear in mind that it is a GENUINE EDISON INVENTION, made in the great Laboratories of Thomas A. Edison at Orange, N. J. Every part is either designed by Edison himself or one of his

most trusted, high-priced assistants, but the design of every part, down to the tiniest screw, is O.K'd by Edison himself before it can become a part of the Amberola.

Just as much as if he knew you personally, Edison wants you to have one of his marvelous New Diamond Amberolas in your home. In this way you may know that it is all that is claimed for it. This will be done on an

## ABSOLUTELY FREE TRIAL

No strings to this offer. No red-tape. First you will want to get full particulars about the free trial and especially a copy of

**"A MASTER PRODUCT OF A MASTER MIND"**  
*The Beautiful Amberola Booklet, Illustrated in Natural Colors*

When you receive this booklet, select from it the model Amberola you prefer, also any twelve records from the Blue Amberol Record Catalog. Blue Amberol Records are almost unwearable and unbreakable. As soon as he can pack and ship them, the dealer will send the Amberola and records. When they arrive make believe they are yours, then you will realize what wonderful times you could have for years to come if they actually belonged to you. No need for either young folks or old folks to go out for entertainment, no more dull evenings.

Unless you are already the owner of a New Edison Diamond Amberola, there is no reason in the world why you should not take advantage of this offer. You will at least have three days of delightful music in your home, and the dealer will consider his time and money well spent, because he knows that, once you hear it, you will have nothing but praise for the Amberola. The sooner you send the coupon, the better chance you will have of getting the model Amberola and the records you prefer.

## SOME AMBEROLA MUSIC

The records listed below will give you a good idea of the kind of music you can have with the Amberola. Look over the list. We are sure you will find many of your favorites.

- |   |   |   |
|---|---|---|
| <p><b>SACRED</b></p> <p>Flee as a Bird<br/>Hark! Hark! My Soul<br/>Is My Name Written There<br/>I Surrender All<br/>I Will Sing of My Redeemer<br/>Looking This Way<br/>Lord, I'm Coming Home<br/>O Come, All Ye Faithful<br/>The Palms<br/>Softly and Tenderly</p> <p><b>NEGRO MELODIES</b></p> <p>Dinah<br/>Kentucky Babe<br/>My Little Cotton Dolly<br/>Ma Pickaninny Babe<br/>Old Folks at Home</p> <p><b>VOCAL QUARTETS</b></p> <p>Call to Arms<br/>Lorena<br/>Old Black Joe<br/>Owl in the Old Oak Tree<br/>Perfect Day<br/>Quartet from Rigoletto<br/>When the Corn is Waving</p> <p><b>ORCHESTRA</b></p> <p>Blue Danube Waltz<br/>Somewhere a Voice is Calling<br/>Teddy Bears' Picnic<br/>Whispering Flowers</p> | <p><b>RECITATIONS</b></p> <p>An Old Sweetheart of Mine<br/>Finch's The Blue and the Gray<br/>Lasca<br/>Out to Old Aunt Mary's<br/>Sheridan's Ride</p> <p><b>BANDS</b></p> <p>Gladiator March<br/>Laughing Love<br/>Night of Gladness Waltz<br/>Old Comrades' March<br/>Rienzi Overture<br/>Skaters' Waltz<br/>Spirit of Independence March<br/>Tambour der Garde Overture</p> <p><b>VOCAL DUETS</b></p> <p>Somewhere a Voice is Calling<br/>Sympathy—The Firefly<br/>Home to our Mountains—Il Trovatore<br/>Miserere—Il Trovatore<br/>When I'm Gone You'll Soon Forget<br/>Whispering Hope</p> <p><b>VICTOR HERBERT ORCHESTRA</b></p> <p>Dream Melody—Intermezzo—Naughty<br/>Marietta<br/>Red Mill Selections<br/>Ruy Blas Overture</p> | <p><b>TALKING AND SINGING</b></p> <p>Aunt Dinah's Golden Wedding<br/>Funny Doings at Sleepy Hollow<br/>My Uncle's Farm<br/>Turkey in the Straw Sketch</p> <p><b>INSTRUMENTAL SOLOS</b></p> <p>Jocelyn-Berceuse (Violoncello)<br/>A Dream (Cornet)<br/>Humoresque (Violin)<br/>Mediation—Thais (Violin)<br/>Mocking Bird, Fantasia (Xylophone)<br/>Nightingale (Piccolo)<br/>The Rosary (Cornet)</p> <p><b>INSTRUMENTAL TRIOS</b></p> <p>Love and Devotion<br/>Love's Old Sweet Song<br/>Titl's Serenade,<br/>Sweetest Story Ever Told</p> <p><b>VOCAL MEDLEYS</b></p> <p>Favorite Airs from The Beggar Student<br/>Famous Songs in Irish Plays<br/>Favorite Airs from Patience<br/>Songs of Other Days<br/>Songs We Used to Sing in Dixie Land</p> <p><b>BELLS</b></p> <p>Dancing on the House Top<br/>First Heart Throbs<br/>Light as a Feather<br/>Little Flatterer</p> |
|---|---|---|

THE PHONOGRAPH COMPANY OF DETROIT, 256 WOODWARD AVE., DETROIT, MICH.

### MICHIGAN DEALERS WHO GIVE FREE TRIALS

- |  |                                |                                 |                                  |
|--|--------------------------------|---------------------------------|----------------------------------|
| ALPENA—Howe & MacDon-ald               | CRYSTAL—Rinne & Mottes         | KALAMAZOO—Monroe Music House    | REED CITY—F. P. Atherton.        |
| BATTLE CREEK — Chas. E. Roat Music Co. | DETROIT — Bayley Music House   | LANSING—M. J. & B. M. Buck      | SAGINAW—J. E. Anderson Co.       |
| BAY CITY—Fowley's Drug Store           | FLINT — Brownson-Myers, Inc.   | LAPEER—J. N. Gardiner           | STURGIS—E. J. Namey              |
| Kahn's Music & Jewelry Store           | GRAND RAPIDS — Wegner Bros.    | LUDINGTON — Joseph Sahlmark     | SUNFIELD—E. E. VanAntwerp        |
| I. W. Kopec                            | HILLSDALE — Goodrich & Hallock | MANISTEE — Martin Anderson      | TRAVERSE CITY — John P. Scott    |
| BIG RAPIDS—W. A. Stillwell             | HOLLAND—Cook Bros.             | MONROE—Joseph Bros.             | WEST BRANCH — Peoples Drug Store |
| BOYNE CITY—Watson Drug Co.             | HOPKINS—Wolfinger & Gilligan   | NASHVILLE—H. D. Wotring         | WOODLAND—John Bulling            |
| BUCHANAN — Emerson & Hamilton          | HUBBELL—McDonald Bros.         | ONTONAGON—H. Levine             | YPSILANTI—Geo. D. Switzer        |
| CALUMET — McLorgan & Pearce            | IONIA—Krainbrink & Fuller      | PERRY—J. C. Cottrell            |                                  |
| CARO—C. E. Mudge                       | IRONWOOD — Wm. D. Trip-plet    | PLYMOUTH — Beyer Pharm-acy      |                                  |
| CHEBOYGAN—W. W. Kathan                 | ITHACA—J. L. Barden            | PONTIAC — Thomas Furni-ture Co. |                                  |
| CLARE—Floyd Kirkpatrick                | JACKSON—Desnoyer & Pen-dleton  | PORTLAND—Crane Drug Co.         |                                  |



WRITE YOUR NAME AND ADDRESS IN MARGIN  
BELOW AND MAIL COUPON TO NEAREST  
EDISON DEALER

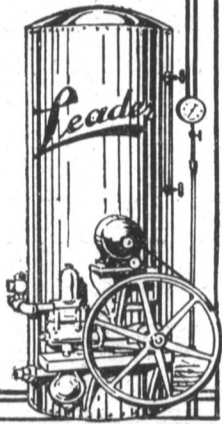
Please send me the Amberola Book and particulars about your FREE TRIAL offer on Edison Amberolas

# The Hardest Job on the Farm



Carrying heavy pails of water for washing clothes, for watering stock, for bathing, cooking, washing dishes etc.—the never-ending labor of pumping and carrying water is the hardest job on the farm.

Let the *Leader* do it



Leader water systems give you a constant, plentiful supply of water at the turn of a faucet. They are simply and strongly made to operate by electric motor, gasoline engine or by hand, all at reasonable prices.

Write for Details  
**Kerr Machinery & Supply Co.**  
E. Fort and Beaubien Sts.  
Detroit, Mich.

Ask us about Universal Electric Lighting Outfits

# Inside the Lines

By EARL DERR BIGGERS & ROBERT WELLES RITCHIE

Copyright by The Bobbs-Merrill Co.

"Have you any money?" The queries were voiced as one. For an instant confusion; then the older man looked up into the younger's face—a bit flushed it was—and guffawed.

"Not a postage stamp, Willy. I guess we're both beggars, and if mother and Kitty didn't have five trunks between them this Swiss hold-up man who says he's proprietor of this way-station hotel wouldn't trust for a fried egg."

"Same here," admitted Kimball. "I'm badly bent."

"They can't keep us down—us Americans!" Sherman cheered, taking the youth's arm and piloting him out into the reception room. "We'll find a way out if we have to cable for a warship to come and get us."

Just as Sherman and Kimball emerged from the dining-room, there was a diversion out beyond the glass doors on Waterport Street. A small cart drew up; from its seat jumped a young woman in a duster and with a heavy automobile veil swathed under her chin. To the Arab porter who had bounded out to the street she gave directions for the removal from the cart of her baggage, two heavy suit-cases and two ponderous osier baskets. These latter she was particularly tender of, following them into the hotel's reception room and directing where they should be put before the desk.

The newcomer was Jane Gerson, Hildebrand's buyer, at the end of her gasoline flight from Paris. Cool, capable, self-reliant as on the night she saw the bastions of the capital's outer forts fade under the white spikes of the search-lights, Jane strode up the desk to face the smiling Almer.

"Is this a fortress or a hotel?" she challenged.

"A hotel, lady, a hotel," Almer purred. "A nice room—yes. Will the lady be with us long?"

"Heaven forbid! The lady is going to be on the first ship leaving for New York. And if there are no ships, I'll look over the stock of coal barges you have in your harbor." She seized a pen and dashed her signature on the register. The Shermans had pricked up their ears at the newcomer's first words. Now Henry J. pressed forward his face glowing welcome.

"An American—a simon-pure citizen of the United States—I thought so. Welcome to the little old Rock!" He took both the girl's hands impulsively and pumped them. Mrs. Sherman, Kitty and Willy Kimball crowded around, and the clatter of voices was instantaneous. "By auto from Paris; goodness me!" "Not a thing to eat for three days but rye bread!" "From Strassburg to Luneville in a farmer's wagon!" Each in a whirlwind of ejaculation tried to outdo the other's story of hardship and privation.

The front doors opened again, and the sergeant and guard who had earlier carried off Fritz, the barber, entered. Again gun butts thumped ominously. Jane looked over her shoulder at the khaki-coated men, and confided in the Shermans:

"I think that man's been following me ever since I landed from the ferry."

"I have," answered the sergeant, stepping briskly forward and saluting. "You are a stranger on the Rock. You come here from—"

"From Paris, by motor, to the town across the bay; then over here on the ferry," the girl answered promptly. "What about it?"

"Your name?"

"Jane Gerson. Yes, yes, it sounds German, I know. But that's not my fault. I'm an American—a red-hot American, too, for the last two weeks."

The sergeant's face was wooden.

"Where are you going?"  
"To New York, on the Saxon, just as soon as I can. And the British army can't stop me."

"Indeed." The sergeant permitted himself a fleeting smile. "From Paris by motor, eh? Your passports, please."

"I haven't any," Jane retorted, with a shade of defiance. "They were taken from me in Spain, just over the French border, and were not returned."

The sergeant raised his eyebrows in surprise not unmixed with irony. He pointed to the two big osier baskets, demanding to know what they contained.

"Gowns—the last gowns made in Paris before the crash. Fashion's last gasp. I am a buyer of gowns for Hildebrand's store in New York."

Estatic gurgles of pleasure from Mrs. Sherman and her daughter greeted this announcement. They pressed about the baskets and regarded them lovingly.

The sergeant pushed them away and tried to throw back the covers.

"Open your baggage—all of it!" he commanded snappishly.

Jane, explaining over her shoulder to the women, stooped to fumble with the hasps.

"Seventy of the darlinest gowns—the very last Paul Poiret and Paquin



Lady Crandall beamed upon Jane, and Worth made before they closed shop and marched away with their regiments. You shall see every one of them."

"Hurry, please, my time's limited!" the sergeant barked.

"I should think it would be—you're so charming," Jane flung back over her shoulder, and she raised the tops of the baskets. The other women pushed forward with subdued coos.

The sergeant plunged his hand under a mass of colored fluffiness, groped for a minute, and brought forth a long roll of heavy paper. With a fierce mien, he began to unroll the bundle.

"And these?"

"Plans," Hildebrand's buyer answered shortly.

"Plans of what?" The sergeant glared.

"Of gowns, silly! Here—you're looking at that one upside down! This way! Now isn't that a perfect dear of an afternoon gown? Poiret didn't have time to finish it, poor man! See that lovely basque effect? Everything's moyer age this season, you know."

Jane, with a shrewd sidelong glance at the flustered sergeant, rattled on, bringing gown after gown from the baskets and displaying them to the chorus of smothered screams of delight from the feminine part of her audience. One she draped coquettishly from her shoulders and did an exaggerated step before the smoky mirror over the mantelpiece to note the effect.

"Isn't it too bad this soldier person

# Here's a Guide To Better Gardens

## 1918 SEED ANNUAL FREE

SEND FOR YOUR COPY TODAY!  
The new 1918 Isbell Seed Annual, now ready, shows how to buy hardy, carefully selected, fully-tested Michigan grown field and garden seeds, direct from grower at money-saving prices. Represents 39 years' experience growing and selecting Bell Brand seeds that grow "better than the average crops." Find out how to plant better seeds—how to test label quality before you plant. More than 200,000 farmers use Isbell's famous strains—developed on our farms in Michigan, the greatest seed State in the Union. Save money—make more money with bigger yields. The Isbell book will tell you how. Send a postal card today.

### Isbell's Wonder Wax Beans

Bring highest market prices. Wonderfully heavy yields. Nearly rust proof. Stringless. Tender. Yield earliest, bear longest. Order early today. Prices by mail postpaid. Pkt., 15c; 1-2 Pt., 25c; Pt., 45c; Qt., 75c.



### Isbell's Early Bird Radish

A most profitable variety. Quick maturing. Rich color. Perfect shape. Ready to pull in 21 days. Used by thousands of gardeners. Order early today. Prices by mail postpaid. Pkt., 10c; Oz., 20c; 1-4 lb., 55c; Lb., \$1.75.



"As They Grow Their Fame Grows"  
**S. M. ISBELL & CO.**

920 Mechanic Street

Jackson, Mich.

## Is Your Truss a Torture?

Are you suffering from rupture without any hope of relief? Get the Brooks Rupture Appliance on free trial and know the comforts of a sound man.

The automatic air cushion clings closely without slipping or chafing. Guaranteed to comfortably retain the hernia. Draws and binds together the parted tissue and gives Nature a chance to knit them firmly.

As specialists of 30 years' experience we have perfected a comfortable, sure relief from hernia in the Brooks Rupture Appliance. Endorsed by thousands of physicians. Sent on trial to prove its worth. Made to your measure. Durable—cheap.

Write today for measure blanks.  
**BROOKS APPLIANCE CO.**  
494 State St. Marshall, Mich.

**LEARN AUCTIONEERING** at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught in 5 weeks. Write today for free catalog.  
**JONES' NAT'L SCHOOL OF AUCTIONEERING.**  
28 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

When writing to advertisers please mention **The Michigan Farmer.**

## IRON AGE

### GARDEN TOOLS

Answer the farmer's big questions: How can I have a good garden with least expense? How can the wife have plenty of fresh vegetables for the home table with least labor?

### IRON AGE Combined Hill and Drill Seeder

solves the garden labor problem. Takes the place of many tools—stored in small space. Sows, covers, cultivates, weeds, ridges, etc., better than old-time tools.

A woman, boy or girl can push it and do a day's hand-work in 60 minutes. 30 combinations. \$4.50 to \$30.00. Write for booklet.



Bateman M'fg Co., Box 24C, Grenloch, N.J.

### SALESMEN WANTED

The draft and enlistment took some of our best Salesmen. This territory is now open and we would be pleased to hear from interested persons. Must be exempt from draft. Permanent. Fine opportunity for the right man.

SAGINAW MEDICINE CO., Desk E., Saginaw, Mich.

isn't married, so he could appreciate these beauties?" She flickered a mischievous eye his way. "Of course, he can't be married, or he'd recognize the plan of a gown. Clean hands, there, Mister Sergeant, if you're going to touch any of these dreams! Here, let me. Now look at that musquetaire sleeve—the effect of the war—military, you know."

The sergeant was thoroughly angry by this time, and he forced the situation suddenly near tragedy. Under his fingers a delicate girdle crackled suspiciously.

"Here—your knife! Rip this open; there are papers of some sort hidden here." He started to pass the gown to one of his soldiers. Jane choked back a scream.

"No, no! That's crinoline, stupid! No papers—" She stretched forth her arms appealingly. The sergeant humped his shoulders and put out his hand to take the opened clasp-knife.

A plump doll-faced woman, who possessed an afterglow of prettiness and a bustling nervous manner, founced through the doors at this juncture and burst suddenly into the midst of the group caught in the imminence of disaster.

"What's this—what's this?" She caught sight of the filmy creation draped from the sergeant's arm. "Oh, the beauty!" This in a whisper of admiration.

"The last one made by Worth," Jane was quick to explain, noting the sergeant's confusion in the presence of the stranger, "and this officer is going to rip it open in search for concealed papers. He takes me for a spy."

Surprised blue eyes were turned from Jane to the sergeant. The latter shamefacedly tried to slip the open knife into his blouse, mumbling an excuse. The blue eyes bored him through.

"I call that very stupid, Sergeant," reproved the angel of rescue. Then to Jane—

"Where are you taking all these wonderful gowns?"

"To New York. I'm buyer for Hildebrand's, and—"

"But, Lady Crandall, this young woman has no passports—nothing," the sergeant interposed. "My duty—"

"Bother your duty! Don't you know a Worth gown when you see it? Now go away! I'll be responsible for this young woman from now on. Tell your commanding officer Lady Crandall has taken your duty out of your hands." She finished with a quiet assurance and turned to gloat once more over the gowns. The sergeant led his command away with evident relief.

Lady Crandall turned to include all the refugees in a general introduction of herself.

"I am Lady Crandall, the wife of the governor general of Gibraltar," she said, with a warming smile. "I just came down to see what I could do for you poor stranded Americans. In these times—"

"An American yourself, I'll gamble on it!" Sherman pushed his way between the littered baskets and seized Lady Crandall's hands. "Knew it by the cut of your jib—and—your way of doing things. I'm Henry J. Sherman, from Kewanee, Illynoy—my wife and daughter Kitty."

"And I'm from Iowa—the red hills of ole Ioaway," the governor's wife chanted, with an orator's flourish of the hands. "Welcome to the Rock, home folks!"

Hands all around and an impromptu old-home week right then and there. Lady Crandall's attention could not be long away from the gowns, however. She turned back to them eagerly. With Jane Gerson as her aid, she passed them in rapturous review, Mrs. Sherman and Kitty playing an enthusiastic chorus.

A puffy little man with an air of supreme importance—Henry Reynolds he was, United States Consul at Gib-



## WHEN PRICES ARE HIGH and LABOR IS SHORT

the farmer **MUST** save time and effort, not only in producing, but in hauling. The larger the load and the faster the trip to market, the greater the profit.

Good roads have always helped the farmer. Now they are indispensable. Farm labor is scarce. Wages are high. Every hour wasted on the highway cuts down output and eats a hole in profits.

What the farmer needs is not a patch of hard road here and there, but a connected system of hard roads putting him in easy reach of his markets. And to get the best prices he needs roads that stay good 365 days a year.

There is no reason why farming communities should not have perfect systems of permanent highways. It is entirely up to them. The roads can be built in two or three seasons. When the cost is spread over fifteen or twenty years the annual tax for both interest and principal is only a few cents per acre. In Vermilion County, Illinois, for example, a magnificent concrete system is being built and the annual tax is only about 8c per acre per year, for 20 years, which covers the interest and gradually pays off the debt.

The farmer should act now in getting road plans under way to further his own interests. Systems of permanent highways benefit everyone, but to the farmer they are *indispensable*.

### PORTLAND CEMENT ASSOCIATION

ATLANTA  
CHICAGO  
DALLAS  
DENVER  
INDIANAPOLIS

Offices at  
KANSAS CITY  
MILWAUKEE  
MINNEAPOLIS  
NEW YORK  
PARKERSBURG

PITTSBURGH  
SALT LAKE CITY  
SAN FRANCISCO  
SEATTLE  
WASHINGTON

## CONCRETE FOR PERMANENCE



## Save Wisely Where Quality Counts Most

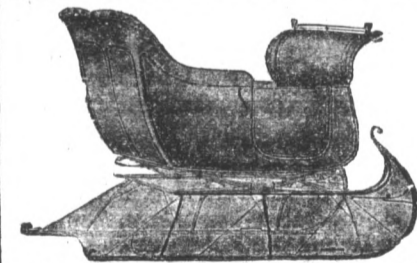
Get your range direct from Kalamazoo manufacturers—save money in buying—save high priced fuel in use. Get this book showing our full line—stoves, ranges, all styles and sizes—built right up to the highest mark of quality.

