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Carrying Ideas to Place of Action

A FEW farmers believe in the county agent as a solution of all farm problems, whereas the others are just as sure that it is merely a passing fad. In some of the counties where new experts have been hired, wonder is expressed that so much fuss should be made over something that is not even new. Some of the most prosperous farmers point to the methods of efficiency on their own farms, where they have been in operation for years. So with all the explanation and discussion, the subject of county agents is surrounded by rather a dense fog.

In these times of labor-shortage and high prices for certain farm products the business farmer is at sea to know just how to put the efficiency idea into successful practice on his farm. He has to read the better class of agricultural publications since the idea became prominent. He has followed the editorials and articles, and knows instances where it has proved beneficial, or the contrary for other farmers. Now he would like to know what it can do in his own type of farming. Also he wants to know that if he employs an expert that he is securing an efficient one.

This summer when visiting a farm operated by a young man I ran up against his uncle, who owned the property. "You're one of these farm doctors, eh?" he said; and the door of his mind seemed to shut with a snap. "Well, some farmers may be willing to pay you to come round and show them how to run their farms, but I bought this farm when it was a stumpfield and never had anyone come round and tell me how to run it. If you fellows know so much, why don't you buy a farm and tend to your own business instead of going about the county tending to other people's business? How much is there in what you claim anyway? How do we know how much of it is sense and how much just talk?"

Putting the Idea Across.

"Well, my friend," I replied, "the answer to your question depends upon the farmer who wants help and the ability of the expert to give him this help. No farm expert on earth can help the farmer who does not believe in efficiency on the farm, or who is unwilling to give his suggestions a fair and impartial trial before condemning his teachings. No matter how well a prescribed system of management may work in a given case, there is always the farmer at the bottom of it, who must adjust it to his conditions and adapt it to the means at hand. Systems of efficient farm management that will prove adapted to all farms do not exist. There is no universal tonic that will help out all run-down farms. The successful system must be developed to meet the conditions on the farm where it is in operation. If an expert tries to carry a system of farming from one locality to another be-

How the County Agent May Succeed in Coaxing Brown's and Jones' Ideas to Travel Over the Highway of Human Minds and Human Hearts and Make His County a Paradise of Farming as Well as Friendliness and Enjoyment.

fore making a careful study of conditions of soil and climate his ability may well be questioned. The outside expert may be able to give sound advice concerning some particular phase of improving a farm, such as dairy management, poultry-keeping or lines of specialized crop growing, but it is a mistake for him to attempt to show the farmers in a strange part of the country how to improve their methods.

"In your own case, Mr. Brown, it is generally conceded that you have been unusually successful in your farming. Your farm and your buildings show that you have conducted your business along practical lines. You and Mr. Jones have been recognized as the best farmers in your respective townships. Each of you have maintained a good plan of operation, and what I am trying to do in this county is to get in an available form the best of what you and Mr. Jones have done

with the mistakes each of you have made so far as possible eliminated. Then I can go over into other parts of the county and help other men who are conducting business in a less efficient manner. Some of your methods may be perfectly adapted to their conditions and others may be quite unsuited. So you see intelligent work on my part will give these men access cheaply to the dearest things in the world; real agricultural experience. It is wrong to deny Smith and Green a knowledge of the good things that you and Jones have done only a few miles from them. My business is to spot things that may be useful for men like Smith and Green, rather than to tell you and Jones how to run your business; that gives them something far more valuable than a general theory of procedure.

"There is wisdom enough in this country to change it into a paradise of

dairying, stock raising, grain and fruit growing, as well as a paradise of friendliness and enjoyment, but it can never be done unless this wisdom is passed from men like you and Jones down to Smith and Green. What I am trying to do is to give some of your and Jones' ideas away and coax them to travel over the highway of human minds and human hearts to the place of action. You and Jones owe it to your county and to your country to tell how you have produced more pounds of pork and more tons of alfalfa to the acre than Smith and Green. It is your patriotic duty to give your best thoughts, ideas and plans, that working together, we shall create in some of the less successful farmers a working belief in their own capacities, and a practical determination to help win the war. This is a part of your duty as a citizen, and as a part of my duty as your county agent I am going to arrange for you and Mr. Jones to help out our meeting over in Clifton township by giving short talks on pig feeding and alfalfa culture. You have admitted your success with pigs; Jones says that he has no trouble securing a good stand of alfalfa."

"I am sorry, young man, but I never made a public talk in my life, but if I can tell men like Smith and Green how to raise more and better pigs to feed our boys over in France I'll be mighty glad to help them out. Jones will be there with me to tell them about his alfalfa. I'll guarantee his presence. They don't tolerate slackers over in his neighborhood."

Vary Systems to Meet Conditions.

In going round among farmers one meets many different problems and finds many sources of loss that are consuming the profit from the other lines of farm production. In one case a large dairy farm, where special milk was being produced, was buying excessive amounts of rich grain feeds. The herdsman had personal preferences, and the owner added new kinds of feed from time to time. Some kinds were better than others. If a dealer could get hold of some new kind of mixed feed with a high-sounding name the owner was sure to give it a trial. The first thing to do on this farm was to cheapen the rations. After conducting feeding tests for several weeks we revealed a source of loss of more than \$4.00 a day in feeding eighty cows. It not only revealed the fact that much of the purchased feed was composed of the elements that were contained in excessive quantities in the home-grown feeds, but it showed that the cows were being compelled to consume an excess of crude fibre and carbohydrates in order to obtain the required amount of protein to produce a satisfactory flow of milk.

Home-Grown Feeds Valuable.

This farm furnished an abundant supply of clover, mixed hay and corn (Continued on page 256).



In a Highly Specialized Fruit Growing Community the County Agent does not Find it Easy to Point out Shortcomings and Suggest Improvements. The very Nature of the Business Demands Skill, and the Efficient Use of Labor, Fertilizers and Machinery.

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CURRENT COMMENT.

Austria's Bid for Peace.

The Austro-Hungarian government's proposal for a peace parley has been fittingly answered by the government of the United States. The Austrian document presented through the Swedish embassy was a lengthy document, proposing a secret and confidential peace parley, without cessation of hostilities, for the interchange of views as a basis for peace, but without binding obligation on the countries involved. President Wilson's reply, which was issued in the form of a statement from Secretary of State Lansing, was made just thirty-three minutes after the message was received. This reply was brief and to the point. Its text, containing just sixty-eight words, reads as follows:

"The government of the United States feels that there is only one reply which it can make to the suggestion of the imperial Austro-Hungarian government. It has repeatedly and with entire candor stated the terms upon which the United States would consider peace and can and will entertain no proposal for a conference upon a matter concerning which it has made its position and purpose so plain."

Michigan Farmer readers will recall the four primary requisites of peace, as expressed by President Wilson at Mt. Vernon on July 4, none of which were recognized in Austria's peace offensive. In the game for world domination which is being played by Germany, Austria can be viewed only as her vassal, and the proposal of the Austro-Hungarian government can be construed only as an "offensive" to create discord among the allied powers who are fighting for the great principle of human liberty with the main object of increasing Germany's chance of again assuming the initiative and gaining a military advantage.

Surely German militarists cannot be so egotistical as to believe that the allied governments can be induced to place confidence in even their most solemn promises, let alone the alleged independent plea of Germany's Austrian ally, whose pledges she would be

at liberty to disavow at pleasure. Nor will the people of the allied countries who are fighting to subdue this monster of inhumanity be deceived by such a move. The only basis for a just and lasting peace is the crushing defeat of this monster, after which the issues of the war may be settled in a manner which will conserve human liberty among all the peoples of the world, rather than the selfish interests of ambitious rulers or ruling classes.

