

MICHIGAN FARMER

AND
LIVE STOCK
PUBLISHED WEEKLY.

JOURNAL.
ESTABLISHED 1843.

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

VOL. CLJ. No. 22
Whole Number 4021

DETROIT, MICH., SATURDAY, NOVEMBER 30, 1918

{ \$1.00 A YEAR
{ \$3.00 FOR 5 YEARS

More Trees for Michigan

By L. A. CHASE

PEOPLE who may believe that the state departments are dens of corruption and that state officials spend their time chiefly in shooting quids of tobacco at high-priced waste paper baskets, may come to have a better opinion of the activities of the state government, if they take a little journey around the commonwealth, as I did last month, to get glimpses of government in operation.

The plain citizen really owes it to himself and Michigan just to do that thing once in a while. Officials will be pleased at his interest; it may tone them up a little; and when the muck-rakers get busy, the personally conducted investigator of public affairs will not be at the mercy of whatever sensational story the muck-raker pulls off. Just one little corner of the state's work I wish to describe, because I do not think it is sufficiently well known to the good people of Michigan. I refer to the state forest and tree nursery at Higgins Lake, Crawford county.

One reaches the Higgins Lake Nursery by road—good and otherwise—from Roscommon some ten miles away. After undulating through the sands of the northern pine country, on a narrow trail through the bush, one emerges on a pleasing little cluster of modern buildings. These buildings belong to the state. They house the persons, live stock and tools employed in the work of the forest and nursery. Beyond the splash of gray and red which these structures introduce into the landscape, one gets a glimpse of Higgins Lake—a very considerable body of aqua pura (in the purest sense of the term). A refreshing breeze puffs across the lake, and the sound of rushing waters comes from beyond the brow of the hill—the right environment for a real vacation one at once perceives. And all this belongs to the people of Michigan. It is managed

by the Public Domain Commission for the present and future good of its citizens.

The Higgins Lake forests comprise some thirteen thousand acres. There are six other such forests, some of which are considerably larger than this one. Still other forests can be established out of the forest lands still own-

ed of them. The smallest sizes represent only the growth of the present year, having been brought up from seeds planted in the spring.

The procurement of these seeds is an interesting process. They come from the cones gathered from the parent trees. And who gathers the cones? Sometimes employees of the nursery or

uses of the tree nursery. It is the cheapest and most convenient way. The squirrels do not strike for higher wages; they are on the job every autumn; nor are they left to starve for there is plenty of provisions left for them. The fact is, like some people, they stock up far beyond actual requirements and they can well afford thus to assist the state in the good work of providing more trees out of which will come a greatly increased source of cones for future generations of squirrels to feed upon.

Sometimes the seed is bought of dealers in the usual way; but State Forester Marcus Schaaf approves this combination with squirrels as the cheapest and readiest mode of acquiring the nursery's supply for planting. The opinion of the squirrels has not been ascertained. When gathered, the seed-bearing cones are slightly roasted to facilitate shelling, and are rolled in a revolving drum to shake out the seeds, which are then collected and cleaned. Although Michigan once had a magnificent growth of white pine, there are exceedingly few persons in the state who ever beheld a bushel of white pine seed. Many bushels may be seen at Higgins Lake forest.

Out of the original bed—shall we say "cradle"—the diminutive conifer is removed either to other beds where it is afforded more room for expansion and grows into hedge material; or it is transplanted directly into the forest area of the reserve where, surrounded and shaded by small second-growth stuff it starts on its long life-journey to maturity. Many thousands of acres of state lands have been thus replanted. Some day the wood-using interests of the state will be glad this has been done.

It takes many years to make a marketable white pine, and, although white

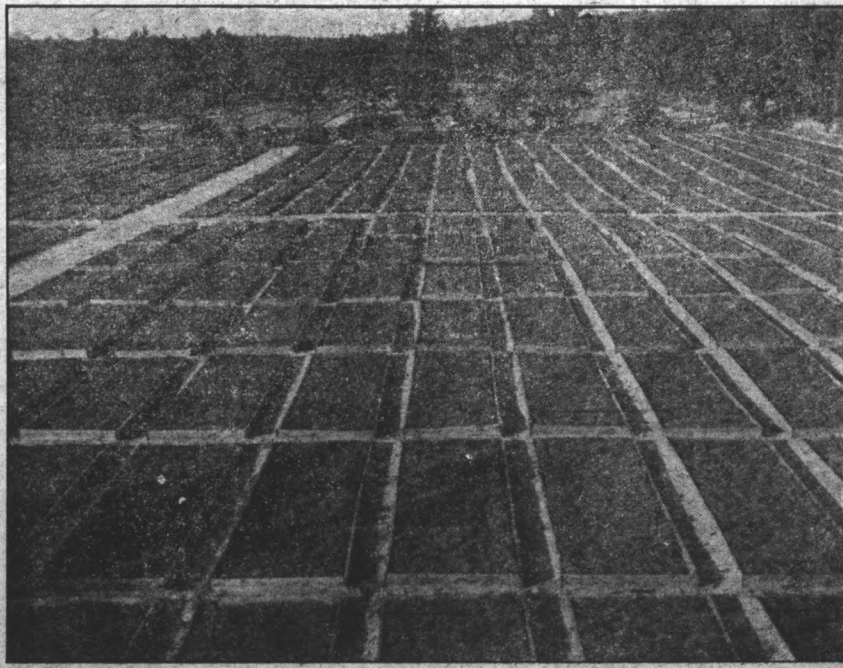
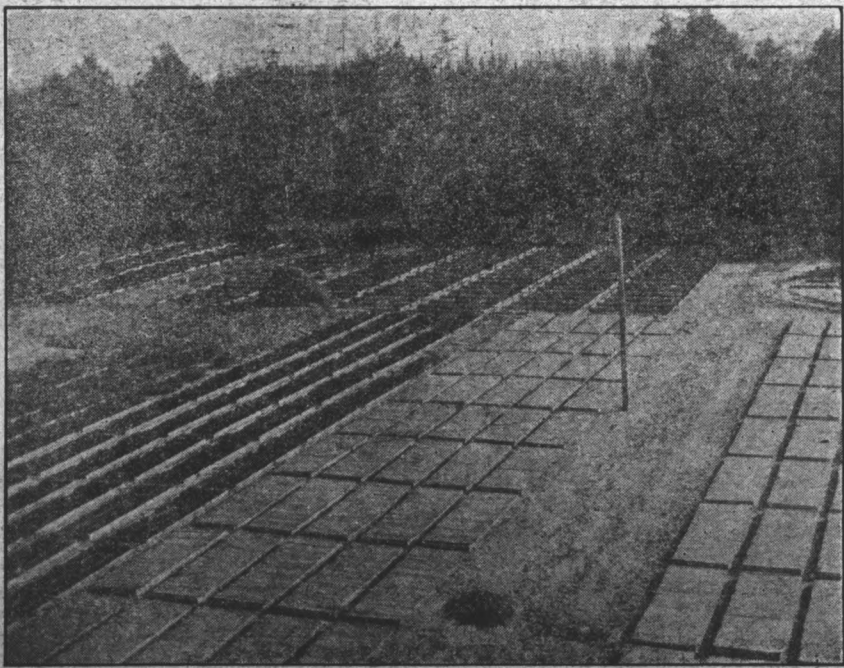
(Continued on page 524)



A Fire Lane Through the Ogemaw State Forest.

ed by the state, when the legislature affords necessary financial resources. At Higgins Lake in addition to the usual features of a forest, the Public Domain Commission maintains on a twelve-acre tract a nursery for young trees—pines, spruces, cedars and kindred types. These young seedlings provide the stock out of which the treeless and cut-over lands still possessed by the state, are being steadily reforested, and from which also private persons may acquire at cost the means of reforesting their holdings. The seedlings are found in small rectangular beds containing perhaps four or five thou-

other persons, but more commonly the initial work is done by squirrels. In the fall squirrels are provident against the coming famine-time of winter, and they lay in a stock of seed-bearing pine cones for sustenance. The food administration has not restricted the quantity of their winter supply and in some instances this is astonishingly large. I have heard of as many as eighty bushels of such cones, cached by squirrels for the winter, being discovered in a single afternoon's hunt, for, it must be said, these caches of pine cones made by the squirrels are systematically appropriated for the



State Nurseries at Higgins Lake. The Production of Good Nursery Stock is the First Practical Step in Our Big Problem of Reforestation.

The Michigan Farmer

Published Weekly 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—1011-1015 Oregon Ave., N.E.
PHILADELPHIA OFFICE—261-263 South Third St.

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

L. R. WATERBURY..... Associate Editors
BURT WERMUTH.....
FRANK A. WILKEN.....
ALTA LAWSON LITTELL.....
LEROY W. SNELL.....
W. MILTON KELLY.....

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

TERMS OF SUBSCRIPTION:

One Year, 52 issues.....\$1.00
Two Years, 104 issues.....\$1.50
Three Years, 156 issues.....\$2.00
Five Years, 260 issues.....\$3.00
All sent postpaid.
Canadian subscription 50c a year extra for postage.

RATES OF ADVERTISING

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 Post Office at Detroit, Michigan, Under the Act of March 3, 1879

VOLUME CL. NUMBER TWENTY-TWO

DETROIT, NOVEMBER 30, 1918



CURRENT COMMENT

Next Year's Farm Problems

FARMING Problems in 1919," is the subject of an appeal recently addressed to the farmers and the agricultural forces of the country by Secretary of Agriculture Houston, the text of which is as follows:

During the period since we entered the war the farmers of the nation have responded magnificently to the appeals for increased production, and all the people have complied with the urgent requests for fuller conservation. During this present fall season our farmers have planted an increased wheat acreage and a large acreage in rye. It is too early now to make detailed suggestions for the spring planting season. We do not know how the fall grains will come through the winter and we are not now able to forecast the demands and the conditions which will prevail after the first of the year.

This Department, the agricultural colleges and other organizations will continue to give definite thought to all the problems, and at the proper time will lay the situation before you.

Two things seem to be clear:

One is that for a considerable period the world will have need particularly of a larger supply than normal of live stock, and especially of fats. We should not fail, therefore, to adopt every feasible means of economically increasing our live stock products. As a part of our program we should give due thought to the securing of an adequate supply of feed stuffs and to the eradication and control of all forms of animal disease.

The other is the need of perfecting the organization of our agricultural agencies for the purpose of intelligently executing such a program as may seem wise. We should not only have the best possible organization and co-operation of the Department of Agriculture, the agricultural colleges, the state departments of agriculture and farmers' associations, but we should especially strengthen the local farm bureaus and other organizations which support so effectively the extension forces and assist them in their activities. The perfecting of this organization is highly desirable not only during the continuance of the present abnormal conditions but also for the future. The local as well as the state and federal agencies are of supreme importance to the nation in all its activities designed to make rural life more profitable, healthful and attractive, and, therefore, to secure adequate economic

production, efficient distribution and necessary conservation.

The main purpose of this appeal is to direct attention to the necessity of continuing our state of preparedness and of strengthening the foundations of our agriculture.

Truly the farmers of the country have responded heroically to the country's need in their food production campaign for 1918. Under the handicap of a serious labor shortage, they have produced what may be classed as record crops of essential food stuffs. They realized that this was essential to the winning of the war, and they would have continued to make any sacrifice necessary to keep food production up to the high mark for that patriotic purpose, even under more serious handicaps had the war continued for another year or longer.

But now that the war has been won the farmer's plans will be made, and very properly so, on a business, rather than a patriotic basis. With the winning of the war and the coming of peace, it is the proper function of the Department of Agriculture, the Agricultural Colleges and the extension workers to advise the farmers of the country regarding the world supply of food stuffs and the probable relative demand for different classes of foods which may be expected with the coming of peace, rather than to inaugurate or conduct "drives" for increased production along any given line. It is likewise the proper function of the agricultural press to keep the farmers of the country informed regarding the world conditions which should be taken into consideration in the planning of future production campaigns. This does not mean that the humane relief of the people of starving Europe, including the inhabitants of the central empires, should not be given consideration by the government and people of the United States, but rather that such relief should be considered as a business problem, rather than a purely charitable proposition, and carried out along sound economic lines rather than by further appeals to the patriotism or humane instincts of American farmers. This attitude was reflected to a commendable degree at a conference of agricultural editors called at Washington last week by Secretary Houston and if properly developed and maintained will afford the farmers of the country the greatest possible aid in solving their production problems.

The two points made in Secretary Houston's appeal as above published are worthy of the careful consideration of every farmer. From an economic standpoint our farmers cannot afford to overlook the opportunities for profit in live stock production during the next few years. With a pronounced world shortage of live stock products, particularly of animal fats of all kinds, there can be no more promising line of production for American farmers. The first step taken by the countries of Europe to replenish their depleted larders will naturally be the increased production of grains and vegetables, since a given acreage will produce the largest possible amount of human food by being thus utilized. Whether the flocks and herds of Europe have been sacrificed to the extent which has been commonly supposed is an open question. No accurate information is available regarding conditions in the central empires, but there is some reason to believe that the depletion of the live stock of other countries is more apparent than real. But if the live stock has been largely saved, live stock products have fallen to an exceedingly low point due to the lack of sufficient feed to do more than keep the animals alive. Thus normal production cannot be quickly resumed in any event and there is certain to be a large demand for live stock products of all kinds for a very considerable period, even if the large demand for breeding stock for foundation purposes which some are expecting should not materialize.

The other point emphasized in the secretary's appeal is of even greater general importance. The thorough organization of all beneficial agricultural agencies is most desirable, and such organization as is apparently contemplated in this appeal may well be supplemented by a working organization of the farmers included in these varied organized activities, whose purpose it would be to secure the cooperation of all these beneficial agencies in the collection and dissemination of information which would give to agriculture proper recognition and the consideration which it merits during the trying reconstruction period. To this end we could do no better than to develop a state and national chamber of agriculture, based on the county farm bureau as the local unit.

Live Stock Economics Visualized

Michigan farmers than ever before. The possibilities for profit in live stock production were never better, and a broader knowledge of the live stock business more fundamental to the future prosperity of Michigan farmers than at the present time. For this reason no possible means of increasing his knowledge of the live stock business should be neglected by any progressive farmer at the present time.

Of all available opportunities of increasing one's store of knowledge regarding every phase of the live stock business the International Live Stock Exposition, which will be held at the Union Stock Yards, Chicago, from November 30 to December 7, inclusive, is undoubtedly the greatest. Here live stock economics are visualized as nowhere else in the world. Here the choicest products of the breeder's and feeder's skill are exhibited in competition. Here the results and the methods by which they were attained can be seen first hand. Here is to be found a source of inspiration as well as knowledge for every farmer who is a breeder or feeder of live stock, as all farmers should be to some degree at least.

In addition to the benefit to be derived from the great live stock show a visit to the International offers opportunity for a first-hand study of live stock market conditions in the stock yards, as well as a visit to the great packing plants and allied industries which depend on live stock for their raw material. Altogether the International is an object lesson in live stock economics which no farmer who can possibly arrange to attend it can afford to miss. Take a needed vacation after the strenuous season's food production campaign and attend this great "Food Production Camp" next week.

Lifting the War Lid

AS a means of concentrating productive resources of the country on essential war work, the government found it necessary to impose restrictions on every kind of business, to the end that material and labor might be available for production essential to the winning of the war. Fortunately the business of farming suffered less by direct restriction than any other line of production, due to the fact that agricultural products were among the vital essentials for the winning of the war, and such restrictions as were imposed have been among the first to be lifted by the War Industries Board. One of the most important of these restrictions limited building operations on farms to the construction of new buildings not exceeding \$1,000 in total cost and of necessary repairs and alterations to a cost of \$2,500. This restriction has been entirely removed and materials can now be secured for the carrying out of any needed building

program on the farms of the country. Another restriction of far-reaching importance limited the amount of agricultural lime which any farmer could purchase without special permit to one ton. This restriction has also been removed and farmers can now secure all the lime needed for application to the land.

Farmers were also handicapped to a very considerable degree by restrictions placed on manufacturers of materials and equipment needed in their business. These restrictions are being lifted as rapidly as conditions will permit and will not long remain a handicap to agriculture.

Restrictions limiting publishers in the use of white paper have not yet been lifted, but there is a prospect that they may be in the near future, when your Michigan Farmer may assume its wonted proportions.

FARMERS' CLUBS PUT ON A GOOD PROGRAM.

Following is the attractive program of the Michigan State Association of Farmers' Clubs for their Twenty-sixth Annual Meeting, to be held in the Senate Chamber, Lansing, December 3-4: Tuesday, 9:00 A. M., December 3. Registration; Payment of Dues; Presenting Credentials; Appointment of Committees; Presentation of Resolutions.

Tuesday, 1:00 P. M., Agricultural Session.

Hon. C. B. Scully, Chairman, Almont. Invocation—Rev E. W. Bishop Solo—Melvin Hart, Howell; accompanist, Miss Esther Newcomb. Report of associational secretary—Mrs. Joseph S. Brown, Howell. "Efficiency and System as Palliative for the Farm Help Shortage," Hon. A. B. Cook, Owosso. Reading—Mrs. Claude A. Burkhart, Howell. "Marketing," Mr. Hale Tennant, Federal Field Agent, East Lansing. Solo—Melvin Hart, Howell; accompanist, Miss Esther Newcomb.

Tuesday, 6:30 P. M., College Evening at Woman's Building, M. A. C.

Toastmaster—Hon. I. R. Waterbury, Detroit. President's Address—Hon. C. B. Scully, Almont. Program in charge of President Frank S. Kedzie.

Wednesday, 9:00 A. M., Agricultural Session.

Club conference of delegates, directed by Vice-President Edgar Burk, St. Johns. Solo—Melvin Hart, Howell; accompanist, Miss Esther Newcomb. "The Farmers' Need of a State and National Chamber of Agriculture," Hon. James N. McBride, State Market Director. Remarks—Hon. Colon C. Lillie, of Coopersville, E. A. Illenden, Adrian. Reports of committees—Temperance, Honorary Members, Club Extension, Credentials, National Affairs, State Affairs, Legislative. Treasurer's report. Election of officers.

Wednesday, 1:00 P. M., Patriotic Session.

Opening address—Governor A. E. Sleeper, Michigan War Governor. Industrial School Military Band. Address, "On Child Welfare," speaker from U. S. Department of Labor, Children's Bureau, Washington, D. C. Solo—Melvin Hart, Howell; accompanist, Miss Esther Newcomb. Reading—Mrs. Claude A. Burkhart, Howell.

"The Issues of the World War," Rev. Alfred W. Wishart, Grand Rapids. Address—Commander Truman H. Newberry, U. S. Senator-elect and Commander of New York Navy Harbor.

Industrial School Military Band. Wednesday, 7:00 P. M., Patriotic Session.

Industrial School Military Band. "Women and Democracy," Estelle Downing, Ypsilanti. Solo—Melvin Hart, Howell; accompanist, Miss Esther Newcomb. Reading—Mrs. Claude A. Burkhart, Howell. "Michigan Boys in War," a Soldier Boy.

Address—Hon. H. S. Earle, U. S. Federal Director of Boys' Working Reserve. Industrial School Military Band.

The associational secretary requests the secretary of each local club to send in report blanks immediately so that the information may be included in the annual report. Address same to Mrs. J. S. Brown, 914 North Division Street, Howell, Mich.

Good Roads a Farm Asset

By I. J. Mathews



I HAVE just returned from a tour over more than five hundred miles of Michigan roads and there are a number of things that may well be mentioned concerning them. I do not pretend to be a highway engineer, but many points are obvious to the tourist that may not be so obvious to the men who are building the roads. The trip I have mentioned took me over roads of all kinds, descriptions, and constructions from stone, sod, and sand.

When the ideal road is built, it will be a road that absolutely will not wear out. The cement roads come the nearest to this ideal road because they do not need repairing often. The roads made of stone or asphalt are fine as long as they are new, but as soon as they become worn, they are rather disagreeable. Moreover, the spots that have become worn and rutted are very difficult to remedy. On a number of roads of this type that had been repaired, the spot which had been renewed seemed harder than the rest of the road and to all intents and purposes was an obstruction to wheels. Moreover, on each side of the repaired portion, the wheels of the passing machines have dug ruts. Repaired portions were filled with ruts and it seems that all the commonly used means of repairing are not satisfactory.

The methods used to repair the stone roads have not been uniformly successful either. First, a chuck hole is worn into the road. Then by way of repairing, some loose crushed stone is put into this hole and while it is filled up some from the bottom, nevertheless the hole is not filled level full with the consequence that the rut is only continued and made much longer and larger, although it may be shallower. When the stone roads are first built, they are very fine, both for driving and hauling heavy loads, but as soon as they get filled with ruts, they also are very unpleasant, especially for those in the back seat. We did not find any old stone roads that were in a good state of repair. Repairing a stone road with more finely crushed stone is not successful. The only successful job was where a stone road had been repaired with asphalt.

A gravel road is a good road when dry, but when wet, it is likely to be no road at all. One of the tests of a good road is whether or not it will shed water. The gravel road has an advan-

tage over the other types mentioned, however, in that it can be easily kept in good condition if enough time is put upon it in the form of repair work. The road drag used often and thoroughly, is about all that is needed to keep a gravel road in good shape.

Road Drag Essential.

Really, though, after all, just ordinary soil makes a good road if the trusty road drag is used sufficiently. We passed over one ordinary earth road that was as good as any of the gravel, but we accidentally found out that this road runs through a neighborhood in which good roads have become a hobby. The neighbors along a certain road got together and agreed that one of their number should be foreman. They further agreed to give this road a course in road-dragology after each rain. So when it comes time to drag this road, the foreman notifies the next man on the list and he drags the road. In this way each

man contributes his share towards keeping the highway in repair. These people take pride in this road and it is a pleasure to see how proud they are when a stranger notices it.

So much for the roads. In all that has been said, there may not be much of a point. I was, however, struck with the fact that progress follows the good roads. In other words, it is impossible for a numbskull to live on a good road very long. Either he has to change his mental condition or his residence, and most people find it easier to do the former.