Quick Shipment—we pay the freight and guarantee safe delivery. Cash or easy payments, 30 days' trial. Thousands save money—why don't you? Write today.

Ask for Catalog No. 113

KALAMAZOO STOVE CO., Mfrs., KALAMAZOO, MICHIGAN  
We manufacture Stoves, Ranges, Gas Ranges, Furnaces, Kitchen Cabinets, Tables.

Get This Great Stove Book FREE



### CUTTERS OF ALL STYLES

Light bobs and Cutter gears.  
Send for Catalog.

Kalamazoo Carriage & Harness Co.,  
509 E. Willard St., Kalamazoo, Michigan

## GOOD SEEDS

GOOD AS CAN BE GROWN  
Prices Below All Others  
I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.  
Big Catalog FREE  
Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.  
R. H. SHUMWAY, Rockford, Ill.



### FREE

We will send a copy of Ropp's Calculator Free to any landowner who has not received one—also our catalog of

Square Deal Fence  
Don't buy until you get our prices and learn all about the best and cheapest fence to buy.  
Keystone Steel & Wire Co. 2554 Industrial St., Peoria, Ill.

GOOD opportunity for man and wife or with small family, to work farm on salary; general farming; two men on farm; separate buildings for each man. Address all communications to RALPH GARBER, 507 Lincoln Ave., Detroit, Mich.

FARMER. You must pay Income Tax which has come to stay. You will be under Government inspection from now on. Be prepared. My Farmers' Account Book meets your demand. Large 250-page book for \$3.00, good for 20 years. Send check today.  
L. L. SYMPERS, Ft. Wayne, Ind.

Onion Seed our specialty, all kinds of tested fresh seeds. We sell by weight and pay your postage. Catalog free.  
ALLEN'S SEED HOUSE, Geneva, Ohio

FORD COLD WEATHER STARTER. Every Ford owner should have one. Only \$2 delivered. Radiator Anti-Freeze Compound 25c a gallon. Ford Combination Reversing Switch Lock \$3.50. Free Literature.  
PROCESS STARTER CO., SALINA, KANS.

When writing to advertisers please mention the Michigan Farmer.

## Michigan Farmer's Club List.

For the benefit and convenience of our subscribers we have arranged the following list of papers. Besides the money saved, they save the trouble and expense of sending each order separately.

EXPLANATION.—The first column gives the paper's regular subscription price. The second column price is for the Michigan Farmer and the other paper, both for one year. The third column gives the price at which other publications can be added if more than one is wanted in combination with the Michigan Farmer.

Example.—The combination price of the Michigan Farmer and Every Week, one year each, is \$1.50. If the American Poultry Advocate is wanted in addition to these two publications, 35c would have to be added, making the combination of the three publications, one year each, \$1.85.

If the Michigan Farmer is wanted for two years add 50c to the combination price; for three years add \$1.00, and for five years add \$2.00.

NAME OF PUBLICATION.	See explanation above		
	Daily (6 a week) on R. F. D. Only		
	1	2	3
Free Press, Detroit	\$3.00	\$3.50	\$2.75
Journal, Detroit	3.00	3.50	2.75
Times, Detroit	3.00	3.50	2.75
Herald, Grand Rapids	3.00	3.50	2.75
Press, Grand Rapids	3.00	3.50	2.75
News, Grand Rapids	3.00	3.50	2.75
News, Dowagiac	3.00	3.50	2.75
Courier-Herald, Saginaw	3.00	3.25	2.50
News, Saginaw	3.00	3.25	2.50
Gazette, Kalamazoo	1.00	3.75	2.90
Pioneer, Big Rapids	2.50	3.00	2.25
Blade, Toledo, Ohio	2.75	3.25	2.50
News-Bee, Toledo, Ohio	3.00	3.50	2.75
Herald, Chicago, Ill.	4.00	4.40	3.60
American, Chicago, Ill.	4.00	4.40	3.60

Tri-weekly Newspapers			
World, N. Y. City	1.00	1.65	.75

Weekly Newspaper			
Blade, Toledo, Ohio	.70	1.25	.35
Enquirer, Cincinnati, Ohio	.75	1.40	.60

Cattle, Sheep, Swine, Poultry, Etc.			
American Bee Journal	1.00	1.75	.85
American Poultry Advocate	.50	1.25	.35
American Swineherd	.50	1.30	.35
American Sheep Breeder	1.25	1.75	1.00
Breeder's Gazette	1.50	2.15	1.25
Fruitman & Gardener	.50	1.25	.40
Gas Engine	1.00	1.60	.85
Gas Review	.50	1.25	.35
Garden Magazine	2.00	2.40	2.00
Cleanings in Bee Culture	1.00	1.85	.90
Green's American Fruit Grower	.50	1.25	.35
Guernsey Breeders' Journal	2.00	2.75	1.85
Holstein-Friesian Register	1.00	1.85	.90
Hoard's Dairyman	1.00	1.65	.85
Horse Journal	1.00	1.50	.75
Horse World	2.00	2.50	1.75
Hunter, Trader, Trapper	1.50	2.00	1.40
Jersey Bulletin	1.00	1.80	.90
Kimball's Dairy Farmer	1.00	1.50	.75
Market Grower's Journal	1.50	2.00	1.25
Poultry Keeper	.50	1.25	.35
Poultry Success	.50	1.25	.35
Power Farming	.50	1.25	.40
Reliable Poultry Journal	.50	1.25	.35
Swine Breeder's Journal	.50	1.25	.35
Swine World	1.00	1.50	.75
Michigan Poultry Breeder	.50	1.25	.35

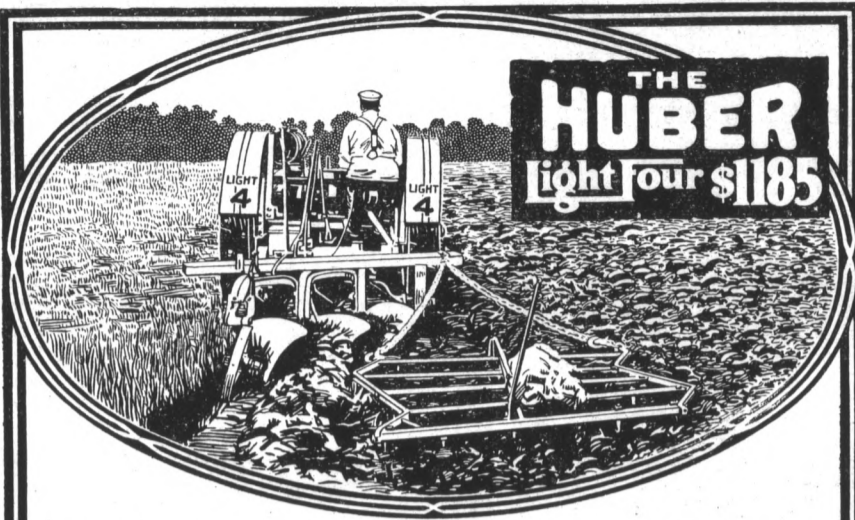
Popular Magazines			
American Magazine	1.50	2.20	1.35
Collier's Weekly	2.50	2.75	2.25
Cosmopolitan	1.50	2.15	1.50
Current Opinion	3.00	3.25	2.75
Current Events	.50	1.40	.45
Everybody's	1.50	2.15	1.40
Every Week	1.00	1.40	.75
Etude	1.50	2.15	1.35
Forest and Stream	2.00	2.50	1.75
Independent	4.00	4.25	4.00
Literary Digest	3.00	3.75	2.85
McClure's Magazine	1.50	2.10	1.25
Metropolitan	2.00	2.25	1.75
Moderator Topics	1.50	2.25	1.40
Musicalian	1.50	2.15	1.25
National Sportsman	1.00	1.75	1.00
Outlook	4.00	4.25	4.00
People's Home Journal	.75	1.45	.55
People's Popular Monthly	1.50	2.25	1.35
Popular Mechanics	1.50	2.35	1.40
Red Book Magazine	2.00	2.60	1.75
Review of Reviews	3.00	3.00	2.75
Scientific American	4.00	4.20	3.75
The Illustrated Review	.50	1.25	.35

Ladies or Household			
American Woman	.25	1.20	.25
American Motherhood	1.00	1.85	.90
Christian Endeavor or World	2.00	2.65	2.00
Christian Herald	2.00	2.50	1.60
Christian Standard	2.00	2.65	2.00
Delineator	1.50	2.25	1.40
Designer	1.00	1.75	.85
Good Housekeeping	1.50	2.15	1.50
Home Life	.25	1.20	.30
McCall's Magazine	.75	1.45	.50
Michigan Christian Advocate	1.00	2.25	1.35
Mother's Magazine	1.50	1.75	1.15
Modern Pictorial	1.25	1.80	1.10
Needler's Art	.50	1.25	.35
Pictorial Review	1.50	1.85	1.25
Today's Housewife	.75	1.45	.50
Woman's Home Companion	1.50	2.15	1.35
Woman's World	.50	1.30	.35
Woman's Magazine	.75	1.60	.65

Juvenile			
American Boy	1.50	2.00	1.35
Boy's Magazine	1.00	1.50	.75
Boy's World	1.00	1.30	.35
Girl's Companion	.50	1.30	.35
Little Folks	1.50	1.75	1.15
St. Nicholas	3.00	3.25	2.75
Young People's Weekly	.75	1.45	.50
Youth's Companion	2.00	2.75	2.00

Combination orders may be sent direct to our office or through any of our subscription representatives, as is most convenient.

The Michigan Farmer  
Detroit, Mich.



**Do Your Plowing Whenever You Want to**

**D**ON'T delay plowing because your ground is too hard for horses to break or too soft to support their weight.

The Huber Light Four gets the plowing done when you want it. Powerful enough to pull three 14" bottoms over any field. Light enough to work on fields impassable to horses. Works on plowed ground without packing.

Besides doing the work of four three-horse teams, it operates all farm machinery. Gives power for threshing, pumping water, running the baler, filling the silo. Pays its way on the farm every day in the year.

12 h.p. at the draw-bar, 25 h.p. at the pulley. Center draft. Direct drive. Turns in a six foot radius. Never runs hot. Self-steering in the furrow. Easy to manage. Easily plows an acre an hour. Adjusts itself to any field. Speed 2 1/2 to 4 miles per hour. Burns gasoline, kerosene or distillate.

*"Doing the Impossible" gives the proofs. Send for it today.*

THE HUBER MFG. CO. 426 Center St. Marion, Ohio



**Get Your Hide Tanned**  
**Let Us Tan Your Hide**  
and make them into Coats, Robes, Furs, Gloves, Mitts and Caps.  
**Sylvania Tanning Co. Sylvania, O.**

Est. 1853 Capital \$600,000.00 Inc. 1889  
Highest Prices Paid For  
**RAW FURS**  
Write for Fur List and Book on Successful Trapping  
**TRAUGOTT SCHMIDT & SONS**  
136-164 Monroe Ave. Detroit, Mich.

**HIGHEST PRICES**  
Paid for all kinds of Raw Furs  
I need large quantities of all kinds of furs, and it will pay you to get my price list. I especially solicit furs from all northern and central sections. Write for price list and shipping tags today to  
**O. L. SLENER,**  
P. O. Box H 2 East Liberty, O.

**TIMOTHY \$3 PER BUSHEL AND UP**  
Save money—Buy direct from grower  
New released Iowa Grown Timothy, free from noxious weeds. Guaranteed or money refunded. 116-page catalog free. Samples, low prices on Clover and grass seeds. Write before advance.  
**A. A. BERRY SEED CO., Box 331 CLARINDA, IOWA.**

**SCOTT'S FIELD SEEDS**  
Our seeds are selected and cleaned to be WEEDLESS and free from dead grains. They will go much farther than ordinary field seeds, nearly always adding enough to the crop to pay for themselves. Samples and catalog including "How to Know Good Seeds" free. Write today. **O. M. SCOTT & SONS CO., 55 Main St., Marysville, O.**

**Wet Beans**  
We buy them. Send exact sample in tin can.  
**W. L. IRELAND & CO., Grand Ledge, Mich.**

**STRAWBERRY PLANTS**  
An other small fruit  
It is easy to make \$300 to \$500 per acre on our superior Michigan grown Plants, they grow sure and fast, are big producers Write to-day for free catalog.  
**Bridgman Nursery Co., Box 3, Bridgman, Mich.**

We want to Buy **BARLEY** Send us Samples  
**YOUNG-RANDOLPH SEED CO., Owosso, Mich.**

**TIMOTHY SEED** \$4.00 per bushel. High purity and germination, first class in every way. Timothy-Alsike Mixture \$4.50 per bushel, 45 lbs. Bags extra at 25c. each.  
**YOUNG-RANDOLPH SEED CO., Owosso, Mich.**

**Strawberry Plants** postal will bring complete and nicely pictured book, tells all about my vigorous stock grown best way. **Mayers Plant Nursery, Merrill, Mich.**

**SUPERIOR BEET DRILLS**  
Made in two styles—3 sizes, Plain and Fertilizer—with shoe or double disc furrow openers, adjustable to plant 16 to 28 in. apart in the row, four rows at a time. Spacing bars are furnished with each drill, enabling the user to make the necessary spacing without the use of measuring instruments. These bars hold the furrow openers the exact distance apart, thus making the rows easy to cultivate.  
The Superior Feed is especially adapted to beet seed and has wide range of quantity. Agitators furnished with every drill. No "bridging" of seed. Gauge wheels can be used as press wheels if desired. Assure even depth of planting.  
Write today for the Superior Beet Drill folder. Read it and then go to your local dealer and insist on seeing the Superior Beet Drill.  
**THE AMERICAN SEEDING MACHINE CO. INCORPORATED**  
SPRINGFIELD, OHIO, U.S.A.

**OLDS' Seed Book**  
and Packet Flower Seed FREE  
FOR 30 years I have sold reliable seeds. Thousands of customers testify to this. My seeds not only grow but produce big yields. They must make good or I will. 31st annual catalog now ready. Write for copy.  
**Lists All Kinds of Farm Garden and Flower Seeds**  
The best arranged, most comprehensive and easiest catalog to order from ever issued. A few specialties are:  
Certified Seed Potatoes  
Wisconsin Grown Seed Corn  
Pedigreed Oats and Barley  
Wheat, Speltz, Rye, Buckwheat  
Northern Clover and Alfalfa  
Tested Garden and Flower Seed  
Send postal today. Mention this paper. Will include packet flower seeds.  
**L. L. OLDS SEED COMPANY**  
Drawer G MADISON, WIS.

raltar—catapulted in from the street while the gown chatter was at its noisiest. He threw his hands above his head in a mock attitude of submissiveness before a highwayman.

"'S all fixed, ladies and gentlemen," he cried, with a showman's eloquence. "Here's Lady Crandall come to tell you about it, and she's so busy riding her hobby—gowns and millinery and such—she has forgotten. I'll bet dollars to doughnuts."

"Credit to whom credit is due, Mister Consul," she rallied. "I'm not stealing anybody's official thunder." The consul wagged a forefinger at her reprovingly. With impatience, the refugees waited to hear the news.

"Well, it's this way," Reynolds began. "I've got so tired of having all you people sitting on my door-step I just had to make arrangements to ship you on the Saxonia in self-defense. Saxonia's due here from Naples Thursday—day after tomorrow; sails for New York at dawn Friday morning. Lady Crandall here—and a better American never came out of the Middle West—has agreed to go bond for your passage money; all your letters of credit and checks will be cashed by treasury agents before you leave the dock at New York, and you can settle with the steamship people right there.

"No, no; don't thank me! There's the person responsible for your getting home." The consul waved toward the governor's lady, who blushed rosily under the tumultuous blessings showered on her. Reynolds ducked out the door to save his face. The Shermans made their good nights, and with Kimball, started toward the stairs.

"Thursday night, before you sail," Lady Crandall called to them, "you all have an engagement—a regular American dinner with me at the Government House. Remember!"

"If you have hash—plain hash—and don't call it a rag-owt, we'll eat you out of house and home," Sherman shouted as addendum to the others' thanks.

"And you, my dear"—Lady Crandall beamed upon Jane—"you're coming right home with me to wait for the Saxonia's sailing. Oh, no, don't be too ready with your thanks. This is pure selfishness on my part. I want you to help plan my fall clothes. There, the secret's out. But with all those beautiful gowns, surely Hildebrand will not object if you leave the pattern of one of them in an out-of-the-way little place like this. Come on, now, I'll not take no for an answer. We'll pack up all these beauties and have you off in no time."

Jane's thanks were ignored by the capable packer who smoothed and straightened the confections of silk and satin in the osier hampers. Lady Crandall summoned the porter to lift the

precious freight to the back of her dog-cart, waiting outside. Almer, perturbed at the kidnaping of his guest, came from behind the desk.

"You will go to your room now?" he queried anxiously.

"Not going to take it," Jane answered. "Have an invitation from Lady Crandall to visit the State House, or whatever you call it."

"But, pardon me. The room—it was rented, and I fear one night's lodging is due. Twenty shillings."

Jane elevated her eyebrows, but handed over a bill.

"Ah, no, lady. French paper—it is worthless to me. Only English gold, if the lady pleases." Almer's smile was leonine.

"But it's all I've got; just came from France, and—"

"Then, though it gives me the greatest sorrow, I must hold your luggage until you have the money changed. Excuse—"

Captain Woodhouse, who had dallied long over his dinner for lack of something else to do, came out of the dining-room just then, saw a woman in difficulties with the landlord, and instinctively stepped forward to offer his services.

"Beg pardon, but can I be of any help?"

Jane turned. The captain's heart gave a great leap and then went cold. Frank pleasure followed the first surprise in the girl's eyes.

"Why, Captain Woodhouse—how jolly!—To see you again after—"

She put out her hand with a free gesture of comradeship.

Captain Woodhouse did not see the girl's hand. He was looking into her eyes coldly, aloofly.

"I beg your pardon, but aren't you mistaken?"

"Mistaken?" The girl was staring at him, mystified.

"I'm afraid I have not had the pleasure of meeting you," he continued evenly. "But if I can be of service—now—"

She shrugged her shoulders and turned away from him.

"A small matter. I owe this man twenty shillings, and he will not accept French paper. It's all I have."

Woodhouse took the note from her.

"I'll take it gladly—perfectly good." He took some money from his pocket and looked at it. Then, to Almer: "I say, can you split a crown?"

"Change for you in a minute, sir—the tobacco shop down the street." Almer pocketed the gold piece and dodged out of the door.

Jane turned and found the deep-set gray eyes of Captain Woodhouse fixed upon her. They craved pardon—toleration of the incident just passed.

(Continued next week.)

**The Grizzly King**  
By **JAMES OLIVER CURWOOD**  
Copyright by Paget Newspaper Service

Thor moved again, parallel to the sound. This brought him quickly to the edge of the timber, and there he stood, concealed by foliage, but with the lake and the short stretch of meadow in view. A big bull caribou came out first. His horns were half grown, and in velvet. A two-year-old followed, round and sleek and glistening like brown velvet in the sunset. For two minutes the bull stood alert, eyes, ears, and nostrils seeking for danger-signals; at his heels the younger animal nibbled less suspiciously at the grass. Then lowering his head until his antlers swept back over his shoulders the old bull started slowly toward the lake for his evening drink. The two-year-old followed—and Thor came out softly from his hiding-place.

For a single moment he seemed to gather himself—and then he started.

Fifty feet separated him from the caribou. He had covered half that distance like a huge rolling ball when the animals heard him. They were off like arrows sprung from the bow. But they were too late. It would have taken a swift horse to beat Thor and he had already gained momentum.

Like the wind he bore down on the flank of the two-year-old, swung a little to one side, and then without any apparent effort—still like a huge ball—he bounded in and upward, and the short race was done.

His huge right arm swung over the two-year-old's shoulder, and as they went down his left paw gripped the caribou's muzzle like a huge human hand. Thor fell under, as he always planned to fall. He did not hug his victim to death. Just once he doubled up one of his hind legs, and when it

went back the five knives it carried disembowelled the caribou. They not only disemboweled him, but twisted and broke his ribs as though they were wood. Then Thor got up, looked around, and shook himself with a rumbling growl which might have been either a growl of triumph or an invitation for Muskwa to come to the feast.

If it was an invitation, the little tan-faced cub did not wait for a second. For the first time he smelled and tasted the warm blood of meat. And this smell and taste had come at the psychological moment in his life, just as it had come in Thor's life years before. All grizzlies are not killers of big game. In fact, very few of them are. Most of them are chiefly vegetarians, with a meat diet of smaller animals, such as gophers, whistling marmots, and porcupines. Now and then chance makes of a grizzly a hunter of caribou, goat, sheep, deer, and even moose. Such was Thor. And such, in days to come, would Muskwa be, even though he was a black and not of the family of *Ursus Horribilis* Ord.

For an hour the two feasted, not in the ravenous way of hungry dogs, but



"Like the wind Thor bore down on the flank of the caribou."

in the slow and satisfying manner of gourmets. Muskwa, flat on his little paunch, and almost between Thor's huge forearms, lapped up the blood and snarled like a kitten as he ground tender flesh between his tiny teeth. Thor, as in all his food-seeking, hunted first for the tid-bits, though the sapoons oowin had made him as empty as a room without furniture. He pulled out the thin leaf of fat from about the kidneys and bowels, and munched at yard-long strings of it, his eyes half closed.

The last of the sun faded away from the mountains, and darkness followed swiftly after the twilight. It was dark when they finished, and little Muskwa was as wide as he was long.