Among the interesting developments of the Motor Truck Transport. war is the movement to increase our highway transport resources as a means of relieving railroad congestion and facilitating the movement of food stuffs marketward, and at the same time the distribution of goods to rural communities. To accomplish this desirable result, the Highways Transport Committee was appointed by the Council of National Defense to promote the idea of the development of highway transportation by the use of motor trucks as one of the available means of strengthening the nation's transportation resources.

As a means of building up an efficient organization, state highway transport committees are authorized to be appointed by the state Councils of National Defense, and provisions are made for county and district committees to make the whole organization a workable unit. Under this plan, the first duty of the state committee in each state will be to make a preliminary analysis of the equipment already in the field, and to determine what activity has already been established for the carrying on of this much needed work. Following this preliminary survey, bureaus will be established in each important center of population for the purpose of arranging return loads for motor-truck express lines bringing farm products into such centers.

In addition to making more food available for the people of such centers, this plan will also save labor for work on the farms because of the manpower released by the establishment of efficient truck lines. This plan has interesting possibilities in the present emergency, and should be encouraged wherever it is possible to economically make use of this means of transportation. Michigan Farmer readers will be kept advised of developments in this service as they materialize.

Plans for the Future.

The average farmer is kept so busy these days in doing two men's work in securing his crops, because of the impossibility of securing extra help when it is needed, that he has little time to think or plan for the future when the war shall be over and world peace a realization instead of but an indefinite prospect.

Any sort of analysis of the situation, however, will reveal to any thinking man the importance of formulating plans for the future by American farmers as a class. It is true that the plans which may be made by the individual farmer will not have an important bearing on the situation as a whole, but thoughtful planning by the individual must go before concerted action by farmers as a class, hence the desirability of devoting careful thought to the future, so far as it may relate to or affect American agriculture.

For the present, and until the war is won, our first thought must obviously be for production if our boys in France are to be properly fed, and the demands for home consumption and for the maintenance of our Allies are to be met. Marketing problems should, of course, receive their proper attention in the meantime, and the progress which is being made in the organization of the Michigan Potato Exchange, in the extension of the activities of the Michigan Milk Producers' Associa-

tion, and in the organization of many local marketing enterprises indicates that rapid progress is being made toward the solution of this problem along right lines.

But there are other and perhaps graver problems which will confront our agriculture in the reconstruction period following the war. Just the nature and extent of these problems cannot be fully determined at the present time, for the reason that there are no precedents upon which to base judgment in the matter. It is evident to all, however, that normal industry is being greatly disturbed in every line by the necessity of diverting the major part of our resources to war production work. Undoubtedly there will be a period immediately following the war, during which our armies are being demobilized and millions of men seeking a new place in the nation's industries, when our disorganized industries are again getting under motion in their several channels of production, and while we are still paying the enormous costs incident to active war, during which war-time economies in every line of endeavor will be quite as necessary as they are at the present time.

How great or of how long duration such industrial depression may be, no man would attempt to predict at the present time, but following this period will undoubtedly occur a period of great industrial prosperity in which our goods will freely reach almost every market throughout the world, carried in our own ships, resulting in an industrial activity the like of which this country has never seen. While there will undoubtedly be a very considerable foreign demand for American farm products, particularly American live stock, during the years immediately following the war, there can be no question in the mind of any thinking man but that grave problems will confront the farmers of the country growing out of this very condition of industrial activity. If the agriculture of the country is to be placed on the same sound basis as our other industrial activities, it will be necessary for our farmers to be so organized as to be able to present their needs in a concrete and intelligible form when the nation's policies are being shaped to fit the new conditions.

This desirable result can obtain only if the farmers of the country are adequately organized for this very purpose, for which there has been suggested no plan which compares in feasibility with the plan for a National Chamber of Agriculture made up of an affiliation of similar organizations in each state, such organizations to be based on the county farm bureaus as the local unit. This is a plan which should be given careful consideration by every farmer, and made a subject of discussion in farmers' organizations, to the end that early steps may be taken toward working it out in our own state.

New Substitute Ruling

UNIVERSAL war bread for all nations arrayed against the Central Powers is provided for in new regulations announced by Food Administrator Hoover, under which wheat flour restrictions in the United States are relaxed, and the Allies given bread containing more wheat than they have had since the early days of the war. The regulations became effective September 1, and wheatless meals are discontinued.

Under an international bread policy formulated by the Inter-Allied Food Council in London, all bread now made for France, England, Italy, the United States and the other Allies, is made of mixed flour containing eighty per cent wheat flour and twenty per cent substitute cereals.

The fifty-fifty rule is withdrawn and in its place retailers will be required to sell one pound of substitute to four

pounds of wheat flour, instead of one pound of substitute with each pound of flour.

Bakers' bread will contain four pounds of wheat flour to one pound of substitute. This is exactly the same as the housewife's bread.

Householders are expected to mix at least twenty per cent of the substitute cereals into the pure wheat flour at home for all uses.

Conservation of wheat is urged, and the public is asked to continue using corn bread and other wheat saving breads.

The retail dealer selling standard wheat flour is required to carry in stock either barley flour, corn meal or corn flour, and with every sale of wheat flour must sell a combination of some one or more of these in the proportion of one-pound substitutes to each four pounds of wheat flour. No dealer may force any other substitutes in combination to the consumer, and the substitutes must conform to the standards fixed by the United States Food Administration.

There are some localities where other substitutes are available and which retailers may wish to carry. In order to meet this situation the following flours may also be sold in such combinations in lieu of the above flours, if the consumer so demands, at the ratio of one pound to each four pounds of wheat flour, that is: Kaffir flour, milo flour, feterita flour and meals, rice flour, oat flour, peanut flour, potato flour, sweet potato flour, bean flour, buckwheat flour.

Pure rye flour or meal may be sold as a substitute, but must be sold in proportion of at least two pounds of rye with three pounds of wheat flour.

The foregoing rules apply to custom and exchange transactions as well as sales of flour to farmers, unless modified by special announcement of the federal food administrators of the state where the mill is located, acting with the approval of the zone committee.

MOVING THE WHEAT CROP.

The Food Administration is now collecting data and information upon which to base conclusions as to what is a fair remuneration for a country elevator, dealer or operator to receive. In the heart of wheat producing areas where expense of operating is low, present conditions indicate that five cents per bushel is an ample charge. In other districts where facilities are not modern eight cents is perhaps not too much. In special cases the margins may fall outside this price range. Actual determination of a fair buying margin must depend on local investigation.

Farmers who are able to get cars are protected because they can ship directly to the nearest primary market. Where cars are unobtainable the producer's best alternative is to store his wheat until he is offered an acceptable price.

Farmers may learn from the Federal Food Administrator in their state what price is approximately fair and they will not be considered unpatriotic for holding their wheat until they are offered a satisfactory price or can secure a car in which to ship to the Grain Corporation.

Avoid Mixing New and Old Crop.

When the wheat is to be stored on farms, special care should be taken to clean the granary and avoid mixing the new crop with old grain. A clear statement entitled, "The Plan of Wheat Flour Control for the 1918 Wheat Crop," is now in the form of an eight-page pamphlet which may be secured by persons having difficulty in marketing their wheat. The pamphlet contains a list of the primary markets with fair prices, gives directions for shipping to the Grain Corporation and discusses wheat grades over which the United States Department of Agriculture has jurisdiction.