The very late autumn is not an ideal time to make roads. In order to get good highways, ones that are quickly passable and quickly packed, it is necessary to do the road work in the early fall. Then come the fall rains beating the earth down and the dry spell which usually follows gives opportunity for traffic to further firm the loose earth. Winter comes on apace and when the snow goes off in the spring, once over with the road drag puts the highway in fine condition. Much of the road-work now done is done at a time when it greatly discommodates traffic in getting crops to market. In Kent county, there was a regular highway gang which does nothing else but go from one place to another building roads. This seems to be an

condition of the road. In one county I came upon a road which was nearly impassable, yet there was nothing whatever to designate the road as abandoned. Some of the roads being repaired were positively impassable and many times it was difficult to turn around after the condition of the road was discovered. There ought to be a fine for going away and leaving a road under construction without plainly saying so. The most sensible sign I saw anywhere was in Barry county. This one read: "Road Under Construction. Travel at Your Own Risk."

Next to the road foreman who leaves the road a trap, is the one who cards the road as impassable without plainly indicating where to detour. Nothing is quite so disheartening to the stranger as a road marked "Closed," without directions as to where another road should have been taken.

Advertising Along Roads.

It has been said in prognostication that the advertising of farm products has only commenced to come into its own. Certainly there is a bright future for advertising, along highways especially. This form of advertising even now greatly neglected, is still more prominent now than it was a year ago. I do not alone refer to the sale of perishable products, but to cattle, horses and other stock. A tourist can take a valuable blooded cockerel along as well as he can a bushel of pears and a statement neatly placed on a barn will stay in the tourist's mind for a long time. Understand that when I say tourist, I mean farmer, because it is claimed by reliable people that the bulk of touring is done by farmers. Certainly in this particular jaunt, ninety per cent of all the machines on the road belonged to farmers, either going or coming. Printed matter on a barn is advertising, if it is neatly done and indicative of the material the farm supplies to commerce; if the printed matter is poorly done, it ceases to be advertising, it is a damage.

In summary, it may be well to again state the advantages that good roads are to the farmer. We often think of them as benefiting townspeople only, but nowadays when highway officials are actually determining the class and kind of traffic over a road before they begin construction on it, we know from their figures that good roads benefit the farmer more than anyone else.

ANNOUNCEMENT

Our New Serial

"Beyond the Frontier"

By Randall Parrish, Author of "Contraband"

Starts in Our December 7th Issue



How Many Cows and How Many Acres?

Experienced Farmers Have Found a Point in Intensive Dairying Beyond Which Profits Diminish.

By C. B. FORD



I HAVE read with great interest Mr. C. C. Lillie's discussion of the problem of intensive dairying, but I think that Mr. Lillie has cited a case of intensive dairying and avoided discussing some of the fundamental factors of the question of how many cows to keep to meet the requirements of the farm. It seems to me that the whole question narrows itself down to that of the skill of the farmer and the conditions under which he is working. Dairy profits are the result of good crops, well harvested and stored; efficient cows, well-fed and cared for. The farmer with but a few acres, from forty to eighty, may keep a select herd of cows, grow good crops, produce clean milk and find a good market for it. He may take full advantage of every fundamental of successful dairy

farming and conduct his business more economically than would be possible if he were operating a larger farm.

In regions where land has a market value of less than \$60 per acre the capital invested in land is not large enough to prohibit the use of larger areas to raise food for the cattle. In regions where the value of land is above \$200, every acre must yield maximum crops. In other words, the chief problem of the dairy farmer on cheap land is not that of raising large crops. That is an easy matter. His problem is to grow as large crops as possible without increasing the cost of production per acre beyond the point of profit. This is a phase of crop production that must be given more attention in our future farming.

Experienced dairy farmers find it

more profitable on cheap land and with present high prices for labor to keep from eighteen to twenty good cows on their forty to one hundred-acre farms than to keep more cows and practice a more intensive system of crop growing. Unless a man has a special market for his milk and cream, an intense system of soiling and silage feeding cannot be made as profitable on cheap land as the more extensive system which means less plowing, more acres of pasture and grass lands, more top-dressing with manures and, to some extent the use of more machinery. It also means keeping, not larger herds, but moderate sized herds of better cows. It means less outlay and, as the writer believes, larger net profits. On high-priced land more intensive methods of crop growing must be practiced.

It seldom pays the dairy farmer to utilize much of his high-priced land for pasture. By getting his fields in shape to produce large crops of corn, alfalfa and clover and returning the manure to the land he can produce a vast quantity of roughage on a small area of land. Fertile, high-priced land must be worked intensely to pay the interest charges, while cheap lands may be worked more extensively and more of the area devoted to pasture.

The dairy farmer with a small farm may keep labor charges down to a minimum and give his cows better care than the man who is operating a larger farm. He can raise a large amount of food for his cows on a small area of fertile land, but were he to farm a large area of high-priced land and prac-

(Continued on page 514).

News of the Agricultural World

COMMUNITY MARKETS TO SAVE PERISHABLES.

WOMEN carried off in market baskets ten tons of farm produce within two and a half hours and left \$1,500 with farmers at a market established by a county farm bureau in Massachusetts. There are now sixty open-air markets in operation in Massachusetts. Although these markets take care of only a small proportion of the farm crops, they dispose of the great mass of perishable foods which might otherwise be wasted.

CONSERVATION WEEK.

TO bring before the American people in a forcible manner the need for saving food and sharing it with the Allies and liberated nations, the Food Administration has named December 1-7 as Conservation Week. Conservation is vital to the relief of stricken Europe. Our harvest season has come and gone and whatever food is exported must come from our surplus and from our savings, very largely the latter. Certain foods such as meats, fats and dairy products, it is true, are produced throughout the year, but even these depend largely on feeds and fodder, supplies of which are limited and cannot be replenished until another harvest.

The original pledge made by the Food Administration in behalf of the people of the United States was seventeen and a half million tons of food to be shipped overseas by July 1, 1919. This amount of food is fifty per cent greater than last year. With Belgium and France liberated and millions in south central Europe clamoring for food, the United States is now undertaking to increase its exports from seventeen and a half million tons.

Conservation week as planned will include a message from Mr. Hoover to the people through churches, fraternal bodies, clubs, schools, posters, window displays and the press. An effort will be made to warn of the serious results abroad if we fail to heed the requests for continued conservation. Food we are reminded, is the only effective weapon with which to combat famine still threatening hungry millions.

WAR-CHEST FUNDS TO TEACH HOME-MAKING.

Salem, Mass., has given \$1,000 from its war chest to use for work in home economics in that section. This work in Salem will be largely under the direction of the urban home demonstration agent.

**FRUIT PITS AND NUT SHELLS NO
LONGER NEEDED.**

OWING to the cessation of hostilities it will not be necessary to continue the saving of fruit pits and nut shells or the collection of nuts.

With a desire to save the time, expense and labor attached to accumulating pits and shells, we are now instructing the Red Cross to discontinue both collecting and accumulating, shipping only carloads now ready.

W. M. JACKSON,
First Lieut., Gas Defense Division.

THE DAWN OF PEACE.

AS the mantle of peace is being spread over Europe, we must plan for the future. Planning time is already here, and in any comprehensive scheme live stock must have a prominent place.

The International Live Stock Exposition is dedicated to the task of promoting improvement in horses, cattle, hogs and sheep. It is a business problem, with the essential admixture of

sentiment. Only by active cooperation can peace problems be solved, and at the 1918 assemblage of breeders, feeders and farmers in Chicago the first week of December, these problems will be considered by men whose personal interests force them to keep abreast of the times and coincidentally operate to the advantage of the whole community.

Peace problems are squarely up to leaders in every sphere of production. After-the-war business will lack every vestige of precedent. The fact that the 1918 International occurs during the armistice that precedes return to peace conditions, makes it peculiarly opportune for consideration of prospective conditions.

The brains of the live stock industry will gather at Chicago next month, giving the meeting unusual international importance in view of the responsibility for feeding devastated Europe, which is our national legacy of the strife of the past four years.

AGENT STARTS SORGHUM MILL.

THE county agent in Buena Vista county, Iowa, found a way to handle the sorghum crop after the growers had given up the problem because of the labor scarcity. The agent located an old horse-power crusher. With the help of a retired farmer he brought it to a vacant lot where water and gas connections could be obtained from

the city. A shed of rough timber was erected and a water pipe put in from a near-by house. Gas was also piped so that it could be used for cooking and save labor. The mill is now in operation, and several tons of sorghum cane have been ground.

**MICHIGAN LAND AND LIVE STOCK
CONGRESS.**

THE keynote of the Land and Live Stock Congress, held at Grand Rapids November 21, was the reclamation of the valuable agricultural resources of Michigan for returned soldiers and industrial workers. Hon. A. C. Carton, secretary of the Public Domain Commission, in the opening address, called attention to the possibilities of the cut-over or logged-off land for stock purposes. He indicated the possibilities of the large swamp areas if drained, and urged a state drainage commission for the efficient accomplishment of this end.

Daniel Wallace, of Minnesota, told what had been done in his state in attacking the great problem of developing the resources of that state. He called attention to the necessity of a properly arranged system of credits for settlers and favored the California system of colonization. He urged co-operation among the states who have similar problems of farm settlement—Michigan, Wisconsin and Minnesota.

Mr. Francis Murray, of the Depart-

ment of the Interior, assured those present that Washington is in sympathy with the action taken by these states in making available their undeveloped agricultural lands and promised to cooperate in these efforts.

Ezra Levin, muck land specialist of the Michigan Agricultural College, briefly reviewed the possibilities of the swamp lands of the state, pointing out the possibilities, not only for intensive but for general stock farming. He called attention to what other countries had accomplished in making their waste swamp areas valuable and urged that the legislature appropriate funds to carry on investigation and disseminate information concerning the handling of these lands.

W. G. Bissell, president of the Wisconsin Advancement Association, pointed out how they accomplished things in Wisconsin. His recital of the manner in which the Wisconsin Advancement Association initiated great activity in land clearing and stock feeding on Wisconsin cut-over lands, was an inspiration to the Congress.

The necessity of a new dog law "with teeth in it," was urged by Mr. Halladay, of the Live Stock Sanitary Commission.

Following are the resolutions adopted by the Congress. They are replete with ideas that should receive the careful attention of our farmers and our legislators:

Whereas, the federal government through Secretary of the Interior, Franklin K. Lane, is now at work making plans for providing opportunity for our soldiers and sailors when they return from Europe, and has asked all public spirited citizens to lend a hand.

Therefore, Resolved, That the Michigan Land and Live Stock Congress assembled in its second annual meeting at Grand Rapids, pledges its hearty support to this all-important movement, inaugurated by Secretary Lane, and begs leave to recommend that the federal and state governments be asked to devise ways and means for the formation of a land settlement policy, together with a financial scheme sufficient for its intelligent execution, so that the cut-over lands of Michigan, Wisconsin, Minnesota, Montana, North Dakota and South Dakota can be made available for the returning soldiers and sailors, and also for any others who may wish to take up farming. Said cut-over lands to be used for the purpose for which their soils are best suited, whether general farming, stock raising, reforestation or intensive agriculture.

Whereas, Michigan has twelve million acres of undeveloped land, a large part of which is well adapted to grazing, and as it is evident to every thinking person, that the raising of live stock will help greatly in the upbuilding, especially of the northern part of the state;

Therefore, Resolved, that we as a congress, will do everything we can to encourage and promote animal husbandry, to this end we recommend that the chairman appoint a legislative committee of three to draft amendments to the law governing the licensing and registration of dogs. Said amendments to be acted on at the next session of the legislature, so that, if possible, sheep men may have more adequate protection from the ravages of the unrestricted dog.

Whereas, the county drainage system in vogue in Michigan is inefficient, expensive and does not produce the best results.

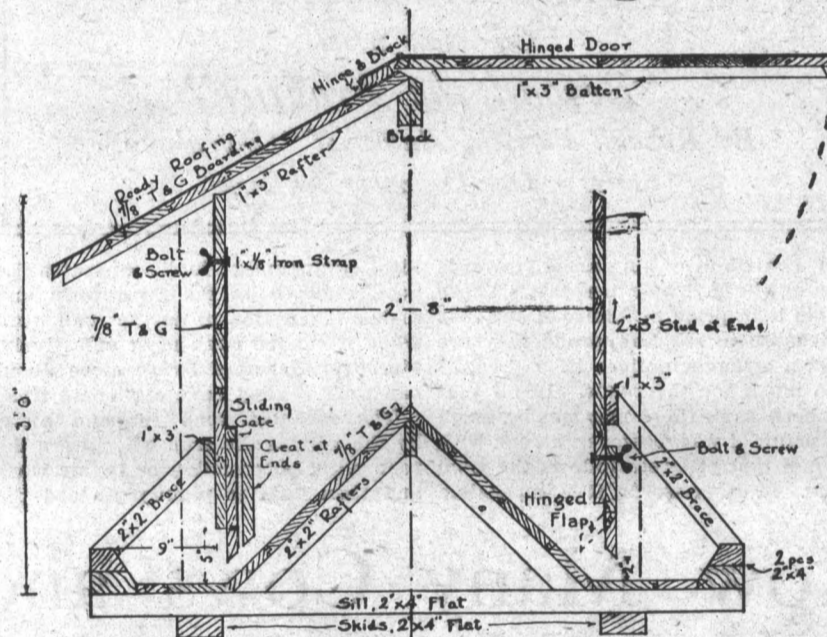
Therefore, Resolved, that steps be taken to have the state legislature enact the laws necessary for the establishment of a state drainage department, which shall have the oversight of the drainage system of the entire state, in a similar manner to the State Highway Department.

Whereas, the muck lands of the state constitute about one-tenth of its total land area, and are one of our most valuable agricultural assets;

Therefore, Resolved, that we ask the Michigan Legislature to provide an appropriation for the maintenance of a Muck Experiment Station to investigate these soils, to extend information regarding them and to provide for demonstrations showing the possibilities of our peat and muck lands.

Whereas, it is necessary to create
(Continued on page 516).

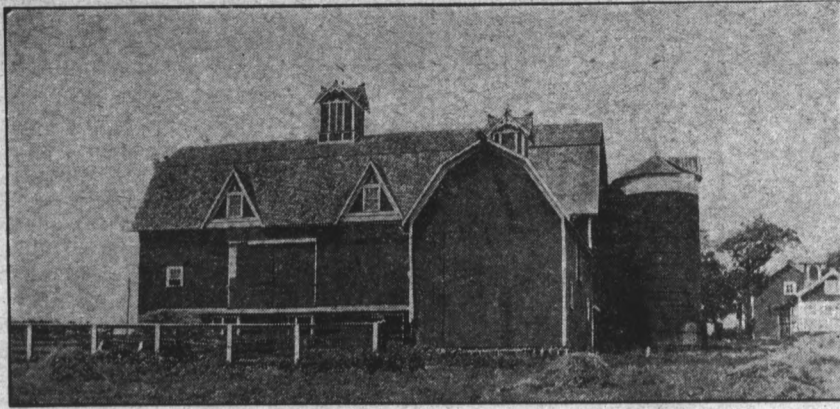
Home-Made Self Hog Feeder



Should Public Own Terminal Markets?

PUBLIC terminal markets offer equality of opportunity. From the standpoint of cooperation, this is their great advantage. There all men should be able to buy equal quantities at substantially the same prices; and the real market prices could be made a matter of public information. The consumer could know whether, as sometimes today, he was paying several times the producer's price for his vegetables. With the terminal market as a basis, a cooperative society can thrive—can meet and defeat all forms of private competition. The cooperative can do this because, first, it is as capable of being well managed as a private business enterprise; second, it enjoys to an unequalled extent that greatest of all assets to successful business, the Good Will of its customers, who are chiefly its members; and thirdly, it is not at all concerned with profits, but entirely with the well-being of its members.

In a cooperative society whose members are instructed in the principles and methods of cooperation, they will not be led away to other stores just because certain articles happen for the moment to be cheaper. In such a society, a spirit prevails such as no private enterprise can ever inspire. The manager and his clerks are veritable apostles of right dealing. They know



Cooperation Appeals to Every Class of Farmers.

the qualities of their goods and advise each customer in his own interest. They create an atmosphere of service, and the relation existing between them and the members is one of comradeship. There is a great dream coming true. The cooperative becomes the natural social center for the members and the neighborhood, and as such has greater possibilities than any social center fostered by the usual artificial means. It is capable, in its multiplication and inter-organization, of becoming the great, all inclusive civic center—a kind of re-directed Roman Forum, where food and taxation, clothing and

city budgets, houses and politics will, in cooperative phraseology, be distributed for use and not at all for exchange. Goods will pass directly to the point of consumption.

We must not fail to grasp the vital importance of organization on a strictly cooperative basis. No other guarantees absolutely against exploitation—against the schemings of profiteers. No other can gain and hold the complete and unswerving confidence of the people. No other can surely exist beyond the life of a favoring political administration. Cooperation can perpetuate the efforts of the administra-

tion that lends it a hand; but can keep aloof from demagoguery; and from the disintegrating effects of selfish politics. Terminal markets organized cooperatively will be works of statecraft so far as the government, civic or national, lends its hand to them.

Cooperation can only come through cooperators. It can only come through people who are tired enough of inefficiencies and bamboozlements to try to help themselves, and who can be told something of the right method. To make cooperators, however, requires education. When we realize that a people educated to work together as cooperators have hold of a principle which makes them see clearly in all fundamental matters pertaining to business and to self-government, we cannot fail to urge training in cooperation as the best preparation for citizenship. It has truly been said that the cooperative man is the aim and goal of evolution; and, as things point in the world today, those nations are going to take the lead whose citizens know best how to live and work together with a common purpose.

The organization of cooperative societies and their federation will prove the most effective means of lining the people up behind the movement for terminal markets and behind the problems of distribution and production.

Dollars From the Goose Pond

THE high prices of poultry products have called increased attention to the value of geese on the general farm, especially farms which have a stretch of marsh land or low-lying meadows, with a pond or stream. Geese are the cheapest of all poultry to raise. They grow to large size, are easily fattened, and always are in demand at Christmas time. With the decreasing supply of turkeys, geese are becoming especially important as holiday birds.

There is no reason why the raising of geese should not become much more general, not necessarily in a large way, but for the purpose of obtaining inexpensive meat for the table, and as constituting a side line not requiring very much attention. The consideration of goose raising is of importance just now because the time to mate geese is shortly before or just after the turn of the year. Geese and ganders like to become thoroughly well acquainted some time before the breeding season opens. It is best to mate the birds in trios. When once mated, geese remain loyal for years.

Do not try to breed geese that are less than two years old. They may be considerable older than that and still be profitable. It is well known that geese are long-lived birds. Those which have passed the half-century mark are sometimes pointed out. It is not advisable to keep them too long, however, as they develop pugnacious habits in their old age, and are able to inflict serious damage with their large, powerful wings. Still there is no reason why good breeding geese should not be kept on the farm until they are ten or twelve years old. It is best to get rid of the ganders, though, after they are five or six years old, for after that age they become cross and unruly.

The fact that geese remain profitable for breeders such a long time facilitates the business of goose growing, for all the young birds raised each year can be disposed of. It isn't necessary to raise new breeding stock each year, as with hens and ducks.

Geese do not necessarily have to have water in which to swim, but need a deep drinking dish into which they

can dip their long beaks. At the same time it is an advantage to have a little pond or running stream at hand. The principal point, though, is to have good pasturage, for geese are grazing animals. They will get most of their living from a meadow or a marsh which

is not too wet. The birds must not be kept on low land all the time, though, for they need higher ground for spending the night. They sleep on the ground, of course, and should have a rough shelter during the winter. No

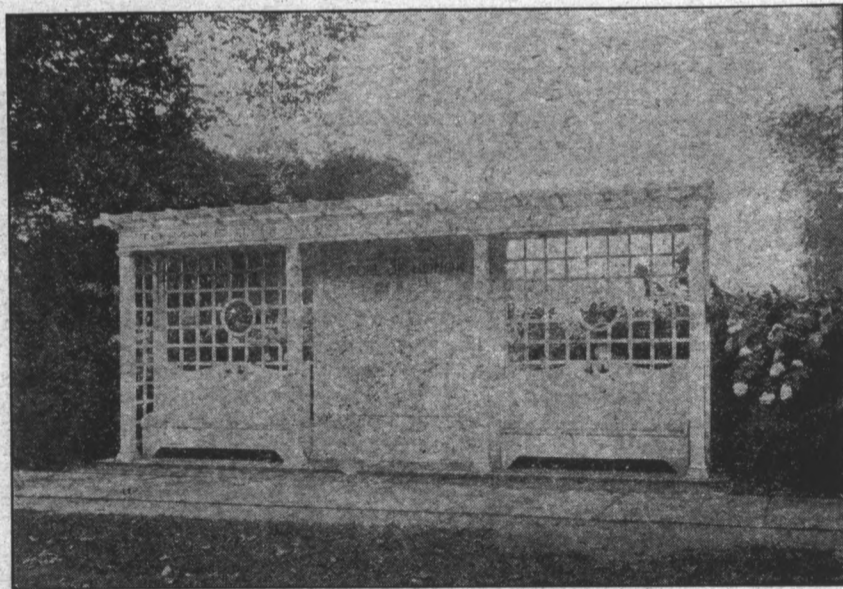
such houses as are required for poultry or ducks need be furnished for the from high winds and storms. As a matter of fact, they will go through a heavy snow storm in the open air without much suffering, simply turning their tails to the storm, tucking their feet under them, and making themselves into as small a ball as possible. Everybody who has tried to pick a goose knows that they carry an extremely warm, thick body covering. It is because of this fact that goose feathers are so valuable and are so widely used in commerce. They are the most highly prized of all the feathers which come from domestic birds, selling for about seventy cents a pound at the present time. They do not carry the objectionable odor which is found in ducks' feathers, and are more easily prepared for market. The practice of pulling feathers from live geese is not followed so extensively as it used to be. It is not particularly a cruel practice, though, if the work is done when the feathers are so ripe that they come out without drawing blood, and if the weather is not cold. As a rule, though, there is not enough profit in live goose feathers to pay for the labor of plucking them, as conditions are now.