Thor was the greatest of nature's conservators. With him nothing went to waste that was good to eat, and at the present moment if the old bull caribou had deliberately walked within his reach Thor in all probability would not have killed him. He had food, and his business was to store that food where it would be safe.

He went back to the balsam thicket, but the gorged cub now made no effort to follow him. He was vastly contented, and something told him that Thor would not leave the meat. Ten minutes later Thor verified his judgment by returning. In his huge jaws he caught the caribou at the back of the neck. Then he swung himself partly sidewise and began dragging the carcass toward the timber as a dog might have dragged a ten-pound slab of bacon.

The young bull probably weighed four hundred pounds. Had he weighed eight hundred, or even a thousand, Thor would still have dragged him—but had the carcass weighed that much he would have turned straight around and backed with his load.

In the edge of the balsams Thor had already found a hollow in the ground.

He thrust the carcass into this hollow, and while Muskwa watched with great and growing interest, he proceeded to cover it over with dry needles, sticks, a rotting tree butt, and a log. He did not rear himself up and leave his "mark" on a tree as a warning to other bears. He simply nosed round a bit, and then went out of the timber.

Muskwa followed him now, and he had some trouble in properly navigating himself under the handicap of his added weight. The stars were beginning to fill the sky, and under these stars Thor struck straight up a steep and rugged slope that led to the mountain-tops. Up and up he went, higher than Muskwa had ever been. They crossed a patch of snow. And then they came to a place where it seemed as if a volcano had disrupted the bowels of a mountain. Man could hardly have traveled where Thor led Muskwa.

At last he stopped. He was on a narrow ledge, with a perpendicular wall of rock at his back. Under him fell away the chaos of torn-up rock and shale. Far below the valley lay a black and bottomless pit.

Thor lay down, and for the first time since his hurt in the other valley he stretched out his head between his great arms, and heaved a deep and restful sigh. Muskwa crept up close to him, so close that he was warmed by Thor's body; and together they slept the deep and peaceful sleep of full stomachs, while over them the stars grew brighter, and the moon came up to flood the peaks and the valley in a golden splendor.

CHAPTER VII.

LANGDON and Bruce crossed the summit into the westward valley in the afternoon of the day Thor left the clay wallow. It was two o'clock when Bruce turned back for the three horses, leaving Langdon on a high ridge to scour the surrounding country through his glasses. For two hours after the packer returned with the outfit they followed slowly along the creek above which the grizzly had traveled, and when they camped for the night they were still two or three miles from the spot where Thor came upon Muskwa. They had not yet found his tracks in the sand of the creek bottom. Yet Bruce was confident. He knew that Thor had been following the crests of the slopes.

"If you go back out of this country an' write about bears, don't make a fool o' yo'rself like most of the writin' fellows, Jimmy," he said, as they sat back to smoke their pipes after supper. "Two years ago I took a natcherlist out for a month, an' he was so tickled he said 'e'd send me a bunch o' books about bears and wild things. He did! I read 'em. I laughed at first, an' then I got mad an' made a fire of 'em. Bears is cur'ous. There's a mighty lot of interesting things to say about 'em without making a fool o' yo'rself. There sure is!"

Langdon nodded. "One has to hunt and kill and hunt and kill for years before he discovers the real pleasure in big game stalking," he said slowly, looking into the fire. "And when he comes down to that real pleasure, the part of it that absorbs him heart and soul, he finds that after all the big thrill isn't in killing, but in letting live. I want this grizzly, and I'm going to have him. I won't leave the mountains until I kill him. But, on the other hand, we could have killed two other bears today, and I didn't take a shot. I'm learning the game, Bruce—I'm beginning to taste the real pleasure of hunting. And when one hunts in the right way one learns facts. You needn't worry. I'm going to put only facts in what I write."

Suddenly he turned and looked at Bruce.

"What were some of the 'fool things' you read in those books?" he asked.

Bruce blew out a cloud of smoke. (Continued next week).

When Your Boys March Off To War

# LOUDEN

## Barn Equipment Takes Up Their Daily Work

GOVERNMENT DEMONSTRATION HERD  
LOUDEN STALLS  
AND STANCHIONS  
NATIONAL DAIRY SHOW  
SPRINGFIELD, MASS., 1916

Louden Barn Equipment is designed to meet just such labor conditions as now confront the farmer and dairyman. It does for the barn what the tractor does for the field—releases man power—makes it possible for one man to do the work of several—solves the problem of scarcity of farm hands.

Barn cleaning, stock feeding and a great many other tasks which must be performed daily in the care of livestock are actually reduced one-half by the use of Louden Equipment. Besides, the equipment is there to do the work year after year—it is permanent.

**LOUDEN Stalls and Stanchions, Litter and Feed Carriers** and other equipment possess advantages in simplicity, strength, convenience, comfort and safety for the live stock found in no other equipment. Easily installed, fits any size or style of barn—new or old, costs less than wood, outlasts the barn.

**New 224-Page Illustrated Catalog**  
SENT POSTPAID—NO CHARGE. Shows the full Louden line, including stalls and stanchions, feed and litter carriers, animal pens, horse barn equipment, mangers, barn and garage door hangers, hay tools—“Everything for the Barn.”

**Also Get Louden Barn Plan Book** One of the most valuable books on barn building ever written—not a catalog, but a 112-page encyclopedia of dollar-saving information—no charge—a post card brings it to you. Address all mail to main office.

**The Louden Machinery Company** 1900 Court Street  
FAIRFIELD, IOWA  
(Established 1867) Branches: St. Paul, Chicago, Albany, N.Y.

Wm. Louden  
Originator  
of Modern  
Barn  
Equipment

## Cow Comfort in Zero Weather

You can hold your cows to full milk flow during a cold snap—if they are housed in Natco Darns and fed from a Natco Silo. The dead-air spaces in the hollow tile walls keep out the cold yet prevent dampness and frost from gathering.

### Natco Hollow Tile

buildings save painting—will not rot, crack or crumble. Will not harbor rats, mice or other vermin. The glazed dust-tight walls make it easy to produce clean milk. Natco Hollow Tile is widely used in fire-proofing “skyscrapers”—let the same material safeguard your stock and reduce your fire-risk.

Your building supply dealer will gladly show you samples of Natco Hollow Tile and quote prices. Also, write us at once for new, illustrated “Natco on the Farm” book—1918 Edition. It's free!

23 Factories assure a wide and economical distribution.

**National Fire Proofing Company**  
1115 Fulton Building Pittsburgh, Pa.

## Make Your Wartime Silo a Lifetime Silo--The B. V. T. SILO

It will be the best investment in future years as well as in the present emergency. Increases your farm value for generations. Solid, substantial, indestructible. No repairing or painting. No hoops to bother with. Double air spaces protect against freezing and spoilage.

Write for Booklet D  
**Brazil Hollow Brick & Tile Co.,**  
Brazil, Indiana

Please mention the Michigan Farmer when you are writing to advertisers and you will do us a favor

**:- AN INTERESTING SHORT STORY :-**

We cannot prepare any better advertisement for

**GOMBAULT'S CAUSTIC BALSAM**

than the following voluntary testimonial from a man who stands very high in all business and social circles where he is known:



No. 2131 Wyoming Avenue, Washington, D. C.,  
November 26, 1917.

The Lawrence-Williams Co.,  
Dear Sirs:—I have had GOMBAULT'S CAUSTIC BALSAM constantly in my home for thirty-three years and have used it for a large number of animal and human ailments. It is by far the most effective, reliable and economical medical preparation that I have ever known. Its persistent use for chronic rheumatism, lumbago, neuritis and kindred troubles bring sure relief. For sore throat, pains in chest and acute cramps it penetrates and relieves pain. For mosquito bites, bee stings and bites of all other vermin it instantly stops all irritation. For itching between the toes and on limbs, it is an instantaneous cure. For fresh cuts, wounds and old sores, it eliminates all danger from blood poisoning and hastens a cure. A few drops of CAUSTIC BALSAM is more effective than half a bottle of any other application that I know of.

Truly yours, M. J. LAWRENCE.

GOMBAULT'S CAUSTIC BALSAM has had a steady, reliable sale in France, where it is made, for forty-five years. In the United States and Canada, with only moderate advertising, it has had an increasing sale for thirty-five years. The demand is produced strictly by its merits. Price \$1.50 per bottle. Sold by druggists, or sent by Parcel Post on receipt of price. Guaranteed to give satisfaction. For further particulars and unlimited testimonials, address

**The Lawrence-Williams Co., Cleveland, Ohio**  
Sole Proprietors and Distributors for the U. S. and Canada

**Do Your Own Paper Hanging**

with the Gem Wall Papering Machine, new invention. Very simple. Easy to work. Outfit complete—machine, brush, cutter and ladder attachment for \$7.50 on terms. Write for circular. Money order for \$5.00 brings you the outfit.

**U. S. WALL PAPERING MACHINE CO.,**  
531 Dime Bank Bldg., Detroit, Mich.

**20 Packets Seeds—10c**

We want every reader to test "HARRIS SEEDS THAT HUSTLE." Send 10c. now—before you forget for this mammoth collection. We send you 20 separate packets finest varieties—one each—of Beets, Carrot, Cabbage, Celery, Cucumber, Lettuce, Cress, Muskmelon, Watermelon, Onion, Parsley, Parsnip, Radish, Salsify, Spinach, Tomato, Mixed Peppies, Giant Cosmos, Double Jap Calendula and Children's Botanical Garden, a curiosity collection of flower seeds. With this collection we send rebate check for 10c. and big catalog of world's finest seeds. HARRIS BROS. SEED CO., 350 Main St., Mt. Pleasant, Mich.

**EVERGREENS**  
Grown by Iowa's Evergreen Specialist. Strong, hardy, well rooted. Four times transplanted.  
**PAY ONLY FOR TREES THAT GROW** Send half cash with order. Hold balance until next October. Then deduct for trees that failed to grow. Full rest offer ever made. Evergreen bargains from \$1.50 per hundred up. Write for catalog. Real bargains in fruits and flowers.  
Earl Ferris Nursery Co., 505 Bridge St., Hampton, Iowa

**EVERGREENS**  
38 Hardy Tested Varieties  
Best for windbreaks and hedges. Protect buildings, crops and stock. Added warmth saves fuel—saves feed. Hill's evergreens are hardy, nursery grown. Get Hill's free illustrated Evergreen Book and list of 50 Great Bargain Offers—from \$4.50 per thousand up. Fifty-six years' experience. World's largest growers. Write  
**D. Hill Nursery Co., Evergreen Specialists**  
2300 Cedar St., Dundee, Ill.

**DON'T PAY BIG PRICES FOR COFFEE**  
Buy in 5-lb. lots from JEVNE'S and SAVE 10c per lb. WE PAY POST, EXPRESS or FREIGHT IF YOU LOVE GOOD COFFEE SEND FOR PRICE LIST  
**JEVNE COFFEE CO. (Est. 1881) Coffee Specialists**  
Dept. 7, 2855-57 W. Madison St., CHICAGO

**What 15c Will You Bring from the Nation's Capital**

Washington, the home of the Pathfinder, is the nerve-center of civilization; history is being made at this world capital. The Pathfinder's illustrated weekly review gives you a clear, impartial and correct diagnosis of public affairs during these strenuous, epoch-making days. The little matter of 15c in stamps or coin will bring you the Pathfinder 13 weeks on trial. The Pathfinder is an illustrated weekly, published at the Nation's center, for the Nation; a paper that prints all the news of the world and tells the truth and only the truth; now in its 25th year. This paper fills the bill without emptying the purse; it costs but \$1 a year. If you want to keep posted on what's going on in the world, at the least expense of time or money, this is your means. If you want a paper in your home which is sincere, reliable, entertaining, wholesome, the Pathfinder is yours. If you would appreciate a paper which puts everything clearly, fairly, briefly—here it is. Send 15c to show that you might like such a paper, and we will send the Pathfinder on probation 13 weeks. THE 15c does not repay us; we are glad to invest in new friends. **THE PATHFINDER, Box 78, Washington, D. C.**

When Writing to advertisers mention The Michigan Farmer. please.

**Woman and Her Needs**

**Is It Hard or Interesting?**

FOUR boys in khaki swung down the street. It was the day after Christmas. The little woman in the front seat of the street car hid her face in her muff and a sob shook her. A moment later she raised her head. Her lips were smiling, but her eyes told you that her boy was "over there." Two business men were talking. They had just finished the Y. M. C. A. drive and were already making plans for the Red Cross Christmas campaign. "Last year we wouldn't have thought we could work this way," said the younger man. "No," agreed the older. "But I certainly couldn't stand it now if I didn't. I've got to have something all the time to take my mind off it. The more work the better. Nights when I have time to think the thing gets me so I can't sleep. I wish there was another drive coming on top of this." The visiting teacher was drying the dishes for her hostess. The housekeeper's husband was too old to go, her children were all girls, and she had no brothers or male cousins to be drafted. Obviously, the war could not touch her personally. The teacher had absolute-

"It's a hard time to live," moaned the tired shopper who couldn't match her silk.

"Yes, but isn't it gloriously interesting?" came back the saleswoman. "I am so thankful I'm alive to see it all, and live it. Nothing else has ever been worth the doing—just getting through the days some way. But now we can see a reason for everything we do. Every move we make, every cent we spend, can help. It isn't hard at all if you look at it that way."

And so the talk runs, everyone discussing the war as it affects them. But no one has gotten a better view of it than the saleswoman. We can make it hard or interesting, just as we please. If we please to sit around and feel sorry because we have to go without white bread and frosted cakes and Virginia baked ham, and moan for our boys at the front, we weaken ourselves and hurt the cause. If we choose to feel that every sacrifice we make, every corn pone we bake, every grain of sugar we save is a bullet for the right, and that if our boys are taken, their lives have not been a sacrifice but a priceless gift to man, we make the times through which we are passing, days to be looked back to with envy because of the opportunity they gave us to really live.

**Mr. Slice O' Bread**

I am a Slice of Bread. I measure three inches by two-and-a-half, and my thickness is half an inch.

My weight is exactly an ounce. I am wasted once a day by 48,000,000 people of Britain.

I am "the bit left over," the slice eaten absentmindedly when really I wasn't needed; I am the waste crust.

If you collected me and my companions for a whole week you would find that we amounted to 9,380 tons of good bread—WASTED!

Two Shiploads of Good Bread! Almost as much—striking an average—as twenty German submarines could sink—even if they had good luck.

When you throw me away or waste me you are adding twenty submarines to the German navy. —(Copy of handbill sent out by National War Savings Committee, England).

Don't the things which worried you three years ago look trivial now? Think of how you worried because you got a crepe de chine blouse when everybody else was wearing Georgette; and how you and John actually quarreled over what color to paint the house; and how upset you got when the scalloped oysters run out at the farmer's club at your house, and how you slapped Johnny when he spilled his sauce on the clean tablecloth, and how bitter you were when your neighbor got a new car and you still had to drive the old buggy. How silly those things seem now beside the real issues of life.

Truly, these are interesting times. And they are times of testing. Those who respond to the test with renewed faith and clear vision will reap their reward in largeness of spirit, while those who can see only the hardships, and lose sight of the ends to be attained, will come out of it heavy losers.

DEBORAH.

**CONSERVATION DAY SUGGESTIONS.**

Meatless Day.—Breakfast, rice omelet; dinner, mackerel a la Amesbury; supper, creamed Lima beans.

Wheatless Day.—Breakfast, corn pone; dinner and supper, corn and rye bread.

Rice Omelet.—Beat two eggs thoroughly and add to them a half teaspoon of salt and one cup of warm cooked rice. Melt two tablespoons of butter in a spider, pour in the egg and rice and let cook for two minutes on top of the stove. Then set in the oven until a knife thrust into the center will come out almost clean. Remove from oven, fold half over and serve on a hot platter.

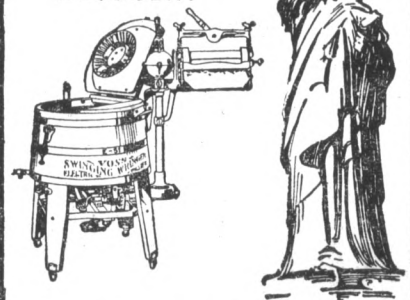
Mackerel a la Amesbury.—Immediately after breakfast make a fritter batter as follows: Beat the yolks of two eggs, add slowly a half cup milk, beating all the time, and stir into it one cup of flour, a little at a time, and a fourth teaspoonful of salt sifted. When the flour is all stirred in, add two teaspoons of salad oil and set away until noon. Then add the stiffly beaten whites of the eggs and dip strips of cold boiled mackerel of a size conven-

ly no one, neither father, brother nor sweetheart.

"I feel so depressed," said the housekeeper. "And I don't see why I should. We've had no bad luck in business and Jack can't pass the examination so I know he won't be taken. But I can't get over the feeling that the bottom is going to drop out of everything. The future is all dark, and yet everything points to continued good fortune in our business."

"You'd be an unhuman monster if you didn't feel depressed, with all your friends sending their boys to protect you," came back the teacher. "Everybody feels it. It's in the air. I have fought the blues all the term for the sake of the children, but if something doesn't break pretty soon they'll get me yet. Half my pupils have a big brother or a cousin going, and one boy's father is a captain. I have nothing but war, and while to the children it is all glory and excitement, it's grim enough to me. The boys are dropping out of the eighth grade to help the family out and there are constant appeals to our purse and heart. Who could live and not feel depressed? But you needn't give up to the glooms."

**FREEDOM FOR THE HOUSEWIFE FROM WASHDAY DRUDGERY**



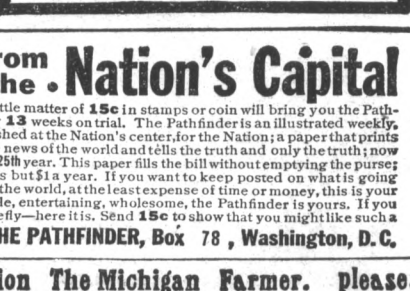
The time has arrived. Mrs. Housewife, don't be a slave to the wash tub and board any longer.

**VOSS WASHERS** with their plunging Vacuum Dashers, do all the washing; the swinging reversible wringers do all the wringing. You are relieved of ALL the work.

**FREE** Our new book, which will show you the machine best suited for your needs, together with much other valuable information. Write  
**VOSS BROS. MFG. CO., DAVENPORT, IOWA, Dept. A**

**FREE BUGGY BOOK**

Send me your name and address and I will send you my latest Buggy Catalog showing over 150 different styles of my famous Split Hickory buggies. Buy your buggies direct from my factory and **Save \$25 to \$40**. I can make immediate delivery now. I give you a 2-year guarantee and a 30-day free road test. Over 250,000 satisfied owners of Split Hickory buggies in the United States. Send and get free buggy book today.  
**H. C. PHELPS, Pres., THE OHIO CARRIAGE MFG. CO., Station 32 Columbus, Ohio**



lent for serving, into the batter. Cook in deep fat until the batter is a deep brown and serve at once.

**Creamed Lima Beans.**—Soak dried Lima beans for four hours, drain, cover with salted water and cook until tender. Add a cup of whole milk to the liquid remaining, thicken with egg yolk, add a generous tablespoon of butter and serve.

**Corn Pones.**—Two cups of white corn meal, two cups of buttermilk, one-half teaspoon of soda, one teaspoonful of salt, one tablespoon melted fat. Put fat in biscuit tin or iron spider on top of stove. While it is heating sift the meal and add the salt. Stir soda into buttermilk, mixing thoroughly. When frothing is at its height, pour into the meal and stir together. Add smoking hot fat. The mixture should be a very stiff batter. Drop from spoon into oblong cakes in the hot pan, leave on top of stove until bread begins to rise, then cook in moderately hot oven. The crust should be thick, crisp and golden brown.

**Corn and Rye Bread.**—One cup rye flour, one cup of white corn meal, one-half cup of wheat flour, one teaspoon of salt, one cup of sour milk or buttermilk, one-fourth cup of cold water, one-half cup of molasses, one level teaspoon of soda. Sift rye, meal, flour and salt together. Dissolve soda in milk and water, add molasses. Com-

bine two mixtures and beat well. A teaspoon or two of melted butter added improves the bread. Pour into well-greased coffee cans and steam for three hours. Finish by baking a half hour in hot oven.

LETTER BOX.

Let the Men Reform.

Dear Deborah.—I feel that I must give you a long-distance pat on the back for that article, "Making Our Men Conservationists," and I would suggest that it be repeated about every two weeks until all of the readers of the Michigan Farmer take notice.

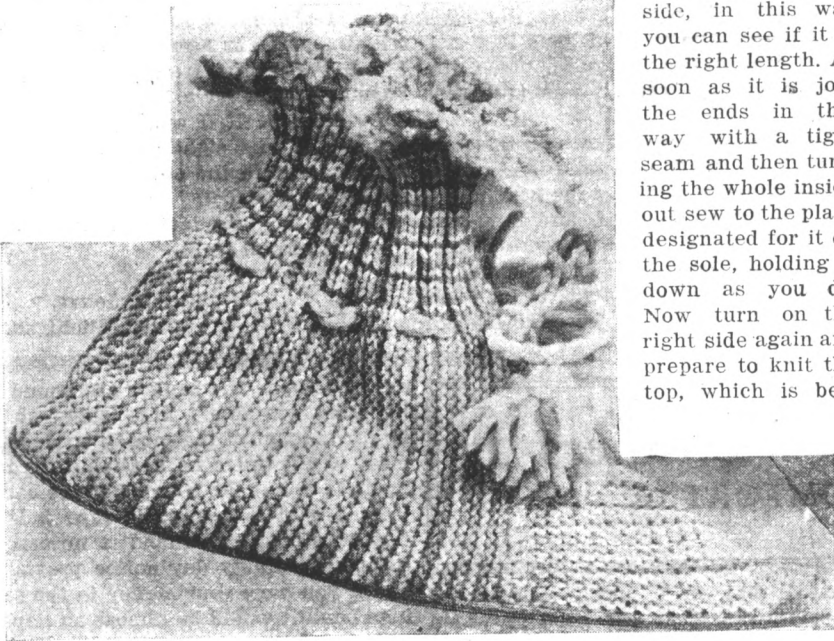
Saving the waste went into effect in our kitchen long before I heard of Mr. Hoover's pledge card, and now we are having meatless and wheatless meals, and are trying to substitute and conserve foods just as much as possible, and I believe other housewives are doing the same. It is right that we should do this, but I do object to having all the responsibility of saving placed on the women. It is time for the men to take their share.—Mrs. E. H.