The Tractor on the Fruit Farm

PRACTICALLY all authorities on fruit farm management have pointed out that the commercial fruit farm does not usually furnish economical employment for horses and the variety of cultural implements necessary to make up proper equipment to facilitate tillage operations during the rush season. The tractor, on account of its capacity for doing more work with a single set of units, and well within the time which the seasons allow, is gradually working itself into popular favor on these farms.

The cost of maintaining work horses is causing many commercial fruit orchardists to look around for some kind of power that will do the work of plowing, harrowing and cultivating, and at the same time not eat its head off at seasons when it is not in use. Whether a tractor will be a profitable investment on the fruit farm is purely a question of how successfully it can be used to replace team work, and must be worked out by each farmer himself. Numerous influencing factors must be considered, such as the cost of housing the horses and tractor, the cost of the tractor and the amount of farm land to be cultivated. The size of the farm, while important, does not have so much influence as the value of the crops and the cost of labor required to drive the horses.

That the smallest tractors, capable of pulling only one or two plows, are of economical size for even large fruit plantations is decidedly questionable. They are not large enough to reduce the man labor required in plowing—

Since the Use of Motor Trucks for Hauling Fruit Crops to Market Has Become More General, there is an Increased Demand for Light Tractors to Replace Horses on Fruit Farms. How the Proposition Works in Some of the Fruit Growing Districts.—C. B. Ford.

in fact, they require more man labor than an ordinary horse-drawn gang-plow, and man labor is just what the small tractor should replace on the fruit farm. The three-plow tractor may be large enough, but the one capable of pulling four plows will not be too large for the well-organized commercial fruit farm of sufficient size to make the business profitable.

Light tractors suitable for heavy horse work in the orchard can now be bought for less than \$1,400, including plows. One of these small standard design tractors is being used on a large fruit farm in Niagara county, New York, at the present writing. It weighs about five thousand pounds, does the work of eight horses, and stands in the space needed for one team, being only eleven feet long and five feet wide. The owner claims that he can buy the equivalent of a heavy work horse for less than \$150 in the form of a tractor, with a much lower up-keep and cost of driver than for a horse.

The small tractor will turn the corners quickly and the work can be done just as well as with a team of good horses if care is exercised in

making the turns. The plow, harrows and cultivators may be adjusted to run as close to the rows of trees without danger of injuring them; this is a point of great value in working around low-headed trees.

The common practice of clean cultivation and the neglect to grow green manure crops to plow under has left the soil in many large fruit plantations in such poor mechanical condition that it is practically impossible to muster together enough horses to do the work in season, especially during periods of severe dry weather. The tractor has proved a most valuable ally in overcoming this trouble in the commercial orchard.

The cost of horse barns and shelter for the tractor furnishes considerable food for thought when a man has to put up a set of new buildings on his farm. The cost of building a barn large enough to comfortably stable eight horses and provide room for storing the necessary supply of food would cost more than a small tractor.

At the present time it would cost enough to buy a tractor and erect a building for shelter. All of these items should be given proper consideration,

especially if new buildings are put up.

How does the owner of a commercial fruit orchard get along without horses at harvest time? In reply to my question one of the most extensive growers of apples, pears and peaches in western New York said: "The fact that we had done all of our long-haul marketing for the last five years with a motor-truck prompted me to study the tractor proposition. With a truck we can haul all of our second-grade fruit to the city market where it finds a ready sale at remunerative prices. Our truck replaced two men and six horses hauling fruit to market; besides it has made it possible for us to make prompt deliveries and put our fruit on the market in better condition than we could with horses and wagons. Our tractor has just fitted in with our truck so that we are keeping only one team of work horses on our three-hundred-acre farm. The truck and tractor have replaced two regular men and eight horses. It would be difficult to give exact figures as to the saving they have effected, because we can do marketing with the truck that would be absolutely impossible with horses and spring wagons. The truck opens up new possibilities for growers of fruit who live within sixty miles of large cities, just the same as the tractor opens up new possibilities for growers of fruit whose operations are limited to inadequate horse power. They so completely change the nature of the fruit growing and marketing business that one cannot figure their value in dollars and cents."

Getting the Jump on Potato Diseases

By Selecting Seed Now the Grower May Dodge the Ravages of Many Potato Ailments

By C. W. WAID

IT is getting to be quite a common practice for potato growers to save at least a portion of their seed for the next year's crop at digging time. In years gone by a good many growers have been willing to use whatever happened to be on hand at planting time for seed purposes. There are a considerable number of growers at the present time who follow this practice.

The writer has been inspecting potatoes in a large number of counties in the state of Michigan during the last two months. In some sections of the state the use of poor seed is very apparent. The potato fields where such seed has been used show a poor stand of plants, there are usually weak hills, and often a number of plants are diseased. On the other hand, in sections where good seed has been used the stand of potato plants in the fields is much better, there is a much more uniform growth of vine and diseases are not nearly so common. One of the most striking things which has been observed is the fact that the best growth of vines was found

in sections where someone in the community had made it a practice for several years past to develop and distribute in his community good seed stock. This is a strong endorsement of the use of first-class seed for planting.

There are several ways in which good potato seed may be secured. One of the least expensive methods is to rogue, or take out, from a field which is much above the average so far as the growth of vine is concerned, all

hills which show indication of disease. If a person is anxious to get pure seed, free from mixtures of other varieties, all hills which show a difference in the growth of the vine indicating mixture of variety, should also be removed. It is quite an easy matter to detect off varieties in the Late Petoskey and Rural group of potatoes. The vines of both are very similar, the stalks being more or less colored with purple and the blossoms

always purple. In vines the stalks of each are entirely green in color, the same as the other varieties. As a usual thing the mixtures also show a lighter color of leaf and can be detected quite easily.

The diseased hills which are most likely to be found in Michigan potato fields are the wilt, which is indicated by a wilting down of vines, or in the early stages in the growth of the disease, a yellowing of the leaves together with a contracting in their development which makes them much more narrow than normal leaves. By cutting off the stalks at the lower end a brown discoloration will be shown on each edge of the stalk if the wilt is present in the plant. The tubers from these hills should be removed from the field.

Another common disease is one known as Curly Dwarf. This disease results in a very much smaller growth than normally and the affected plants are bunched and have a large number of secondary shoots thrown out from the axils of the leaves. In pulling it will be



Selection of Healthy Seed Has Improved Michigan Potato Crop.

Hummer Pipeless Furnaces



Make Homes Comfortable

IN the selection of a heating plant a low first cost is always desirable; but of equal importance is the low cost of operation and assurance of real comfort in severe weather.

There is no question about the correct principle of pipeless furnace construction. It follows nature's law of warm air rising in the simplest, most direct path. And that principle accounts for its economy of fuel and thorough circulation of warm air to all parts of the home. Practically all of the heat passes into the rooms through one register.

But the best proof of its low cost of operation and its comfort giving qualities is the fact that many people heat their entire home now with the Hummer Pipeless Furnace while they formerly heated only one or two rooms by stoves, and the fuel bill is about the same. The interesting letters of these people as well as many facts about Hummer Pipeless Furnace heating and attractive prices are found in our circular No. 75M72. Now is the time to prepare for a comfortably heated home next winter. Send for this circular. A post card will bring it to you.