If you get fifty eggs from a goose, you will be doing well. More often you will get only twenty, especially if you are keeping Emdens, which, although among the best market geese, are poor layers. Emdens and Toulouse are the breeds most commonly kept on farms, if we except cross-breeds, which unfortunately are most common of all. Most of the breeds are good setters, but the first eggs laid are usually removed and given to hens. Otherwise the geese will stop laying. Laying and setting geese are easily disturbed and broken up. Even when taking away their eggs, it is best to leave a few china eggs as substitutes. Barrels on their sides in the underbrush make very good nesting places, which will usually be used if placed in inviting positions. Don't give a hen more than five goose eggs if you want to get a good hatch. If the weather is very dry you may find it advisable to moisten the eggs once or twice near the end of

(Continued on page 527).

A Commendable Custom

By E. I. FARRINGTON



PEOPLE who have visited New England and other eastern states during the last few months have been interested in the custom of erecting Honor Rolls, which has spread rapidly and is likely to be taken up in this part of the country. In some towns these Honor Rolls are very simple and inexpensive. In others, they are elaborate and somewhat pretentious, often costing several hundred dollars. In each case they contain the complete list of young men from the town who have gone into the army. Sometimes the list has grown so rapidly that it has been necessary to reduce the size of the lettering in order to get all the names on. In other cases wings have been added to make room for the extra names. Sometimes an architect has

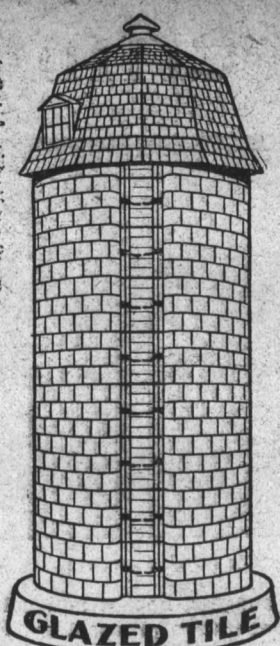
geese. They simply ask for protection Roll, and the result has been quite an artistic structure.

The most artistic design which the writer has seen is located in a little Connecticut town. It has the form of a pergola, with lattice work at the back, and with comfortable seats flanking the space reserved for the names of the town's heroes. Standing at one end of the village green, and surrounded with shrubbery, this Honor Roll makes a very attractive appearance.

Of course, the structures are only temporary, being made of wood. Doubtless many of them will be succeeded by more substantial memorials in the future, but they have had no little value in arousing the patriotic spirit of the residents of these towns.

1939 Look Ahead 20 Years

Will the silo you build today still be giving satisfaction then? That's the question for you to decide now. To avoid all future regrets decide on the



Kalamazoo TILE and WOOD SILOS

"The World's Standard"

Those of the first built—over 28 years ago—are now "on the job" and still good for untold years of service. Although there are over fifty thousand of these good silos in use, it is our ambition to see one or more Kalamazoo Silos on every farm in the United States.

Glazed Tile Silos—fire-proof, frost-proof, storm-proof, sun-proof, rot-proof, vermin-proof. "Permanent as the Pyramids." Require no painting or repairs.

Wood Stave Silos—reasonably priced, time-defying, easy to erect. Made with Galvanized Steel Door Frames and Continuous Doors—our guarantee goes with every one.

Write for Catalog. Get a copy of our illustrated, descriptive catalog and full particulars of our easy payment plan and special offer to early buyers.

Kalamazoo Tank & Silo Co., Dept. 223 Kalamazoo, Mich.

Feed your dairy and beef cattle

BUFFALO CORN GLUTEN FEED

Ask your dealer for Buffalo

Write C. FRANCIS, 909 Ford Building, Detroit for sample, literature, and particulars

Only \$2 DOWN ONE YEAR TO PAY

\$38

Buys the New Butterfly Junior No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 4 shown here.

30 DAYS' FREE TRIAL Earn its own cost and more by what it saves in cream. Postal brings free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

ALBAUGH-DOVER CO., 2166 Marshall Blvd., CHICAGO

Farms and Farm Lands For Sale

140 Acres \$3500, Including 13 Cows, 0 her Stock,

Bull, horse, poultry, mowing machine, horse rake, grain drill, plows cultivator, harrow, wagons, long list tools, 40 cords firewood, 50 bu. potatoes 125 bu. oats, 50 bu. apples, 30 tons hay, etc. On good road, mail, telephone, 2 1/2 miles town, high school, churches, creamery. 75 acres machine-worked clover (team) tillage, 60 acres springwatered pasture, plenty wood, timber, fruit, 8-room house, running water, big basement barn, poultry house, etc. To settle quickly \$3500 takes all, only \$1500 cash needed. Details page 34. Scout's Big Catalogue bargains 17 states, many with stock, tools, crops for comfortable winter; copy free.

E. A. STROUT FARM AGENCY, Dept. 101, Ford Bldg., Detroit, Mich.

McClure Stevens Land Co.

We have for sale: 17000 acres of fine unimproved lands, well located, joining well settled locality, on easy terms. A tract of 160 acres, 5 miles from Gladwin, on daily mail route, all fenced with woven wire, 20 acres under fine state of cultivation, 6 acres in fruit. A Sheep Ranch of 310 acres, all fenced, well grassed over, living water, 700 acres cleared, 3/4 acres under fine state of cultivation with fruit, good buildings 250 head of sheep, 4 stock ranches well grassed, fenced and watered with living water.

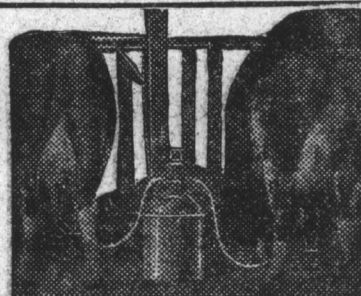
McCLURE STEVENS LAND CO. Gladwin, Mich.

CHOICE Florida Lots and farm locations at Oldsmar, Florida, by Mr. R. E. Olds—famous automobile manufacturer, 15 miles west of Tampa, on Tampa Bay, Dixie Highway, Seaboard Railway. Delightful climate, tropical scenery, low prices, easy terms. Free booklet.

REOLDS FARMS CO. Oldsmar, Florida.

Beautiful modern home, steam heat, 8 lots, expensive shrubbery, fruit and shade, block from CENTRAL MICHIGAN NORMAL COLLEGE, will sell or trade for small farm, or stock general merchandise. Cooper, Gover & Francis, Mt. Pleasant, Mich.

For Rent Glenbrook Stock Farm located in Wash- tenaw Co. Five hundred acres, three houses, three barns, running water. Responsible parties with equipment only, address E. C. GLENN, care of The Alhambra, cor. Park & Baggs Sts., Detroit, Mich.



New Idea in MILKING!

HERE is the first and only complete line of milking machines; hand power; engine power; six models to choose from—a model for vast herds—for small herds—for milking "double"—for weighing milk—and a model that actually strips. No matter what your needs—we have a model for you!

HANDY SHIPPERT MILKER Hand Power or Engine Power

A model for every dairyman!

The Shippert is the only milker with the Valveless Milk Chamber (no leaks—no loss—flowing milk always). It is also the only milker (excepting pipe line machine) costing vastly more and requiring twice the H. P. that gives the cows teats a complete rest when the milk is not actually flowing. All new models have the New "Up in a Jiffy" Transm. w. h. costs nothing to install. You put it up yourself in an hour!

Free Book! on the "Evolution of Machine Milking"

This book is an education on milking machines. It shows you how to save time and money—how to choose exactly the right model for your particular needs! WRITE TODAY! ADDRESS:

THE BURTON PAGE COMPANY
Dept. 4618 9 S. Clinton Street, Chicago
DEALERS! WRITE FOR TERRITORY

Send \$1.00 for choice black walnut trees. Produce timber, shade, food. Nut tree catalog free. McCOY NUT NURSERIES, 803 Old State Bldg., Evansville, Ind.

HOW MANY COWS AND HOW MANY ACRES?

(Continued from page 511).

tice the same methods of crop growing and cow feeding the interest charges on the investment would prohibit making a reasonable profit on the investment. In many parts of the country land has reached such a high market value that it is almost impossible to make any branch of stock farming return a decent profit, after deducting interest, taxes and operating charges. Dairy farmers, the same as feeders of other kinds of live stock, are feeling the effects of high-priced land on the profits of their business.

In European countries high-priced land is usually associated with cheap labor, but in this country the cost of good labor has kept pace with the rise of land values. With cheap land and high-priced labor it undoubtedly pays better for one to work more land less intensively and allow the cows to gather some of their food supply. With high-priced land and high-priced labor, especially where the interest charges on the land amount to from eight to twelve dollars per acre, one must plan to use every acre to the best possible advantage. Such a system demands more labor, but the cost of the additional labor will amount to less than the interest charges on the larger acreage of land.

The dairy farmer who is up against the problem of making a profit from a combination of high-priced land and high-priced labor will find the most profitable system of dairy farming one which will enable him to keep about as many cows as can be cared for and milked by himself and family and which can be fed from the crops grown on a smaller number of acres. The man on cheaper land has an advantage due to the fact that he can depend on pastures for summer-feeding and grow good crops on which the labor charges are smaller. Many dairy farmers on cheap land have the advantage of the increase in the value of the land through the gain in fertility due to the presence of the cattle on the farm.

Kent Co.

C. B. FORD.

CAN USE CULL BEANS AS LIVE STOCK FEED.

CULL beans can, with certain precautions, be used as a feed for live stock, a bulletin from the Experiment Station of the Michigan Agricultural College declares. "In fattening hogs," the report sets forth, "the following results were obtained: Fourteen hogs averaging 159 pounds at the start and fed equal parts by weight of cull beans and corn meal, gained 1.52 pounds per head daily, and consumed 2.03 pounds of cull beans and 2.03 pounds of corn per pound gain.

"Beans alone, which very cheap, produced soft, flabby pork of poor quality, and can not be recommended as a satisfactory ration for fattening hogs. When combined with an equal weight of corn, much better gains were made and a better quality of pork produced."

COOPERATIVE EXCHANGE CUTS GRAIN COST.

A SAVING of nine dollars a ton in the cost of grain was made through a cooperative exchange started at the suggestion of the county agent in Washington county, Vermont. Nine farmers joined in ordering a car of grain in bulk, and most of them took their grain home in tight wagon boxes and stored it in bins to save bagging. About three hundred bags, however, brought by farmers were filled at the car with little inconvenience. This grain cost the farmer \$61 a ton in bulk, whereas the same grain would have cost \$70 a ton delivered in bags.

"Beyond the Frontier," our new serial story by Randall Parrish. First installment next week.



2 to 1 Advantage in buying a DE LAVAL NOW

Butter-fat is now worth twice as much as it was two or three years ago.

So is labor.

A De Laval saves both.

And never before was there so urgent reason for saving every ounce of butter-fat and every half-hour of time and labor.

A De Laval will now pay for itself in half the time, compared with former years.

Buy it now and it will save its cost in a few months.

See the nearest De Laval agent right away and let him show you what the De Laval will save for you. If you do not know the De Laval agent, write direct for any desired information.

The De Laval Separator Co.
165 Broadway NEW YORK 29 E. Madison St. CHICAGO

CONE-SHAPE GRINDERS

IT PAYS TO GRIND ALL GRAINS

Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of shaft; thus more capacity, lighter draft, longer life.

"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than one dollar per year for repairs." R. W. Watt, Jacobusburg, O.

10 sizes; 2 to 25 H. P. Write for free catalogue.

D. N. P. BOWSHER CO., SOUTH BEND, IND.

Cow Waters Herself

With this wonderful new Libbey Automatic Water Bowl. Each bowl controls own water supply. Animal moves lever opening water valve, when it starts to drink. Lever swings back closing valve when animal stops drinking. No float tank required. Bowls may be put at different heights or in any stall or pen. Cannot overflow; cannot get out of order; almost no water left in bowl. Most sanitary bowl ever sold. Prevents spread of contagious diseases. Increased milk yield quickly pays back cost. Saves labor; saves feed. Write today. If interested in Stanchions, Stalls, Carriers, etc., ask for General Catalog. Sent free.

C. A. LIBBEY COMPANY
4 Jay St. Oshkosh, Wis.

You Bet! Still Doing Business

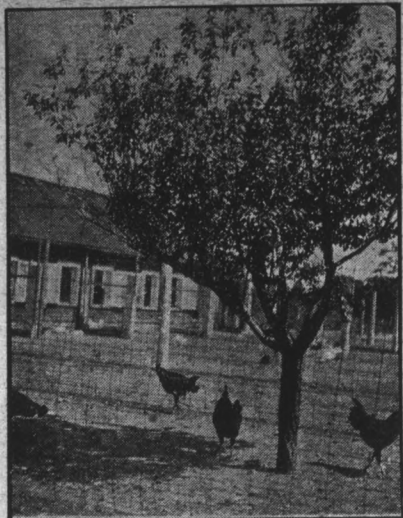
And Galloway is still saving money for his farmers friends. New 1919 model 1750 spreader as good as spreaders costing \$50 more.

PRICES LOWER

Direct factory loading makes these low prices. Galloway's sturdy spreader styles are better built, wider spreading and lighter draft than ever.

WRITE TODAY Closest shipping points. Save freight.

W. M. GALLOWAY CO.
Box 159 WATERLOO, IOWA



Making Land do Double Duty

SILAGE TRIMS COST OF FEEDING HORSES.

OWNERS of horses in Michigan can get partially around the prevailing high feed prices if they will use silage for part of the ration fed their equines. A report from M. A. C. tells of the results of experiments in feeding silage to horses at the college during a period covering a number of years.

"Where silage is available, it can be used to good advantage as the basis of the ration," the report states. "For several years the experiment station of the college has fed a number of horses each winter on a silage ration, under the supervision of R. S. Hudson, farm superintendent. The horses so fed have for the most part been young animals from two to five years of age. They were carried through a feeding period of from ten to twelve weeks on silage and straw, without grain. A ration consisting of a fair quality of silage without straw was sufficient to produce slight gains in weight, and leave the horses in improved condition at the end of the eleven weeks feeding period. The horses were allowed all the silage they would clean up, and oat straw in excess, the refuse being used for bedding.

"Care should be taken to avoid feeding silage which is very sour, as digestive disturbances are apt to follow, especially when a full feed is allowed. With a good quality of silage, as high as forty pounds per head daily was consumed by horses weighing 1,500 pounds without any signs of digestive trouble. Frozen silage should never be fed.

"In these experiments the horses were allowed to run loose in a shed, with adjoining yards for exercise. They were fed from a common trough and had access to water at all times."

GRAIN ON MUCK LAND

I have a six-acre field which is part clay and part muck. This muck runs from a foot to a foot and a half deep. Would this ground be best for oats or barley and how much barley should be sown to the acre? Will barley do as well on high ground as on low?

Kent Co. W. McM.

Oats would be advisable on this ground, provided it has not been run and depleted of its minerals. I would advise application of 200 pounds of acid phosphate and some barnyard manure if available. This is to be applied after plowing. Roll the soil thoroughly. If the muck has any element of clay in it this rolling may not be necessary. The reason for the rolling or keeping the soil firm is to prevent too rapid growth of nitrogen. This will avoid excessive straw growth. The seed should be sown at least two bushels to the acre, and better three, if the acid phosphate is applied. Sow very early so that the crop obtains its largest growth in the cool season of the year. These suggestions are based on getting proper filling of the grain and a normal straw growth.—Ezra Levin, Extension Specialist in Muck Crops, M. A. C.

Cleveland Tractor

Serviceable the year 'round

The Cleveland Tractor is serviceable every season of the year.

It is an all-purpose machine.

When winter weather or crop conditions make the Cleveland unnecessary in the field its usefulness in other lines of work begins.

It is tractor and stationary engine in one. It will saw wood, pump, drag logs, haul grading or road-making machinery and do practically everything formerly done during the winter months with horses and stationary engines.

The Cleveland lays down its own tracks, travels on them and picks them up again like the famous battle "tanks." It will go practically anywhere—over rough uneven ground, on the side hill or over soft plowed fields.

A traction surface of 600 square inches with a weight of less than 3200 pounds

effectively prevents the Cleveland from packing the soil.

You can house the Cleveland in less space than is required for one horse. But in spite of its small size it develops 12 horsepower at the drawbar and 20 at the pulley for stationary work.

Under medium soil conditions the Cleveland Tractor plows 3½ miles an hour with two fourteen inch bottoms. This is eight to ten acres a day—equal to the work of three good three-horse teams and three men.

It burns either kerosene or gasoline.

Don't wait till spring to get your Cleveland Tractor. Order it now and get the full advantage of its all-purpose, all-season ability this winter—and be prepared for the first field work of early spring.

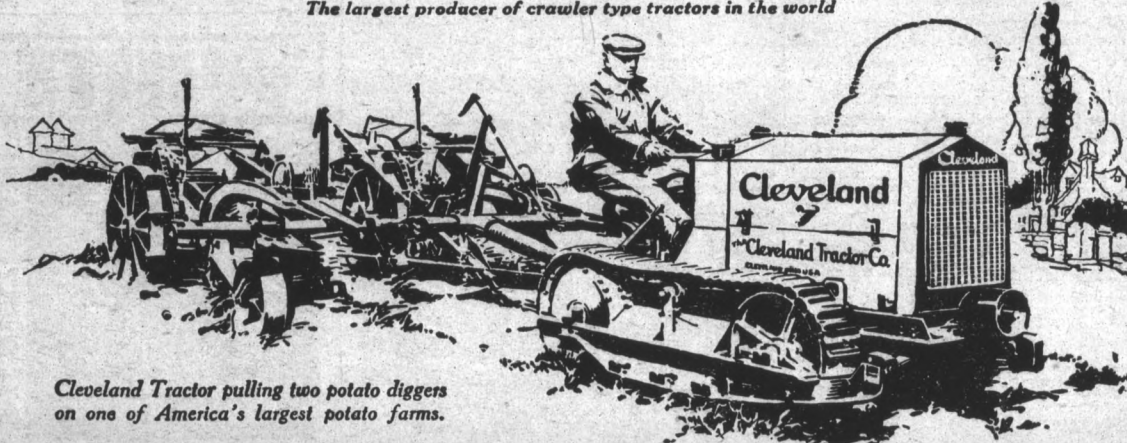
Write for descriptive matter and name of the nearest Cleveland dealer.

The Cleveland Tractor Co.

19021 Euclid Ave.

Cleveland, Ohio

The largest producer of crawler type tractors in the world



Cleveland Tractor pulling two potato diggers on one of America's largest potato farms.



The Milwaukee Air Power Water System delivers fresh water anywhere direct from the well. No water storage tank to freeze or foul the water. We have pumps for all sizes and depths of wells.

RUNNING WATER



ELECTRIC LIGHT

The Milwaukee Electric Light System is sold with the water system or separate, as desired. They can both be run with one engine—giving water, light and also power for cream separator, churn, washer, shop and home.

Write for illustrated, descriptive matter telling how you can have fresh water, hot or cold, hard or soft—also electric light and power all over your house, barn and yards.

MILWAUKEE AIR POWER PUMP CO., 868 Third St., Milwaukee, Wis.

SAVES MONEY AND BACKACHE



FOLDS LIKE A POCKET KNIFE. ONE MAN with the FOLDING SAWING MACHINE saws down trees—saws any kind of timber on any kind of ground. One man can saw more timber with it than two men in any other way, and do it easier. Send for free illustrated catalog No. D 44, showing Low Price and latest improvements. In use 30 years. First order gets agency. Folding Sawing Machine Co., 161 West Harrison St., Chicago, Ill.

BUY YOUR ROOFING From Brown

My Direct From Factory, Freight Paid prices saves you money on all Ready Roofing. Quality Highest—Prices Lowest. Write for Free Catalog Folder of bargain offers. THE BROWN FENCE & WIRE COMPANY, Roofing Dept., CLEVELAND, OHIO

Wanted Clover Seed & Peas All Kinds

Please submit us an average sample of any quantities you want to sell and we will tell you what it is worth either in the dirt or cleaned. We believe we can make you a price that will look attractive. SIOUX CITY SEED CO., Millington, Mich.

WE WANT VETCH. SEND US SAMPLES

YOUNG-RANDOLPH SEED CO., Owosso, Mich.

FERRETS

2000 Ferrets They hustle rats and rabbits. free. Price list and booklet mailed N. A. KNAPP, Rochester, Ohio

1000 FERRETS FOR SALE

C. J. DIMICK, Rochester, Ohio
FERRETS White and Brown they make rats and rabbits hustle price list free. GLENDARE FERRET CO., Wellington, O.

Mention The Michigan Farmer When Writing Advertisers

COW BOY SURE HEATER for STOCK TANKS



HELP FEED THE WORLD

Don't Waste Grain; but Save it and Produce more Meat, Butter and Milk by warming the drinking water for your stock with coal, wood or cobs with a

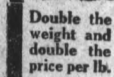
COW BOY TANK HEATER

Quickest to heat; strongest draft; adjustable grates; ashes removed without disturbing fire; keeps fire 24 hours.

Absolutely Safe; pays for itself in 2 months with 4 cows; Self-Sinking; can be used in Wood, Steel or Concrete Tanks of any size. Most reliable, practical, efficient and durable Tank Heater manufactured.

"Purchased 3 of your Tank Heaters last winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one." W. H. Few, Prof. of Animal Husbandry, Iowa State College, Ames, Ia. Get a Heater early. Write now for illustrated circulars and dealer's name. THE WILLS MFG. CO., 56 Seventh St., MENDOTA, ILL.

PILLING CAPON TOOLS



Double the Weight From the Same Feed

So great has been the demand for these practical, ready-to-use caponizing tools that most dealers exhausted their stocks. The fact that the Pilling factory was working 100% on Government orders for surgical instruments prevented us from refilling their shelves.