As a means of increasing the nation's supply of labor, George E. Haskell, dairy specialist of the Food Administration staff, has suggested the more general employment of women as cream testers.

Solid Comfort Bedroom Slippers

EVERYBODY needs bedroom slippers of some kind for winter, or even cool days in summer. Nothing ever was invented quite so useful for slipping on the feet when first getting out of bed in the morning, or if

end of the strip by a firm seam. This sounds complicated but in reality it is very simple. By pinning the strip around the sole and then about a fourth of the way back from the toe turning the front end of the strip to-



wards the opposite side, in this way you can see if it is the right length. As soon as it is join the ends in this way with a tight seam and then turning the whole inside out sew to the place designated for it on the sole, holding it down as you do. Now turn on the right side again and prepare to knit the top, which is best

called out of bed in a hurry at night. There are dozens of ways of making these slippers, both by knitting and crochet, but many of these are rather unsatisfactory as the slippers easily stretch out of shape or keep dropping off the feet in the most provoking way as you walk about your room until you are disgusted with the very idea of home-made footwear. But the slippers shown in this photograph, while not as decorative as some models, are the most comfortable and practical sort ever made with worsted, and they are especially recommended for elderly people as they keep the ankles warm as well as the feet. The ribbing at the top holds them in shape and makes it impossible for them ever to fall off, and yet they are very quickly pulled on and off. The lower portion of the slipper is knit first by casting on thirty-five stitches on rather small needles and then knitting a straight strip in plain knitting. This should be made long enough to go nearly around the edge of a lamb's wool sole with the front end of the strip doubled over across the front in the shape of an upper in a shoe and joined to the other

done on four needles. Take up the stitches on the top of the strip and knit it seam and plain, as one does the wrist of a mitten, for as high on the ankle as liked. This will cling to the leg so that no elastic or ribbon is at all necessary though often for decoration a cord and tassel are run in, as shown in the illustration. The top looks prettiest if finished with a crocheted scallop. If you do not know how to knit on four needles the top of the slipper can be crocheted, but in this case an elastic must be run in to keep it tight around the ankle. It takes two skeins of Germantown to make a pair of these slippers and the shaded Germantown is much the prettiest to use because it gives a fine striped effect just by plain knitting without the slightest trouble on the part of the worker. The shaded gray or chinchilla effect worsted, or the shaded purple makes lovely slippers for elderly ladies, while shaded blues or reds are suitable for all the other members of the family, but, of course, if you prefer you can use plain worsted and knit it in solid colors or stripe it yourself by putting in another shade.

## Strength in Flour

# What Is Gluten?

Gluten is the protein element in wheat. It is the foundation of all flour. On it depends a flour's strength, rising power, flavor and nourishment. Therefore, the more and better quality gluten a flour contains, the better the flour.

Patriots are saving wheat by mixing wheat and rye flour; wheat with corn flour, etc. Success with mixed flours depends largely upon the quality and character of the wheat flour so used;—get the best and strongest wheat flour available.

Pillsbury's Best is milled from selected wheat which is rich in gluten. Consequently it is a strong flour and is well suited for use with mixed flour recipes. When used by itself, it makes a large, sweet, highly-flavored loaf of bread that will not dry out quickly.

## The Flour Question Settled

# Because Pillsbury's Best

Assures Good Bread

### Haul A Load Each Way

Crops must be hauled to town, and fertilizer must be hauled home.

Why Not Combine the Trips?

When you take a load to town



Plan to haul a load of **SPRING FERTILIZER**



on the return trip

Play safe and get your fertilizer stored in your own barn.

War conditions have decreased the supply of fertilizer and increased the demand. Late orderers may be disappointed.

#### Co-operate With Your Dealer

Few dealers have sufficient storage space to carry large fertilizer stocks on hand. Shipments in less than capacity car loads—40 to 50 tons—are discouraged—even refused.

Co-operate with your dealer—place your order now—enable him to combine orders and make up a full car load. When your car arrives haul as soon as possible—on one of your return trips. Take part of the fertilizer directly from the car if you can. Hasten unloading—free the car for other uses.

#### Order Spring Fertilizer NOW

Make certain of your supply and at the same time do your part toward relieving railroad congestion.

Send for literature to Dept. 9

Soil Improvement Committee  
National Fertilizer Association  
Postal Telegraph Bldg. Chicago  
The Munsey Bldg. Baltimore

# Our Boys and Girls

## At Work and play

### Girl Outdoes Boys in Poultry Contest

A PULLET raised by Miss Deone Jones, a DeWitt maiden of thirteen years, has been judged by the Department of Poultry Husbandry of the Michigan Agricultural College, to be the finest bird among two hundred entered by boys and girls in the state-wide M. A. C. poultry club contests. But while bested for the high place, two boys managed to land up in second and third place. These were Donald Baker, of Merle Beach, and Clayton Olds, of Ypsilanti.

The contest, which by the way, was the first all-Michigan enterprise in poultry ever arranged for boys and girls of the state, was conducted as one of the features of boys' and girls' poultry clubs. Last spring the college, as a part of its work in interesting young people in useful enterprises, distributed two hundred settings of eggs among as many members of the young people's clubs. The understanding was that these eggs were to be incubated and the chicks from them raised in accordance with instructions from the college. It was also prearranged that the best pullet in each of these flocks was to be forwarded to East Lansing in the fall to be judged. The two hundred birds arrived during October, and among them the DeWitt maiden's pullet was selected as the best.

The following letter to the boys and girls of Michigan from Miss Jones, tells in her own words the history of this prize-winning pullet:

DEAR BOYS AND GIRLS:

I am sending this letter in answer to the kind request of the Michigan Farmer editor, who said you wished a short story telling how I raised the prize-winning White Leghorn.

Through the kindness of the Michi-

gan Agricultural College, I obtained a



Miss Deone Jones.

they had been kept so long then that they would not be good.

The Old Speckled Biddy had a kind disposition, but a will of her own and would set in no place but a buggy in the shed which, luckily, we did not have to use until after the eggs were hatched. She seemed to know she had a wonderful egg under her for she would hardly ever leave her nest and many times while sitting she ate her corn out of my hand.

About the first week in June the other boys' and girls' chickens around here hatched and my eggs were only nicely set. I thought sure the eggs would not have any chickens in them, but I was fooled. I guess "Last the best of all the game," was true that time.

On June 23 I went down to the nest and lifted Biddy up and there was a little white chick. By the next morning four more hatched, and that was all. The rest of the eggs were rotten. I took very good care of the chickens seeing that they had plenty of food and water, and when they were old enough

Old Biddy took them for a nice long setting of eggs. The setting I got was intended for another girl, but she changed her mind after the eggs were ordered, and so I got them. A very few days afterwards I came down with the measles, so the eggs were not set till the latter part of May and we were afraid

They were the nicest behaved family of chickens I ever saw, and Old Biddy was a true mother. She taught them to let things alone that they did not understand and which did not belong to them. They never got into anything, but kept as busy as bees all day long, and like good children were ready for bed at bed time.

Their home was not very large, but comfortable. It was shaped like a lean-to of a house. The roof was covered with real shingles and it had a tight floor and a door that could be securely fastened. So I thought they were safe when once in it.

When the five were grown up they were taken to a local fair and the best one was picked out. A few days later I sent the best pullet to the M. A. C., and about two weeks later, when I came home from school and Mama gave me the letter from Mr. Burgess, telling me my pullet had won first prize, I was more than tickled, I can tell you, and was again surprised when I got the letter from the Michigan Farmer asking for a letter from me.

As for myself, I am thirteen years old and in the eighth grade. I have always lived in the country, and go to the country school.

Thanks for your interest, and hoping my letter is all right.

I remain,  
MILDRED D. JONES,  
DeWitt, Michigan.

## How the World's Business Is Transacted - By COMFORT A. TYLER

I NAMED the savings account as the proper one for the boy and girl to start with, as this is the best form of saving for one who will not need make very frequent drawals and I really want to so hedge the first savings of our boys and girls in a way that it will be less easy to withdraw, so that the temptation to run to your bank account every time you happen to see or think of something that you would like to have—but usually do not need—will not be so great.

Under the banking laws of the state of Michigan, the banker may require of you to give him ninety days notice before you may withdraw money from a purely savings account. In actual practice this option on the part of the banker is rarely indeed resorted to. As a matter of fact, I think none of the few banks with which I have been associated have ever taken advantage of this "safety first" provision.

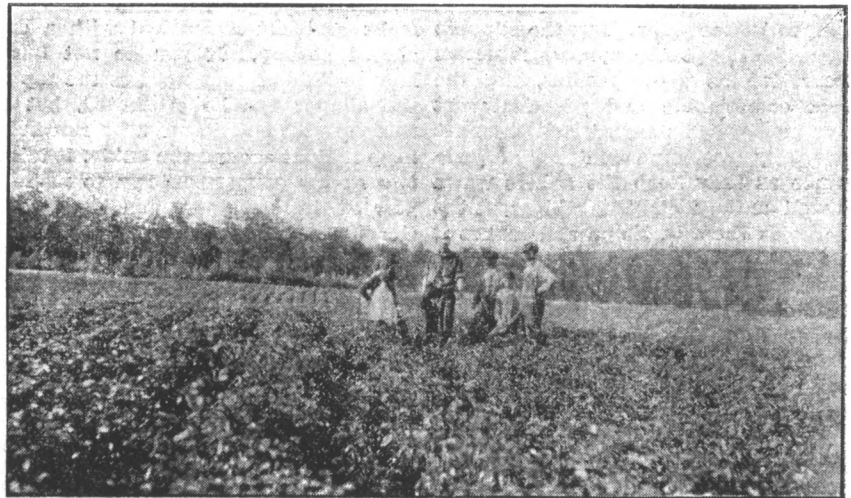
This provision was wisely placed in the law for the purpose of protecting the depositors as well as the banker. It is a safety clause that might be invoked in times of great financial distress. In the savings department of the banking business the banker is allowed to loan up closer, that is, a larger percentage of his deposits may be

loaned than in a purely commercial department. This is a good provision as it means that a smaller amount of the money saved is lying idle than in other departments where the everyday needs must be provided for and are less stable from day to day. The man who has a commercial account for his business needs is not as able to anticipate his wants accurately, and so the

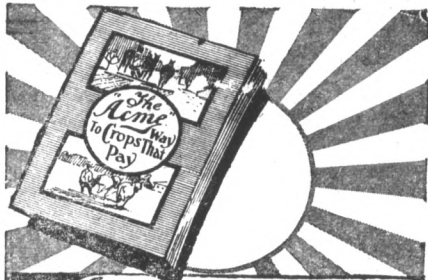
demands upon the banker are bound to be more variable. This being so, a larger amount of the money on deposit must at all times be available for immediate use of the patrons of the bank.

As I said before, it is rare indeed that any bank has found it necessary to use the ninety day notice provision and if you have your money in the savings bank it would be almost an impossible condition arising that you could not get the whole or a part of it on a moment's notice if you so desired.

You can not well draw checks on a savings account as the law requires that whenever a withdrawal is made from such an account that the entry be made on the pass book at the time



Members of a Potato Club Receiving Instructions on Potato Diseases and Their Control.



### "The 'Acme' Way to Crops That Pay"

is the title of our free book that points the way to increased yields. Shows how to secure deep, firm, moist seed beds without waste of time or labor. Fully describes the "Acme" Tillage Line and explains "Why the Coulters Do the Work" in field, orchard and garden better than it can be done in any other way. Gives the findings of State Experiment Stations in every part of the country.

This book will help you to grow bigger crops. Send a postal today.

DUANE H. NASH Inc.  
P.O. Box 456B, Columbus, Ohio

As low as \$13.15

**\$10,000.00**

Bucks this Hertzler & Zook Portable Wood SAW

This is the cheapest saw made. Only \$13.15 saw frame to which a ripping table can be added. Guaranteed 1 year, money refunded and all charges paid if not satisfactory. Write for catalog.

Hertzler & Zook Co., Box 23 Pottsville, Pa.



of withdrawal. This is no hardship as a rule, as one would likely be able to take his or her book to the banker and secure the amount required.

It is also the custom of some savings depositors who wish occasionally to issue a check against their savings account, to deposit their savings book with the banker himself, so that in case it did become advisable to make a demand upon the account that it could be done, then when the check was presented, the banker would step to his file, find the pass book by name or number, pay the check, make the entry on the book and all would be handled expeditiously and correctly. I know one bank in which I was interested that has many hundreds of savings books in its possession, many people preferring to leave their books at the bank for safe keeping rather than care for them.

This, to be real exacting, is not good business for the depositor. Why? Simply because your bank book is your proof that you have money in the bank. It is the bank's acknowledgement of indebtedness to you and you turn around and place their certificate of indebtedness in their hands for safe keeping. In actual practice, unless your banker is a crook—which he very rarely is, it is a convenient method of shirking a little responsibility upon your banker, and I will admit that I have practiced it more or less all of my life. Only with the responsibility shifted from an individual to a corporation, it is exactly the same thing as if you were to loan a man a hundred dollars, take his note for it, and then say to him, here you keep this note for me

he wishes to place in his uniform file and is the signature he will "consult" whenever a withdrawal slip or a check is presented for payment. That is, he will until he becomes familiar with your signature and does not have to consult it.

This thing be sure and do: Adopt

Form 1 DEPOSITED IN THE  
**Commonwealth Savings Bank**

By Mary Louise Smith

Book No. 18830 Detroit, Mich., Jan 15 1918

	DOLLARS	CENTS
Currency	4	00
Gold	5	00
Silver	1	50
Checks, Drafts, Etc. <small>LAST THIS ITEM</small>		
<u>John Brown</u>	6	27
<b>Total</b>	<b>16</b>	<b>77</b>

The Deposit Slip.

some kind of a signature that is to be your regular one, then use this on your signature card and always use the same in signing checks or withdrawal slips. Don't sign Miss M. L. Smith one time, Mary L. Smith, or M. Louise Smith, or Mary Louise Smith at others, etc. It is annoying to the banker, sometimes confusing, and is not desirable. Of course, if you begin it as Mary Louise Smith, and after a few years should begin signing Mary Louise Smith Brown, he will quite forgive

I hereby agree to the By-Laws, Rules and Regulations of the Commonwealth Savings Bank.

Sign Here

Mary Louise Smith

Residence

Plymouth, Mich. R.D. # 4

Birthplace

Detroit, Mich.

Birthday

Feb. 22, 1900

Occupation

Live at home on farm

Mother's Maiden Name

Mary L. Brown

Date

Please fill out and return at once by mail or otherwise  
To COMMONWEALTH SAVINGS BANK.  
Detroit, Mich.

Banker will Ask You to Sign a Signature Card.

so that I will know where it is and have it handy when you are ready to pay it, or I to demand it. You would not call that very good business would you, but with the bank, rigidly supervised as they are by state and federal authorities, I have never yet known the practice to have been abused.

Now, when you go into the bank to open a savings account, about the first thing the banker will do is to hand you a "signature card." This is a simple little card like the cut perhaps. This

you for that, and will take delight in adding other little Brown pass books to his patrons list as the years go on.

After you have signed the signature card he will offer you a slip called a deposit slip. You list your deposits thereon and that little slip becomes a part of the records of the bank, so make it neat and plain. Then you will be issued a little pass book, and now you have a bank account. You are in business, and the banker is your partner.

## Bumper the White Rabbit

By GEORGE ETHELBERT WALSH

Copyright, 1917, by Geo. E. Walsh

Bumper Admired by the Birds.

It isn't good for us to be too smart. It sometimes makes us vain, and then one day we overdo it. Bumper had some excuse for playing the trick on Mr. Crow and Mr. Fox, for his life depended upon it; but his success was giving him a little swelled head. He began to feel that he could get out of any danger by using his wits.

"It takes a city rabbit to find a way out of difficulty," he reflected, as he lay snugly in the hollow trunk of the tree. "These country animals are dull-witted. I do hope my cousins of the woods are not so stupid. Perhaps they are, and that's why people say rabbits are cunning but very stupid."

This sort of reasoning was the very thing that got him in trouble, and nearly caused his death. He was so sure

that he had outwitted Mr. Fox, he decided after a while to leave the hollow trunk, and eat some of the green leaves and branches growing around outside.

But he knew less about the cunning and patience of the fox than he thought. Instead of trotting off in the woods, chagrined and disgusted by his defeat, the fox was lying low ready to pounce on the white rabbit the moment he showed himself. He was so still that Bumper couldn't hear the rustle of a leaf or the snap of a twig.

"I think I'll go out now," Bumper said finally. "I'm dreadfully hungry."

Instead of poking his head out cautiously to investigate, he walked straight out from the hollow trunk into the very jaws of the fox. There was a sharp click of teeth, and Bumper felt a terrible pain in one of his long



### CANNON AND CROPS USE THE SAME FOOD

Six hundred thousand tons of Nitrates and a million tons of Sulphuric Acid were used last year, in this country alone, to make explosives, and much more will be used this year. This, with the shortage and high price of other material and labor, has forced up the price of fertilizer, but still it is not high compared with what it produces. A bushel of wheat or corn buys more fertilizer now than ever.

## ROYSTER'S FERTILIZERS

are plant foods made with the precision of ammunition and with the same rigid inspection by expert chemists.

Thirty-five years of success proves their merit.

### F. S. ROYSTER GUANO CO.

MID-WEST SALES DIVISION  
TOLEDO, OHIO

## The Silo Beautiful that Lasts for Ages



Get the beauty and durability of tile in the Lansing "ship-lap" block. Ends overlap—extended shoulders top and bottom—less mortar exposed, better settling of silage—less chance for frost, better looking silo, blocks uniform in shade. Stronger walls. Notched ends on blocks prevent mortar from slipping. Twisted steel reinforcing. Steel hip roof—steel chute—fire proof—adds beauty to the silo. Write for Catalog.

J. M. Preston Company  
Dept. 309, Lansing Mich.  
Also get offer on Climax Silage Cutters and Bidwell Threshers

## Lansing Vitrified Tile Silo

## Get Bigger Crops With LAND PLASTER

Endorsed by 20 U. S. Experimental Stations and Agricultural Colleges. Directly or indirectly supplies all 4 elements necessary to plant growth—Potash, Nitrogen, Phosphorus, Sulphur—also prevents loss of ammonia in manure. Virginia Exp. Sta. says: "Extensively used for many years—has given excellent results on clover and legumes."

Let our Farm Service Department tell you how Land Plaster will increase your yields at slight cost. Name of local dealer furnished. Ask for new free Bulletin No. 36.



United States Gypsum Company  
Gen. Offices, Monroe & Wells Sts. Chicago

Peach, Apple, Pear and Plum Trees, special prices for 30 days. Send us your want list to price. Catalog for 30 days. ALLENS NURSERIES, Geneva, Ohio.

## Farms and Farm Lands For Sale

169 Acre Maryland Farm \$5000  
Corn, Wheat, Alfalfa.

Fruit, berries, vegetables, poultry, beef and milk are money makers here, 115 acres level, productive, stone-free, machine-worked tillage; estimated wood and timber marketed to pay for farm; 115 fruit trees; 2-story house; barn, stable, granary, corn barn, poultry house; owner making quick change includes if taken now, 3 horses, 2 cows, heifer, 2 hogs, mower, riding plow, harrow, cultivators, grain binder, grain drill, wagon, carriage, harnesses, hand tools, 200 bushels corn, 50 bu. wheat, 25 bu. buckwheat, 10 bushels potatoes, 10 baskets sweet potatoes, 10 bu. cow peas, hay, straw and fodder; \$5000 takes all, easy terms. You would enjoy our long delightful summers and short mild nearly snow-free winters; cement roads; westerners have moved here thick. Come and see, details page 30, Strout's Catalogue, copy mailed free. E. A. STROUT FARM AGENCY, Dept. 101, Land Title Bldg., Philadelphia, Pa.

SOUTH DAKOTA will back you in buying a farm and also loan you cheap money for stock and improvements and this where the wealth per farm is greatest of all states. For state bulletins, write Immigration Department, full Charles McCaffrey, Commissioner, Capitol 70, Pierre, S. D.

Do You Want Trade your farm for part my improved 320 acres: fine climate: 3 crops yearly; orange orchard; good house; barn; out buildings; 3 miles town; good schools; full particulars. Ray Burlingame, Bay Minette, Alabama

FOR Sale—good 80 A. farm in Shin. Co., soil clay loam, level, all well drained. A necessary farm buildings, well and windmill, on mail and telephone line. 1/2 mi. off state road, terms reasonable. E. M. LILLEY, Owosso, Mich.