Sears, Roebuck and Co.
Chicago.



found that the tubers clinging to the root are usually developed close to the root stalk. Plants affected develop only small potatoes, none large enough for market and only a small percentage have sufficient size for seed purposes, although some growers will, no doubt, use a considerable portion of them for seed. This disease transfers in the seed stock, and when small potatoes are used from a field in which a good many Curly Dwarf hills are present, there are quite certain to be more such hills in the field the following year.

There are other diseases which appear from time to time but which are not sufficiently common that a description of them needs to be given in this article. Anyone who wishes to become familiar with potato diseases should write for Special Bulletin No. 85 of Michigan Potato Diseases, by Dr. G. H. Coons.

Another way to secure good seed, and one which will produce better results than the mere roguing previously referred to, is to hill-select from the most vigorous vines and most productive hills. When a potato grower digs by hand it is not a difficult matter to hill select a sufficient number of bushels for the next season's crop. This may be done by throwing to one side when digging the most desirable hills. The grower should keep in mind a certain standard, which will depend upon the setting and general growth in the field. If the setting is heavy, hills from which the seed is saved should have a large number of tubers uniform in size and of typical shape. It is better not to save seed from hills which have very many small potatoes in them. Where a machine is used for digging the grower can hill-select a few bushels of seed either by setting aside a certain number of rows or certain area and digging them by hand, saving the best hills; or he can go into the field a week or so before the

machine digger is started and dig hills the top growth of which looks the best, and save all of the tubers from such hills as show a good tuber growth as well. The few bushels which are saved in this way should be grown in a seed plot the following year, and this will furnish the seed for the main crop the second year.

The hill selection of potatoes has been carried on by a sufficient number of growers and over a sufficiently wide area so that the results of such work are known to a great many people. No one needs to expect to have a perfect crop because of the fact that the seed has been hill-selected, but experience has shown that where this practice has been properly done that the growth of vines from such seed is much more uniform than where no attention is given to hill selection, and the crop grown from such seed is more productive than where hill selection is not practiced. Improving the seed stock for the Michigan potato crop is one way in which the yield of Michigan potatoes may be increased at a comparatively small added cost. The labor involved is not great, and in this time of shortage of help this method of improving the crop is one of the best, and if practiced by large numbers of growers would be one of the most far-reaching.

After the seed has been hill-selected, be sure that it is stored where it will not be interfered with until it is wanted next spring. Such potatoes are usually of first-class appearance, and if they are allowed to remain where they can be easily seen they are quite likely to be used either for table use, or possibly some buyer will endeavor to purchase them at an attractive price and the grower will thus lose the benefits which otherwise would result from his work of hill selecting. Can we not make a drive this fall to hill-select Michigan seed potatoes for our next year's crop?

Agricultural News

COLLEGE TRAINING FOR BOYS.

A CHANCE for the farm boy of eighteen who has a high school education, or its equivalent, to get at least a part of the freshmen year at college at government expense is made available through the government's plan to take over the colleges as a war emergency measure. In addition he will receive \$30 a month, the pay of a private soldier, and find exceptional opportunities for advancement to the rank of a commissioned officer.

About three hundred colleges will be utilized for training the boys in the eighteen-year-old class. The boys will be expected to pay their own traveling expenses and, at the outset, tuition and board. About October 1, while at school they will be inducted into service, but will continue at school until ordered to duty. After being inducted into service they will receive pay, a uniform, and be housed and fed. The number that will be allowed to take advantage of this opportunity will depend on the facilities and capacities of the colleges.

GOOD HANDLING SAVES EGGS.

NOT long ago four men worked half a day grading "current receipts" of eggs as they were received at a city market. They candled out \$100 worth of rots, spots, and incubated eggs. This loss could so easily have been prevented if only the producer and the country merchant had handled the eggs promptly.

The hen lays a fresh egg; the consumer demands a fresh egg. Eggs are a highly perishable product, and gradually deteriorate with age. Heat is their enemy; cold is their friend. The shorter the time and the more direct their route from nest to packing house

the smaller the opportunity for loss.

The proper handling of eggs is not a one-man job. Many people are concerned in it. Their interests are common, and mutual understanding and cooperation between them benefit all alike.

The farmer's part in the general scheme of good marketing is to bring good eggs to market. To accomplish this, he should market his eggs frequently, not let them accumulate.

The dealer's job is to keep the eggs good. His slogan should be "ship promptly and properly." The sooner an egg is put under refrigeration and started for the market, the better its quality when it reaches its final destination, and the higher its value.

GRIND LIMESTONE AT HOME.

COMMUNITIES situated five miles or more from the railroad, in regions where the soil needs lime, and where a local source of limestone is available, should consider home grinding. Those communities lying near a shipping point can usually ship in ground limestone as cheaply as they can grind it. There are large areas in Michigan, however, which will never be limed until the home grinder comes into use.

The cost of grinding will depend on the ease of quarrying the stone, the size of the grinder, and the efficiency of the crew. In most cases \$2.00 a ton is about as cheaply as it can be delivered to the farmer.

Home grinding may be done cooperatively, or one man in the community may buy the outfit and do custom grinding. Communities which consider home grinding should take up the matter with the College of Agriculture and have samples of the soil examined for sourness.



House of Baldwin Factories at Cincinnati and Chicago. Capacity 30,000 instruments annually.

Get Your Piano or Player-Piano

from the House of BALDWIN
and enjoy the following advantages-

You are sure of getting a dependable instrument. Baldwin-made pianos awarded Grand Prize at Paris and St. Louis. Baldwin factories do not make cheap instruments of doubtful quality.

You get best value at price you pay. Baldwin instruments are made throughout in Baldwin factories. No profits to makers of piano parts. Immense output keeps cost to lowest figure.

Every instrument guaranteed by the factory. Baldwin-made

pianos are sold by House of Baldwin dealers practically direct from factory to you. The factory stands behind every instrument. No divided responsibility.

You choose from a complete line. There are Baldwin-made instruments at various prices beginning at the lowest figure for which a dependable piano can be produced up to the very most that money can buy. The line includes the Baldwin, Ellington, Hamilton and Howard Pianos and the Manual Player-Piano.

FREE! "Songs of Our Country"

This book contains complete words and music in quartette arrangement of our ten national and patriotic songs. Tear out this advertisement, write your name and address in margin, and send to nearest address below, or mail your request on a postal card. We will send book postpaid and free.

The Baldwin Piano Co.

Cincinnati, 142 W. Fourth St.
New York Chicago Denver St. Louis
San Francisco Indianapolis Louisville Dallas



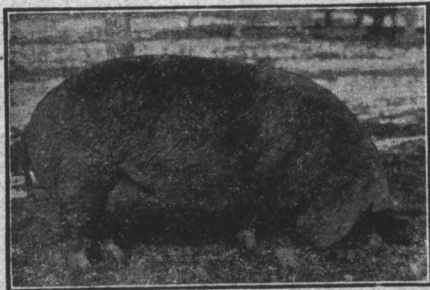
When Writing to advertisers please state that you saw their ad. in The Michigan Farmer.