But next Spring we shall be able to supply dealers who order early. Get your order in now—any poultryman with Pilling caponizing tools and our complete illustrated instructions can make each dollar's worth of feed produce four times as many dollars as with roosters. **Capon Book FREE.**

G. P. PILLING & SON CO., Phila., Pa.
Est. 1814 America's Pioneer Maker of Caponizing Tools



Uncle Sam Says
"Buzz Your Wood"

SAVE COAL
with a Genuine High Speed

GUARANTEED CRUCIBLE STEEL SAW

Every blade guaranteed to be free from flaws cracks and splits, teeth to hold their edge and corners not to crumble. Not to be compared with the cheaper mail-order house saws.

Filled and set ready for use. 1 1/2 inch hole.

Size	Price	Size	Price	Size	Price
20"	\$4.75	24"	\$6.75	28"	\$9.25
22"	\$5.75	26"	\$8.00	30"	\$10.50

Steel Saw Frame with self aligning dust-proof boxes; cannot pinch shaft; thoroughly braced; heavy balance wheel.

Order From This Ad.!

Cut Out and Save this advertisement.
Satisfaction Guaranteed or Money Back.

Farmers' Cement Tile Machine Co.
Dept. A, St. Johns, Mich.

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 to 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 for 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.

\$16.00 FOR THIS FINE FUR COAT

Made from your own cow or horse hide to your own measure.

We tan and manufacture the raw hide into a warm serviceable coat for this small charge.

Send Us Your Hides

We make up any kind of skin to suit your individual desire—

Also Ladies Coats and Furs, Auto Robes, Etc.

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

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

Write for it today.

Reading Robe & Tanning Co.

112 East St. Reading, Mich.

Reliability—Strength Long Life

That is what you want in a windmill. The IXL has been made for 46 years and has all of these features.

Write for Catalogue.

Ihling-Doorenbos, Successors to
Phelps-Bigelow Windmill Co.,
Kalamazoo, Mich.

WHITE OR BROWN EGGS.

THE market demands vary in different states. Some markets pay the best prices for brown eggs and in others the white egg sells at a premium. The farmer who markets eggs in small quantities will seldom realize that any distinction is made but it will pay him to keep one breed of fowls so that the eggs will all be of one color.

If eggs are sold to a private trade it pays to grade them and only sell cartons containing eggs of one color. This gives the package a more pleasing appearance and buyers will be more satisfied even though there is no difference between the quality of the eggs of mixed colors and the graded pack.

One of our customers always liked brown eggs because she said that they appeared richer and more wholesome than clear white eggs. Many dealers like the white eggs the best because blood rings can be located in a white egg a little quicker than in a brown egg. In other words, when a white egg is candled there is little difficulty in telling if it is absolutely fresh.

In producing fine quality eggs for a local market the Minorcas are an excellent breed. The eggs are large and white and are very attractive. One breeder claims that they are so large that they are more apt to break during transit than Leghorn eggs. The Mediterranean breeds all lay white eggs while the American and Asiatic breeds produce brown eggs. Personally we think that either color is very attractive on perfectly fresh eggs and the main point is to sell fresh stock that is either all of one color or the other.

Ingham Co. R. G. KIRBY.

MICHIGAN LAND AND LIVE STOCK CONGRESS.

(Continued from page 512).

a medium for carrying out the foregoing resolutions.

Therefore, Resolved, that we recommend that a state commission be selected to formulate the general land policy for our returned soldiers and sailors, and also for our industrial workers. Said commission to be nominated by the chairman of this congress to his Excellency, Governor Sleeper, for appointment by him, and that said commission be authorized to cooperate with similar bodies in Wisconsin, Minnesota, Montana, North Dakota and South Dakota.

We advise that this commission be made up as follows: The chairman of the State Board of Agriculture; the secretary of the Public Domain Commission; the secretary of the Western Michigan Development Bureau; the secretary of the Northeastern Development Bureau; the secretary of the Upper Peninsula Development Bureau; James N. McBride, representing the State Association of Farmers' Clubs; W. P. Hartman, representing Railroad Agricultural Development; a representative of the State Grange; a representative of the State Gleaners' Association; the president of the State Live Stock Sanitary Commission; the president of the Michigan State Good Roads Association; a representative of the State Bankers' Association; two state senators and two state representatives elect.

Resolved, that a committee of five be appointed by the Chairman which shall seek the cooperation of the State Board of Agriculture and the state legislature in carrying on agricultural extension.

Resolved, that the State Agricultural College be asked to cooperate with the railroads and development bureaus in arranging for a land clearing train and demonstrations during August, 1919, and that the state legislature be requested to provide the money necessary to defray the expense of same.

Whereas, the Federal Land Bank is a potent factor in enabling the farmer to mobilize his credit and to overcome his financial difficulties.

Therefore, Resolved, that we request the state, the Michigan Agricultural Development Association and the Development Bureaus to cooperate with the Federal Land Bank in every way possible.

Resolved, that a Land & Live Stock Congress, having similar objects in view, shall be held as follows: At Saginaw about December 17; at Lansing, while the state legislature is in session, and at some point in the upper peninsula, the time and place to be named.



THE ROAD TO BETTER CROPS

ROYSTER'S FERTILIZERS

F. S. ROYSTER GUANO CO.
TOLEDO, OHIO

WHITE LIGHT FROM KEROSENE



Beats Gas or Electric
You can now make your home bright and cheerful and SAVE ONE-HALF ON OIL. Tests by Government and leading Universities prove this wonderful new Aladdin is nearly five times as efficient as the best round wick flame lamps. BURNS 50 HOURS ON ONE GALLON common kerosene (coal oil). No odor, smoke or noise, no pumping up, easy to operate, won't explode. Won GOLD MEDAL. Guaranteed.

TRY IT 10 NIGHTS FREE

Prove for yourself without risk that this remarkable white light has no equal. If not entirely satisfied, return it at our expense. \$1000 REWARD will be given to anyone who shows us an oil lamp equal in every way to this new Aladdin.

GET YOURS FREE! We want one user in each locality to whom we can refer customers.

In that way you may get your own without cost. Write quick for 10 DAY FREE TRIAL OFFER and learn how to get one FREE.

MANTLE LAMP CO. 418 Aladdin Bldg. CHICAGO

LARGEST KEROSENE (coal oil) MANTLE LAMP HOUSE IN THE WORLD

MAKE MONEY SPARE TIME OR FULL TIME! No previous experience necessary. Our trial delivery plan makes it easy. NO MONEY NECESSARY. We start you. Sample sent for 10 days' trial and GIVEN FREE when you become a distributor.

I Want to Send You My New GATE BOOK

FREE! of "Can't-Sag" Gates
Just send me your name and address. I will mail you my big new Gate Book free—postpaid. Quotes prices over than it costs you to build homemade all wood gates. Can't-Sag Gates are the only farm gates that are GOOD Enough to Use ANYWHERE CHEAP Enough to Use EVERYWHERE

Always hang straight and true. Never sag, drag or warp or twist out of shape. No nails used. No wood joints. Every board double bolted between eight angle steel uprights. Self-locking hinges—won't injure stock—easily repaired—outlast several all wood, steel, wire or gas pipe gates. Cost less than any other gates you can build or buy. Nearly a million now in use. Write for free Catalog today.

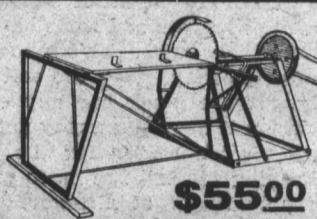
ALVIN V. ROWE, President
ROWE MFG. CO., 131 Adams St., Galesburg, Ill.

Sell Wood for Fuel

Make some extra money this winter.

Coal is scarce; hard to get at any price. Prepare for emergencies by sawing your wood to sell for fuel in town. Smith's Standard (All steel frame) Wood Saw Built for hard service. Light and easily moved from place to place. Will saw stumps or boards and slabs of any length. Every farm needs one. Write for descriptive circular.

H. M. SMITH, Manufacturer,
Mooresville, Indiana



\$55.00

Cull Beans For Sale

Carlots \$30.00 per ton. Less than carlots \$32.00 per ton. Bags extra. F. O. B. Bad Axe or Saginaw. BAD AXE GRAIN COMPANY, Bad Axe, Mich.

LEARN AUCTIONEERING

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



INSYDE TYRES Inner Armor

for Auto Tires. Double mileage, prevent blowouts and punctures. Easily applied in any tire. Used over and over in several tires. Thousands sold. Details free. Agents wanted. American Accessories Co., Dept. 712 Cincinnati, O.

AUTO Asbestos Wood Alcohol STARTER. Ford car owners will have them, other makes with visible manifold will buy them. Bonanza for agents and car owners to sell them. 100 demonstrations, 99 sales. Price \$2.00 parcel post prepaid. Descriptive literature FREE. Address PROCESS AUTO STARTER CO., Dept. F SALINA KANSAS.

A Visit to Topsy-Turvy Land

By Julia Ramsey Davis

MR. JAMES FOSTER was a great traveler, and when he visited his sister, Mrs. Bolton, Martin and James never tired of hearing him tell of the strange customs of other lands.

When they were enjoying ice cream, one day, he said: "If we were in Japan, we should probably be eating ice with sugar, and lemon, instead of ice cream."

"Do they like that better, Uncle James?" Martin enquired.

"Yes," he answered, "the Japanese are probably the only civilized people in the world who eat ice the way they do. Blocks of small cakes of ice are smashed into tiny, pebbly pieces, and are eaten with sugar and lemon, or any other flavor one may fancy."

"Another way they have of eating ice is to shave it into snowy flakes by means of a plane, and swallow it with

sweetened water into which various appetizers may be thrown."

"Don't they have ice cream at all?" James asked.

"Yes, ice cream, and many cooling beverages are to be had, but the old style of eating ice like I have described, is still the favorite way."

"In eating your meals in Japan, I know you have heard, that you sit on the floor on a cushion, and they give you a stool to lean on. Much as you long for a knife and fork, you do not get them, the only eating apparatus you have is the chop-sticks. I can assure you that it isn't an easy job to eat soft-cooked foods with only these as helps."

"When I was invited into a Japanese home I found there wasn't any furni-

ture at all. You have to sit on the floor. But one thing to be thankful for is that the floors are not boards covered with carpets, as we have them; in Japan they are covered with matting three inches thick, and in addition you are given a cushion."

"A Japanese house hasn't windows as we have them. It is only the most stylish that have a pane of glass. Paper is pasted over the sliding doors, and through this enough light filters to go about the rooms; this is an easy matter for there isn't any furniture to stumble over. The rain is kept out of these houses of paper partitions by a series of wooden frames which slide back and forth, for the hinge is unknown in Japan."

"When bed-time comes you look

around for a bed, but there isn't one to be seen. The servant comes in, opens a drawer, unrolls the quilts on the floor, putting a hard, wooden box under one end for a pillow. Then she shuts up all the windows, and pulls to all the slides so that not a breath of air can get in, and the bed is ready."

"In a Japanese house there are no doors, no inside walls, no ceilings, no furniture, and in the kitchen they have no range, no pots, no pans, and in the whole language there isn't a native word for bread. About the only thing in a Japanese house is the floor, which is used for every purpose. Their cook stove is a round pipe with a couple of doors, that sits almost on the floor and comes about knee high. The houses haven't any chimneys. They use little gallon jars, called hibachis, with charcoal in them covered with fine

(Continued on page 519).

WORLD EVENTS IN PICTURES



Mrs. Charlie Chaplin, Famous Comedian's Bride Known in Film as Mildred Harris.



Miss Elizabeth Ames Works for Information Bureau of American Fund for French Wounded.



Mrs. King, First Woman Traffic Officer in U. S., Takes Husband's Place when he Goes to War.



American Girl Distributing Shoes and Clothing to French Refugees.



Enthusiastic Gathering which Greeted Victorious Allies Entering Lille.



Captain Miller and Officers who were First Americans to go into Action.



Canadian Officer Searching German Prisoners Captured in Battle of Cambrai.



Vaseline Carbollated

PETROLEUM JELLY

A convenient, safe antiseptic for home use in dressing cuts and sores.

REFUSE SUBSTITUTES
Illustrated booklet free on request.

CHESEBROUGH MFG. CO.
(CONSOLIDATED)
27 State Street - New York City

HEALTH—FREE

Your name and address on a post-card will bring you absolutely free an interesting booklet called "Thirty Feet of Danger," presenting in plain American language the facts every human being should know and act upon in keeping his system clean and healthy. It is sound advice, and it may be the means of avoiding illness for you and your family. A clear statement on the best of medical authority. Write today to

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway New York

TRAPPERS

Know the value of skins, and should be sure they get it.

We Want Your Raw Furs

We promise you fair treatment and absolute satisfaction whatever the size of your shipment. We will spend \$500,000 this season. How much can - OU send us?

One Skin or a Thousand We will grade them carefully and pay you full value. We charge no commissions. We do not claim to be the largest house in the world, but our check will convince you it is worth while dealing with us. WRITE FOR PRICE LIST.

Freeland Fur Co. 43 Jefferson Ave., Detroit, Mich.

GET THE MOST MONEY, For Your RAW FURS

5% Additional on all shipment over \$50. I need all your furs to fill waiting orders and will pay the highest prices to get them. Coon, skunk, fox, opossum, mink, muskrat, wolf and all others. Send shipments at once. Check sent same day shipment arrives.
BEN CORN, 262 SEVENTH AV., NEW YORK, N. Y.

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. SLENKER, P.O. Box H2 East Liberty, O.

The Co-Operative Raw Fur Co. Pays You MORE CASH

for your furs, remits promptly, and does NOT charge commission. You will receive 10 per cent more CASH from us than from any other house in America. Send at ONCE for LARGE PRICE LIST.

The Co-Operative Raw Fur Company, 81 Jefferson Ave., Detroit, Mich.

Fordson Tractor and Plows For Sale

Used Very Little
J. VAN DER MULEN
GRANT, MICH.

A Visit to Topsy-Turvy Land

(Continued from page 517)

ashes, for winter. There is very little heat from these but they keep the people from freezing, at least.

"In every way Japan is backward from our way of doing. A Japanese carpenter draws his plane toward himself, and a blacksmith sits down to work. A Japanese book begins on our last page, and finishes at our first paragraph. Their sentences begin at the top of the page, and read down, like a long column of figures. They do their writing with a paint brush, which is made of a bamboo stick with bristles on one end. They hold the brush straight up and down instead of grasping along their fingers as we do a pen. They wear white to funerals and judge poetry by the beauty of the handwriting.

"One very commendable thing about their language is there are no words to express anger and bitterness. Japanese are expected to always be kind and polite. But although their anger kindles slowly, occasionally one loses his temper, and then he is at a loss to express his emotion. The worst thing that can be said in the whole language is, 'Your stomach is not on straight.' This is a great insult, for when a Japanese greets you his first concern is about your ancestors, the next is about your stomach."

"Tell us something about the Japanese children, Uncle James," Martin asked.

"Both boys and girls are dressed in the same kind of a garment until they are five years old, but are distinguished by the colors. The boys wear subdued blues, grays, and browns, while the girls are dressed in bright reds, gorgeous gold and greens.

"When the boys are five they give up the kimono-like garment, and on the fifteenth of November, the third month in Japan, they put on soft flowing trousers."

"Aren't their months the same as ours?" James wanted to know.

"No, their New Year begins with September. They have many ways of welcoming in the year, but I believe living."

you are more interested in the children of this topsy-turvy land. The most peculiar thing of all is the training of the baby to sit down. Japanese men and women double their feet beneath them and sit as it were, on their knees; and foreigners cannot understand how they do it until they see a baby taught. The little ones are placed in that position until their knees and muscles become remarkably flexible and when they grow up it comes to them easily. But the Japanese surgeons, who have been making investigations, attribute to this custom the shortness of the people as a race.

"The rich people send their babies out into their gardens around their houses in care of a nurse; but the poor people who cannot afford their gardens carry them around on their backs. The oldest sister takes charge of the baby, if there is an older one, and the babies soon learn to cling on. Girls are often seen playing games with babies clinging to their necks, and the babies seem to like it. The babies learn to talk before they leave their mothers, or their sister's backs, and at two, or three are taught to walk, and to wear the straw sandals. These are held on by the toes alone, and although they produce an awkward gait, are extremely easy on the feet.

"These shoes are very economical, however, and in these days of high prices should recommend themselves on account of the fact that they are never outgrown. The heels may stick out a little, but the toes are never compressed.

"I wonder if you knew that there are not any cows in Japan?"

"No cows!" both children exclaimed. "No, you never see a cow, so, of course, you never have any cow's milk to drink. It is for this reason, it is said, that Japanese babies are allowed to have their mother's milk until they are three, or four years old."

"No wonder you call Japan topsy-turvy land," said James, "for everything is very different from our way of living."



Upstairs in the Wagonhouse

By Edgar L. Vincent.

PRETTY good place for the boys that, upstairs in the wagon house.

But to make it so, we had to do a few things. That room had once been used to hold justice's court in. The old man that owned the farm had served as justice for forty years, so he told me with a great deal of pride. The house did not seem to be the best place to hold law suits in, although it had been used for that purpose a long time, until the wagon house was built. Then a room was done off upstairs and here the little troubles of the farmer folks were threshed out and settled.

But we had no such difficulties to see to after we came on the farm, so we tore down a partition and set up a

work bench in the west end where the light was best. Along the side of the bench and somewhat above it, we put up hooks and hung the saws and other tools on them. We found a narrow, long box just right for a cupboard to take in the bits when it was fastened to the wall horizontally. Under the bench we tucked away all the bits of board and pieces of hickory and other good hard wood we came to when cutting wood for the winter, saving them up against the time of need.

Here the boys came and worked out their little jobs. We never found any fault about it if some nicks did get into the chisels and now and then a tool got broken. We could replace the spoiled tools and grind out the nicks easier than we could make good the nicks in the character of the boys. If we ever missed one of the boys when they were at home, it was a pretty good guess that the place to look for him was "upstairs in the wagon house." All they learned about the use of tools in those days was put to good use in the days to come. One of the boys is now a doctor in France, but I am sure he never has been sorry that he had a chance to work in the wagon house shop.

On the other side of a short partition in that upstairs room in the wagon house, there is another room that used to be an oat bin. After we came on the farm we put up a granary and the oat bin room was no longer needed; so we put in some long shelves, and a table and turned it into a study. On the shelves we put the books and papers that were best calculated for reference on farm matters. I used to have my typewriter out there and work on rainy days and other odd spells. A wide

south window shelf was the place the youngest boy used for the queer things he picked up round the farm—old deers' horns, nice stones, Indian arrow heads, big hornets' nests, and so on; and it got to be quite attractive.

Now, I like that way of rigging up a place, boys, to do your work in. Boys that are handy with tools can put up a bench for themselves. One of our boys made himself a beautiful work bench, with vise and everything handy. You can do the same. For a little money you can get some hooks for the saws, drawshave and square to hang on. There probably are a number of tools already around the barn and house. Gather these up and give them a place around your bench. And I am sure that if father and mother know you are interested in such things, at Christmas time they will put in your stocking some good tool to add to your collection, so that in a little while your kit will be good enough to enable you to do all the little jobs of mending, etc., that come to the farmer boy to do.

It is fine to learn to take good care of these tools and to know how to keep them in order. Learn how to file a saw and grind a chisel. Know where all the tools are, so that you could go and put your hand on the right one in the dark if necessary. When a tool is used out around the farm, get it back to place as soon as possible. Then you will not have to lose time hunting for it. Used in this way, tools help to work out character, and that means to make a good life.

"By the Way"

IT DOESN'T STICK ON.

This is a grouchy world. Ah, me! A fellow seldom laughs; Why don't we wear the smile that we Use in our photographs?

IT DIDN'T WORK.

She—"I heard a noise very late when you came in."

He, Trying to be Funny—"Well, my dear, do you suppose it was the night falling?"

She, Sternly—"No; it was the day breaking."

WHERE IT HELPS.

"Do you think early rising is good for your health?" asked the languid city visitor.

"I don't know about my health," replied Farmer Cobbles, "but next to sun, rain, and fertilizer, it's the best thing there is for crops."

LEAD US NOT INTO TEMPTATION.

Southern Parson (to convert)—"Does yo' think yo' kin keep in de straight an' narrer path now, Sam?"

Sam—"I reckon I kin, pahson, ef dey ain't no watahmillion patches er-long de road."

FLATLY IMPOSSIBLE.

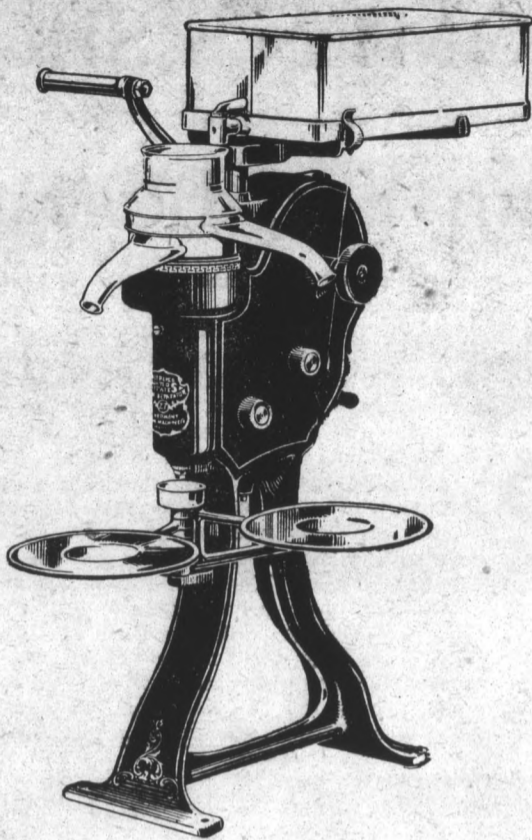
"Yes," said Simpkins, "I want to do my bit, of course, so I thought I'd raise some potatoes."