FOR RENT 210 acre farm fully equipped and adapted for dairying, 50 acres alfalfa, good pasture with running water and large silo, milking machine, etc. Will rent on shares agreeable to both parties. J. R. Keeney & Sons Co., Tecumseh, Mich.

FOR SALE. 134 acre stock and grain farm, in high state of cultivation. Improvements in good condition. Will sell stock, feed and implements with farm if desired. Location very desirable. Allegan Co., Mich., address owner, care Michigan Farmer, Detroit, Mich.

For Rent, 440 acres near Remus, Mich. Good soil, 300 acres ready for plow, 125 acres sod, 55 acres hay, good buildings, want good man with plenty help. GEO. H. CARPENTER, 1202 Ford Bldg., Detroit.

160 ACRES Beautiful level clay loam farm 1 1/2 miles from Central State Normal School, \$6500 worth buildings. COOPER & GOVER, Mt. Pleasant, Mich.

FARM for sale, 1/2 section. Good soil, 30 miles from Detroit, 1/2 mile from small town. Address box 8 119 care of The Michigan Farmer, Detroit, Mich.

For Sale 65 acre farm, modern buildings, soil rich and productive, 2 1/2 miles north Cassopolis, Mich. Price reasonable. C. H. Eich, 5443 Fulton St., Chicago, Ill.

Farm Wanted 80 to 160 acres with good soil and good buildings in good location. Want to deal with owner. John P. Royston, Holton, Mich.

## 500 SHOT AIR RIFLE

Uncle Joe wants every boy to learn to be a Marksman and he offers you this Splendid Gun 30 inches in length. It shoots like a Winchester and magazine holds 500 shots. Uncle Joe will give you this splendid Daisy Air Rifle for a little easy work. Write today for his great free offer.

UNCLE JOE, 957 Popular Bldg.

Des Moines, Iowa

## A Daisy for You



# Order Armour's Fertilizers Now!

**For immediate shipment in cars loaded to capacity. Railroads are overcrowded. Every day's delay lessens your chances of increasing or even growing normal crops.**

## Don't Delay — Order Today

### Armour Fertilizer Works

General Offices: CHICAGO

Atlanta, Ga.	Greensboro, N. C.	Wilmington, N. C.
Nashville, Tenn.	Jacksonville, Fla.	Augusta, Ga.
Baltimore, Md.	New Orleans, La.	Houston, Texas.

WRITE NEAREST OFFICE

## New KEROSENE Light

10 Days Free — Send No Money | Beats Electric or Gasoline



**BURNS 94% AIR**

**Aladdin**

**TWICE THE LIGHT ON HALF THE OIL**

**We don't ask you to pay us a cent until you have used this wonderful modern white light in your own home 10 days, then you may return it at our expense if not perfectly satisfied. We want to prove to you that it makes an ordinary oil lamp look like a candle; beats electric, gasoline or acetylene. Passed by Insurance Underwriters. Children handle easily. Tests by U. S. Government and 35 leading Universities show the new improved ALADDIN common kerosene (coal oil), no odor, smoke or noise; simple, clean, won't explode. Over three million people already enjoying this powerful white, steady light, nearest to sunlight. Won Gold Medal at Panama Exposition. Greatest invention of the age. Guaranteed.**

**Burns 50 Hours on One Gallon**

**\$1000 Reward will be given to the person who shows us an oil lamp equal to the new ALADDIN in every way (details of offer given in our circular). We want one user in each locality to whom we can refer customers. To that person we have a special introductory offer to make. Under which one lamp is given free. Write quick for our 10-Day Free Trial Offer and learn how to get one free, all charges prepaid.**

**Yours FREE**

**MANTLE LAMP COMPANY, 427 Aladdin Building, CHICAGO, ILL.**  
Largest Kerosene (Coal Oil) Mantle Lamp House in the World

**Men With Rigs or Autos Make \$100 to \$300 Per Month**

**Get Yours FREE** Our trial delivery plan makes it easy. No previous experience necessary. Practically every farm home and small town home will buy after trying. One farmer who had never sold anything in his life before writes: "I sold 51 the first seven days." Christensen, Wis., says: "Have never seen an article that sells so easily." Norring, Ia., says: "92% of homes visited bought." Phillips, O., says: "Every customer becomes a friend and booster."

Kemerling, Minn., says: "No flowery talk necessary. Sells itself." Thousands who are coining money endorse the ALADDIN just as strongly. **NO MONEY REQUIRED.** We furnish stock to get started. Sample sent prepaid for 10 days' free trial and given absolutely without cost when you become a distributor. Ask for our distributor's plan. State occupation, age, whether you have rig or auto; whether you can work spare time or steady; when can start; townships most convenient for you to work in.

## \$17<sup>95</sup> Upward

### American CREAM SEPARATOR

On Trial. Easy running, easily cleaned. Skims warm or cold milk. Whether dairy is large or small, get handsome catalogue and easy monthly payment offer. Address AMERICAN SEPARATOR CO., Box 5061 Bainbridge, N.Y.

---

### LANDOLOGY

A magazine giving the FACTS in regard to the land situation. 3 months' trial subscription FREE. If for a home or investment you are thinking of buying good farm land, simply write me a letter and say, "Mail me Landology and all particulars free." Address EDITOR, LANDOLOGY, Skidmore Land Co., 308 HALL AVE. MARINETTE, WIS.

## BALDWIN'S BEVERBEARING STRAWBERRY PLANTS



That there is money in Strawberries no one will deny. There is more money in growing them four months in the year. A full crop this fall from plants set this spring. If you start right with Baldwin's vigorous plants, you will succeed. They are large, hardy, northern grown in new soil, heavily rooted—the sure grow kind.

**Our Money Back Guarantee** protects you. All plants are first class, true to name, packed to reach you in good condition (by express) and to please you, or we pay you back. Send for our new Berry Plant book. There are special features in it of value to you. Raspberries, Blackberries, Currants and Grape Plants—Baldwin quality—are listed. We will start you right. Write tonight. C. A. D. Baldwin, R. R. 16, Bridgman, Michigan

## USE NATCO DRAIN TILE

Farm drainage demands durable tile. Our drain tile are made of best Ohio clay, thoroughly hard burned—everlasting. Don't have to dig 'em up to be replaced every few years. Write for prices. Sold in carload lots. Also manufacturers of the famous NATCO IMPERISHABLE SILEO, Natco Building Tile and Natco Sewer Pipe.

National Fire Proofing Company - 1115 Fulton Building, Pittsburgh, Pa.

## Something for the Boys and Girls

Its fun to boost for the Michigan Farmer, besides we will pay you well to do it. Earn some Spending Money taking Michigan Farmer subscriptions. It's something any boy or girl can do and enjoy. Write us and we will tell you about our subscription plan.

**THE MICHIGAN FARMER, Detroit, Mich.**

ears. He must have leaped five feet in the air, and another five feet sideways. The fox had missed his neck by an inch, but to make up for his mistake, he now pursued the rabbit, leaping nearly as high in the air to catch him as Bumper.

Terrified by the attack and not knowing what to do, the white rabbit jumped this way and that, clearing high bushes and landing in dense thickets that tore his fur and hurt him terribly. But the fox followed him, paying no attention to the briars and thorns.

It was a narrow escape. For a moment Bumper thought his time had come. He couldn't get back to the hollow tree trunk, and there was no other hiding-place near that the fox couldn't follow him in.

It certainly would have gone hard with him, and the rest of his adventures could never have been told, if a couple of blue jays hadn't built a nest in a tree directly over him. The commotion in the bushes startled the birds, and with loud, shrill cries they darted down to see what was doing. The sight of the fox angered them. Foxes robbed birds' nests whenever they got a chance, and the blue jays knew this. Therefore, a fox in the neighborhood of their home was not to be tolerated.

They flew down like two blue streaks and landed their sharp bills on the head and face of Mr. Fox. One stroke came so near to one of his eyes that he dodged and ducked, and stopped pursuing Bumper long enough to snap at the birds.

But the blue jays were prepared for this, and they kept well beyond his reach. As soon as he turned from them to the rabbit again they flew back to the attack. They punished him unmercifully, pecking at him until he was so angry that he could hardly see straight.

Meanwhile, of course, Bumper was taking advantage of this interruption. He was running through the underbrush as fast as he could until he was far ahead. Right and left he searched for a hole or any kind of an opening he could crawl in. And there, just ahead of him, appeared what he was looking for! This time it was the hollow branch of a giant tree hanging down, with one end still attached to the trunk.

Bumper was in the hollow branch like a flash. Mr. Fox reached it just a moment too late, and to vent his anger at losing the rabbit the second time he clawed and snapped at the branch as if he would rip it asunder. But the limb, with a decayed heart, had a stout shell, and the fox soon gave it up in disgust.

Now, the hollow branch as you know, had one end on the ground, and the other still attached to the trunk where the wind had broken it off. So Bumper found his hole slanting upward, and as he crawled through to the other end he was actually climbing a tree. Perhaps you have heard that rabbits can't climb trees, but Bumper did in this instance.

When he reached the upper end, he found himself ten feet from the ground, with Mr. Fox below and unable to reach him. It was such an unusual sight to see a rabbit up a tree that the fox was more puzzled than ever. "Could white rabbits climb trees?" he asked himself.

Between his discouragement at being twice outwitted, and his amazement at finding a white rabbit with pink eyes that could climb a tree, Mr. Fox finally dropped his tail between his legs and trotted away. Bumper watched him go, and sighed with relief. The blue jays were equally relieved in mind, and once more returned to their home to guard it against invasion.

When Bumper stuck his head out of the upper end of the big tree branch, he noticed that he was up among the birds which had been singing a lively concert until he interrupted them. There were birds which Bumper had never seen before, some with startling plumage, and others with voices that sounded like flutes.

They did not renew their singing, but perked their heads sideways and watched this strange thing popping out of the hollow limb. Finally one of them, Mrs. Oriole, clad in a suit of gold, streaked with black and gray, spoke.

"It's Mr. Rabbit's ghost I do believe. Mr. Fox must have caught him after all."

"If it's a ghost, I'd like to have some of his white fur for my nest," remarked Rusty the Blackbird. "I think I'll steal some."

"He's a pretty lively ghost," warned Piney the Purple Finch. "I wouldn't venture too near."

Bumper blinked his pink eyes at them, and smiled.

"I'm not a ghost yet," he said. "I'm quite alive and well, but very hungry. If you don't mind I'll eat a few of these delicious green leaves."

The birds watched him in silence. They were as curious and puzzled as the Crow had been. Finally, Mr. Pine Grosbeak plucked up courage to approach nearer.

"If you're really alive," he said, "let me pluck some of those beautiful white hairs as souvenirs. I never saw such lovely fur before."

"You can have just one hair," laughed Bumper, "just to prove to you that I'm a real live rabbit."

Mr. Pine Grosbeak took him at his word, and plucked a hair from his back. It made Bumper wince.

"Surely you'll give me one, too, for my nest," added Piney the Purple Finch, and without waiting for consent he plucked two. Rusty the blackbird came swooping down next. "I need some of your beautiful white fur to show my little ones," he said. "I'll take three."

The other birds expressed their admiration, and then begged a few hairs, too. There was Mrs. Crested Flycatcher, and Mrs. Phoebe Bird, and little Towhee the Chewink. The process of extracting a few hairs from his back caused Bumper exquisite pain, but he wanted to be obliging, especially as the birds all admired and flattered him.

But when Mr. Woodpecker, who had been rapping on the dead trees of the woods, appeared, Bumper decided it was time for him to call a halt. "That's all I can spare," he said, and darted back into the hollow branch.

He was glad to make friends with the birds, but he didn't want to be robbed of all the clothes he had.

(How Bumper got in trouble and discovered a good Doctor, is told in next week's issue).

**PONTIAC.**

BY J. A. KAISER.

Dark warrior, oft in forest shades,  
By marke of lake or rolling river,  
I've stood and mused and thought on thee  
And wondered if thy foot-steps ever  
Have trod these self-same forest  
depts;  
If these same lakes and streams have borne  
Thee with thy skiff and bow and quiver.

Oft 'neath some forest monarch old,  
I've stood and mused on thy dark story,  
And fancied that beneath these boughs  
Thou once did'st sit and dream of glory;  
That by this trunk, long years ago,  
Thy deep-laid schemes of war were told  
To youthful braves and sachems hoary.

For thou wert king among thy race,  
The redman's Hannibal, who driven,  
Still would not yield, and could but fall  
Like some great oak by thunder riven.  
Thou wert a genius, and thy name  
Is writ with those who resolute,  
Against a changeless fate have striven.

Next to acquiring good friends, the best acquaintance is that of good books.—Cotton.

Nurture your minds with great thoughts. To believe in the heroic makes heroes.—Disrae'l.

# \$8.95 Champion buys 140-Egg Belle City Incubator

The Prize Winning Model with Double Walls of Fibre Board—Hot Water—Copper Tank—Self Regulator—Thermometer Holder—Deep Nursery—same as used by Uncle Sam and America's most successful Poultry Raisers—that has led the field for over 12 years—Over 650,000 sales to date. When ordered with my \$5.25 Double Walled—Hot Water—Roomy 140-Chick Brooder—Both cost only \$12.95.



**Freight Prepaid East of Rockies**  
Satisfaction Guaranteed—Handiest machines—Easy to run—Big results. Start early—Order Now on 1, 2, 3, Months' Home Test Plan—and share in my \$1000 Cash Prizes

Conditions easy to get biggest prize. Or write today for my big Free Book "Hatching Facts"—it tells all. With this wonderful hatching outfit and my complete guide book for setting up and operating, you can make a big income. Jim Rohan, Pres. Belle City Incubator Co., Box 14 Racine, Wis.

## POULTRY INDUSTRY REVOLUTIONIZED



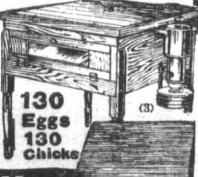
**MARVEL COLONY BROODER \$17.50**  
Coal Burning, Self Regulating. Super-Automatic Check Control. Exclusive Patent Features.

The MARVEL is guaranteed to perform better and to raise more chicks than any other Brooder. Big saving in operating expense. Will brood 50 to 1000 chicks for less than 6 cents per day. Cuts initial cost for equipment to less than one half. Perfect satisfaction guaranteed or money back in 30 days. Send for Circular on "Scientific Brooding."

**LIBERTY STOVE COMPANY**  
108 S. 3rd St. Phila., Pa.

## Both Machines \$12 Freight Paid Only

**30 DAYS FREE TRIAL**  
10 Year Guarantee Think of it! These two UNBEATABLE Wisconsin Machines—both for only \$12.00—freight paid east of Rockies. Don't take chances. Find out what an incubator is made of before buying. Catalog and sample of material used sent free.



**MONEY BACK IF NOT SATISFIED**

Wisconsin are made of genuine California Redwood. Incubators have double walls, air space between, double glass doors, copper tanks, self regulating. Shipped complete with thermometers, egg tester, lamps, etc., ready to run. Biggest incubator bargain of the year. Send for our new 1918 catalog fully describing this outfit. A postal brings it by return mail.

**180-Egg Incubator and Brooder both \$14.75 WISCONSIN INCUBATOR COMPANY**  
Box 94 Racine, Wis.

# NEW ROUND HATCHER

Built like hen's nest—no cold corners. 15 other wonderful new improvements. One gallon oil—one filling of lamp to a hatch. Only 5 minutes a day required. Automatic Moisture Vaporizer. Hinged top with double glass means easy egg turning and cooling and daylight egg chamber.



**BOOK FREE**  
Write for Radio-Round catalog. Tells what hundreds of owners have done. Shows what you can easily do without previous experience. This new hatcher is revolutionizing poultry profits for over 10,000 owners throughout the country.

Get Free Book by return mail. Write Postal NOW to Radio-Round Incubator Co., 104 Roger St., Wayne, Nebr.

**Keep Your Hens a Laying**  
Trust your hatching to time tried and tested "SUCCESSFUL" Incubators and Brooders Used by the big money makers who stay in business year after year. Poultry Lessons Free. Booklet, "How to Raise 48 out of 50 chicks," 10 cents. Catalog Free. Write today. Des Moines Incubator Co., 368 Second Street, Des Moines, Iowa



**50 Best Paying Varieties**  
Hardy Northern raised Chickens, Ducks, Geese and Turkeys. Pure-bred heaviest laying strains. Fowls, Eggs, Incubators, all at low prices. Large new Poultry Book and Brooder's Complete Guide Free. W. A. WEBER, Box 20, Mankato, Minn.

### POULTRY QUERY DEPARTMENT.

#### Beef Scraps.

Where can a person secure beef scraps so highly recommended for hens in winter? Our city is fairly large and it is impossible to buy any here. Our meat markets work it all into tankage and they refuse to even grind bone.

Monroe Co. Mrs. E. H. The beef scraps you usually see referred to in poultry articles are the commercial beef scraps which are prepared by the meat packers, such as Armour's and Swift's. This usually comes in fifty or 100-pound sacks, and is sold at flour, feed and implement stores. We believe that now the price may be a little higher than formerly, possibly over four cents a pound.

These scraps are much better to use than the scraps or cracklings that you would get at the butchers, as the cracklings usually contain a large amount of fat, and very often have salt in them, which is injurious to the fowls.

### EASY NOW TO SELECT WINTER LAYING HENS.

Individuals ambitious to build up a flock of winter-laying fowls, should begin now to pick out the most desirable breeding hens in their flocks, say the Department of Poultry Husbandry of the Michigan Agricultural College.

"To secure winter eggs it is necessary to breed from winter layers." C. E. Burgess, of the department, says: "These breeding hens should be selected now. Just which ones to choose is, of course, the things that stumps the man who has never given much attention to poultry. If a poultryman or farmer can find five or six hens in his flocks that have laid an average of thirty eggs each during November, December and January—that is, ten eggs a month—these can be bred and a small flock of good producers raised for next year, if the eggs are hatched early.

"Early March is the best time to hatch pullets for winter laying. Of course, much has been said about early-laying pullets moulting in October and November, but if the birds are fed properly, this moult will not be a complete one, and will be confined to the head and neck. It has been the experience at the college that the early hatched chicks—up to April 15—are the ones that grow most rapidly, mature soonest and lay best during the winter.

"A palatable mash which should produce winter eggs in a well-bred flock of fowls kept in light, roomy and sanitary quarters, can be made as follows: One hundred pounds of bran, 100 pounds of gluten meal, 100 pounds of meat scrap, 150 pounds of crushed oats and 150 pounds of corn meal. Two ounces of this mash, with one and one-half ounces of cracked corn, and one-half ounce of whole oats should be fed to each hen daily.

The dust bath should be where the sun will shine on it in order that it may be kept dry and warm as may be. On almost all sunny days, one or more hens will be seen filling their plumage with the soft earth and that will do much toward keeping down lice and assuring the health of the flock. A high-sided box should be used to prevent the fowls from throwing the dirt out when using the bath. The loam should be changed occasionally so that it will not become filthy.

Two-year-old hens had better be sent to the market. They seldom pay for their feed if kept over a third season. Grit and oyster shell should be included in the ration for both young and old. To neglect this would be poor economy.

Supplement the regular feeds with a wet mash—fed crumbly. Feed all the chickens will clean up before going to roost, but none should be left in the trough for it will sour.

## The Fact-Packed 1918 Book That Points the Way to Good Hatches Free

WRITE for it today. It is a handsome book—one that will interest you intensely. One that will help every poultry raiser to add to his income—to increase his hatches—to assure splendid hatches of sturdier chicks. One that will add to your knowledge of genuine incubator values—enable you to know positively what to expect and demand in the incubator you buy. Write for it—read it—and learn the secret of the fine hatches assured to users of

# X-RAY Incubators

Sent Express Prepaid to Practically All Points

Fill the big oil tank of the X-Ray Incubator just once during the hatch. The lamp's flame is scientifically adjusted by the X-Ray Automatic Trip. The flame is automatically decreased or increased as needed. No wasted heat—no "cooked" eggs—none chilled.

The 20 Exclusive Features make the 1918 X-Ray Incubator—better than ever. They include the X-Ray Gas Arrestor—ingenious device that prevents lamp fumes entering egg chamber; X-Ray Nursery Tray, that assures sanitation, protects little chicks; X-Ray Egg Tester, most perfect, handy tester ever conceived; Handy Height; Quick Cooling Egg Tray. All exclusive X-Ray features that make poultry success sure. Be sure to write for the 1918 X-Ray Book tonight.

## X-RAY Brooders

Built this year with famous X-Ray Duplex Heater, assuring uniform and properly distributed heat. Canopy top that protects the chicks against draughts and excessive sunlight. Write for our

**Free 1918 Book**  
**X-RAY INCUBATOR CO.**  
Dept. 29A Des Moines, Ia.

You Take No Risk With An Ironclad 30 Days Free Trial 10 Yr. Guarantee Both \$12.50 Freight Paid

Think of it! You can now get this famous Iron Covered Incubator and California Redwood Brooder on 30 days trial, with a ten-year guarantee, freight paid east of the Rockies.

**150 EGG INCUBATOR CHICK BROODER**

Incubator is covered with galvanized iron, triple walls, copper tanks, nursery, egg tester. Set up ready to run. Brooder is roomy and well made. Order direct from this advertisement—money back if not satisfied or send for free catalog.

**IRONCLAD INCUBATOR CO.**  
Box 121 Racine, Wis.

**MANKATO INCUBATOR**  
6 BIG NEW FEATURES EXPRESS PREPAID

That will smash all hatching records for 1918. Large Oil Tank, Redwood Case, End Regulator, Double Heating, Hot Water and Hot Air, New Ventilating System. Big Hatches.