Beware of Frosted Clover

CAUTION should be exercised in pasturing red clover after its growth has become checked by frost. Because many farmers have given their horses and cattle free range of clover fields after hard frosts in the fall without injury it is difficult to convince them that it is dangerous to utilize this tempting feed. There are many prudent farmers, however, who, knowing the danger of pasturing frosted clover will not permit horses, cattle or sheep to graze on it. If they do not fear injury to the animals they have learned from observation and experience that there is no surer means of injuring a good stand of clover than to allow stock to graze and trample it down. Even though the frosted clover does not quickly injure the animals that graze on it there is such certainty of injury to the clover plants that it is poor economy to let the stand become injured in the effort to find nourishment from feed of doubtful value.

Feed Some Grain.

The extent of injury and time required for it to become known is sure to vary with the condition of the animals given access to the frosted crop. The stock may have a regular ration of roughage and grain at the barn and no visible derangement of the stomach or bowels result, but this proves nothing as to the value of the frosted clover.



Frosted Clover Furnishes Poor Grazing for Hogs.

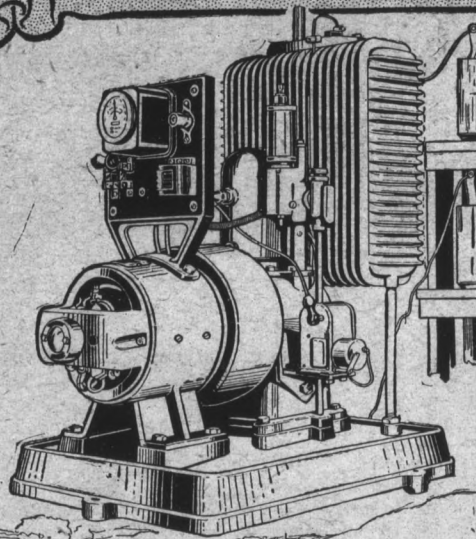
er. It merely proves that under certain conditions it is not deadly, and may be used with impunity. But when animals have no other feed than frozen clover we have conditions that will be followed by derangement of digestion, which may be evident from forms of colic and acute indigestion, followed in due course by scours, constipation or severe inflammation of the bowels. Science has been unable to explain just how frost affects the digestibility of clover plants. But we do know that when frost gets in its work, the aroma, the juices and the gums change and eventually disappear, leaving only the skeleton or woody fiber. There is a rapid passing of the plant from its perfected growth back to earth and atmosphere, whence it originally came. The feeding value of the plant declines rapidly as these nutritive juices and gums change or are dissipated.

Mature Plants Best.

The clover plant in full maturity not only contains the largest per cent of nutrients, but it contains them in the form and quantity best suited to the requirements of the animal's digestive system. All departures from this perfection of feeding value tends to depreciation until it arrives at a point of decomposition, when it is no longer fit for food. The freezing of an immature, succulent plant throws the juices to the surface and as they carry off the gums and sugars, they are soon washed off or change into compounds so as to leave the plant reduced in palatability and digestibility. It is poor economy to make horses, cattle and sheep try to digest plants that carry so little nutritive value, especially when this effort at economy is sure to result in injury to the succeeding crop of clover, and probable injury to the animals.

W. M. K.

ALAMO Electricity



Power and Light On Your Farm

LIKE all modern agricultural equipment, electricity on the farm has come to stay. It is a work-reducing and comfort-giving necessity — an essential utility that plays an important part in the war work of the farm.

With ALAMO ELECTRICITY farmers now do several hours' extra work daily and do it easier. It lights the house, barn, out-buildings and yards like day. It aids men's work by grinding feed, pumping water, running milkers, cream separators and many other light machines.

Woman's Greatest Helper

The drudgery of woman's work can be eliminated by ALAMO ELECTRICITY. It runs her washing machine, wringer, churn, sewing machine, vacuum sweeper, and other labor saving devices. It heats her flat iron and makes ironing a pleasure. An electric fan makes kitchen work comfortable. Electric lights relieve strain.

Low Operating Cost

The ALAMO performs all these tasks at low cost and requires but little attention. Its sturdy construction assures lifetime wear. Its many exclusive features make it the perfected unit. It requires no special foundation — install it in the most convenient place and it will furnish ample power and light without vibration or noise.

A special engine was built for the Alamo — the Ide Super-Silent Motor. This power marvel has no springs, cams or rods to get out of adjustment. It clears itself of carbon. Its fuel-saving carburetor makes it a wonder for economy.

Send For Latest Electrical Farming Book

Send the coupon today for valuable information about electricity on the farm and details of the famous ALAMO UNIT. Get these facts whether you intend to buy now or not. Do it now.

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UNCLE SAM Wants the Whole Dairy Family --Cow to Consumer--

Bossy, her father and brothers—The man, woman or child who feeds and milks her—The man, woman or child who makes her milk into butter, cheese, ice cream, condensed milk, milk powder, or any other shape or form, and the man, woman or child who uses her milk in any form, all the folks who make or sell machinery and equipment she makes necessary.

TO GO TO THE National Dairy Show Columbus, Ohio October 10 to 19

Where he is going to deliver to each one a great war message on the team work he wants to do with the dairy people and how he wants the dairy people and the consumers of their products to work together—This is a call of duty and opportunity—GO.

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Don't throw away a single bag—they're worth money to you. Prices are "way up now." Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

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Second-hand 9-18 gas tractor complete with two bottom gangs, in excellent condition; thoroughly overhauled; bargain for quick sale.
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High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free. Electric Wheel Co., 35 Elm St., Quincy, Ill.



"TIX-TON MIX" with salt the year around keeps flock healthy and free from worms and ticks. Saves you big money—a \$1.00 sample box 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.

BARRELS

We have for sale Potato, Sugar and Apple Barrels also egg crates. We buy and sell all kinds of Burlap and Cotton Bags. Write for prices. Hamburger & Spitz, 373 Bellevue Ave., Detroit, Mich.



ANNOUNCEMENT

FARMERS and feeders who have been feeding the well known and popular Arcady (R K D) Feeds, will be pleased to know that the Company are supplying their trade in their usual prompt and careful manner in spite of their recent fire loss.

Regardless of modern fire extinguisher protection, three hours served to send up in smoke one of the most modern and up-to-date equipped feed mills in America. The Poultry Feed plant, we are glad to announce, remains in full operation for the immediate shipment of orders.

Plans are already under way for the quick and immediate rebuilding of the plant on even better plans than heretofore.

Meanwhile, orders for R K D Dairy, Hog and Stock Feeds will be shipped from associated plants with the same painstaking care as before.

May we, therefore, ask you your continued patronage and support, which we shall do our best to merit and satisfy.

Yours very truly,

ARCADY FARMS MILLING COMPANY
CHICAGO

Our Crops for 1918

FARMING operations in Michigan taken as a whole, have been fairly satisfactory this year. There are however, some crops and a number of localities that will come far from measuring up to their normal production. During August the southern counties of the state suffered from the extremely severe drought. The northern districts were not affected, timely showers even improved the outlook for crops in many instances over the condition obtaining a month earlier.

The Corn Crop.

Our farmers are harvesting a fifty million bushel corn crop this year, if the estimates of federal crop reporters are correct. This is over twelve million bushels greater than the 1917 crop, but is five million bushels less than the average from 1908-1917. Every quarter of the state has its good and bad crops. This is probably due in part to the great variety of seed corn used. Corn from home grown seed, while damaged by dry weather, is very well eared in the majority of fields, and will produce from a fair to a good crop. Fields planted to this seed have matured early and are now being harvested. Where outside seed was planted, an abundance of fodder has resulted, but the corn is not well eared and will need a few weeks without frost for maturing.