"Well, I thought I would do that," said Smith, "but when I looked up the way to do it I found that potatoes have to be planted in hills, and our yard is perfectly flat."

FARMING IN DAKOTA.

"Speaking of farming," said the visitor from the west, "we have some farms out in Dakota that are quite sizable. I've seen a man on one of our big farms start out in the spring and plow a straight furrow till fall. Then he harvested back."

"Wonderful!" said the listener. "On our Dakota farms," he went on, "it is the usual thing to send young married couples out to milk the cows. Their children return with the milk."



Winning 100% Efficiency While 80% on War Work

Soon after the great war started our Company made a decision about as follows: "Until this thing ends, and ends right, our place is in the service. Nothing else matters much until it's all over 'Over There.'"

So we went to it—shrapnel and high explosive shells for our Allies and, later, for the U. S. A. Eighty per cent of our manufacturing energies were concentrated on day and night war work.

But during all this time every atom of the inventive genius that had made the "United States" separator highly efficient was working to make it infinitely better.

We have won our goal. Important refinements and improvements were accomplished. In the past eighteen months the Government has issued to us no less than *seven exclusive patents*.

There can be but one answer—the United States Disc Separator will sell and *stay sold* wherever dairy cows are raised for profit. Such sweeping points of merit cannot fail of recognition.

The "United States" has changed—for the better. Our peace-time job will be to keep this machine so efficient that when a better separator is made, it will be a



Things You'll Notice Every Day You Own a "United States"

Get these three points fixed *Now*; others later

FIRST—One-piece frame construction. Means long life—it is made to grow old gracefully.

SECOND—Interchangeable discs that even a child can clean and reassemble with ease.

THIRD—Low Crank Speed—larger sizes only 42 revolutions per minute means 20 to 30 per cent less energy to the operator.

Find the "United States" dealer; let him demonstrate this wonderful machine point by point. Meantime, write for full descriptive literature.

Vermont Farm Machine Company

BELLOWS FALLS, VT.

CHICAGO

PORTLAND, ORE.

SALT LAKE CITY

Thousands
of under-
nourished
people have
found that

Grape-Nuts

food —
a scientific
blend of nour-
ishing cereals
— helps
wonderfully
in building
health and
happiness.

Needs no
Sugar

More Light Than 20 Oil Lamps

AT LAST—the light of lights—A beautiful lamp that lights with common matches just like oil lamp, but makes and burns its own gas from common gasoline, giving a brilliant, steady, restful, white light of 300 candle power.

Most Brilliant Light Made

Brighter than the brightest electricity. More light than 20 oil lamps. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lamp. The



**Coleman
Quick-Lite**

Lights
With a
Match.
300
Candle
Power.

No wicks to trim—no globes to wash. No dirt, no grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger even if tipped over. **Guaranteed 5 years**—will last a lifetime.

If your dealer can't supply, address nearest office for Catalog No. 29

The Coleman Lamp Co.
Wichita, St. Paul, Toledo,
Dallas, Chicago.

30 Days FREE Trial



No plumbing. Odorless. Sanitary. Endorsed by State Health Boards.

The Kawnear

Sent fully equipped. Anybody can set it up. No daily attention. Guaranteed 10 years. Makes home up to date, comfortable, healthful, at small cost. Try a Kawnear in your own home 30 days FREE.

FREE Book Send your name and address for illustrated book and 30 days' free trial offer. No obligations to you. It's free. Write today. **Federal Sash & Door Co., Dept. 4818, Kansas City, Mo.**



Help Win Victory Against Sickness—Death.

Destroy old style outhouse or privy which breeds disease. Install our sanitary and practical **INDOOR CHEMICAL CLOSET.**

No odor, no care, no plumbing. Ready in 5 minutes. Will last a lifetime. Beautifully enameled and strongly made. Oak seat. Emptied once a month. **Absolutely Guaranteed.** Worth \$25.00, our price \$15.75. Special offer. Send \$15.75 at once and we ship to your address. **FREE** all supplies to same for six months, also a pair beautiful lace curtains. **FISHLER & CO., Dept. 724 Chicago, Ill.**

Mention The Michigan Farmer When Writing Advertisers

"To Love and to Labor is the Sum of Living"—Moore

WOMEN'S SECTION

Can You Be Taught?—By DEBORAH



I SUPPOSE everyone starts out in life with the wish to be a success.

Even the veriest derelict in the beginning, without a doubt, hoped to arrive by middle life to a place where he could take his ease and have an honored name in his community. But somewhere along the line a large number lose out. I have a feeling that none of them fail through one big smash nor that any of the successes make good by one sudden piece of good luck. Success or failure, to my notion, is a culmination of little things. Little by little success is established, and by the same small things a career is undermined. The ancient writer knew when he wrote, "Take us the foxes, the little foxes, that spoil the vines."

It is the little things we must watch if we want to win out. And the biggest of the little things is daily accumulation of knowledge. Have you ever noticed that the really big, successful man or woman is never above learning from anyone? I have, and along with that I've noticed that as soon as a man or woman gets satisfied with himself or herself, and is above learning, growth stops and dry rot sets in. I first noticed this in a young man who started newspaper work at the same time I did. He was bright and ambitious and anxious to learn—at first. He knew he didn't know anything about the work, so he eagerly listened to everything anyone wanted to tell him. Advancement was rapid, and by a series of deaths and resignations he "landed" as managing editor at the end of three years. It took him just three

months to lose his job. Why? Because as soon as he got it he decided that he was too big to learn anything from anyone. As a matter of fact, he couldn't have learned much as a reporter, but writing a news story and handling men and departments are entirely different things. This chap imagined, though, that because he was the "boss" he must not listen to advice from anyone, no matter how many more years' experience they had had. He refused to learn and he left the paper a failure.

His successor was more modest. He was never too important to listen to the greenest reporter who thought he had an idea that would help the paper.

Eight Commandments for Children

1. The growing child must have plenty of sleep. Up to six years he should sleep half the time—twelve out of twenty-four hours. Part of this time may be included in the daytime nap.

2. His food should be plentiful and nutritious. Each child should have at least three pints of milk a day. Part of this may be in some other food, such as custard or ice cream. He should also have limited quantities of meat and plenty of eggs, cereals, vegetables and fruits.

3. He should have plenty of out-of-door play—not too much work, nor too long continued.

4. He should have a daily bath or rub-down and a cleansing bath with warm water and mild soap at least once a week, oftener if possible.

5. His bowels should move freely at least once a day. If they do not his diet and exercise should be so regulated as to bring about that result.

6. He should be interested in life. Sullen, dull, or unhappy children are frequently suffering from the want of interest in life. Such a child should be watched to discover if possible what he does enjoy and where his natural interest lies; and it is then an easy task to stimulate his interest until his whole attitude is changed.

7. He should be taught simple lessons of personal hygiene; the use of individual towels, handkerchiefs, toilet articles; good care of teeth, nose, eyes, hands and feet.

8. He should be taught to believe that to be healthy is one of the finest possible achievements in the world, and most patriotic.

Good Manners

TO teach children good manners must be the work of every day and hour. "Line upon line" they will learn the little courtesies. Children are so imitative that very much of this will be unconsciously acquired through imitation of the habits and manners of their elders. "Thank you," and "If you please," and "Excuse me, please," come easily to the tongue if they are frequently heard, and the boy who sees his father rise when a lady comes into the room will instinctively follow that example, even with very little direct instruction. Good manners (Continued on next page).

As a result, out of a mass of useless ideas, this manager got a few usable ones every week and he is still holding the job. He grew into success, and is still growing, and will continue to grow as long as he continues to learn.

The law holds true with every walk of life. Just now we are seeing it exemplified in the kitchen. The women who are willing to learn are not having any trouble about using the new foods nor getting along with a limited allowance of sugar. It is the ones who never could see any way but their own, and thank goodness, their number is small, who are doing the complaining.

The woman who cheerfully set about it a year ago to learn new ways of cooking and baking is setting a good table today. True, the white bread and light cakes, heaped with frosting, have disappeared. But equally appetizing foods have taken their places on the tables of the women who faithfully set about to learn new ways of cooking and baking. The new cereals satisfy the family, and having got used to this way of baking they don't care whether they take up the old way again or not.

But the women who never would learn are in a bad way. They can't get the things they want, and they won't use the things they can get. Their plaint is that they eat so little anyway, they think they ought to have what they like. And they won't try to like anything else. They are failures as cooks because they won't learn, and failures as women and patriots for the same reason.

Simple But Very Stylish.



This attractive dress, consisting of blouse and two-piece skirt, requires five and a quarter yards of thirty-six-inch taffeta, one-half yard of forty-inch georgette, three-eighths of a yard of 10-inch lace, and five-eighths of a yard of white georgette or taffeta for a vest.

A Dainty Misses' Model.



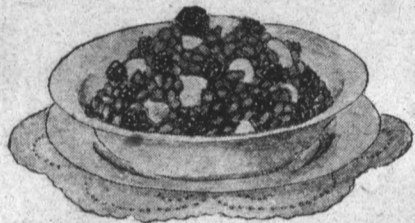
This youthful dress requires five and a half yards of thirty-six-inch wool taffeta, serge or satin. For the bottom of the overskirt two yards and a half of four-inch fur banding was used. The round neck is finished with two-thirds of a yard of narrow fur.

at table are so necessary to the comfort of everyone concerned that mothers will hardly neglect to watch and direct their children most carefully in this respect. It is very easy to teach children the right use of the knife and fork, to ask for what they want politely, and to chew their food quietly. To fail to do these things has condemned many a man as a boor and a nuisance. In other words, manners often make the man; certainly the lack of manners may unmake him.

Meat Substitutes

With meat prices at the highest altitude within the memory of man, substitutes are eagerly looked for. These three, sent out by the United States Food Administration, sound good.

Kidney Bean Stew.—One and a half cups of dried kidney beans, two cups of canned tomatoes, half cup of rice,



two tablespoons flour, one onion, one tablespoon salt. Wash the beans, put in a covered kettle and soak over night in two quarts of cold water. Cook slowly in water in which they were soaked. If necessary, add more water to cover and continue the cooking until they are tender, usually about two hours. Wash the rice, cut up the onion and add, with tomatoes, to beans. Cook until rice is tender, about thirty minutes. Mix flour with cold water and stir in carefully to thicken. A small piece of salt pork cut up in cubes and added to the beans at the beginning of the cooking improves the flavor.

Calcutta Rice.—Two cups rice, two cups tomatoes, half pound of cheese, one tablespoon salt, peppers and celery or onions added if desired. Boil rice, mix with tomatoes, grated cheese and seasonings and pour into baking dish. Bake half hour. If peppers or celery are used, cut up and boil with rice. These dishes have as much building material as a pound and a half of solid meat.

Savory Spaghetti and Kidney Beans.—One cup spaghetti, two cupfuls dried kidney beans, one teaspoon salt.

Wash and soak the beans over night, add the salt and cook until tender. Break spaghetti into pieces about an inch long, cook in boiling salted water until soft. Drain and rinse with cold water. Make a tomato sauce as follows: Three tablespoons fat, three tablespoons flour, two cups stewed tomatoes.

Melt the fat, add the flour and cook until bubbling. Add the tomato and cook all until thickened and well blended. Mix together the cooked beans, spaghetti, and tomato sauce, season with salt, pepper and paprika, and serve hot. This may be varied by substituting one cup or more of boiled rice for the spaghetti.

CONTRIBUTED RECIPES.

Pumpkin Pie Like Grandma Used to Make.

She used no sugar, and here is her recipe, dug up for these Hooverized times. Pumpkin pie can be made without one spoonful of sugar. That is nothing new. It was made that way in our grandmother's day. Of late years, however, all recipes for pumpkin pie have called for a certain amount of sugar, and now that is not so plentiful, their proportions are at fault. This recipe is proving most satisfactory and calls for no sugar. Two cups cooked pumpkin, one-half cup sorghum (or molasses), one teaspoon of cinnamon, one-half teaspoon of ginger, one-half teaspoon of salt, two eggs, two cups of milk.

Pleasant Memories

of a real Thanksgiving Day last the whole year through.

Home ties are made more precious by those happy, joyous reunions.

William and Susie come home to the farm or Father and Mother visit the Children in town.

Old times are discussed; old acquaintances are renewed; new friends are oftentimes made; happenings of boyhood and girlhood days are told and retold.

And soon the savory, appetizing odors from the kitchen, where the wonderfully tasty goodies baked from

Lily White

"The Flour the Best Cooks Use"

are waiting their turn to add to the pleasure of all, remind everyone that another Thanksgiving Day is at hand.

And what a feast.

Roast Turkey and Dressing with Cranberry sauce and jellies—enough for two helpings and more.

Such biscuits and rolls—flaky, tender, light and deliciously flavored—such as LILY WHITE produces.

Then the tarts and mince pies, and even our own particular kind of cake that dear old mother made just to please her grown-up children, kiddies of days gone by.

Surely it's a wonderful occasion, the memory of which will last the whole year through.

We are glad to have Lily White contribute to the day's pleasure.

Our Domestic Science Department furnishes recipes and canning charts upon request and will aid you to solve any other kitchen problems you may have from time to time. Public demonstrations also arranged. Address your letters to our Domestic Science Department.

VALLEY CITY MILLING COMPANY

Grand Rapids, Mich.

The Leader of All Teas

"SALADA"

ORANGE PEKOE

Fresh—Clean—Fragrant—Pure

Sealed Packets Only—By All Grocers.

What 15¢ will bring You 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.

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 15¢ to show that you might like such a paper, and we will send the Pathfinder on probation 13 weeks. The 15¢ does not repay us; we are glad to invest in new friends.

The matter of 15¢ 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 is 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 15¢ to show that you might like such a paper, and we will send the Pathfinder on probation 13 weeks. The 15¢ does not repay us; we are glad to invest in new friends.

The Pathfinder, Box 78, Washington, D.C.

Grow RABBITS and CHICKENS

Dodge the Butcher! Big Returns Quick Requires little space and small investment. "RABBIT CULTURE," big 132-page illustrated book tells how. Practical advice regarding breeds, equipment, feeding. Price 50¢ postpaid. (Cloth \$1.) With POULTRY ITEM one year \$1. The Poultry Journal with a big Pet Stock Dept. Item trial offer 4 mos., 25¢ Poultry Item Box 55 Sellersville, Pa.



We Want More Fresh Hennyery



EGGS

Write Us For Prices

F. J. Schaffer & Co.

Eastern Market, Detroit, Mich.

Chickens Sick?—Use Germozone Roup, colds, bowel troubles, sorehead, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library. GEO. H. LEE CO., Dept. 426, OMAHA, NEB.

POULTRY

BREEDING COCKERELS

Bred-to-lay S. C. White Leghorn and Barred Rocks. Would advice ordering early. Price reasonable. Write us your wants. Sunnybrook Poultry Farms, Hillsdale, Mich.

Barred Rocks—EGGS FROM STRAIN with records to 200 eggs a year. \$2 per 15. Delivered by parcel post, prepaid. Circular free. FRED ASTLING, Constantine, Mich.

Buff Leghorns Now is the time to place your order for next year's stock. Dr. WILLIAM SMITH, Petersburg, Mich.

Additional Poultry Ads on Page 527



© 1918 A.B.S. Inc.

"SHUBERT" Paying Highest Prices ever known for

SKUNK — MUSKRAT — MINK — RACCOON — WEASEL
And All Other Fur-Bearers Collected in Your Neighborhood.

Ship your Furs to an honest—reliable—responsible—safe Fur House—where you are sure of receiving every dollar your Furs are worth. You take no risk by shipping to "Shubert"—"The Shubert Guarantee" protects you absolutely.

Get A TRIAL Shipment Off—TODAY

Write for "The Shubert Shipper," a complete Fur Market Report and Price List issued at every change in the Fur Market.

It's FREE—Write For It—NOW
 SHIP YOUR FURS DIRECT TO

A.B. SHUBERT INC.

The Largest House in the World
 Dealing Exclusively in

AMERICAN RAW FURS

SHIP TO SHUBERT— 25 W. Austin Ave. DEPT. 61 Chicago, U.S.A.

— AND BE HAPPY

RAW FURS

Established 1853
 Capital, \$1,100,000
 Incorporated 1889

We Pay the Market's Highest Mark

TRAUGOTT SCHMIDT & SONS

145 Monroe Ave.

Detroit, Mich.

FREE
 Price List and Booklet
 "Successful Trapping"
 Write TODAY

RAW FURS WANTED

Owing to War conditions, scarcity of Labor, High prices of Material, we issue no Price Lists this year. We prefer to give you the benefit in price for your Raw Furs, which we want badly, and will accept in any quantity.

We remit the day we receive your shipment. We pay all Express or Parcel Post charges; will hold your shipment subject to approval, or return if you so request.

Our references are—Your own Bank, Grocer or Dry Goods Jobber, or your very neighbor, if our shipper.

GROSS, ENGEL & CO.



ESTABLISHED 1888

Capital \$500,000. First Credit

117 WEST 27TH ST., NEW YORK.

NEW YORK

The International Fur Market

The reliable Raw Fur merchants of New York, joined together as the Raw Fur Merchants' Association, pledge you, the shipper, their solemn word, that here in New York, The International Fur Market, you will realize the utmost that the world's highest price market can afford. New York is eagerly and instantly responsive to increased demand, which is a guarantee of the greatest net proceeds for you. New York's demand for furs was never so great as right now. Your pelts are bound to come here eventually because they will be dressed, dyed, manufactured and sold here. Ship them direct to the market that gives you the big, quick money and a square deal. We co-operate with you. Address the Secretary, THE RAW FUR MERCHANTS' ASSOCIATION, 46 West 24th St., New York.

Trappers' Guide
 Free on Request

RAW FURS

WAR CONDITION

open up undreamed of advantages to shippers. Demand is so great and supply is so limited that we are this year paying unheard of prices for big or little shipments of furs.

Get Your Big War Profits

by shipping to a big fur house in the big market. No deductions, no commissions, no quibbling. Just big, quick returns for quick shipments.

Send today for price list G.

SPEER FUR CORPN
 136 West 31st St New York

RAW FURS

Send for our price list today. Let us prove to you that we pay HIGHEST PRICES. We pay exactly what we quote and know you will be pleased with our LIBERAL GRADING.

WULFSOHN

A house you can depend upon. We make no deductions of any kind, give every shipment individual consideration regardless of how small or large. On account of our unusual outlet for furs, we can actually pay you more money. Write for price list.

M. Wulfsohn & Co.
 208 West 27th Street
 New York City



Our Boys' and Girls' Page

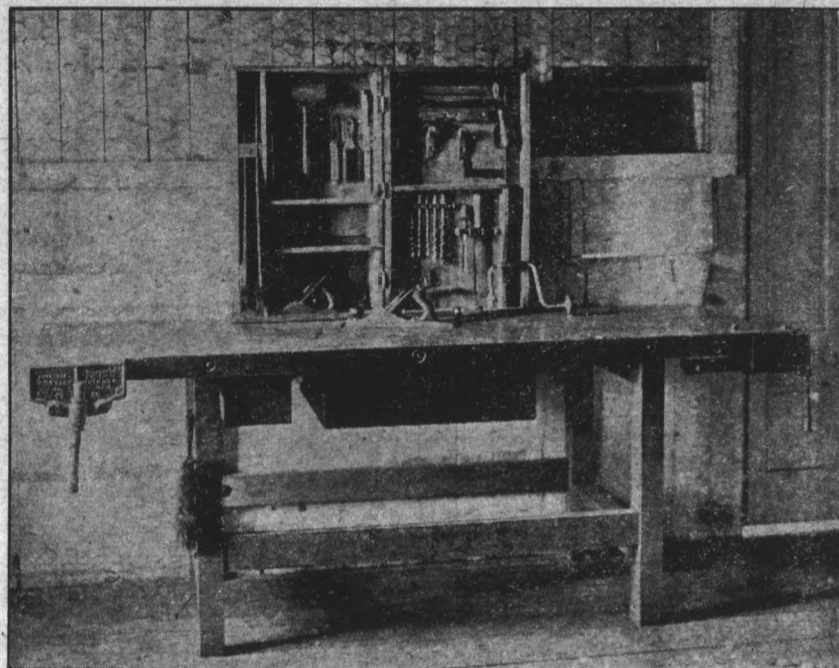
Christmas Ideas for the Boys

MANY of the devices described in this article may be purchased pine $\frac{3}{4}$ x 8 inches by three feet three inches for the sides, and one piece $1\frac{1}{2}$ x 6 x 6 inches, which is sawed diagonally for braces.

be made at home with very little equipment and no difficulty. Spare time evenings or stormy days can be spent

An Attractive Book Rack.

An artistic book rack for sister's room, or in fact, for any member of



Every Farm Should Have a Good Work Bench.

in the shop or basement and the purchase price saved for other things. Only the simple tools are required for the articles described herein and the material, with a few exceptions, can be obtained from waste lumber about the home. It is not absolutely necessary that a bench be provided to work upon but a bench will be found to be very convenient and will probably save time in the end. A simple farm work bench is shown below.

To make this bench the tools necessary are: Cut-off saw; brace and bits ($\frac{1}{4}$ and $\frac{1}{2}$ -in.); screw-driver; hammer.

Material: Three pieces of 2x10 inches by eight feet pine, dressed; one 4x4-inch by 12-feet pine, dressed; two 1x10-inch by 16-feet pine, dressed; one 3x6-inch by 2 $\frac{1}{2}$ -feet oak, dressed; two $\frac{1}{2}$ x6-inch by 14-feet pine, dressed; three 1x5-inch by 10-feet pine, dressed. one $1\frac{1}{2}$ -inch vise screw; one dozen No. 6, half-inch screws and some No. 8 d nails.

A Serviceable Sack Holder.