**Mankato Incubator Co.**  
Box 717 Mankato, Minn.

**Your Chickens Will Pay**

if raised in a systematic way. These booklets tell how to get best results: "LEES' POULTRY BOOK," "SECRETS OF SUCCESS WITH CHICKENS," "CARE OF BABY CHICKS," "ALL ABOUT EGGS," "POINTS FOR SUMMER AND FALL." Send now for these poultry helps, free for 5c stamps to cover mailing.

**CEO. H. LEE CO.** 265 Lee Building, Omaha, Neb.

**POULTRY SUPPLIES** Everything you need from leghans to buildings. 40 page free catalog quotes lowest prices on hundreds of articles.

**GEORGE B. FERRIS**, 634 Shirley Street, Grand Rapids, Mich.

**FOR SALE** 3600 egg Candee Incubator at a bargain only been run 1 season.

**D. S. CLARK**, Pulaski, Mich.

**HOMESTEAD FARMS**

**Pullets**—White, Barred and Buff Plymouth Rocks; S. C. Black Minorcas; S. C. White, Brown and Buff Leghorns; S. C. and R. C. Rhode Island Reds.

**Hens**—Plymouth Rocks; R. C. Rhode Island Reds; S. C. White Leghorns.

**Cockerels**—S. C. White Leghorns.

Please write for full description and prices.

**HOMESTEAD FARMS, Bloomingdale, Mich.**

**BREEDING COCKERELS**

Trapped, bred-to-lay stock. S. C. White Leghorns, combs slightly frosted \$1.25 each. Barred Rocks \$2 each. **SUNNYBROOK POULTRY FARM**, Hillsdale, Mich.

**Barred Rocks** Cockerels for sale from strain with records to 230 eggs a year. \$2 to \$5 each. Circular free. **FRED ASTLING**, Constantine, Mich.

**Barred** Plymouth Rock cockerels \$3.00 each. Full blood from prize-winning heavy laying strain. **J. A. Barnum**, Union City, Mich.

**Barred Rocks** Cockerels from good laying strain \$3.00 each two for \$5.00. **A. A. WOOD & SON**, Salina, Mich.

**Barred Rock Cockerels** Pullets and Hens best Pullet's record 248 eggs. **W. C. COFFMAN**, R. 3 Benton Harbor, Mich.

**Ferris White Leghorns**

A real heavy laying strain, trapped 17 years, records from 200 to 264 eggs. Get our special summer prices on yearling hens, breeding males, eggs for hatching, 8-week-old pullets and day old chicks. We ship C. O. D. and guarantee results. Catalog gives prices; describes stock, tells all about our farm and methods; results you can get by breeding this strain. Send for your copy now—it is free.

**GEORGE B. FERRIS** 934 Union, Grand Rapids, Mich.

**Chicks**, We ship thousands, booking orders now FREEPORT HATCHERY, Box 12, Freeport, Mich.

Mated breeding pens, Pure bred S. C. White Leghorns from prize winning stock; 2-year-old hens and cockerels \$8. White Line Poultry Farm, Hillsdale, Mich.

**Pine Crest S. C. White Orpingtons**, special sale of year old cocks and hens also young cockerels. **MRS. WILLIS HOUGH**, PINE CREST FARM, Royal Oak, Mich.

**Laybitt S. C. W. Leghorns** Large, great layers. Pure white. Bargains in choice breeding hens now. Everfresh Egg Farm, Ionia, Mich.

**BUFF Leghorns**, breeding cockerels also a few fine pens of four hens and cockerel for \$10. More hens \$2 extra. **Dr. William A. Smith**, Petersburg, Mich.

**Fowlers Buff Rocks** Cockerels and Pullets from two dollars up according to quality. **R. B. FOWLER**, Hartford, Mich.

**RHODE ISLAND REDS** and Plymouth Rocks Males \$5 to \$12 lbs. according to age \$2 to \$5; P. R. hens weight 5 to 10 lbs. eggs 15 for \$1, 100 for \$12, 250 for \$25. Bronze Tom Turkeys \$8 to \$8 lbs. according to age \$6 to \$25, 10 eggs \$3. **J. Morris & J. Barsan**, Vassar, Mich.

**RHODE ISLAND REDS**, Both Combs, Cocks, Hens, Cockerels and Pullets at reasonable prices. Interlakes Farm, Box 39, Lawrence, Mich.

**R. C. Br. Leghorns** Cockerels, large birds at \$2 each, only a few left, some hens at \$1.25 each. Orders promptly filled. **E. HIMEBAUGH**, Coldwater, Mich.

**R. C. Br. Leghorn cockerels \$1.50 and \$2.** A few nice Imperial Pekin Ducks \$2 each. Drakes all sold. **Mrs. Wm. Nickert**, Carson City, Mich.

**S. C. Rhode Island Cockerels**, pure bred—fine large \$2.50 each. **Alfred Ditchmann**, Pigeon, Mich., R. 3.

**SILVER Golden and White Wyandottes**, Choice breeding stock of sale after Oct. 1st, a few bargains in yearling hens. **C. W. Browning**, R. 2, Portland, Mich.

**WHITE Wyandottes**, I have a fine lot of April and May hatching cockerels for \$3.00 and \$5.00 each. **DAVID RAY**, 709 Norris St., Ypsilanti, Michigan.

**White Wyandottes** 50 extra choice cockerels \$1 to \$5. 1 ship on approval and guarantee satisfaction. **Milton E. Stewart**, R. 3, Augusta, Mich.

**Cockerels**—From Chicago Coliseum winning stock. \$3 & up "Ringlet" & Buff Rocks, both combs Red, Spanish Orpingtons, Wyandottes. **Tyrone Poultry Farm**, Fenton, Mich.

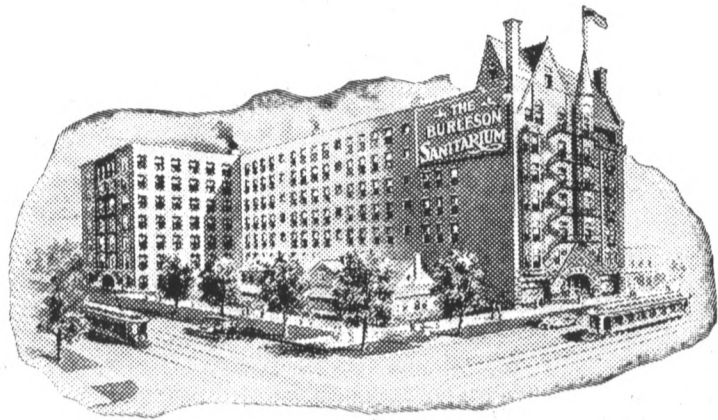
**White Chinese Ganders** Pekin Ducks and a few R. C. Br. Leghorn hens, Cockerels all sold. **MRS. CLAUDIA BETTS**, Hillsdale, Michigan

**DOGS**  
**Fox Hounds of all ages**, Skunk and Rabbit dogs. **W. E. LECKY**, Send 3c stamp, Holmesville, Ohio

**For Sale** puppies Scotch Collies and English Shepard. Cross, make the best farm dogs. Price \$5. **THOMAS STANFIELD**, Box 17, Hillsdale, Mich.

When writing to advertisers please mention The Michigan Farmer.

# Piles Cured Without the Knife



## The Largest Institution In the World for the Treatment of Piles, Fistula and all Other Diseases of the Rectum (Except Cancer)

WE CURE PILES, FISTULA and all other DISEASES of the RECTUM (except cancer) by an original PAINLESS DISSOLVENT METHOD of our own WITHOUT CHLOROFORM OR KNIFE and with NO DANGER WHATSOEVER TO THE PATIENT. Our treatment has been so successful that we have built up the LARGEST PRACTICE IN THE WORLD in this line. Our treatment is NO EXPERIMENT but is the MOST SUCCESSFUL METHOD EVER DISCOVERED FOR THE TREATMENT OF DISEASES OF THE RECTUM. We have cured many cases where the knife failed and many desperate cases that had been given up to die. WE GUARANTEE A CURE IN EVERY CASE WE ACCEPT OR MAKE NO CHARGE FOR OUR SERVICES. We have cured thousands and thousands from all parts of the United States and Canada. We are receiving letters every day from the grateful people whom we have cured telling us how thankful they are for the wonderful relief. We have printed a book explaining our treatment and containing several hundred of these letters to show what those who have been cured by us think of our treatment. We would like to have you write us for this book as we know it will interest you and may be the means of RELIEVING YOUR AFFLICTION also. You may find the names of many of your friends in this book.

We are not extensive advertisers as we depend almost wholly upon the gratitude of the thousands whom we have cured for our advertising. You may never see our ad again so you better write for our book today before you lose our address.

### Drs. Burleson & Burleson

804 The Burleson Bldg. Grand Rapids, Michigan

# Michigan Live Stock Insurance Company

Home Office: Graebner Bldg., Saginaw, W. S., Michigan

Executive Office: 319 Widdicomb Bldg., Grand Rapids, Michigan

This Company is backed by more than 500 of the best live stock farmers of the state, and we have more than \$100,000 deposited with the State Treasurer as a guarantee of the Company's responsibility.

We insure all live stock—horses, cattle, sheep and hogs against death from any cause.

We issue individual and blanket policies covering any and all conditions—herd policies, feeding policies, shipping policies, 30 day foaling policies, etc.

We want a local agent to represent us in every community in Michigan.

We want every farmer in the State of Michigan to insure his live stock with us

We will give you a square deal.

Write for information.

Colon C. Lillie, Pres. and Supt. of Agts.  
Harmon J. Wells, Secty. and Gen. Mgr.

## BREEDERS' DIRECTORY.

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

We Offer a Few Special Bargains In S. C. White Leghorn cockerels, Rambouillet rams, Hampshire pigs (either sex) and Holstein bulls. A good chance for a small investment to reap the benefit of a large expenditure of capital and years of expert breeding.

Flanders Farm, Orchard Lake, Mich.

## CATTLE.

### WOODCOTE ANGUS

Trojan-Ericas and Blackbirds only Breeders of the dam and former owners of the sire (our herd bull) of the Grand Champion Bull at the International Chicago for 1917.

Registered Aberdeen Angus. Twelve yearling heifers for sale. Our motto: size with quality best of breeding. Price \$150 each for bunch. F. J. WILBER, R. 4, Clio, Mich.

### Registered Guernseys

Stock always for sale. May Rose Strain—Herd Tuberculin tested annually. Never had a reactor—no abortion. J. M. WILLIAMS, North Adams, Mich.

GUERNSEYS must reduce herd, so offer a few choice females of Glenwood breeding also bulls, all stock of A. R. breeding, herd tuberculin tested. T. V. HICKS, Battle Creek, Mich.

Guernseys—For Sale, four young registered cows. Tuberculin tested. Geo. N. Crawford, Holton, Mich.

Guernseys 45 Registered head, all tb. tested. Nora's May King, son of Imp. May Rose King, heads on herd. Both his half sisters sold averaging \$150 each. His bull calves are booked ahead at reasonable prices. Avondale Stock Farm, Wayne, Mich.

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

For Sale Registered Guernsey bull calves May Rose breeding. JOHN EBELS, R. 2, Holland, Mich.

REG. HOLSTEINS: Herd headed by Albina Bonte Butter Boy No. 93124. Dam's record at 6 yrs. butter 28.53 lbs. milk 619.4. Yearly record at 2 1/2 yrs. butter 802 lbs. milk 18622 lbs. W. B. READER, Howell, Mich.

## CLUNY STOCK FARM

100--REGISTERED HOLSTEINS--100 When you need a herd sire remember that we have one of the best herds in Michigan, kept under strict sanitary conditions. Every individual over 6 mos. old regularly tuberculin tested. We have size, quality, and production records backed by the best strains of breeding.

Write us your wants. R. BRUCE McPHERSON, Howell, Mich.

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

Parham's Pedigree Stock Farm offers Reg. Holstein cattle, Chester White Swine, extra bargains in calves and fall pigs. Bulls half price. R. B. PARHAM, Bronson, Mich.

\$50 Gets son of 30 lb. bull dam is grand daughter of De Kol 2nd Butter Boy 3 rd. Her dam 18.96 lb. 2 yr. old. M. L. McLAULIN, Redford, Michigan.

## A Few Fine Bulls For Sale

Bigelows Holstein Farms, Breedsville, Mich.

## I Always Have Holsteins To Sell

If wanting Registered cattle write me your wants before placing your order elsewhere.

L. E. CONNELL, Fayette, Ohio

## WINWOOD HERD REGISTERED HOLSTEINS

Holton, Mich.

Reference: Old State Bank, Fremont, Mich.

Flint Maplecrest Boy sire in service. His sire is Maplecrest Komdyke Fenserveld, his 3 Nearest Dams each over 30 lbs. of butter in 7 days. His dam and grand dam both made over 1232 lbs. of butter in 1 year. It is the yearly cow we are looking for to deliver the goods. Flint Maplecrest Boy's Dam is Gluck Vasser Bell, 30.57 lbs. of butter in 7 days and 120 lbs. in 30 days. Her butter fat test is 5.27. This looks about right to the man who goes to the creamery. We have Bull Calves from 2 weeks to 8 months old for sale at dairy farmers' prices all out of A. R. O. Heifers. Write & tell us the kind of a bull you want. JOHN H. WINN (Inc.), Holton, Mich.

# Grange.

## STATE GRANGE MEETING.

(Continued from last week.)

To the committee on cooperation was referred the many resolutions looking toward better marketing methods, and in its report is the recommendation that the "executive committee appoint a special subcommittee to formulate as uniform plans as are practicable for live stock shipping and other farm product selling associations; said committee, when requested to do so, to send an organizer to assist in organizing such associations and provide for the payment of such services." Into the hands of this committee is also to be put the investigation and establishment of a clearing house market for Granges, if this is found to be advisable.

It will be glad news to delegates who were interested in this matter to learn that, within a week after adjournment of State Grange, the executive committee had met and appointed as such committee on cooperative selling plans, Master Ketcham, Past Master G. B. Horton, and Thomas W. Michael.

### Other New Matters.

A resolution which received a hearty and unanimous endorsement was presented by George B. Horton and reads as follows:

Whereas, it is reported by Washington press correspondents that Postmaster-General Burleson contemplates curtailment and final abandonment of the rural mail carrier system through getting permit from congress to substitute state contract carriers at his option, and,

Whereas, securing the adoption of the rural carrier system for the purpose of giving country residents equal mail facilities and privileges to that already provided through the carrier system to cities, was one of the great achievements of the Grange organization, and to curtail and abandon it now would be an unjust discrimination against rural people,

Therefore, resolved by the Michigan State Grange, a body fairly representative of the desires of all residents of the state, that it is strongly and determinedly opposed to abandonment in whole or in part of the said rural mail system and that copies of this resolution be forwarded to all congressmen and senators to inform them of the action of this body.

Enthusiastic endorsement was given the proposition to invite the National Grange to meet "somewhere in Michigan" in 1919.

The inception of one of the big, new projects for 1918 received its official sanction at this session. This is the holding of a series of so-called Grange institutes in the counties of the lower peninsula in January and February and in the upper peninsula at later dates. Cooperating with the State Grange, the Pomona and subordinate Granges will make local arrangements, while the Agricultural College, federal government and Dairy and Food Department will help provide speakers. Five carefully selected subjects will be presented at one-day institutes in each county, covering such vitally up-to-date topics as follows: 1, the farm labor situation in 1918; 2, production costs; 3, feeding our families; 4, need of farm organizations; 5 how to meet the increased need of production.

A welcome announcement from this session is the fact that there was authorized the appointment of a committee of the State Grange to work in conjunction with the State Board of Agriculture along such broad lines as shall be for the promotion of all matters that vitally concern both institutions. This, if nothing more were done, should make the session of 1917 notable.

In another issue we will consider some phases of the session relating to food and those other parts in which women took a leading part.

JENNIE BUELL.

# Farmers' Clubs

## FEATURES OF THE ANNUAL MEETING.

(Continued from last week.)

Address of Dr. Ray Shipman Wilbur, President of Stanford University, and personal representative of Food Commissioner Hoover.

We know that we have only got the present harvest to live upon, until the next harvest comes, and unless we are willing to use what food we have to the best advantage, our boys will have to go without, which will mean greater loss of lives and much suffering. The problem before the American producers and consumers is a very definite one. We have already shipped our surplus supply of 1917 harvest, and all that we can send out now, will be what little we can save, so we are in this food conservation movement to save what we can of the essentials: wheat, sugar and fats, allowing it to be sent to the starving nations and troops, who are so greatly in need of it.

We have a sufficient supply of food in this country, that is way beyond our needs. The population of this country need not be alarmed about our food supply. The question is, can we conserve the surplus supply? Can we conserve our food supply, so when we are called upon to supply our allies, we will be able to supply the need? This is the background of the Food Administration. This is what we have got to do. This is what our present campaign means. We feel that those who have joined this administration are going to help us in every way possible, and with their help we will accomplish the things we have set out to accomplish. When our people come to realize that the waste of food means death to their boys, to our troops, and to countless millions whose aid is going to help us win this great struggle, when they have come to a realization of all of this, we feel certain they will be ready and willing to cooperate with us in every way that we have asked them to cooperate. We will follow out the definite plan laid down to us, keeping the wheatless and meatless days, and conserving in every way possible. Food means human lives! Keep that fact always in mind, and you will be ever ready to do your bit. The growth of food from the ground and the production of food from the ground, is the farmer's duty. He has the most important part in this great war. With the farmers' cooperation in greater production, and the consumers' cooperation in conserving, we shall win.

The person who is not doing something toward helping to win this great war; the person who is not sacrificing to help our boys, who are laying down their lives that we might live in comfort, and sacrificing until it hurts, is not a true American citizen. Our boys are suffering and dying, and if we are not willing to do the little things asked us, we should meet the punishment that will be ours, if we do not get down to business and help our country in this great fight for humanity. We do not know what it means to be hungry. In this great wealthy country of ours, surrounded with luxuries, we do not know what hardship means. Wastefulness is our curse. We are slow to grasp the meaning of this great war, and what it means to this country. It is our war, and we must fight it out to the bitter end. We are fighting that we might live on under this blessed flag we love so well; we do not want this terrible monster to come to our homes as it has visited the poor little countries of Belgium and Serbia. What are we going to do, to keep them from destroying us, as they will do, when they have finished France and England? Are we going to conserve our surplus supply to feed our Allies who are holding the line until we get there; to feed our boys when they get on the firing line?

We now have the duty of getting through with this 1917 harvest and getting together a greater harvest in 1918. If we do not succeed in this great food conservation, which is the most important feature of this awful war, it will mean that democracy is a failure. We will have to accept a different form of government. A government, from which thousands have fled to this country, to enjoy liberty and freedom; they fled from the iron hand of autocracy, which bends under its iron hand, all humanity; all rights of freedom; all rights of religion. The subjects of autocracy know no soul. Do we want this serpent to come to our homes?

Will you get together and do your part to help maintain this blessed nation, so this government of the people and by the people and for the people will not perish.

CATTLE

"TOP-NOTCH" HOLSTEINS

"Milk production is an inherited ability. Good cows must be bred to good pure-bred bulls if progress in dairying is to be made."

Buy this young bull and give your milk and butter production a "push."

King Olantha De Oakdale, No. 182887, Born Nov. 4, 1915. His sire's 3 nearest Dams average...

Make Prosperity Permanent! Start Now to build up a herd of money making, mortgage lifting pure bred HOLSTEINS

FOR Sale One registered Holstein bull calf. Sire's twenty nearest dams have 7 da. records av. 23.53 lb. butter.

Butter Fat Counts

Holstein Bull Calves from a 30 lb. 6.53% Sire. Dam are grand daughters of the King of the Pontiacs.

Holstein Bull Calf born Mar. 7, fine individual a prize winner from 23.62 lb. Sire and 23.80 lb. 4 yr. old dam.

Reg. Holstein bull and heifer calves for sale Extra heavy milking dams.

Bull calves sired by a double g-son of Friend Hengerfeld De Kol butter.

Our Herd is Headed by King Vale Palmyra Fayne, whose sire is a brother to Segis Payne Johanna.

OAK LEAF FARM

Herd sire Lenawee Pontiac Calamity King offer Registered Holstein bull calves from the above sire whose dam holds the milk and butter (32%) record for 7 days in the state of Ind.

Reg. Holstein Bull Calves Pontiac Korndyke and Hengerveld De Kol Breeding at Farmers Prices.

For Sale Registered Holstein bulls ready for service and bull calves from 30 lb. sire and A. R. O. dams with records up to 25 lbs.

Holstein bull, 12 mos. old, light in color 30 lb. dam, 30 lb. sire, \$100; bull calves without papers \$25.

The Calf advertised has been sold. Here is one of the Winter crop, almost all white good individual.

Registered Holstein bulls to exchange. 1 for farm team, 1 for saddle horse address.

HEREFORDS

10 bull calves for sale, Perfection Fairfax and Prince Donald breeding. ALLEN BROS., PAW PAW, MICH.

Herefords Bob Fairfax 494027 at head of herd. Stock for sale. Both sexes either polled or horned.

Lillie Farmstead Jersey Cattle. 3 bulls, ready for service, out of R. of M. dams, 10 heifers bred to freshen next fall.

Jersey Bulls for Sale from high-producing dams, with semi-official test. C. B. Wehner, R. 6, Allegan, Mich.

Jersey Bulls For Sale Ready for service. Raleigh - St. Lambert breeding.

For Sale Two registered Jerseys bull calves. Splendid individuals. Good pedigrees. Priced to sell.