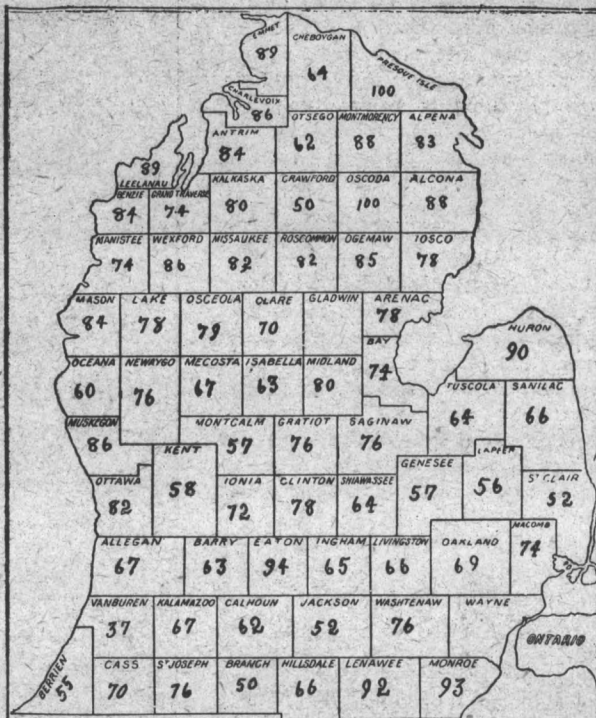
Potatoes Much Short of 1917 Crop.

The state's potato crop is estimated to be one million bushels less than the ten-year average, and about seven million bushels short of last year's bumper crop. The greatest loss has been in the early potato crop, which was exceedingly light. Late potatoes will also be poor in the southern counties of the state, but there is promise of a

000 bushels last year and a ten-year average of 30,140,000 bushels.

Beans Are Promising.

A good acreage of beans was planted last spring, and despite the lack of moisture in many sections, our farmers will harvest a crop nearly 1,500,000 bushels greater than the average for the past ten years, or 5,497,000 bushels, according to Uncle Sam's reporters. The crop is placed at over 2,000,000 bushels above the yield for 1917. In the driest localities, the yield has been cut probably one-half, but this is not general. Over a large portion of the big bean-growing counties the





Two Cows Per Acre

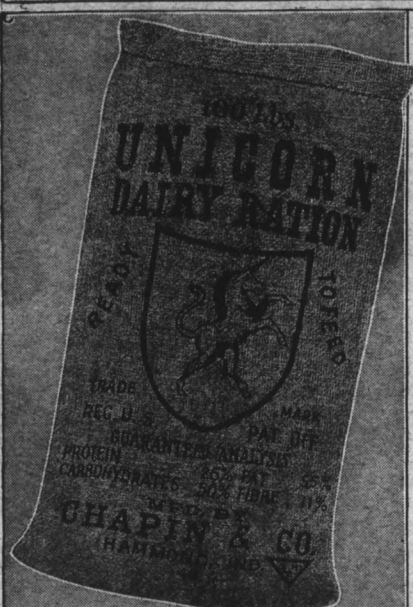
Do you know of anyone who is keeping two cows per acre the same as J. D. Detrich, did a few years ago? Sanilac Co. F. L. M.

So far as I know, no other man has ever accomplished such results in the way of intensive dairying as Rev. J. D. Detrich. Several men in a practical way have succeeded in keeping a cow per acre. They were small farmers, and by intensive methods were able to support a cow per acre where the greater part of the grain was purchased. I don't think it would be practical on a large scale to endeavor to raise only roughage to feed cows, because we are not all as favorably located as Rev. Detrich for such work. He had a market close at hand and could buy bedding and grow a succession of crops, many of them two crops in a season. He did not have to depend upon a rotation of crops for soil improvement or for arranging the labor problem to do things consecutively. On a good-sized farm, from eighty acres up, my judgment would be that it wouldn't be practical to do any such thing. In fact, very few people have ever succeeded in keeping one cow per acre. It would be such an intensive business that few people would be willing to manage it even after it was worked up. For instance, supposing a man undertook to keep eighty head of cows on eighty acres of land. The labor bill would be immense. The business would be so intensive that few people would have the capacity to do it and few who have the capacity would care to apply themselves to details in order to accomplish such results. Most dairymen make dairying the leading feature of their farming and find it more profitable, taking everything into consideration. For instance, the dairyman must have bedding. Now, by growing wheat or oats in the rotation of the crops, whichever crop seems best adapted to the condition, one has the straw, practically a by-product, for bedding and if he grows wheat the wheat can be sold to purchase concentrated food for the cows. If he grows oats or barley, this feed can be fed to the cows. This land that grows this grain could be seeded to clover and have a regular rotation of crops which conserves the labor element on the farm and helps to keep up the soil fertility. Of course, with eighty cows on eighty acres, there would be such an amount of stable manure that the fertility problem would bother little after one got his business established.

But again, most people want to use part of their land for pasture. This cannot be done in real intensive dairying but it is a great relief to be able to turn the cows out to pasture for a portion of the year and most people would be willing to sacrifice some on profits to get rid of the care for a time of maintaining cows in proper health and condition without any pasture at all, simply stabling them night and day the year around with perhaps little exercise yards for a portion of the day. That is the way it would have to be done. I believe it would be possible to carry on dairying on quite an intensive scale as intensively as Rev. Detrich, but there are few men who would care to give it the necessary detailed supervision. C. C. L.

Calves that are weakly are best castrated later than the more robust youngsters. In the ordinary calf they may safely be operated on when a week or ten days old.

UNICORN DAIRY RATION



¶ Mr. Carter, of Asheville, N. C., after visiting the dairy sections of Ohio, Illinois and Wisconsin to buy some superior milk cows, purchased a promising young heifer at Wauseon, Ohio.

¶ Mr. Carter discovered that Unicorn Dairy Ration was being fed to nearly all record breaking cows, and adopted it for his feed.