The sack holder saves time and labor and is an article that should be

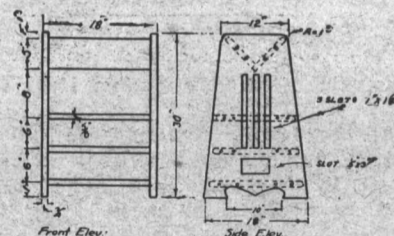
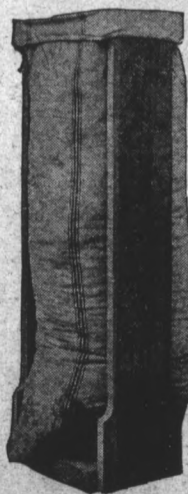
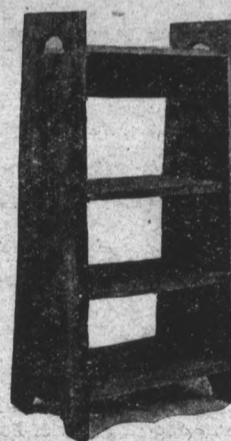
the family, should prove an attractive gift, as well as an ornamental part of the home furniture and equipment. The material should be cypress or pine

BILL OF MATERIAL

WOOD PIECES

One Piece $\frac{3}{4}$ x 7 x 16 $\frac{3}{4}$ } for trough
 One Piece $\frac{3}{4}$ x 6 $\frac{3}{4}$ x 16 $\frac{3}{4}$ }
 Two Pieces $\frac{3}{4}$ x 18 x 30" for sides
 One Piece $\frac{3}{4}$ x 17 $\frac{1}{2}$ x 18" bottom shelf
 One Piece $\frac{3}{4}$ x 16 x 18" End Shelf
 One Piece $\frac{3}{4}$ x 14 $\frac{1}{2}$ x 18" Top shelf.

Dowel Pins — 32—



and should be finished in either natural or with a filler and wax.

A Gift for Father.

For father the auto-jack or the sack-holder would be acceptable. With the high price of tires it is important that no precautions to save tires be neglected. One way to save tires, and an important way, is by relieving them of the weight of the machine when the car is not in use. If the car can be jacked up off the floor every time it is

available on every farm. The sack holder here pictured can be made for potato sacks by changing the width and height to the desired dimensions. The material necessary consists of one piece of oak or pine, $1\frac{1}{2}$ x10 inches by 12 inches for the bottom; two inches of

left idle, the strain on the weak places in the fabric will be relieved.

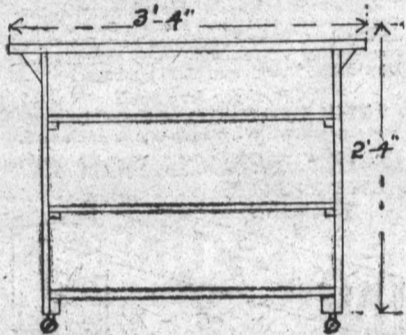
The jack here shown is built to fit a Ford car but it can be made for any



other make of machine by making the tongue wide enough and long enough to fit the hub and the diameter of the wheel.

A Kitchen Wagon.

The kitchen wagon is, as the name implies, really a portable kitchen table,



useful when canning, baking, washing dishes, etc., and will be appreciated by mother.

This wagon is made from half-inch material twelve inches wide. The material used can be white wood, pine or oak. Four castors or small rubber-tired wheels can be used for the corners. The finish will depend upon individual tastes.

HATS OFF TO THE FLAG!

BY E. L. VINCENT.

At every cantonment in this country where soldiers are in training for service over the seas, at some central point, on a staff that is tall enough to be seen plainly all over the grounds, the stars and stripes float during the day. In the first light of the morning the flag is pulled to the top of the staff. The ceremony of lowering the flag at sundown is one well worthy to be called sacred. At a given hour a squad of men detailed for this purpose proceeds to the spot. At a signal from an officer, the rope is loosened and the flag comes running down. But it must not touch the ground. Not a speck of dust can stain its folds. The moment it comes near enough, the soldier boys catch the flag as tenderly as if it were the most precious thing on earth and keep it off the ground. Then it is folded carefully according to very definite rules, and borne away for safe keeping until another day. Every soldier present at this ceremony must stand with his face to the flag. To turn away would be a most serious offense, of which no true soldier would be guilty.

We would like to see on every farm of this country, near the home, a similar flagstaff, surmounted through every day, rain or shine, by the Stars and Stripes. To watch the rippling of Old Glory would be a lesson in patriotism that would tell wonderfully in the making of manhood and good citizenship. The young folks of the farm should be given the care and keeping of these flags. They should put them up and take them down; and while they do so, they should touch them with reverent hands, remembering what they stand for, not only in the United States, but wherever men are struggling in behalf of human betterment.



When Peace Is Signed Will Wheat Go Up—or Down?

Will all crop prices stay as they are now? What about corn? Hogs? Milk? Beef? What will control these prices after Mr. Hoover lets go of them, and what will they most likely do? Will the packers and milling interests make more money or less after the war? What about farmers' taxes? These are National questions, and you will find the answers in the National Farm Monthly—the only big National farm-paper—THE FARM JOURNAL. Read the December issue, now out. Get the habit of thinking Nationally, for it is National conditions that control the prices of farm products.



Putting in Ice

How to cut, store and house your ice for next summer.



The Tenant's Cottage

Best plans for building at least expense.



\$100 for Best Solution of "The Mystery of the Mountains"

Thrilling—fascinating. How does it end? Money for you if you guess right.

Get Subscriptions—Make \$25 to \$100 Weekly

Work on a straight salary—at home or travel. We want 50 more live agents, and pay most liberally for your time. Write at once. A. H. Jenkins, Sales Manager.

Big Money in Straight Dairying

The big feature for December is another splendid article in the "Making of a Good Living and 100%" series—tells how one farmer stuck to straight dairying and made more money than his neighbors. He had no side lines of any kind and sold few crops. The details of his success will help your bank account.

More About "Sick Farms," by Dr. Spillman

Another intensely interesting and helpful article by Dr. W. J. Spillman, formerly head of the Bureau of Farm Management, at Washington. If your farm is "sick," write Dr. Spillman and get his advice. His experience is at the service of every one of our subscribers, and he is glad to help you better your farm and better your profits.

Have Breeders More Dollars Than Sense?

What should the average farmer pay for fancy stock—what prices should he get? Are the fancy prices often paid justified? Is somebody being stung? Read the Farm Journal for December and find out.

Make the Chimney Save Heat
A. B. C. of Road-Making
The Tractor in Cold Weather
Farm Journal Poultry House

Trapping the Raccoon and the Fox

More furs needed than can be caught has made a very profitable raw fur market. Spare-time trapping for men, women and boys pays. Read how to do it.

How To Be a Good Rifle Shot
Last-Minute Christmas Gifts
Keeping Tools in Shape
War-Time Christmas Sweets

Special Offer!

Just think! For less than 2c a copy you can read The Farm Journal every issue for thirty months. One number alone will repay you many times your subscription.

50c

For 2½ Years

Now Until June, 1921

Get your order in NOW! For prompt action we will send November and December numbers FREE, and mail the paper regularly until June, 1921. Money back any time you ask.



The Farm Journal

The National Farm Paper

PHILADELPHIA

182 Washington Square

Don't Miss The December Number!

(8793)

Ship Your Furs direct to Mr. Pfaelzer

He's the man who helped make New York the world's Premier Fur Market—leader of liberal assortments—of high prices—instant settlements—the square deal. Mr. Pfaelzer will help you buy Liberty Bonds and War Savings Stamps by being unusually liberal for quick shipments. He needs your furs. No shipment too small. None too large. His money awaits your furs. Send for price list and ship to 115-123 West 29th Street (Desk 20), New York MEMBERS RAW FUR MERCHANTS' ASS'N

M. F. PFAELZER & CO.



COLD WEATHER

Will soon be here. Are your Fur Coats, Robe and Fur Sets in condition to last you the coming season. If not, we would like to do the work for you. We Refine—Repair any kind of Fur Coats or Robes, make over Ladies Fur Coats, remodel Ladies Furs and reline Muffs and etc. Write to us for an estimate. We will gladly send samples of lining, catalogue and etc.

THE BLISSFIELD TANNERY, W. G. White Co., Inc., Blissfield, Mich.



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.

RAW FURS WANTED

WE pay express charges and guarantee satisfactory and prompt returns. Send us trial shipment. Will hold shipments separate if requested.

Milton Schreiber & Co.

RAW FURS

Dept. L

138-140

W. 29th St.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

NEW YORK CITY.

Cow Health is Dairy Wealth

Safeguard the health of your herd by building stables that will be clean, sweet and sanitary. It is easily done if you build with Natco Hollow Tile. Germs can't hide on the smooth glazed walls. A blanket of dead air in Natco walls keeps the stable warm in winter and cool in summer—prevents dampness and mildew.

Natco on the Farm

means healthier stock, cleaner and better milk—bigger profits and more dairy wealth. Natco Hollow Tile has fire-proofed most of the great "skyscrapers" of our large cities. The same material will protect your stock, grain and tools from the fire peril and will lower insurance charges. Natco buildings save painting and repairs. They cost less than other forms of masonry yet add greatly to the value of your farm.

Your building supply dealer will gladly show you samples and practical building plans. He has, perhaps, just the plan for which you're looking. But write us direct today for new illustrated "Natco on the Farm" book—1919 Edition—it's free!



National Fire Proofing Company
1115 Fulton Building Pittsburgh, Pa.
Factory and warehouse, a wide and economical distribution.



Tix-Ton-Mix with salt the year around keeps flock healthy and free from stomach worms and ticks. A \$5.00 box makes \$60.00 worth of medicated salt—saves you big money—A \$1.00 trial box of "TIX-TON MIX" by parcel post will medicate a barrel of salt.

Write for club offer—booklet on "Nature and Care of Sheep"
PARSONS TIX-TON CO., Grand Ledge, Mich.

BREEDERS' DIRECTORY.

Change of Copy or Cancellations must reach us Ten Days before date of publication.

CATTLE.

Wildwood Farms

Breeders of Best Strains of
Aberdeen Angus Cattle
and **Duroc Jersey Hogs**

Several young bull calves on hand, three of which are of serviceable age, out of Black Monarch III, three times Grand Champion, Michigan State Fair. Also several AI Brood sows. Will be glad to correspond with you by letter regarding stock. Write

SIDNEY SMITH, Supt.

Wildwood Farms, Orion, Michigan
W. E. SCRIPPS, Proprietor.

WOODCOTE ANGUS

TROJAN-ERICAS & BLACKBIRDS (BLACKCAPS) only. The most fashionable strains of the breed. Great care given to matings and pedigrees. Every animal BRED IN THE PURPLE. Breeders and feeders of some INTERNATIONAL WINNERS.
WOODCOTE STOCK FARM, Ionia, Mich.

Cloverly Angus Good quality bulls of serviceable age and younger. Inspection invited.
Geo. Hathaway and Son, Ovid, Mich.

GET GUERNSEYS

Tabulations made by the U. S. Department of Agriculture show that the average income over cost of feed from one cow that produces 450 lbs. fat is equal to the average income over cost of feed from 20 cows that produce 100 lbs. each. The average of all official Guernsey records is 450 lbs. fat. Learn more about these profitable cows. Ask for our free booklet "The Story of the Guernsey".

THE AMERICAN GUERNSEY CATTLE CLUB, Peterboro, N. H.

GUERNSEY BULLS

Eighteen months old and younger, Grandsons of Golden Noble II; free from disease. Guaranteed in every particular and at farmers' prices.
J. L. SNYDER, East Lansing, Mich.

Ballard Farm Guernseys. 40 head. May Rose and tuberculin tested, free from disease. Herd bull, son of Don Diavolo of Linda Vista greatest bull of breed. A.R. Cows, bred heifers, heifer calves and bulls from A.R. dams. A price on each individual, take your choice.
BALLARD BROS., R. 4, Niles, Mich.

GUERNSEYS must reduce herd, so offer Guernsey breeding also bulls, all stock of A. R. breeding, herd tuberculin tested.
T. V. HICKS, Battle Creek, Mich.

Guernseys 45 Registered head, all th. tested. Nora's May King, son of Imp. May Rose King, heads our herd, 19 of his half sisters sold averaging \$1850 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

REGISTERED GUERNSEYS

Two fine Grand Daughters of Pauline Spottwood, A. R. O. 750 lbs. bred to May Rose Bull with fine A. R. O. records. \$550 buys this pair.
J. M. WILLIAMS, No. Adams, Mich.

For Sale Registered Guernsey Cattle and Berkshire Swine.
JOHN EBELS, R. 2, Holland, Mich.

GUERNSEYS Registered bulls two years old and under grade heifers all ages, write your requirements.
WALTER PHIPPS FARM, 80 Alfred St. Detroit

OAK Leaf Farm. Herd sire Lenavree Pontiac Calamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 796.3, better 32.51—315 days milk 2372.3, butter 926.715.
E. H. GEARHART & SON, R. 4, Marcellus, Mich.

"Winwood Herd"

REGISTERED Holstein - Friesian Cattle
Sire in Service
FLINT MAPLECREST BOY

His sire is Maplecrest Korndyke Hengerveld. His three nearest dams each over 30 lbs. of butter in 7 days. His dam and granddam both made over 1232 lbs. of butter in one year. It is the yearly cow we are looking for to deliver the goods. Flint Maplecrest Boy's Dam is Gluck Vassar Bell, 30.57 lbs. of butter in 7 days and 121 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 12 months old. From A. R. O. dams and sired by Flint Maplecrest Boy, which we will sell at a dairy farmers price breeding considered. Just think 40 more cows to freshen which means more bull calves. Let us know your wants. We will make terms on approved notes.

JOHN H. WINN, Inc.

Lock Box 249, Roscommon Mich.
Reference Roscommon State Bank.

"Top-Notch" HOLSTEINS

The young bulls we have for sale are backed up by many generations of large producers. Buy one of these bulls, and give your herd a "push". Full descriptions, prices, etc. on request.
McPherson Farms Co., Howell, 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

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of Pontiac Korndyke Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.

Do you want a Pontiac in your herd?

Pontiac State Hospital, Pontiac, Mich.

REG. Holstein: Bull calf born Dec. 26, 1917, a splendid individual, straight, deep bodied 3/4 white, 7 nearest dams have A. R. O. records, that average butter 7 days 22.21 lbs. milk 497 lbs. W. B. Reader, Howell, Mich.

For Sale Cheap. 2 Holstein bull calves, born Jan. 28 and Mar. 22, both from 29.42 lb. sire. One from 23.80 lb. 4 years old dam, also a few females.
A. F. LOOMIS, Owosso, Mich.

\$50 Liberty Bond gets 1 mo. old gdson of Maplecrest Korn. Heng. dams are granddaughters of Pontiac Maid 30.21 lb. Heifers same age breeding \$150 terms. Herd free tuber.
M. L. McLaughlin, Redford, 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.

HOLSTEINS of quality. Bull calves from dams with records high as 31 lbs. in 7 days. Also collier puppies.
E. A. HARDY, Rochester, Mich.

The Traverse Herd

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

TRAVERSE CITY STATE HOSPITAL
Traverse City, Mich.



Coming Shepherds.

More Trees For Michigan

(Continued from first page)

pine is become a very valuable lumber product, private persons do not usually wish to plant where they can hardly expect to reap in their own life time. The state is perpetual. It can wait. That is why the state is doing this great and useful work. There are millions of acres of land in Michigan which can never make good farming lands but which can again bear a wonderful forest of immensely valuable timber.

The state can replenish its supplies of certain conifers, if it takes thought for the future. The work of the Higgins Lake nursery indicates that it is taking thought for the future. If Michigan does as well as some European states, it should eventually receive from its own state forests a net income of at least five dollars per acre. I have been assured by forestry experts that there is no good reason why it should not do as well or better. An annual income of two to three million dollars a year is realizable from our state forest lands alone.

Fire is the most deadly enemy of the state forests. Riding through the Higgins Lake forest one traverses and crosses lanes through the forest cover. These are fire lines made by removing all forest growth, plowing the land to a width of ten feet, and then discing it twice a year to keep it clear of inflammable material. This last process is performed by a twenty-one-hundred-pound disc drawn by a caterpillar tractor. There are some one hundred and thirty-four miles of such lanes to be thus kept clean on the Higgins Lake forest alone, and many more miles on the other forests of the state. These fire lines are useful in fighting fires that may break out within the forest—which is rare—or may approach from outside—which is more frequent.

Small fires are fought with sand and brush. Large fires are restrained by back-firing. Back-firing, done strictly under the control of the fire patrol, damages only forest doomed to destruction and places a much wider front between the advancing conflagration and the forest to be saved. So far as the state forests are concerned, these methods are almost one hundred per cent efficient as a protective agency. Fire lines are constructed at intervals of a quarter of a mile where practicable—sometimes at a greater distance. A fifty-foot steel tower surmounts a hill not far from the station, whence a lookout has the entire district under observation for the detection of fires. This lookout communicates with headquarters by telephone. It is of the utmost importance to keep fires out of the state forests; otherwise all the work of reforestation goes for naught in a burst of flame started by careless campers or a cigarette stub tossed into the forest cover by a heedless smoker.

DECEMBER HOG PRICE.

The Food Administration announces that after consultation with the sub-committee, agricultural advisory board, the special swine producers' representatives, and with the packers, it has been arranged that the November price basis for hogs at \$17.50 shall continue through December.



Breaking all Records

Right now—when milk prices are breaking all records—is the time to make new high records in milk production. It is surprising how effectively this can be accomplished by raising the health standard of your dairy cows.

The most prevalent cow ailments—Abortion, Retained Afterbirth, Bunches, Lost Appetite, Scours, etc.—arise from an impaired condition of the genital and digestive organs. Kow-Kure has remarkable medicinal properties that act directly on these organs, producing regular, healthy action. The cow thrives on Nature's food, and a full milk flow naturally follows.

An occasional use of Kow-Kure will prevent disease and pay for its cost a hundredfold. The best dairymen keep it on hand constantly. Feed dealers and druggists sell Kow-Kure, in 60c. and \$1.20 packages.

Send for free book
"THE HOME COW DOCTOR"
—very useful wherever there are cows.

DAIRY ASSOCIATION CO.
LYNDONVILLE, VERMONT



NEVERSLIP

Red Tip Calks
Insure
STRONG EVEN PULLING
ON ICY ROADS

No Farmer can afford to risk losing a valuable horse through falls on icy roads when safety is so cheap and convenient. Red Tip Calks insure safety to the horse and comfort to the driver.
Your Blacksmith Has Them.



THE NEVERSLIP WORKS
NEW BRUNSWICK, N. J.

USE YOUR FORD FOR Farm Power

Attach a B Auto Power Pulley to its rear wheel and pump water, grind feed, saw wood, shell corn, fill silo, separate cream, run wind-stone, bale hay, run washing machine and do other hard power jobs ANYWHERE ON YOUR FARM. Make a regular power plant of your car—double its value.

B AUTO POWER PULLEY

Quickly attached to either rear wheel by Special Hub Cap furnished free with pulley—put on or taken off in a minute. **STRONGLY BUILT**—lasts a lifetime but pays for itself in a day. Can't wear out—can't damage car. Price for Ford, \$5.65; other cars, \$7.65. **SATISFACTION GUARANTEED.** Send check today or write for Free folder.

BAYNE MFG. CO., 703 Davis St. Bushnell, Ill.

Bone Spavin

No matter how old the case, how lame the horse, or what other treatment failed, try

Fleming's Spavin and Ringbone Paste, \$2 a Bottle
One application usually enough. Intended only for established cases of Bone Spavin, Ringbone and Sidebone. Money back if it fails. Write for FLEMING'S WEST-POCKET VETERINARY ADVISER. It is FREE.

FLEMING BROS., 252 Union Stock Yards, Chicago, Ill.



MINERAL HEAVE REMEDY CO., 463 Fourth Ave. Pittsburgh, Pa.

50 good Belgian Hares, and other large Rabbits, also some fox and Rabbit hounds, enclose stamp.
W. E. Lecky, Holmesville, O.

Holstein - Friesians For Sale

Young bulls of exceptional breeding, sired by King Ona whose dam made 1345-lbs. of butter in a year, and her dam 1100-lbs. in a year when she was 12-yrs. of age thus making the two dams average over 1220-lbs of butter in a year. The mothers of these young bulls were sired by Maplecrest Korndyke Hengerveld whose dam made 1232-lbs. of butter in a year and her dam 1246-lbs. of butter in a year, thus giving these young bulls four dams averaging better than 1200-lbs. of butter in a year. The dams of these bulls are heifers with their first calf, and made exceptionally good records for their age, and are fine individuals. These bulls have sufficient records and breeding to head any herd.

D. D. AITKEN,
FLINT, MICH.

Pontiac Bull FOR SALE

Sire King of the Pontiac's

Dam a 27 lb. cow with a 29 lb. Dam an extraordinary fine animal in every way. 3 years old and marked similar to his sire.

Also

A son of Aristocrate Pontiac (who is full brother to Aitken's bull) Dam a 22 lb. 2 year old daughter of Spring Farm King Pontiac 6th. He is 2 years old and $\frac{1}{2}$ white.

Bigelows Holstein Farm
Breedsville, Mich.



Butter making is the chief business of the Holland (Dairyman), the originators of the Holstein-Friesian breed of cattle. Upwards of forty million pounds of butter per year is exported from that little country, which is more per cow, and more per acre, than does any other country export.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.

HOLSTEIN FRIESIAN ASSOCIATION OF AMERICA, Box 164, Brattleboro, Vt.

HOMESTEAD FARMS

A Federation of Interests

Holsteins: From a herd of 50 Holsteins headed by the Bull King Zerna Alcartra Pontiac, son of King Seg is Pontiac Alcartra, the \$50,000 Bull, we offer a number of bred cows and heifers, younger heifers and calves, and young bulls. One particularly high class young bull now ready for service. If you want Holsteins of any class, will you please write to us for descriptions and photographs? Every animal guaranteed.

BLOOMINGDALE FARMS, Bloomingdale, 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.

Want Yearly Records?