2 Majesty line bred solid colored bull calves 3 mos. old, from dams that are doing better than 50 lbs. fat monthly.

MICH. AGRICULTURAL COLLEGE

HAS FOR SALE

16 Registered Percheron Mares

From 3 to 12 years old, Blacks and Greys Safe in Foal

1 Belgian Mare 1900 Lbs. 6 years old, in foal

1 2-Year-Old Percheron Stallion

For Particulars write R. S. HUDSON, Farm Supt., Michigan Agricultural College, East Lansing, Mich.

Jerseys and Duroc Jerseys

The most important thing in buying a Jersey bull is to get one backed up by generations of high producers.

Boar Pigs and Yearlings For Sale. H. W. MUMFORD, OWNER. BROOKWATER FARM. O. F. FOSTER, MANAGER.

Ann Arbor, MI h., R. 7.

Choice Bulls ready for service. Also heifers of Royal Majesty. Strong in the Blood.

FOR SALE Registered Jersey bulls, SMITH and PARKER, R. 4, Howell, Mich.

MAPLE Lane R. of M. Jersey Herd has for sale R. of M. cows, daughters of R. of M. cows, bull calves.

Shorthorn Cattle of both Sex for Sale W. W. KNAPP, Howell, Michigan.

Shorthorns - Dairy or beef bred. Breeding stock all ages for sale at farmers prices.

BIDWELL SHORTHORNS

5 Bulls ready for service, 15 months to 2 years, for sale; also good Scotch-topped cows and heifers.

BIDWELL STOCK FARM

Shorthorns for sale, 5 bulls Scotch top 10 to 14 mos.

Bates Shorthorns the original milk strain young bulls 8 mos. old for sale. Price \$150 to \$200.

Shorthorns. Bulls 9 mos. to 12 mos. old from good milking cows. Prices reasonable.

Milking Shorthorns: - Bull calf 5 mos., by a Grand-son of General Clay, dam by a son of General Clay.

Shorthorns both sexes, herd catalogue mailed free. CHARLES R. HORRIE, Hart, Mich.

SHORTHORNS. Butterfly Sultan, half brother to International St. Champion, in service. For good bulls, cows, and heifers.

For sale: Reg. Shorthorns. Two Roan bulls, one 15 mos. one 9 mos. and one Red heifer 13 mos. old.

Milking Shorthorns and Polled Durhams, 20 head cows and heifers and young bulls, Sultans Duchess and Sittayon Duchess included.

Shorthorns Maxwellton Monarch 2nd, 387322 half brother to 5 Grand Cham Boms in service.

Cattle For Sale

Loads feeders and two loads yearling steers. Also can show you any number 1, 2 and 3 year olds from 600 to 1200 lbs.

HOMESTEAD FARMS

We have for sale the following thoroughbred stock which we shall be pleased to describe fully:

HOGS.

DUROCS service boars, bred sows, fall pigs. Express paid. J. H. BANGHART, E. Lansing, Mich.

Pinehurst offers: Registered Spring Boars, tried brood sows, One Great Herd Boar.

Duroc Jersey spring gilts and fall pigs either sex. E. D. HEYDENBERG, Wayland, Mich.

Duroc Sows & Gilts

guaranteed safe in pig. Fall boars and gilts not related. You want more size and feeding qualities; buy now.

Duroc Jersey: Extra good spring pigs for sale. CAREY U. EDMONDS, Hastings, Mich.

Duroc Jerseys-boars of the large heavy boned type. Prize winning stock, prices reasonable.

DUROC JERSEY SOWS

Bred to one of the best young boars in Mich. for Mar. farrow. RUSH BROS., Romeo, Mich.

A FEW Duroc Jersey bred gilts for sale. Some extra good fall boars. MILAN, Mich.

Duroc gilts bred for April farrow \$25 to \$40; fall yearlings bred for April farrow \$45 to \$50 weight 175 lb. to 250 lb. Priced for 10 days.

DUROC Jerseys. Orders booked now for early spring pigs. R. O. R. I. Red cocks \$3.00, eggs in season.

DUROCS for sale, 1 fall boar, 7 Spring boars, good breeding. Write for description and prices.

BRED GILTS

To Wm. B. No. 4749, Longfellow, No. 1875 sire of 1st prize young herd at Iowa State Fair.

Chester Gilts bred for March farrow early lines. F. W. ALEXANDER, Vassar, Mich.

Raise Chester Whites Like This the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented.

Big Type O. I. C's.

Stock of all ages for sale. We showed at four state fairs and won more champions and Grand Champions than all the other breeders together double.

O. I. C.'S choice May boar also some choice fall pigs. WEBER BROS., Royal Oak, Mich.

O. I. C.'s 2 choice May boars & Sept. & Oct. pigs sired by 1st Prize Premium boar Mich. State Fair 1917.

O. I. C. & CHESTER WHITE SWINE. Strictly big type with quality. Have a choice lot of boars fit for early fall service.

O. I. C.'S Registered serviceable boars. Bred gilts. Aug. Sept. Oct. pigs. Registered Shropshire ewe lambs.

O. I. C. Am offering some good boars of May farrow and fall pigs either sex.

O. I. C. For sale a few extra good gilts bred for March and April farrow.

O. I. C. open and bred gilts. All stock guaranteed. F. C. BURGESS, Mason, Mich.

Big Type Poland Chinas.

Bred Gilts and Sows for sale. HILLCREST FARM, Kalamazoo, Mich.

BOARS--SOWS

Big type big bone. For the next 80 days we will sell Big type Poland Chinas at bargain prices.

LARGE Type P. C. Largest in Mich. Spring Boars ready to ship. The kind that make good. Come and see the real big type kind.

Big Type Poland Chinas: April and May pigs, healthy and growthy. Prices right.

LARGE Type P. C. Some good spring boars up to 270 lbs. Will also price gilts, open or bred.

Big Boned Poland China boars shipped C.O.D. call or write for photo, weights, Pedigree and price.

Large Strain P. C. Gilts bred to Smooth Jumbo largest 2 yr. old in state, & a grandson of Gushalls Smooth Big Bone for April & May farrow.

Big Type P. C. Big boned fellows from Iowa's greatest E. J. MATHEWSON, Burr Oak, Mich.

POLAND CHINA GILTS Bred for March and April farrow. G. W. HOLTON, R. 11, Kalamazoo, Mich.

P. C. Bred sows, big type, big bone, big litters big fall pigs. R. W. MILLS, Saline, Mich.

Big Type P. C. bred for March & April farrow sired by Peter's Jumbo & Grand Superba and 2 or 3 yearling sows at bargain prices.

Walnut Alley Big Type P. C. Gilts ready to ship, sired by Smooth Jumbo Jr. and bred to Arts Big Bob the Iowa Boar.

For Sale--Registered Poland China boar, 28751, Sow 63288 due to farrow Feb. 1, weight 350, price \$75.

Big Type Poland China boar for sale. Guaranteed or money back. HERBERT HAMMOND, Williamston, Mich.

Registered Hampshires, spring boars and gilts book your order now. JOHN W. SNYDER, R. 4, St. Johns, Mich.

SHEEP CHOICE BRED EWES

250 left, 1 to 4 years old, bred to good Shropshire rams. \$13 to \$16 each for 10 or more, if taken soon.

EWES: Rambouillets and Hampshires for sale. A. A. WOOD & SON, Saline, Mich.

Western Ewes bred to Registered Mutton Rams. BARNARD SHEEP RANCH, R. 5, Clare, Mich.

Shropshire Ram Lambs and one three year old flock header for sale. ARMSTRONG BROS., R. 3, Fowlerville, Mich.

KOPE-KON FARMS.

Hampshires & Shropshires. It's a wise man who orders his ram for August delivery now.

Registered Oxford Ram and Ram lambs. Also Berkshire hogs. CHASE STOCK FARM, R. 1, Marlette, Mich.

HORSES REGISTERED PERCHERON

Mares and Stallions priced to sell. Inspection invited. L. C. HUNT, EATON RAPIDS, MICH.

LOESER BROS.

Belgian and Percheron Stallions for sale that will pass the Michigan Stallion Inspection.

PERCHERON DISPERSAL

The entire herd of the late A. A. Palmer will be closed out; 25 pure bred percheron mares \$200 to \$400 except two; also young stallions.

For Sale. A Black Percheron Stallion registered in the Percheron Society of America, sound in every way, four years old in May.

Percherons, Holsteins, Angus, Shropshires, Durocs DORR D. BUELL, Elmira, Michigan.

FOR SALE Percheron Stud coming two, cheap if sold at once. E. J. ALDRICH, Tekonsha, Mich.

SHETLAND PONIES

200 head to select from. Special prices on colts for August and September. Write Dept. E, The SHADYSIDE Farms, North Benton, Ohio.

# Markets.

## GRAINS AND SEEDS

January 15, 1918.

**WHEAT.**—There is no change in the wheat situation. The movement is very small, particularly on the local market where practically nothing is coming in. The mills are active buyers because the demand for flour shows no sign of decrease. One year ago the price on the local market for No. 2 red wheat was \$1.92 per bushel. Present prices for cash wheat are: No. 2 red \$2.17; No. 2 mixed \$2.15; No. 2 white \$2.15.

**CORN.**—The figures below show how prices have fluctuated the past week. Up to the present time trading in this cereal has depended as much upon transportation capacity as on any other factor. Whenever there was hope that the grain could be moved in larger volume prices declined, while the opposite was true when the shipments were restricted. Feeders in Michigan were anticipating a drop in the cereal last week with the improvement in railway traffic, but the storm of Saturday and Sunday neutralized all the improvement that had been made. Cars are being furnished more liberally and as soon as the weather permits increased deliveries will probably put values on a somewhat lower basis. One year ago they were paying \$1.01½ for No. 3 corn on the local market. Last week's Detroit quotations were:

	No. 3 Mixed.	No. 3 Yellow.
Wednesday .....	1.88	1.93
Thursday .....	1.80	1.85
Friday .....	1.85	1.90
Saturday .....	1.85	1.90
Monday .....	1.85	1.90
Tuesday .....	1.80	1.85

Chicago.—June corn \$1.27½; May \$1.24½

**OATS.**—This cereal has had a rather firm tone throughout the past week. Not only is there the usual domestic demand, but new uses at home and unusually large foreign needs, are giving the trade good support. A larger movement would obtain on the local market if dealers had the grain to fill orders. A year ago standard oats were quoted locally at 59½¢ per bushel. Last week's Detroit quotations were:

	Standard.	No. 3 White.
Wednesday .....	83½	83
Thursday .....	84	83½
Friday .....	84	83½
Saturday .....	84	83½
Monday .....	84	83½
Tuesday .....	84½	84

Chicago.—January oats 78½¢; March 77½¢; May 76¢.

**RYE.**—This cereal rules steady with cash No. 2 selling at \$1.84 per bushel. Receipts are small and consumers are not buying.

**BEANS.**—Buying in this deal has been slow for several days past. Prices are about steady. Immediate and prompt shipments are quoted at \$12.25 per cwt. on the Detroit market. At Chicago trading is lifeless, even recent price reductions having had little effect in stimulating demand. At that place Michigan pea beans, hand-picked and in sound and dry condition, are quoted at \$13 per cwt.; red kidneys, fancy \$14@15; fair to choice \$12@13 per cwt.

**SEEDS.**—Market is firm. Prime red clover \$18; March \$18.75; alsike at \$14.60; timothy \$4.20.

## FLOUR AND FEEDS

**FLOUR.**—Jobbing lots in one-eighth paper sacks are selling on the Detroit market per 196 lbs., as follows: Standard patent \$11.10@11.15; spring patent \$11.30; rye flour \$10.50@10.70 bbl.

**FEED.**—The government is regulating the prices of bran, shorts, "middlings," mixed feeds and flour middlings. The prices of these products will hereafter be based upon price of wheat to millers. 100-lb. sacks jobbing lots: Bran \$34.40; standard middlings \$36.40; fine middlings \$43.40; cracked corn \$81; coarse corn meal \$77; corn and oat chop \$60 per ton.

**HAY.**—In carlots at Detroit: No. 1 timothy \$24.50@25; standard timothy \$23.50@25; light mixed \$23.50@24; No. 2 timothy \$22.50@23; No. 1 clover \$19@20 per ton.

Pittsburgh.—No. 1 timothy \$30@30.50; No. 2 tim. \$27.50@28; No. 1 light mixed \$28@28.50; No. 1 clover mixed \$29.50@30.50; No. 1 clover \$29.50@30.50.

**STRAW.**—In carlots on track at Detroit: Wheat and oat straw \$10.50@11; rye straw \$11.50@12.

## DAIRY PRODUCTS

**BUTTER.**—In fresh butter the tone is easy, and a lower price is quoted owing to lack of demand. The fresh creamery firsts are quoted at 47¢ per pound; fresh creamery extras 49¢.

Chicago.—Market is steady, with high prices curtailing the consumption somewhat. Creamery extras 48¢; extra firsts 47@47½¢; packing stock 34@34½¢.

**CHEESE.**—Michigan flats 23½¢ per lb; New York flats 25¢; brick 27½¢; long horns 27¼¢; Michigan daisies 24½¢; Wisconsin daisies 25½¢; Wisconsin double daisies 25¼¢; domestic Swiss 35@40¢ for prime to fancy; limburger 28@29¢.

**DRESSED CALVES.**—Fancy 21@22¢; choice 19@20¢; common 17@18¢.

## POULTRY PRODUCTS

**POULTRY.**—(Live).—The market appears at a standstill, with no receipts nor any demand. The best spring chickens 27@28¢; No. 1 hens 26@27¢; ducks 27@28¢; geese 26@27¢; turkeys 26@27¢.

Chicago.—(Live).—Receipts small, with few buyers, owing to the severe weather. Fowls 22½¢; ducks 24@25¢; geese 22@22½¢; turkeys, good 24¢. (Dressed).—Fowls 24@25¢; ducks, fancy 26¢; geese 24¢; turkeys 32@32½¢.

**EGGS.**—Strictly fresh eggs can scarcely be had at any price. Fresh firsts 54@58¢.

Chicago.—Receipts are small, prices higher. Fresh Michigan firsts sell for 59@60¢; ordinary firsts 54@57½¢; miscellaneous lots, cases included 54@58¢ per dozen.

## FRUITS—VEGETABLES

**POTATOES.**—The shipment of potatoes was materially interrupted by the recent storm, so that sales were temporarily suspended at many markets on account of a lack of supplies last Monday morning. Such was the case at Detroit. In Cleveland there were a few sold to jobbers at \$2.25@2.35 for a good quality of stock. Michigan round whites sold in New York at \$2.75@3; in Buffalo at \$2.30@2.35, some frozen at \$2@2.25. In Cincinnati good round whites from this state went at \$2.35; in Indianapolis \$2.40; in Columbus at \$2.40@2.50; in Pittsburgh \$2.40@2.50; at Chicago the Wisconsin stock was selling around \$2@2.10.

In New York state dealers were paying farmers for wagon load lots at sidetrack \$1.67 for stock grading U. S. No. 1, and \$1 for No. 2. No sales are reported from other loading points excepting Maine, where farmers are getting \$2.12@2.18 for Green Mountains and Cobblers.

**ONIONS.**—No sales were reported Monday morning on the Detroit market. In New York jobbers are paying \$2.50@3 per cwt. for yellows and \$2.75@3 for whites; at Buffalo yellows are bringing \$2.50@2.75, with some poorer frozen stock selling at \$1.50@2.25; at Chicago jobbing prices are \$1.35@1.50 for yellows in 70-lb. sacks and \$2.50@2.75 for whites in 100-lb. sacks.

**CABBAGE.**—The weather conditions have limited the sales of this product the past few days. In New York Danish stock is selling to jobbers at \$50@55 per ton; in Cincinnati \$60; in Buffalo \$2.75@3 per bbl. for the best, and \$2.25@2.75 for the poorer grades.

**APPLES.**—On Monday morning the New York market showed an active demand for sound stock; the best Greenings were selling in jobbing lots at \$6@6.50; Baldwins \$5@5.50; Ben Davis \$3.50@4.50; Spies \$5@6; Yorks \$4.50@5.50. There were no sales at Pittsburgh nor at Cincinnati on Monday. At Chicago the demand for barrels was moderate, with the market holding steady. Jonathans were quoted there at \$5.25@6 for "A" stock; Greenings \$5.50@6.25; Grimes at \$5@5.50; Spies \$5.25@6.25; Ben Davis at \$3.50@4.

## WOOL

Although transactions have been on a comparatively small scale, the market is now in a more satisfactory condition. The trade is gradually recovering from the disturbance caused by the government entering the market with regulatory measures. There is not a weak spot in the whole list of offerings, either domestic or foreign. Encouragement has been given to the trade here by the recent Australian auction sales where values advanced beyond what the most optimistic traders expected would obtain. None of the raw material markets is in a better position now, or holds out greater promise for the future than does the wool trade.

## LIVE STOCK

### BUFFALO.

January 14, 1918.  
Cattle.—Receipts 50 cars; market 25@50¢ higher; best shipping steers at \$13.50@15; fair to good \$11.75@12.25; native yearlings \$12.50@13; best handy steers \$11.50@12; fair to good \$9.25@10.25; handy steers and mixed heifers \$9.25@10.50; light butcher steers \$9.25@10; western heifers \$8.50@9.75; best fat cows \$10@11; butcher cows \$7@7.50; cutters \$6.50@7; canners \$5@5.50; fancy bulls \$10.10@11; butcher bulls \$8.25@9.25; common bulls \$6.75@7.25; best feeding steers 900 to 1000 lbs \$8@8.50; medium feeding steers \$7.50@8.25; light common \$6@6.75; stockers \$6.50@7; milkers and springers \$65@125

Hogs.—Receipts 40 cars; market 25¢ higher; heavy and yorkers, \$18@18.15; pigs and lights \$17@17.25.

Sheep and Lambs.—Receipts 10 cars. Market 40¢ higher; top lambs \$19@19.25; yearlings \$14@16.25; wethers \$12.50@13; ewes \$12@12.50.

Calves.—Receipts 500; strong, tops \$18; fair to good \$15@17.50; grassers \$6.50@7.50.

### CHICAGO.

January 14, 1918.  
Cattle.—Receipts today 2000. Market steady, with native steers selling at \$8.20@13.60; stockers and feeders \$6.80@10.85; cows and heifers \$5.80@11.75; calves \$8.50@15.50

Hogs.—Receipts 14,000. Market unsettled, with bulk of offerings selling at \$16.10@16.50; light \$15.70@16.35; mixed \$15.85@16.50; heavy \$15.80@16.50; roughs \$15.80@16; pigs \$12.50@15.25.

Sheep and Lambs.—Market was firm. Monday receipts 2,000. Wethers sold at \$9.60@13.25; ewes \$9@12.60; lambs \$14@17.50.

Cattle prices were advanced 25@50¢ during the first half of the past week, because of a lively general demand that was in excess of the offerings, although early shipments east were checked by the snow embargo on roads leading out of Chicago. Later in the week large shipments were made from here to eastern points, and the market was extremely good for sellers, the rise in values being general and extending to cows, heifers, and other cattle. Railroad service was apt to be unsatisfactory, because of cold weather and heavy snow storms, and on Thursday, when 29,000 cattle were due here, only a moderate share were in by 11 o'clock, and as the day advanced prices broke 25¢ for all kinds, many cattle getting in too late to be sold that day. Taking the week as a whole, the greater part of the steers received found buyers at \$11@13, with the choicer class of heavy cattle purchased at \$13@14, while good steers went at \$12.40 and over. Medium grade steers sold at \$11.65 and upward, plain to fair steers of light weight at \$10.50@11.60 and sales all the way down to \$8.50@9.50 for inferior little steers. Yearling steers were salable at \$9.50@13.85 for common to choice kinds, with very few prime enough to sell as high as \$13.50. The best advance was in steers good enough to bring above \$12, with steers at \$11@12.50 the best actors, although the cheaper kinds were in fair request because of the army needs. Butcher stock advanced during the first half of the week largely 25¢, but lost the advance later, bulls sharing in the late decline. Butcher cows sold at \$7.60@11.10, heifers at \$6.65@12.25, cutters at \$6.60@7.50, canners at \$6@6.50, and bulls at \$7@11.50. Calves were much lower than at the best time a week earlier, with sales of the better class of light vealers at \$15@15.50 and sales down to \$6.50@12 for the heavy ones. Stockers and feeders were fairly active at \$7@11.15, heavy stock calves averaging close to 500 lbs., selling at \$7 and over.

Hogs were advanced sharply early in the week on comparatively small receipts and a good demand, although on Monday the snow embargo prevented eastern shippers from doing anything. By Thursday the receipts reached liberal proportions, about 66,600 hogs arriving, and prices went off sharply, with some 20,000 hogs carried over to Friday, although eastern shippers were good buyers of the choicer class of heavy and light weights. Recent receipts of hogs have averaged 216 lbs., comparing with 207 lbs. a month earlier, 195 lbs. one year ago, 191 lbs. two years ago, 221 lbs. three years ago and 209 lbs. four years ago. On the high day prime hogs brought \$16.80. At the close prices were not very much higher than a week earlier, despite the fact that the week's receipts were far smaller than a year ago. No trains were moving Saturday, and buyers depended on hogs left over from Friday. Some prime hogs sold above the general market, with sales of such at \$16.60@16.70. Hogs sold all the way down to \$15.60 for the common light

weights, with pigs selling at \$12@15.25, including stock pigs at \$14.85@15.25.