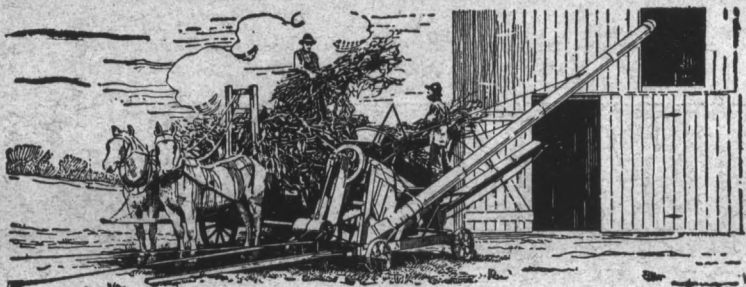
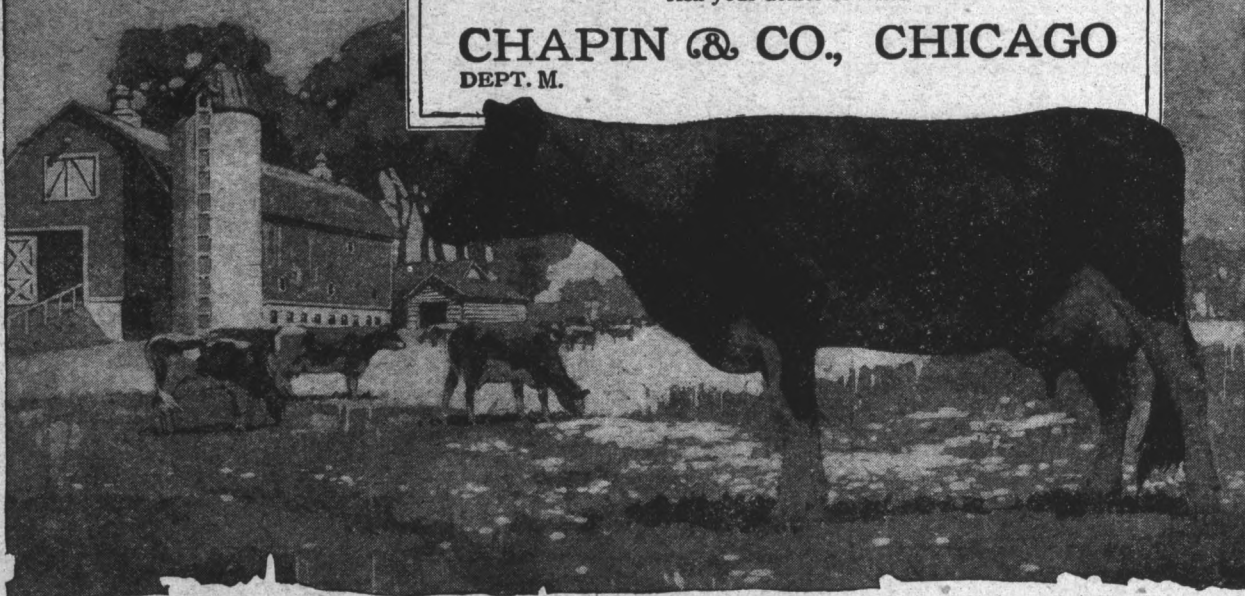
¶ In a 30 day test at 4 years old Wauseona Pansy Korndyke Queen produced 2080 lbs. Milk. She was charged 72 cents per day for Unicorn Dairy Ration, roughage and labor, leaving a net profit of \$2.50 per day.

Unicorn Dairy Ration

like good cows, costs more than the inferior article, but pays a larger profit.

Ask your dealer or write

CHAPIN & CO., CHICAGO
DEPT. M.



This Year—Handle it Right!

YOUR corn has long been a valuable crop, but the 1918 variety is worth more than ever. You will want to cut it economically and save it all in spite of labor shortage. The Deering or McCormick Husker and Shredder is the quickest, easiest way to husk the corn and it gives you the shredded stover in fine shape for winter feeding to boot.

The Deering or McCormick, in sizes from 2 to 10-roll machines, husks the corn at a rate of from 150 to 1,000 bushels per day and shreds the stalks, leaves and husks, in addition, at a cost no greater than that of husking alone when the work is done by hand.

Therefore, it will pay you to own one of these machines, or to go in with some of your neighbors to buy one, even if you have only 20 acres or corn.

Deering and McCormick huskers and shredders work fast, shell little corn, and are safe to handle. They are easy to handle around buildings; all parts are easy to oil. The Deering sizes are 2, 4, and 6-roll; the McCormick 4, 6, 8, and 10-roll.

Write us for complete information. Get posted early and be ready for the corn harvest.

International Harvester Company of America

CHICAGO

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U S A



Champion

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Red Rock

The Hardest and Heaviest Yielding Winter Wheat

For Michigan and the northern states. Has yielded 37 bushels average per acre at the Michigan Experimental Station. Record yield of nearly fifty bushels per acre.

Rosen Rye

Is a new variety that will pay you well to grow. Out-yields common Rye 10 to 20 bushels per acre. Nice long heads well filled with large kernels. Ordinary yield 30 to 40 bushels.

Clover, Timothy, Vetch, and all dependable seeds for fall planting.

Write for free samples and fair price list.

Fall Bulbs

Beautiful new Darwin Tulips, Hyacinths, Narcissus, Lillies, Crocus, etc. Plant these bulbs this fall for winter and spring blooming.

Isbell's Fall Catalog Free gives full information. Write for it today.

S. M. ISBELL & CO.

Box 10

Jackson, Mich.

UNCLE SAM WANTS MORE RYE

from Michigan. Plant every available acre to Rosen Rye this fall. Get the pure seed grown under inspection. We obtained a yield of 45 bu. per acre this year indicates that our efforts to keep the strain pure have been successful. Same field in 1915 yielded 35 bu. per acre. Field was prepared each time by discing corn ground once over and drilling with disc drill one and a half bu. per acre together with 200 lbs. acid phosphate about Sept. 25th. Our rye has been inspected and passed by the Mich. Crop Imp. Assn. Prices for seed released and delivered to either P. M. or G. R. & I. R. B. 1 to 10 bu. \$3.25, 10 to 50 bu. \$3.00. Over 50 bu. \$2.75. Either send sacks or new ones furnished @ 65c each. Orders filled same day received. Maple Grove Farm, Breeders of Holstein Cattle, O. L. C. Swine, Shropshire Sheep, and pedigreed field seeds. ROSSMAN BROS., Lakeview, Mich.

Red Rock Seed Wheat

\$3.00 per bu. new 16 oz. bags 70c each. YOUNG-RANDOLPH SEED CO., Owosso, Mich.

ROSEN RYE, a new variety originated by Michigan Experiment Station has been heavily out yielding almost all other varieties of winter rye. \$2.50 per bu. new 16 oz. bags 70c. YOUNG-RANDOLPH SEED CO., Owosso, Mich.

Please Mention The Michigan Farmer When Writing to Advertisers

CARRYING IDEAS TO PLACE OF ACTION.

(Continued from first page).

silage. Careful experiments showed that very efficient rations could be made up by buying cottonseed and oil meals, to be mixed with the silage and fed not to exceed five pounds a day to cows giving good yields of milk. To buy a ton of wheat bran at \$40 that, if pure, contains only 240 pounds of protein, when a ton of cottonseed meal contains nearly 800 pounds of protein and costs \$50, is to part with one's money without reasoning. In the bran the protein costs about sixteen and a half cents. In the cottonseed less than seven cents. Confining the cows to their two and one-fourth pounds of protein—all they can profitably use, these two concentrates, fed with silage and clover hay, fill all the requirements of the ration, and, as oilmeal counteracts the peculiarities of cottonseed meal, there was no reason why the owner of this farm should continue to buy for his cows the diluted grain feeds when they were selling for practically the same prices as the more valuable concentrates.

Besides the fertilizing value of these feeds must be taken into account. When a ton of bran is fed there is a credit as fertilizer due to it of, at least, \$7.00 to be deducted from the cost price. In the case of a ton of oilmeal the credit is about \$10 and with cottonseed meal about \$12, the latter being a pretty good rebate on the original \$50 purchase. Intelligent feed buying increased the efficiency of this farm more than \$1,400 per year. Did it pay to consult an expert to get at this loss and put the feeding operations on an economical and efficient basis?