Our new sire has four sisters whose semi-official records are 677, 742, 913 and 946 pounds of butter in one year respectively at 2 to 3 years of age. His dam is a daughter of Friend Hengerveld De Kol Butter Boy, four of whose daughters have records over 1000 pounds and she is also a granddaughter of Pontiac Aggie Korndyke, with six daughters above 1000 pounds of butter in one year.

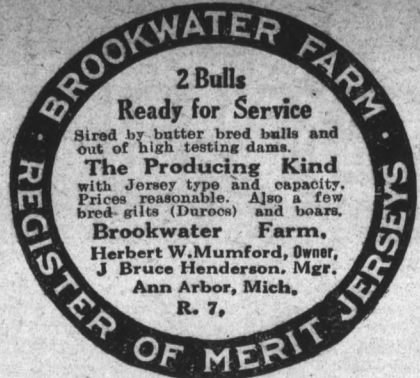
Peaceland Stock Farm, Three Rivers, Mich.
C. L. Brody, Owner
Charles Peters, Herdsman

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.

Reg. Holstein bull calf born June 18-18, extra choice and del. **J. ROBERT HICKS,** St. Johns, Mich.

Maple Lane R. of M. Jersey Herd. Bulls, bull calves and heifer calves sired by one of the best grandsons of Pogs 99th of Hood Farm and out of R. of M. dams. **IRVIN FOX,** Allegan, Mich.

For Sale. Choice bulls from R. of M. dams by Majesty's Oxford Fox, average profit per head on entire milking herd \$32.58 over cost of feed for cream alone tuberculin tested, and free from abortion. **ALVIN BALDEN,** Capac, Mich.



Hillside Farm Jerseys, offer 3 yearling bulls, backed by tested dams, and sired by a double grandson of Royal Majesty, first prize & junior champion at Mich. State Fair, good individuals. C. & O. Deake, Ypsilanti, Mich.

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

JERSEY BULLS
Ready for service FOR SALE
WATERMAN & WATERMAN, Ann Arbor, Mich.

Meridale Interested Owl No. 111311 heads my herd's bull calves from this great sire and out of R. of M. dams for sale. **C. B. WEHNER,** Allegan, Mich.

For Sale Registered Jersey Cattle
of both sex. **Smith & Parker, R. 4, Howell, Mich.**

LILLIE Farmstead Jerseys. Young bulls ready for service from R. of M. cows. A few bred heifers and cows. **COLON C. LILLIE,** Coopersville, Mich.

Herefords

5 Bulls 9 to 14 months old Prince Donald, Farmer and Perfection Fairfax breeding.

ALLEN BROS., Paw Paw, Mich.

Herefords Polled and Horned blood lines embrace Fairfax. Polled Perfection and Prince Lad 9th breeding. Prices reasonable. **COLE & GARDNER,** Hudson, Mich.

Herefords Bob Fairfax 494027 at head of herd. Stock for sale, either sex, polled or horned, any age. Priced right. **EARL O. McCARTY,** Sec'y. H. B. Ass'n, Bad Axe, Mich.

BIDWELL SHORTHORNS

Registered bulls, cows and heifers—Good Scotch and Scotch-Topped for sale. In prime condition. Modern sanitary equipment. Farm 10 minutes from N. Y. C. depot. 1 hour from Toledo, Ohio. Automobile meets all trains. Write

BIDWELL STOCK FARM,
Box B, Tecumseh, Mich.

Richland Farm Shorthorns

Sires in Service: Fair Acres Goods and IMP. Lorne-Michigans Grand Champion Bull. The largest Herd of Scotch cattle in the State. Every animal Tuberculin Tested by the Sanitary Commission. Special offer on two extra good white bulls. The kind that produce roan calves.

C. H. PRESCOTT & SON,
Herd at Prescott, Mich. Office at Tawas City, Mich.

Francisco Farm Shorthorns

We maintain one of Michigan's good herds of Scotch and Scotch-Topped cattle. They are well bred, properly handled and price reasonable. Come and see; we like to show them.

P. F. POPE, Mt. Pleasant, Mich.

Shorthorn Cattle of both Sex for Sale
W. W. KNAPP, Howell, Michigan.

For Sale Shorthorns of Quality Scotch and Scotch-Topped descendants of Archers Hope, Avondale, Maxwaton Sultan and White Hall Sultan by the Oscola Co. Shorthorn Breeders Ass. **JOHN SCHMIDT, Sec.** Reed City, Mich.

Shorthorn Seven Scotch and Scotch Topped bulls for sale. Price reasonable. **W. B. McQUILLAN,** R. 7, Howell, Mich.

Shorthorn Bulls ready for service of the choicest breeding. Write me your wants. **A. A. PATULLO,** R. 4, Deckerville, Mich.

Dual Purpose Shorthorns all ages, a ton Roan 3 yr. old herd bull, also Duroc Hogs all ages. **WAS. BRAY,** Okemos, Mich.

For Sale Shorthorn Bulls of the choicest breeding and ready for service. **LUD HASTINGS,** Napoleon, Mich.

Shorthorns 100 head to select from. Write me your wants, price reasonable. **Wm. J. BELL,** Rose City, Mich.

For Sale Best Bates Shorthorns; cows, heifers and young bulls at reasonable prices. **CLARE RIGGS,** R. 4, Mason, Mich.

HOGS

Registered Berkshire sow to farrow in January and a good herd bull, both at market price. Good breeders. Guaranteed OK. **B. B. Reavey,** Akron, Mich.

TOP Cherry King J 102629 a Senior Yearling by Orion Cherry King T, by Orion Cherry King, one of our herd bulls, he is right and is to be sold; a spring boar by Mich. Cherry Col 118479 by Cherry Friend by Orion Cherry King. If you have not a herd boar, write today. **THE JENNINGS FARMS,** Bailey, Mich.

DUROC BOARS

Big long, tall, growthy boars. The kind that will add size and growth to your herd. Biggest March farrowed pigs in country. Weigh 200 lbs. not fat. **NEWTON BARNHART,** St. Johns, Mich.

Duroc Herd boar a junior yearling weighing nearly 400 lbs. in feeding condition, sired by Gold Model and out of a Brookwater Cherry King dam, a sire that we can guarantee good reasons for selling, priced for quick sale at \$75. **RUSH BROS.,** Romeo, Mich.

DUROCS April and May pigs of both sexes sired by a Defender bred boar. For prices etc., write **WELLS PARISH & SONS,** Allendale, Mich.

Pleasant View Durocs Spring boars and gilts of exceptional quality priced right. Inspection invited. **C. A. BURLINGAME,** Marshall, Mich.

Duroc Jersey spring boars sired by Orion Cherry King Cal. Write for prices and description. **W. C. TAYLOR,** Milan, Mich.

Duroc Jerseys Big heavy boned spring boars winners at State and County Fairs. Place order early. **F. J. DRODT,** R. 1, Monroe, Mich.

Duroc Boars, Gilts, Big Long, Tall, 200 lb. April 1, boars and gilts of the choicest breeding. Also an A. R. O. 1 yr. Holstein bull. **F. E. EAGER & SON,** Howell, Mich.

Duroc Gilts and fall pigs sired by E. D's Defender Col. from King The Col. dams, **E. D. HEYDENBERG,** Wayland, Mich.

DUROC JERSEYS Nothing but spring pigs for sale. **CAREY U. EDMONDS,** Hastings, Mich.

Duroc Spring Boars at the right prices. Percheron hogs cheap. Bred Rock Cockerels. **E. J. ALDRICH,** Tekonsha, Mich.

I AST fall gilts all sold, have a good lot of last spring L pigs from 3 sires good growthy stock. Farm $\frac{1}{2}$ mile west of depot. Citizens Phone 124. **TTO B. SCHULZE,** Nashville, Mich.

Raise Chester Whites

Like This

the original big producers

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

Chesters I have some splendid March gilts of the broad heavy hamed kind bred for March farrow; priced right. **F. W. ALEXANDER,** Vassar, Mich.

THE WORLD'S CHAMPION big type O.I.C.S. Stock of all ages for sale. Herd headed by Caloway Ed, the World's Champion O. I. C. boar assisted by C. O. Schoolmaster, Grand Champion boar of Michigan, New York and Tennessee state fairs. Also, C. O. Giant Buster, undefeated Senior boar pig wherever shown and Grand Champion of Oklahoma state fair. Get our catalogue of Orandell's prize hogs, Cass City, Michigan.

O. I. C.'s I will ship C. O. D., record free of charge and pay the express of every service boar sold in November. **F. C. Burgess, R. 3, Mason, Mich.**

SERVICEABLE BOARS
Shipped
C. O. D. and Express Paid
J. CARL JEWETT, Mason, Mich.

O. I. C. & Chester White Swine
Strictly Big Type with QUALITY. Have a few spring pigs either sex for sale. They are of the right stamp, good enough to be shipped C. O. D. **NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.**

8 Large Type O. I. C. spring boars also 2 prize Jr. yr. boar Mich. State Fair 1918. **CLOVER LEAF STOCK FARM,** Monroe, Mich.

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

For Sale Registered O. I. C. pigs either sex, high class stock at farmers' prices. **JOHN SANDRUS,** Port Huron, Mich.

O. I. C.'s big type serviceable boars. Yearling sows and gilts bred for spring farrow. **G. P. ANDREWS,** Dansville, Mich.

Glinchfield Polands

Two Bred Gilts; five smooth deep bodied boars that show the ability of their sire to produce the best extra heavy boned, good footed, smooth chaps—the making of real herd boars of the 1000 pound class. You can't go wrong.

Breeders of Big Type Poland Chinas.

CLINCHFIELD FARMS
I. L. Colborn, Cassopolis, Michigan

BIG TYPE POLAND CHINAS

Spring boar and gilts. Also fall pigs. **Hillcrest Farm,** Kalamazoo, Mich.

BIG TYPE POLAND CHINAS
200 lb. April boars of choice breeding and choice individuals, ready to ship, cholera immune. Prices reasonable. Inspection invited or write me. **WESLEY HILE,** R. 6, Ionia, Mich.

FOR 25 YEARS

This establishment has been head quarters for Big Type Poland Chinas. We have a nice lot of boars and sows of strictly big type breeding at very low price. Let me know what you want. Bell phone. **JNO. C. BUTLER,** Portland, Mich.

Large type P. C. Mar. and April boars ready to ship, the big bone, big litter, biggest kind, that go out and make good, inspection invited. Free livey from Parma. **W. E. LIVINGSTON,** Parma, Mich.

The Old Fashion Spotted Poland Hogs. Early fall pigs either sex for sale \$25 each, fine ones. **J. M. WILLIAMS,** No. Adams, Mich.

Big Type Poland, one Monarch Jumbo fall boar, spring boars by Michigan Buster, Missouri Tim, Great Des Moines. **O. L. WRIGHT,** Jonesville, Mich.

Big Poland Chinas with quality. Spring, summer, and bred sows, for sale. **G. A. BAUMGARDNER, R. 2, Middleville, Barry Co., Mich.**

Big type P. C. Big boned fellows from Iowa's greatest herds, special prices on spring boars and choice bred gilts. **E. J. MATHEWSON,** Burr Oak, Mich.

LARGE Type P. C. Spring boars and gilts now ready to ship. None better in Michigan. Come and see them. **W. J. HAGELSHAW,** Augusta, Mich.

Big type Poland China spring and fall pigs either sex. Shorthorn Bull and bull calves. Price to sell. **ROBERT NEVE,** Pierson, Mich.

Big Type P. C. Spring Boars for sale, also Hampshire Ram lambs. **A. A. WOOD & SON,** Saline, Mich.

Big type Poland China boars, our herd won 41-1st, 22 2nd, 10 3rd prizes at leading Michigan fairs 1918. **E. R. LEONARD,** R. 3, Box 53, St. Louis, Mich.

Big Type Poland Chinas. Spring boars for sale. Booking orders for bred gilts. Inspection invited. **L. L. CHAMBERLAIN,** Marcellus, Mich.

Mammoth Poland Chinas. March, April, boars and gilts, Cholera immune, double treatment. Clyde Weaver, Mgr., Marshall, Address, Ceresco, Mich.

Big Type Poland Chinas. A few choice boars for sale yet at a bargain. Gilts all sold. **L. W. BARNES & SON,** Byron, Mich.

Registered Hampshire spring boars now ready at a bargain. Bred gilts in Dec. **JOHN W. SNYDER,** R. 4, St. Johns, Mich.

A FEW choice, large type P. C. Spring boars and gilts, also summer pigs. **OLYDE FISHER,** R. 3, St. Louis, Mich.

L.S.P.C. Get a boar, pig sired by Smooth Jumbo the largest boned boar in the state, also by Big Defender. **H. O. Swartz,** Schoolcraft, Mich.

Yorkshire Gilts

(Pigs that are Pigs)
For fall or Winter Breeding. Address **OAKCROFT** R. 7, Pontiac, Mich.

SHEEP

Hampshire

Shropshire and Oxfords, either sex, send for circular and prices. **KOPE KON FARMS,** Kinderhook, Mich.

Hampshires am offering for sale 10 yearling Rams also 5 ram lambs. **F. A. SIMMONS,** Rockford, Mich.

Shropshires Ram lambs for sale, sired by an imported Buttar ram. **W. B. McQUILLAN,** Howell, Mich.

Registered Shropshire yearling and ram lambs with best of breeding and size. A son of Tanners Royal at the Head. Priced to sell. **H. F. MOUSER,** R. 6, Ithaca, Mich.

FOR SALE Shropshire Ram lambs 10 bred ewes and 10 Ewe lambs. **ARMSTRONG BROS.,** R. 3, Fowlerville, Mich.

Have a few good yearling and ram lambs with a limited amount of young ewes. **HARRY POTTER & SON,** Davison, Mich.

Shropshire Am offering 8 yearling rams now. Also 12 young ewes for December delivery. **C. J. THOMPSON,** Rockford, Mich.

Shropshire Rams Yearlings and Ram Lambs of Quality. **B. D. KELLY & SON,** Ypsilanti, Mich.

Registered Shropshire rams and ram lambs. Extra fine. **A. E. BACON & SON,** Sheridan, Mich.

BIG ROBUST Yearling Shropshire Rams \$25.00 each. **A. H. FOSTER,** Allegan, Mich.

OXFORD Down Ram lambs, also a few ewe lambs. Berkshire both sexes. Booking orders for fall pigs. **CHASE STOCK FARM,** R. 1, Marlette, Mich.

Oxfords No More To Offer
O. M. YORK, Millington, Mich.

For Sale Registered Oxford Down rams and ewes; can be seen at FAIRVIEW STOCK FARM, Fred Wolfe, Snover, Mich.

25 Oxford Ewes and ewe lambs. My entire flock cheap to quick purchaser. **E. W. VAN FLEET,** Evart, Mich.

Improved Black Top Delaines. Sixty Reg. Rams to choose from. **NEWTON & BLANK, Hill Crest Farm, Perrinton, Mich.** Farm situated four miles south of Middleton.

Lambs from Western Ewes, fine for feeders. Breeding ewes and registered rams. **BARNARD SHEEP RANCH,** Clare, Mich.

Cotswolds, Lincolns, Shropshires, rams and ewes. Papers with each. **LEROY KUNNEY,** Adrain, Mich.

HORSES

Horses Will Be Horses Soon

We have on hand at all times a choice selection of young Percheron Stallions. Also have a few good work horses that we are offering to exchange for young stallions.

PALMER BROS.,

R. R. Orleans, Belding, Mich.

Percherons, Shorthorns and Duroc Jersey Hogs. **J. M. HICKS & SONS,** R. 2, Williamston, Mich.

Percherons, Holsteins, Angus, Shropshires, Durocs **DORR D. BUELL,** Elmira, Michigan.

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

For Sale—Our Imported French Percheron Stallion. For particulars address Glenbrook Stock Farm, 60 The Alhambra, cor. Park & Baggs Sts., Detroit, Mich.

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Wednesday afternoon, November 27.

WHEAT.

Despite the general lack of demand in grain markets, wheat trading shows a steady tone. Exporters are taking the grain in comparatively large quantities. Domestic consumption is larger than millers figured on a month or more ago, due to the removal of the ban on the use of substitutes. One year ago this market was paying \$2.17 for No. 2 red wheat. Present prices are as follows:

No. 2 red	\$2.24
No. 2 mixed	2.22
No. 2 white	2.22

CORN.

A modification in the car permit system which will facilitate the handling of corn in increased amounts was a factor in favor of the bears this week. Moreover, Argentine is shipping corn to Belgium, and South Africa is exporting to Great Britain. This removes some of the demand for American corn. The open fall has also reduced to some extent the amount of grain required for our live stock. We should not, however, lose sight of the big world cry for food when a market flurry like the present shows itself. The Detroit market is inactive with no Canadian or eastern buyers bidding at the early sessions this week. A year ago corn sold at \$2.14 for the No. 2 grade on this market. Present prices here are:

No. 3 corn	\$1.40
No. 3 yellow	1.45
No. 4 yellow	1.40
No. 5 yellow	1.30
No. 3 white	1.45

At Chicago the market has improved since Monday, with No. 3 yellow, new \$1.40@1.41; No. 4 yellow, old \$1.41; new \$1.35; December \$1.25; January \$1.26.

OATS.

A firmer tone prevails in the oat market and prices have recovered from the decline noted Monday. The announcement was made Monday that certain export interests had completed their winter storage purchase of oats. One year ago standard oats sold locally at 76½¢ per bushel. Present Detroit prices are:

Standard	75½¢
No. 3 white	75
No. 4 white	74

BEANS.

A better feeling prevails in our larger bean markets. Although domestic consumption is lagging somewhat, the government this past week purchased large blocks of beans to complete cargoes for export. Much of this was purchased at a loss to holders, but later prices were bid up. In New York pea beans of this year's crop are quoted at \$10.50 for choice. The Chicago market is firmer and a good demand is in evidence. Michigan pea beans, hand-picked, are steady there at \$9.50@10; fancy red kidneys \$11.75@12. The Detroit market is higher with immediate and prompt shipment quoted at \$9.00 per cwt. Michigan country buyers are paying from \$4.75@5 per bushel to farmers.

SEEDS.

Clover seed makes another advance this week, while the price for timothy is off. Detroit quotations are: Prime red clover \$25.25; March \$25.75; alsike \$19; timothy \$5.30.

HAY.

This market is about the same as last week with demand easy and supplies sufficient. Quotations are:

No. 1 timothy ...	\$28.50@29.00
Standard timothy	27.50@28.00
No. 1 mixed	24.50@25.00
No. 1 clover	23.50@24.00

BUTTER.

Fancy butter is in demand and the supply is light. The markets advance about two cents. At Detroit the trade is rather dull because of no supplies of good butter. Fresh creamery extras are quoted here at 63¢; do firsts 60¢@61¢. The present Chicago price for creameries range from 54¢@65¢, an advance of 2½¢. The New York market is up to 60¢@67¢ for creamery. Philadelphia has also gone higher, with western creamery extra at 66¢.

EGGS.

All egg markets are reported strong. Supplies are inadequate. At Detroit ordinary firsts, candled, are going to jobbers at 63¢; firsts do. in new cases 66¢; extra firsts do. 67¢; storage eggs are moving at 45½¢@48¢ per dozen. At Chicago firsts bring 63½¢@64½¢; ordinary firsts 54¢@58¢. At Philadelphia jobbers are paying \$21@21.60 per case for western extra firsts.

POULTRY.

This being Thanksgiving week, the poultry market has taken on a decided boom. The demand is large and receipts are increasing. Detroit prices are: (Live) springers 24@27¢; hens 22@26¢; roosters 19@20¢; geese 24@25¢; ducks 30@31¢; turkeys 32@34¢.

POTATOES.

A slightly firmer tone is noted in the potato market since a week ago, with prices about steady. The demand and movement, however, is moderate. At Grand Rapids round whites U. S. No. 1 sacked bring \$1.55, and bulk \$1.40. Prices to growers are about \$1@1.10. The Cleveland market is taking the above grade from Michigan at \$1.80@2; the Buffalo market \$2; Pittsburgh \$1.83@1.93; Cincinnati \$1.80@1.85 for

bulk; Chicago \$1.55@1.70 for bulk; Indianapolis \$1.70@1.80 sacked; New York \$3.10@3.15 per 150-lb. sack. The Detroit market is about steady at \$2.70 per 150-lb. sack and \$1.60 per cwt. in bulk.

APPLES.

Apple markets are not much changed from last week and prices are about steady. At Detroit No. 1 Baldwins sold to jobbers Tuesday at \$5.50@5.75, and most other varieties at \$5@5.50. The Chicago market is active at about steady prices. Michigan Baldwins and Greenings bring \$5.50; Spies \$6.25@7.

DETROIT CITY MARKET

A large volume of business was done this week. Poultry was especially in evidence. Dressed turkeys were held at 45¢; ducks 43@45¢; geese 35¢; live geese \$3.50 each; dressed hogs 25@28¢; eggs 75¢; potatoes \$1.20 per bu; apples \$1@1.60; onions \$1@1.15; cabbage 65¢; cauliflower \$2; turnips 50¢; hay \$28@33 per ton.

GRAND RAPIDS

Car shipments of apples out of western Michigan and storing in cold storage, finished. Price of apples \$5@6.50 per barrel. Most farmers have their crop of potatoes harvested. Market is slow at 90¢@\$1 per bushel. Considerable quantity put in pits.

Live Stock Market Service

Reports for Wednesday, November 27th

DETROIT

Cattle.

Receipts 2,847. Market steady at last week's prices; quality very common.

Best heavy steers	\$12.00@14.00
Best handy wt bu str.	10.00@11.50
Mixed steers and heifers ..	8.50@10.00
Handy light butchers	6.50@ 7.50
Light butchers	5.50@ 6.50
Best cows	8.50@ 9.50
Butcher cows	6.50@ 8.00
Cutters	5.25@ 5.50
Canners	5.00@ 5.25
Best heavy bulls	9.00@ 9.50
Bologna bulls	7.50@ 8.00
Stock bulls	5.50@ 7.00
Feeders	8.00@10.00
Stockers	6.00@ 8.50
Milkers and springers	\$ 60@ 125

Veal Calves.