Lambs were marketed during the past week so sparingly that a genuine boom took place in prices, particularly in the choicer kinds, the top reaching \$18, comparing with a top at \$17.25 during previous week. Heavy lambs were in better demand, and feeders were wanted, but killers were apt to secure them. Sheep and yearlings were scarce and much wanted. There was a late decline in prices for lambs, but they closed 25@35¢ higher than a week earlier, while most sheep closed 25¢ higher. Closing quotations were: Lambs \$13.75@17.40; feeding lambs \$15@16.50; yearlings \$12@14.75; wethers \$12@13.25; ewes \$6.50@12.50; feeding ewes \$9@10; breeding ewes \$11@14; bucks \$9@10; goats \$6@8.50.

### MICHIGAN CROP REPORT.

Wheat.—In answer to the question, "Has wheat during December suffered injury from any cause," 289 correspondents in the state answer "Yes" and 203 "No" and in answer to the question, "Has the ground been well covered with snow during December," 149 correspondents throughout the state answer "Yes" and 349 "No."

The total number of bushels of wheat marketed by farmers in December at 66 flouring mills was 98,362 and at 82 elevators and to grain dealers 110,990 or a total of 209,352 bushels. Of this amount 140,065 bushels were marketed in the southern four tiers of counties, 54,866 in the central counties and 14,421 in the northern counties and upper peninsula. The estimated total number of bushels of wheat marketed in the five months, August-December, was 3,500,000. Fifty-seven mills, elevators and grain dealers report no wheat marketed in December.

The average condition of live stock in the state is reported as follows, comparison being made with stock in good, healthy and thrifty condition: Horses 94, cattle 93, sheep 98 and swine 91.

The average prices for the state on January 1 of some of the principal farm products were as follows: Wheat per bushel was \$2.02; rye \$1.68; corn \$1.95; oats 75¢; hay, per ton \$20.09; fat cattle \$8.40 per cwt; fat hogs were \$15.11 per cwt. and dressed pork was \$19.51 per cwt.

The price of each class of horses was as follows: Under one year old \$45.26; between one and two years old \$71.03; between two and three years old \$101.11 and three years old and over \$137.15.

Milch cows were worth \$76.26 per head.

Cattle other than milch cows, under one year old \$22.92; between one and two years old \$38.88; between two and old and over \$72.23.

Sheep under one year old \$10.43 and one year old and over \$13.34.

Hogs not fattened \$13.41 per cwt. The price of wheat is 43; rye 42; corn 96; oats 21 cents and hay \$9.93 higher than one year ago.

The average price of horses, etc., one year ago were as follows: Under one year old \$47.91; between one and two years old \$76.76; between two and three years old \$111.54 and three years old and over \$145.84.

Milch cows were worth \$62.94 per head.

Table I.—Showing for the state, the crop correspondents' estimated acreage and total yield of the following farm products for the year 1917:

	Estimated acreage.	Tot'l yield bushels.
Corn .....	2,277,832	52,968,436
Potatoes .....	437,731	44,786,622
Apples .....	227,635	9,651,724
Peaches .....	23,254	255,794
Pears .....	9,092	1,309,248
Plums .....	3,720	276,024
Cherries .....	7,601	1,341,576
Strawberries .....	8,434	398,928
Raspberries and blackberries .....	9,086	558,789
Sugar beets .....	94,589	835,221
Hay and forage .....	2,287,496	3,431,244

Table II.—Grain and seed threshed in Michigan up to and including December 22, 1917, as per returns of threshermen is as follows:

	Acres.	Bushels.	Yield per Acre.
Wheat .....	769,707	13,605,768	17.68
Rye .....	322,562	4,520,197	14.01
Oats .....	1,233,964	44,589,049	36.13
Barley .....	128,501	3,307,919	25.74
Buckw't .....	30,613	330,953	10.81
Peas .....	14,432	150,452	10.42
Seeds:			
Timh'y ..	1,842	9,268	5.03
June .....	6,369	6,076	0.95
Mam'th ..	4,695	10,056	2.14
Alsike ..	4,892	15,578	3.18
Beans:			
White ..	320,811	2,208,781	6.88
Red kid'y ..	6,781	36,848	5.43
Bn. Swed. ..	1,911	10,007	5.24

**THIS IS THE LAST EDITION.**

The first edition is sent to those who have not expressed a desire for the latest markets. The late market edition will be sent on request at any time.

**DETROIT LIVE STOCK MARKET.**

Thursday.  
January 17, 1918.

On account of the demoralized condition of transportation lines due to the general situation, and aided by the recent storm, no live stock arrived at the Detroit market this week until this noon and these receipts are very meagre. From the bids that have been placed, and the few sales made, it would appear that the price for cattle will advance from 50@75c above the quotations of last week. This, of course, is the result of the small supplies in the city. With offerings increased to a normal quantity prices will unquestionably decline. The veal calf trading is strong, with prices ranging from \$9@17. Sheep and lambs are also selling above the price of last week with the best lambs bringing \$18. Hogs show the same tendency with the best offerings going around \$16.50@17 and pigs at \$16@16.75.

**LIVE STOCK NEWS.**

The live stock producers in Crawford county, Iowa, are retaining their small grains for next summer's stock feeding, because of the condition of the corn crop, according to J. Evers, who appeared in the Chicago market several days ago with a shipment of steers he had been feeding for the last two months on corn and hay in the feed lot. He said corn is in poor condition, and although some of it is being cribbed, the amount stored will not be sufficient for feeding purposes. A great many cattle are being fed, but there are fewer hogs on feed than usual, although farmers are likely to increase their hog production in the near future. Only a few cattle will be carried through the winter.

Leading authorities are urging farmers to mature their calves of good beef blood, baby beef being much in demand these times and economic in every way were marketed in the Kansas City and way.

During the past year the ten principal markets of the United States received in the aggregate only 23,500,000 hogs, showing a falling off of 5,000,000 hogs from the previous year. This came at the time of all others when the demand was so much larger than ever before that increased numbers were much needed. This state of things put prices far higher than ever before, and after prime lots of swine had sold in January for \$10 per 100 pounds, rapid advances followed until in the month of August sales were made up to \$20 as a high-water mark. Since then much lower prices have prevailed, although hogs are still selling far higher than in former years. The most encouraging feature at the present time is the disposition among progressive farmers to engage more extensively in hog breeding, as well as in buying feed in pigs for fattening. Hogs marketed in the Chicago stock yards quite recently have averaged in weight 217 pounds, comparing with only 207 lbs. one week earlier, 191 lbs. one year ago, 190 lbs. two years ago, 222 lbs. three years ago and 208 lbs. four years ago. Prime heavy butcher lots are still the highest sellers, with most light hogs selling at a large discount.

Sheepmen have experienced the most successful year ever known, the demand far exceeding the supply offered in the markets of the country. Within a short time prime fed lambs have sold up to \$17.10 per 100 pounds, and last May prime spring lambs made the hitherto undreamed price of \$21. Only two years ago prime lambs were selling at \$9.90, and it seemed like a good price to sellers. A great many ewes and ewe lambs are being wintered, sheepmen being awake to the good opportunity for making liberal profits. Many farmers are taking up sheep breeding, and most sheepmen reserved their last spring's ewe lambs for breeding purposes, realizing that all the lambs which can be had will be in good demand.

Values of 1917 crops in the United States, based on prices paid farmers, have exceeded all previous figures. Final reports also show that the following crops have established new high production records; corn, oats, rye, white potatoes, tobacco, sweet potatoes, beans and onions. Because of the abundance of the foregoing products, especially corn, potatoes, beans and onions, the United States Food Administration is urging their liberal use. An important part of its activities is to keep the public fully informed of the amounts and kinds of food stuffs in this country.

**Veterinary.**

CONDUCTED BY W. C. FAIR, V. S.

**Irritation of Bowels.**—We have heifer calf three months old that has bowel ailment. The discharge is somewhat thin, calf strains and bowel protrudes until straining ceases. This calf is growing thin and weak, is still sucking cow all the time and runs in bottom land pasture. E. E. O., Athens, Mich.—Give calf 20 grs. subnitrate of bismuth and 2 ozs of olive oil at a dose two or three times a day. You should wean calf, change its feed and prevent it taking much exercise until it recovers.

**Chronic Grease Heel.**—One year ago my nine-year-old horse had scratches, was treated by our local Vet. for several months before he got well; and there is now a sore near the heel. What had I better do for him? J. R., Owosso, Mich.—Apply one part iodoform and four parts powdered charcoal to sore once or twice a day. Give him 1/2 oz. doses of Fowler's solution of arsenic in either food or drinking water three times a day. The sore leg should not be washed and if he is driven in snow or slush, as soon as he comes in stable apply cotton and a bandage, leaving it on for two or three hours; furthermore his stable should be kept clean and his bowels kept open. Painting sore occasionally with tincture iodine will have a good effect.

**Lice.**—I would like to know how to rid my horses of blue lice. They have been troubled with them for the past twelve months or more and I have applied coal tar disinfectants without results. A. C., Jeddo, Mich.—During the winter months it is not always advisable to apply watery solutions to kill lice; however, if you will dust on Persian insect powder occasionally, it will destroy the lice. Also apply a small quantity of mercurial ointment on the rump near root of tail and on neck under mane occasionally.

**Partial Dislocation of Patella.**—Have a five-year-old mare which while standing in her stall, one hind leg seems to be stiff as if anchored to floor; but by switching her with whip she exerts herself, then I can hear something snap, then she is all right. From this description can you tell me what is wrong? I forgot to say that about a year ago she was in the same condition, but seemingly got over it. T. T., Coloma, Mich.—The ligaments that hold cap in place have stretched and allow stifle bone to slip out of position, and until it moves back into place the mare is unable to raise the foot. Clip hair off stifle joint and apply one part powdered cantharides and six parts of fresh lard two or three times a month and she will get all right. In order to put the cap into position, pull the foot well forward, press back on thigh, then push the cap into position. This is usually easily accomplished, but of course a light blister applied to stifle will soon strengthen ligaments which will hold the bone in its proper place.

**Bruised Thigh.**—I have a valuable horse that was kicked on fore part of hind leg, midway between hock and stifle joint. This accident occurred some two months ago. The wound has healed, but there is a bunch left which I would like to have removed. D. B. L., Ashley, Mich.—If the bunch is raw, which I presume it is, it should either be cut off or burned off with a red-hot iron, then apply equal parts powdered alum and tannic acid twice a day.

**Weak Stifle.**—I have a colt about six months old that has had stifle trouble since he was a week old. The joint has usually been considerably enlarged, but of late this swelling has gone down and the cap slips out occasionally and when he first starts, you can hear the bone slip into place. A. J. C., Birch Run, Mich.—Clip hair off, apply equal parts turpentine, aqua ammonia and raw linseed oil to stifle joint three times a week.

**Fistula—Chronic Scratches.**—For the past twelve months my eight-year-old horse has had running sore under jaw and our local Vet. tells me that it is fistula. His treatment fails to heal wound. We also have a horse that has been troubled with scratches for more than a year. C. L. H., Wayne Co.—Both cases should be treated by your local Vet.

**Young Pigs Root Each Other.**—Have nine pigs that are eight weeks old which are inclined to root each other. T. S., Reed City, Mich.—Apply vaseline to itchy parts of body twice a week. Give them some cooking soda in their feed three times a day, one teaspoonful divided between the nine will be about right.

**Get more milk**  
by giving your cows my Stock Powders daily. They put the digestive system in A-1 condition to get the full value from feed.

**Dr. LeGear's Stock Powders**  
are a splendid condition powder and regulator for domestic animals, and should be fed daily this year especially, because of the soft corn and bad feed.

It will pay you to use my Powders daily with all your stock, to prevent disease and expel the worms. A splendid remedy for coughs, colds, distemper, etc. My own prescription from 26 years' Veterinary experience. Try my Stock Powders at my risk—if they don't benefit your stock, the dealer will refund your money.

**Dr. LeGear's Poultry Powder**  
will make your hens lay more and keep disease away. Over 40,000 dealers sell Dr. LeGear's Remedies—never sold by peddlers. Ask your dealer for them. Also ask him or write me for my 112 page Stock and Poultry book free.

Dr. L.D. LeGear Med. Co. 712 Howard St., St. Louis, Mo.

*A user writes: "I began feeding Dr. LeGear's Stock Powders to 25 cows, and in 2 weeks they gained 16 gal. per day."*

Dr. L.D. LeGear V.S. (In Surgeon's robe)

Dr. LeGear's Stock Powders  
25c. 50c and \$1 packages.  
25-lb. pails, \$2.50.  
100-lb. barrels, \$9.00.

**My Book**  
**How to Break and Train Horses**  
**FREE**

**BIG MONEY IN "ORNERY" HORSES**

MY free book will amaze you. See the big money that is being made by those I taught my famous system of horse breaking and training! Wild colts and vicious, unmanageable horses can be picked up for a song. By my methods you can quickly transform them into gentle, willing workers and re-sell them at a big profit. You can also earn fat fees breaking colts and training horses for others.

**Write!** My book is free, postage prepaid. No obligation. A postcard brings it. Write today.

Prof. JESSE BEERY 461 Main St., Pleasant Hill, Ohio

**Two Men Held for Manslaughter One Woman Killed in Stolen Car**

Lincoln Moore, of Pontiac, went to the Baptist church on the evening of December 31st, driving his Ford car. The car was taken while he was attending services. The next day Mrs. B. Kulenwiesz and three men, while riding in this car near Rockwood, Michigan, ran into a ditch, which caused the death of the woman. The two men were arrested on the charge of manslaughter and taken to Detroit.

The automobile was insured in the Citizens' Mutual Automobile Insurance Company; therefore, the loss is covered.

With 4,000 cars in Michigan stolen each year, every person should cooperate to see that the guilty are punished. No part of the state seems to be safe. That is the reason that over 15,000 car owners have been insured in the Big Mutual, of Howell, during the year 1917.

**LIME**  
Pulverized lime rock for "sour" soils. WE SELL YOU DIRECT. Shipment from our Muskegon, Mich. yard. Write for sample, literature, analysis and price.

LAKE SHORE STONE COMPANY.  
P. O. Box 175, Milwaukee, Wis.

**For Sale, Used and Rebuilt Machinery**

22 H. Peerless, steam traction engine.  
22 H. Stevens, 22 H. Wood Bros., 22 H. Gaar-Scott, 20 H. Baker, 20 H. Huber, 20 H. Rumley, 18 H. Gaar-Scott, 18 H. Pitts, 18 H. Huber, 18 H. Nichols and Shepard, 18 H. Russell, 18 H. Baker, 18 H. Wood Bros., 16 H. Pitts, 16 H. Nichols and Shepard, 15 H. Case, 12 H. Case, 30 in. and 32 in. Advance grain threshers, 28 in. and 36 in. Case steel frame grain threshers, 30 in. and 34 in. Pitts, 32 in. Wood Bros., 32 in. Aultman-Taylor, 33 in. Port Huron, 15x22 Ann Arbor haling press, Hix Whitman, Hix Ohio.

Write us for complete used machinery lists. Also for new catalog of Greyhound machinery.

**The BANTING MFG. COMPANY**  
114 Superior St., TOLEDO, OHIO

**"Canada" Field Peas Mammoth Clover Seed**  
**EDW. E. EVANS**  
West Branch, Mich.

**HAY** Ship To The Old Reliable House  
Daniel McCaffrey's Sons,  
623-625 Wabash Bldg., Pittsburgh Pa.

**EGGS:** We are paying good premiums for new-laid Eggs, either Whites or Browns. Write us for particulars. AMERICAN BUTTER & CHEESE COMPANY, Detroit, Mich.

**SWEET CLOVER**  
White Blossoms; the greatest money-making crop of today. Big money for the farmers who grow it. Builds up land rapidly and produces heavy, money-making crops while doing it. Excellent pasture and hay; inoculates land for alfalfa. Easy to start; grows on all soils. Our seed all best scarified, hulled, high-germinating and tested. Quality guaranteed. Write today for our big, Profit-Sharing Seed Guide, circular, free samples. Address  
American Mutual Seed Co., Dept. 31, Chicago, Illinois

**FREE PLANT BOOK** about our Strawberries and other small fruits. We guarantee our Hardy Northern Grown Plants to please. Our system of selling direct SAVES you MONEY. ST. JOSEPH NURSERY, 1204 Main St., St. Joseph, Mich.

**Salesmen** To sell paint, varnish and roofing to the consumer. Write today while the best territory is open. THE AMERICAN OIL & PAINT CO., 541 Euclid Ave., Cleveland, Ohio.

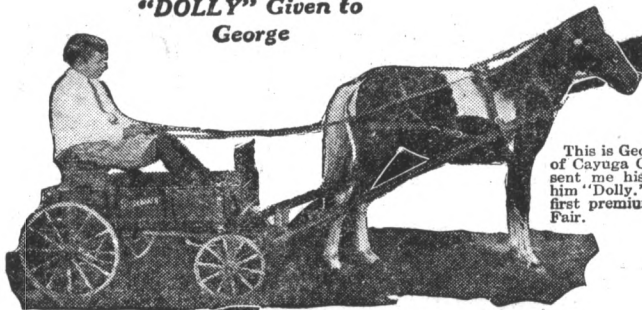
**Profitable Employment**

Use your spare time profitably by representing the Michigan Farmer in your neighborhood. You can work up a pleasant and profitable business taking care of new and renewal subscriptions for us. You will be interested in our special literature and attractive subscription rates. Address,  
**THE MICHIGAN FARMER,**



# Who Wants a Pony?

**"DOLLY" Given to George**



This is George Edwin Adams of Cayuga County, N. Y. He sent me his name and I sent him "Dolly." "Dolly" took the first premium at the County Fair.

**"EARLY BIRD" Given to Edwin**



The Pony on the right belongs to Edwin Larson, Worcester County, Mass. Edwin and "Early Bird" like to take their friends out driving.

**"TRUSTY" Given to Raymond**



The Pony above is "Trusty," that I sent to Raymond Krueger, Washington Co., Minn.

**"HEINIE" Given to Clarence**



The boy above is Clarence Niemoeller, Bartholomew County, Ind. Clarence sent me his name and I sent him "Heinie." Clarence says he would not take \$1000 for "Heinie."

## Over 500 Ponies Given to Boys and Girls

We have given away over 500 Shetland Ponies to Boys and Girls, all over America.

Now we are going to give away several more ponies—the finest we could buy—and we want every family that takes this paper to stand an equal chance.

### Every Boy and Girl Has the Same Chance to Get One of These Ponies

No matter where you live, no matter how young, every Boy and Girl has the same good opportunity to get one of these Ponies without a cent of cost.

If you are a Boy or Girl send in your name. If you are the Father or Mother of a Boy or Girl, send in your child's name. Remember, no charges of any kind and nothing to buy. Just send in your name.

### Pony Pictures Free

As soon as I hear from you I shall send you at once a number of Pony Pictures showing the Ponies we are giving away, and telling all about them; also pictures of many of the Ponies we have given away and the Boys and Girls to whom they were given. I will also tell you how to get one of these Ponies without paying a cent.

### If You Want a Pony—Send Your Name

If you ever want a Pony in your life, don't put off this splendid chance. It may never come again. We have actually given away over 500 Ponies. I am known as the Pony King, because I have given more Ponies to Boys and Girls than any other man in America.

Fill out the coupon in the corner below, or just write your name, address and age on a Postal Card and send it to me. Do it today before you forget it.

### The Pony King

323 Webb Bldg., St. Paul, Minn.

**"KIP" Given to Anna Ruth**

Here you see Anna Ruth Miller of Logan County, Ohio, and her new friend "Kip." Anna Ruth says she is glad she sent me her name because "Kip" is the finest Pony in the whole state of Ohio.



It looks as though Ruth and "Mac" were also training for the circus. Ruth says he sticks his nose into a bag of pop-corn whenever he sees a pop-corn stand. Ruth Mead lives in Salline Co., Missouri. She sent in her name and received "Mac."

**"MAC" Given to Ruth**



**"PAT" Given to Flossie**



Little Flossie Meredith looks as though she is training for a circus, but she is just having good times with "Pat," the Pony I sent her. Flossie lives in Jasper Co., Iowa.

**Pony Pictures Sent Free**

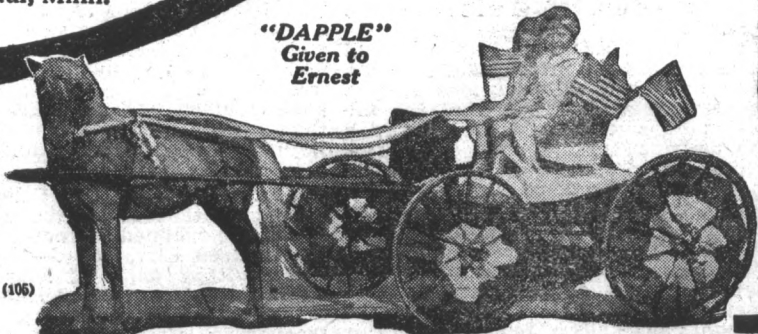
### Write Your Name Here

THE PONY KING, 323 Webb Bld., St. Paul, Minn. Please send me the Free Pony Pictures and enter my name in your Pony Club. I want to get one of the Ponies you are giving away.

My Name is .....  
 P. O. .... Age.....  
 State..... R. F. D.....

The Pony on the right is "Dapple," a beautiful little Shetland that I sent to Ernest Heckert, York County, Pa. "Dapple" traveled over 1000 miles to his new home. The picture shows Ernest driving "Dapple" in a Memorial Day parade in the little buggy that I sent with "Dapple."

If you want a Pony like "Dapple" you had better send me your name right away.



**"DAPPLE" Given to Ernest**