Receipts, 1,012. Market steady. Best

Others

Sheep and Lambs.

Receipts 6,429. Market steady. Best lambs

Fair lambs

Light to common

Fair to good sheep

Culls and common

Hogs.

Receipts 9,336. Market steady. Pigs and light yorkers

Mixed hogs

In view of the heavy receipts of hogs weighing under 150 pounds which are too light for converting into meats suitable for export trade, it has been determined by the Food Administration after the conference agreement with Governor Stuart, chairman of the agriculture advisory committee, to temporarily include in the throwouts from packers' droves all hogs weighing less than 150 pounds. The exclusion of these hogs is necessary to the maintenance of price stabilization and these should be retained on the farm until they reach proper marketing weight.

CHICAGO.

Cattle.

Receipts 11,000. Market steady to slow.

Good to prime choice steers \$15@19.75; common and medium butchers \$9.25@15; heifers \$6.50@14; cows at \$6.25@13; bologna bulls \$7@12.75; canners and cutters \$5.50@6.25; stockers and feeders, good \$10@13; do medium \$7@10.

Hogs.

Receipts 28,000. Market opened 10¢ higher; closing steady to strong. Tops \$18.40; heavy \$18@18.35; mix-

ed and light \$17.85@18.40; packers' hogs \$17@17.60; medium and heavy at \$17.15@17.75; light bacon hogs \$17.10@18.15; pigs, good to choice \$13.50@15.50; roughs \$16@16.75.

Sheep and Lambs.

Receipts 10,000. Market is firm to higher on killers, feeders slow.

Choice shorn natives \$15.15@15.40; medium and good lambs \$14@15.15; culls \$9.50@12.25; medium, good and choice feeders \$13.25@14.25; choice yearlings \$11.75@12.50; medium and good yearlings \$10.50@11.75; wethers, medium and good \$9.50@10.50.

BUFFALO.

Cattle.

The cattle market here today rules steady. Prime heavy steers \$16@17; best shipping steers \$14@15; medium shipping steers \$11.50@13; best native yearlings 950 to 1000 lbs \$15@16; light native yearlings, good quality at \$12.50@14; best handy steers \$11@12; fair to good kinds \$9.50@10.50; handy steers and heifers, mixed \$9@10.50; western heifers \$10@11; best fat cows \$9@10.50; butcher cows \$7@8.50; cutters \$5.50@6.50; canners \$3.50@4.50; fancy bulls \$10.50@11; butcher bulls \$8.50@9.50; common bulls \$6@7; best feeders, 900 to 1000 lbs \$10@11.50; medium feeders \$8.50@9.50; stockers \$6@7; light common \$5@5.50; best milkers and springers \$10@15; mediums at \$75@90; common \$50@70.

Hogs.

Today's market steady with Tuesday, when prices were off 50¢ from last week. All grades sold at \$18.

Sheep and Lambs.

Trading improved since yesterday, with the best lambs at \$15.25@15.50; yearlings \$12@12.50; wethers \$10@10.50; ewes \$9.50@9.75; calves reached \$20.50 per cwt.

FRUIT GROWERS SHOULD NOT MISS IT.

Fruit growers will gather at Detroit December 10-13, at the annual session of the Michigan State Horticultural Society. The sessions will be held in the Board of Commerce Building. This big convention and apple show promises to mark a new era in the fruit industry of Michigan. Every live fruit grower will attend. The program promises to be one of the best put on by this society in many years. Visitors will have an opportunity to see the Detroit markets in action, look over an exceptional machinery and supply exhibit and a fruit display that promises to outdo anything the society has undertaken heretofore. You can secure further particulars by writing the secretary, G. M. Low, Bangor, Mich.

News of the Week

Wednesday, November 20.

THE last of the German forces pass out of Brussels. Marshal Petain leads French troops into Metz.—hTe preference in labor and supplies for war industries has been ended by the government.—Manufacturers of autos make a request of the War Board for steel to begin re-establishing their business on a peace basis.

Thursday, November 21.

HOLLAND will disarm 150,000 German troops who are enroute across Holland to Germany.—United States war ships assist in taking the great German fleet which surrenders to the Allies.—Michigan soldiers will constitute a portion of the army of occupation under the command of Major-General Dickman. These troops are now near the Rhine in southern Germany.

Friday, November 22.

FORMER Turkish chiefs have fled to Berlin where they will be interned.—The city of Luxemburg, at one time the most formidable in all Europe, is invaded by Pershing's troops.—The United States War Board grants higher wages to employees of the Detroit United Railway.—President Wilson signs the bone-dry prohibition measure to stop the manufacture of liquor on May 1, 1919, and to forbid the sale on and after June 1 until American troops are demobilized.

Genuine comfort if you ask for and get—

Mayer
Martha
Washington
Comfort Shoes

Beware of Imitations—
name and trade-mark
stamped on the sole.



F. Mayer
Boot & Shoe
Company
Milwaukee,
Wis.

37
DIFFERENT
STYLES

FIFTH ANNUAL
National
Farmers'
Exposition
AND STATE OF OHIO
Apple Show

Terminal Auditorium

TOLEDO

DECEMBER 6 to 14 INCLUSIVE



SUBMARINE TANK HEATER

Keeps water at even temperature on cold days. Burns kerosene. Will also burn coal, wood or cobs. No heat wasted. Live stock eat less with warm water. Pays for itself in feed saved. Write for details on this Submarine Tank Heater. Also non-freezeable Hog Waterer. Special Agent's Offer to Farmer Users.

C. W. BUSBY & CO.

Washington Dept. 8. Iowa

Saturday, November 23.

An explosion of munition trains at Hamont, Belgium, kills 150 persons and injures 1,500 others.—Colonel E. M. House, confidential adviser of President Wilson, is ill in Paris.—American railroad companies start a fight against government control.—Docks at Baltimore are destroyed by fire, causing a loss estimated at \$1,000,000.—The announcement is made that Michigan beet growers will be paid the same rates for beets in 1919 as are being paid this year, or \$10 a ton at way stations and \$10.50 delivered at factories.—At a conference of county food administrators at Lansing it is unanimously voted to continue the sugar card plan.

Sunday, November 24.

Allied armies have occupied fully one-half of the enemy territory to be taken under the terms of the armistice.—Berlin soldiers' council pledge protection to the former emperor and his family who are expected to return to Berlin.—Eight divisions of American troops are to be demobilized as quickly as possible.—The total American casualties in the war up to November 11 were 236,117.—Prospects are improving for a more adequate supply of anthracite coal this winter.

Monday, November 25.

BAVARIA and other southern German states threaten to secede unless a more moderate policy is adopted by the Berlin soldiers and workmen's council.—Germany surrenders twenty-eight more U-boats, including four of the cruiser type and the famous Deutschland.—Premier Clemenceau of France will visit London early in December to discuss problems in connection with the coming peace conference.—Gen. Pershing's men cross into Rhenish Prussia where the inhabitants are showing the Americans every consideration.—Polish troops capture Lemberg from the Ukrainians.—American Red Cross workers knitted 14,098,000 garments for the army and navy during the war.

Tuesday, November 26.

THE radical socialists under leadership of Liebknecht have emerged victorious over Ebert's government in a three-day struggle in Berlin.—Bavaria leads in a movement of the southern provinces of Germany to break with Berlin and join with Austro-Germany to form a new republic.—Reports from Paris indicate increased support to the peace conditions laid down by President Wilson.—The first units of the American Expeditionary forces to arrive from France will reach New York Saturday.—President Wilson gives Theodore N. Vail charge of the telegraph and telephone service of the United States.—Soldiers, sailors and marines rout socialists in a big mass meeting in New York City.—Peru recalls her consuls in Chile.

DOLLARS FROM THE GOOSE POND.

(Continued from page 513).

This is when the eggs are being hatched with hens.

Keep the goslings confined to small grass yards when they are first hatched, and drive them under cover when rain falls. By the time they are three or four weeks old, they can be given their liberty and will require but little more attention. A crumbly mash composed of two parts bran and one part corn meal should be given the youngsters three times a day until they are out of confinement. Don't forget the need of fine grit or coarse sand, too. It is well to keep on feeding a light mash every morning for several weeks after the young stock gets on range, although some breeders prefer to feed a little cracked corn which has been scalded to moisten it.

Altogether goose growing offers several inducements to farmers and farmers' wives who have suitable locations. Considerable profit can be made even by selling the eggs if one has a good laying strain, for goose eggs are much in demand at breeding time and prices are high.

POPULAR MECHANICS MAGAZINE DOES NOT CLUB.

In the clubbing offers which have been sent out by our circulation department recently, we inadvertently included Popular Mechanics. We are now informed by the publishers that Popular Mechanics has for years past had a fixed policy against being offered in any kind of clubbing offer whatever.

SATISFIED USERS wrote this Ad for Us.

Their Experience is worth real Money to YOU!

I have had several spreaders on my farm, but there are none like yours. I could not farm without it. Last fall I put six acres to wheat, first putting on 30 loads of manure. This spring I put on 20 loads more. You just ought to see that wheat. The manure made it stool out very good, and it will give 35 bushels per acre. If I had not used the Spreader this spring I am sure I would not have gotten over 15 bushels. Your spreader is one of the best investments you can put on the farm.
C. E. HUPRICH, Ohio.

I would not be without your Spreader, because it saves so much labor, puts the manure on the ground evenly, and I can spread any kind of straw or cornstalks. I believe my spreader will pay for itself in two seasons. With the proper use of manure on my place and using lime, I have increased the yield of my farm 25% in six years.
E. M. PHILLIPPE, Virginia.

Your Spreader has given entire satisfaction. I can recommend it to anyone needing a spreader. It is the lightest draft spreader I ever used. I handled mine in top dressing corn with two horses and I like it fine.
S. A. WUICK, Missouri.

I purchased one of your Spreader eight years ago and it has spread all of my manure from fifty head of stock during that time, and as a labor saver it has easily paid for itself each year. I believe that any farmer having more than five head of stock cannot afford to be without a manure spreader, unless he is especially fond of spreading manure by hand, which I am not.
C. E. HOUGH, Connecticut.

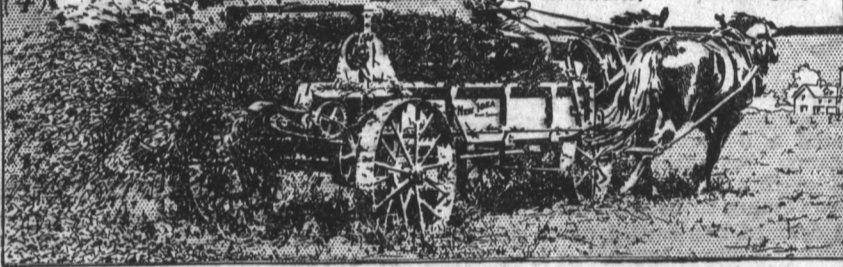
I have owned three spreaders in my time. The first two I didn't think much of. Then I got one of yours and now I am more than pleased with the spreader proposition. I find by hauling manure in the winter time on clover sod and letting the rains leach it down before plowing it under will oftentimes double the corn yield or even wheat. Where I used commercial fertilizer and barnyard manure together on 12 acres of wheat last year I got 600 bushels of wheat, an average of 50 bushels per acre. A farmer that owns ten acres can't afford to be without a spreader.
WILL HENSIL, Ohio.

THESE letters answer every question you may have about the New Idea Spreader. We will gladly send you the writers' addresses and copies of similar letters from many others, if you want further proof. These letters, like the New Idea itself, stand every test. They prove that you yourself should have a

NEW IDEA
Registered U.S. Pat. Off.

THE ORIGINAL wide spreading spreader that revolutionized old-fashioned methods—that has always been the leader. Has solid bottom with chain conveyors. Pulverizes thoroughly and spreads evenly. Drives with heavy sprockets and chain—no gears. Low down, light draft. Loads and pulls without undue strain on man or team. When you buy insist on the "New Idea"—the machine you are sure of. If you don't know our dealer, we'll send you his name and a copy of a splendid book on soil fertility. Send your name today.

New Idea Spreader Co.
Spreader Specialists
Coldwater, Ohio



WE WANT YOUR RAW FURS

Put your own assortment on them and mail us a copy. If we cannot net you as much or more than you expect, we will return them to you, express paid.

WE ARE NOW PAYING FOR IMMEDIATE SHIPMENTS AS FOLLOWS

	No. 1	No. 2	No. 3	No. 4	Value
Minn., Wis., Nor. Iowa & Dakotas.....	8.90	6.00	4.00	2.00	
Northern New York	7.00	5.00	2.50	1.25	
Maine, N. H., Vermont	7.00	5.00	2.50	1.25	
N. Y., N. J., Pennsylvania.....	6.00	4.00	2.00	1.00	
Mass., R. I., Connecticut.....	6.00	4.00	2.00	1.00	
Mich., No. Ohio, Ind., Ills.....	7.00	5.00	2.50	1.25	
Kans., Neb., No. Mo., So. Ia., Wash., Ore ..	7.00	5.00	2.50	1.25	
Gen. Ohio, Ind., Ills., Md., W. Va.....	5.75	3.75	1.75	1.00	
So. Ohio, Ind., Ills. & Mo.....	5.50	3.50	1.60	.90	
Virginia, North Carolina	5.25	3.25	1.50	.90	
Kentucky, Tennessee	4.50	3.00	1.50	.75	
Arkansas, Oklahoma and California.....	4.00	3.00	1.50	.75	
Cal., Fla., Ala., La., Miss., Texas.....	2.50	1.25	.75	.35	
Large Western Long Narrow Stripe Prime.....		2.50 to 4.00			

MUSKRATS

	Winter	Large Fall	Small Fall	Kitts
N. Y., New Eng., Eastern Canada.....	1.50	1.25	.75	.10
Michigan and Wisconsin	1.50	1.25	.75	.10
Pa., N. J., Ohio, Ind., Ill., W. Va.....	1.35	1.10	.60	.10
Kentucky, Tenn., Arkansas	1.25	1.00	.55	.10
Virginia, Carolinas, Md., Del.....	1.25	1.00	.55	.10
So. Ia., Mo., Kans., Neb., Utah & Nev.....	1.15	.90	.50	.10
Minn., N. Iowa, Dakotas, Manitoba.....	1.15	.90	.50	.10
Alberta, Saskatchewan	1.20	.95	.55	.10
Washington, Oregon	1.20	.95	.55	.10
BLACK RATS	1.60	1.40	.80	.10

We also wish to call your attention to the following: We do not mislead you by quoting prime skunk as extra large, large, medium or small.

MILTON SCHREIBER & CO.
Dept. L. 138-140 WEST 29TH ST NEW YORK CITY.

If You Want A Square Deal

and your money on receipt of shipment send your Poultry, Veal & Hogs to

J. W. Keys Commission Co.,
470 Riopelle St., East. Market
Detroit, Mich.

the best market in America; weekly market circular on request, please mention this paper. Are you doing your bit? Buy War Stamps.

CULOTTA & JULL

Eastern Market, Detroit, Mich.

We need your shipments of Poultry, Veal, Dressed Hogs, Live Roasting Pigs, Eggs, Live Rabbits and Game. Highest prices possible obtained on arrival. We can handle your Potatoes, Onions, Apples, Cabbage and root crops, carlots or less. Your shipments will be appreciated and have our best care and attention, and you don't have to wait for your money. Reference Peninsula State Bank.

Mr. POULTRY FARMER:

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

GEO. R. ELDRIDGE CO.

494-18th Street, Detroit, Mich.

Remember! We guarantee you satisfaction with every shipment.

Holmes, Stuve Co., 445 Riopelle St.

Commission Merchants. Dressed Beef, Hogs, calves, Poultry, Live & Dressed, Provisions, etc. Correspondence Solicited. Ref. Wayne County & Home Savings Bank, Bradstreet, Detroit, Mich. Cad. 2878.

HAY Ship To The Old Reliable House

Daniel McCaffrey's Sons,

623-625 Wabash Bldg., Pittsburgh Pa.

"Saw Wood!" saw wood for yourself, saw wood for your neighbor, saw wood for the Government, saw wood or freeze. Use a gasoline drag saw that will do the work of ten men. Write for catalogue. Address S. N. CASTLE & COMPANY, Lock Box 102, Constantine, Michigan

WE WANT VETCH. SEND US A SAMPLE.
YOUNG-RANDOLPH SEED CO., Owosso, Mich.

For Sale Candee incubator, 4200 egg capacity. Latest model. Operated two seasons. Will guarantee condition to be A1. Sacrifice price for quick sale.
KRETEL BROS., Box 624, East Lansing, Mich.

POULTRY

Cockerels: R. and S. C. R. I. Reds and R. I. Whites. \$2.50 up, good stock, satisfaction guaranteed. O. E. HAWLEY, Ludington, Mich.

Ferris White Leghorns

A real heavy laying strain, trapezoid 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 924 Union, Grand Rapids, Mich.

Fowlers Buff Rocks, Cockerels, hens and pullets \$3 up. White Holland Turkeys \$5 & \$6 each. R. B. FOWLER, Hartford, Mich.

Pine Crest White Orpington greatest egg producers—hens and young stock, buy now for next winter. Mrs. WILLIS HOUGH, Pine Crest, Royal Oak, Mich.

For Sale Fisher strain White Rock cockerels and pullets big boned \$2.50 to \$4 each. HARRY J. TELFER, Henderson, Mich.

Rhode Island Reds

Both combs. No stock for sale until December. INTERLAKES FARM, Box 98, Lawrence, Mich.

ROSE COMB BROWN LEGHORNS

from winners at the largest shows in America. Mrs. CLAUDIA BETTS, Hillsdale, Mich.

ROSE COMB BROWN LEGHORN

cockerels, large, strong and vigorous. \$2.00, \$3.00, \$4.00 and \$5.00; all birds, guaranteed satisfactory. D. E. SPOTTS, Hillsdale, Mich.

Rhode Island Reds.

R. C. large fancy cockerels, \$2.50 up. BURT Sisson, Imlay City, Mich.

SILVER Golden and White Wyandottes, good breeding stock after Oct. 1st, fine lot of cockerels \$3 to \$5 each. C. W. Browning, R. 2, Portland, Mich.

S. C. B. Minorcas

a few choice cockerels and cock birds for sale. Satisfaction guaranteed. R. W. MILLS, Saline, Mich.

White Wyandotte eggs for hatching also baby chick out of choice stock; send for a list circular. DAVID RAY, 709 Norris St., Ypsilanti, Michigan.

Yearling Leghorn Pullets

About 50 yet for sale. BLOOMINGDALE FARMS, Bloomingdale, Mich.

Giant

Bronze Turkey Toms, pure bred. Grand in color, type and bone, 17 to 22 lbs. Bargain prices if taken at once. N. EVALYN RAMEDELL, Ionia, Mich.

Mammoth Bronze Turkeys \$5 & \$10.

WALTER DILLMAN, R. 5, Dowagiac, Mich.

W. H. TURKEYS

for sale, hens \$5 and toms \$7 till Xmas. HARRY COLLING, Mayville, Mich.

Indian

Runner. Have a few thoroughbred fawn and white drakes \$2.00 each. THOMAS BROWN, R. F. D. Plymouth, Mich.

Rouen Drakes

and Partridge and White Plymouth Rock Cockerels. SHERIDAN POULTRY YARDS, Sheridan, Mich.

When writing to advertisers please mention the Michigan Farmer.



Ship Your Furs Direct to

**Silberman
and SONS**

And Get

"The Check That Satisfies"

WE must have more furs this year than ever before. The needs of war have created a demand greater than any previous season. Manufacturers are calling for all kinds of furs in great quantities. As usual they are coming to us with their orders.

This great demand has caused us to change our buying plan. We now buy direct from the trapper. We pay the highest cash prices and give the most liberal grading.

Deal direct with Silberman and save all broker's profits and commissions. Get "the check that satisfies" for every shipment. Don't be fooled by the claims and promises of middlemen but ship your entire catch direct to "the house with a million friends."

**The Leading House
in the Best Market**

S. Silberman & Sons have built a reputation in their 52 years of square dealing that no trapper can afford to overlook. We have invested over two million dollars in this great business. Our cash returns to shippers have never been equaled any place in the country, and never will be.

Our location in the best fur market—Chi-

cago—and our standing with the leading manufacturers makes it possible for us to pay these extra prices.

Our Guaranteed Price List

Our price list contains guaranteed prices that you can understand—prices that we always pay.

It is easy to claim highest prices but it is another thing to pay them. Remember that it is the price paid and not the price quoted that counts. Remember also that Silberman always makes good.

**Send Us a Trial Shipment and
Mail the Coupon Now**

Send us a trial shipment now. Upon arrival your furs will receive special attention and "the check that satisfies" will be mailed to you the same day.

Also fill out and mail the coupon for latest market report and Silberman's guaranteed price list. Send your furs quick. Get your name on our mailing list now.



Wolf



Beaver



Bear



Muskrat Skins will bring you more money than ever before if you ship them to Silberman at once.



Otter



Mink



Lynx

S. SILBERMAN & SONS

1125N. West 35th Street
CHICAGO

(58)

**Act Now
Don't Delay**

Ship Your Furs Today
Direct to Silberman—Chicago

Send the Coupon in the Next Mail

FOR **Silberman Raw and SONS Furs**
The House With a Million Friends
1117-1125 West 35th St., CHICAGO, U.S.A.

NAME OF SHIPPER _____
ADDRESS _____
CITY _____ STATE _____
ZIP _____

DATE OF SHIPMENT _____

INSIDE STUB
FILL OUT AND PLACE INSIDE BUNDLES
Silberman Raw and SONS Furs
The House With a Million Friends
1117-1125 West 35th St., CHICAGO, U.S.A.

S. SILBERMAN & SONS
1125N. West 35th Street, Chicago

Send, at once, your guaranteed price list and latest information on fur market.

Name _____
R. F. D. _____ Postoffice _____
County _____ State _____