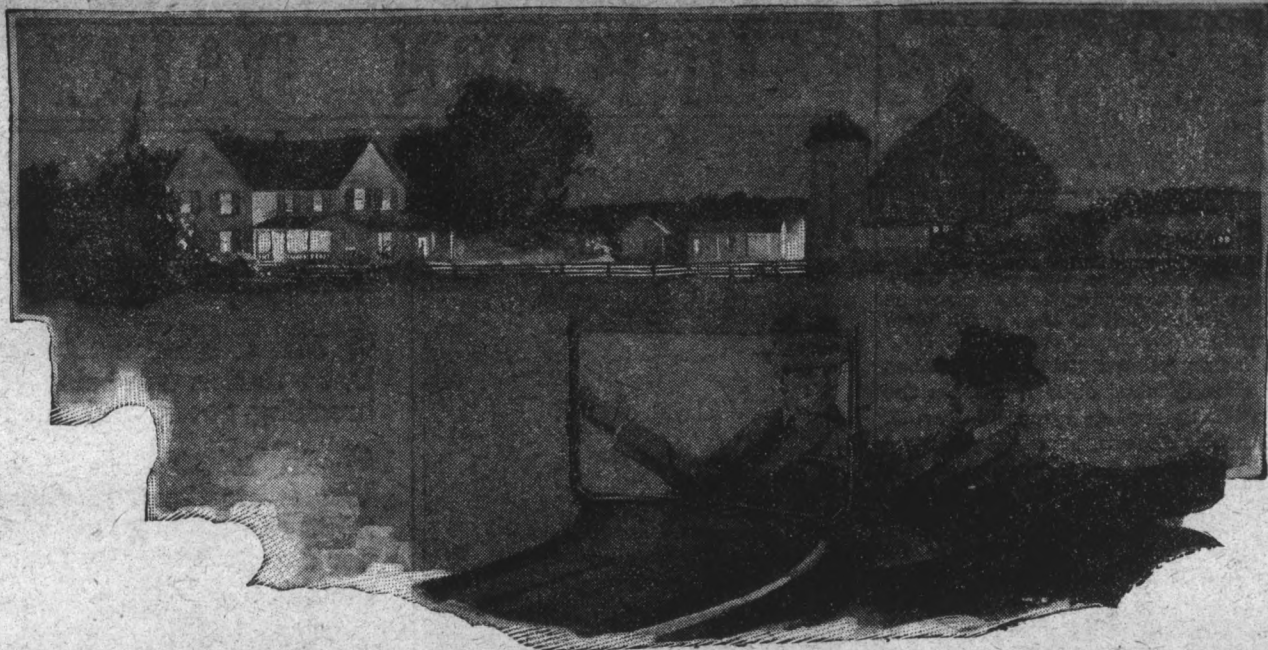
Specialized Farming More Efficient.

A great many farmers have reached a high plane of efficiency because the very nature of their farming has made it necessary. Their products command a high value and their farming demands skill, and an efficient use of labor, fertilizers and machinery. In many sections of the country where highly specialized truck and fruit crops are produced the farm expert does not find it easy to point out their shortcomings or suggest sweeping improvements. Cost keeping is one of his trump cards, but instead of finding a lot of careless workers he will probably discover much that is new to himself.

Summing up the whole question of employing farm experts we find that no farmer can employ an expert and depend upon his advice to run his business. The expert may take hold of the farm and by very simple means accomplish wonders, but unless the owner has executive ability, a knowledge of human nature, a knack of keeping things moving, and similar qualities along with the scientific management of the farm, no expert in captivity can help him put his farming on a permanently profitable basis. Much of this efficiency we hear so much about consists of a lot of old-fashioned common sense, coupled with the ability to know a good thing when one sees it. If the farm expert's record is good, and his ability indicates that he can help to increase the efficiency of your farming, then perhaps, if you are willing to follow his advice, he can do you some good.

If it is natural for the cow to give milk right up to the time for dropping her calf, it will mean a detriment to her if she is checked in the milk flow. If her natural course is to go dry, it will mean a deranged system if she is forced to produce milk.

The Detroit Mortgage Corporation, located in the Real Estate Exchange Building, Detroit, Mich., have been appointed lower Michigan representatives of the Federal Land Bank of St. Paul, Minnesota, to make farm mortgage loans. Their farm mortgage department will handle this business.



Satisfaction Assured In Advance

It is a fact that Lalley-Light usually finds preference among those thoughtful farmers who are regarded as neighborhood leaders.

It is not hard to understand why.

The man who seriously looks into the electric light situation discovers that Lalley-Light has been in successful farm use for more than seven years.

He hears it well spoken of everywhere it is known.

He learns that faithful, year-to-year service and economy are the experience of Lalley-Light user.

He receives the impression that he would be entirely safe in investing in Lalley-Light.

He accepts these things as actual advance assurance of his own future satisfaction.

In reality, they are exactly that. For Lalley-Light satisfaction probably approaches 100 per cent as it can be approached.

Never was the need for Lalley-Light so imperative as now.

Farm labor is scarce. Lalley-Light saves labor by supplying the power to do much necessary work.

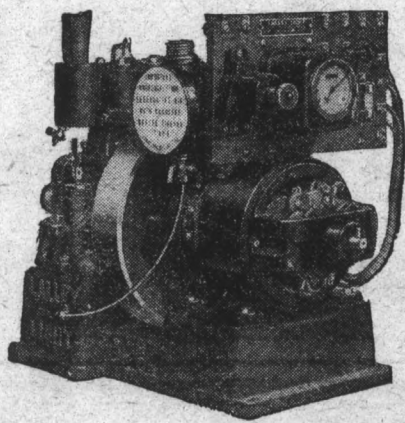
Farm products and farm buildings are more valuable. Lalley-Light safeguards them by removing the fire risk entirely.

Lalley-Light brings to the farm a score of conveniences and comforts that only electricity from a wholly dependable plant can bring.

In addition, it has its own evclus- advantages which the nearest Lalley-Light dealer will gladly demonstrate and explain.

Write us for his name, and for complete details.

Look for the Lalley-Light demonstrating exhibit at your state or county fair this fall.



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

Lalley Electro-Lighting Corporation

783 Bellevue Ave. Detroit, Mich.

Distributors.

Michigan Lalley Light Corp.

Care of Becker Auto Co., Grand Rapids, Michigan

LALLEY-LIGHT

THE ELECTRIC LIGHT AND POWER FOR EVERY FARM

High Prices Wiped Out!

—By Del Dane, "The Old Stove Master"

This is my year for a smashing price drive. It is war time, and I am sacrificing profits. I can do it because I am a manufacturer, and sell direct to users. I can save you a lot of money, particularly on Kalamazoo



Pipeless Furnaces

—that heat the whole home through one register. They cut fuel bills in half. And I have cut the price. Let me show you how I can save you \$25 to \$75 on the price and cost of installation. Write today—

GET MY BOOK FREE

Get my wholesale prices, 30 Days' Trial, Cash or Easy Payments, Unlimited, Unconditional Guarantee. Ask for Catalog No. 909.

Kalamazoo Stove Co., Mrs. Kalamazoo, Michigan

A Kalamazoo Direct to You

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 H. Jones, Pres.

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

Wanted farm help, married man, steady work, near Miford. Write F. J. BARRETT, Detroit, Mich., Davison, Blvd. & Gr. Trunk R. R.

Potato Digger for sale—Nearly new Hoover 32 Edmonton, Detroit, Mich. Tel. Garfield 1416W. JAMES KENNEDY.

SHEEP

OXFORD RAMS

1 2 year old, 3 yearlings and 6 lambs. All reg. EARL C. McCARTY, Bad Axe, Mich.

Reg. Oxford ram lambs; come by auto and take the Rechoice at \$30 and \$35 fine stock. 2 S. 3 W. St. Johns. J. R. HICKS, St. Johns, Mich.

Choice Oxford Yearling Rams For Sale

H. B. PETERS, Carland, Mich.

For Sale. Eight thorough bred, registered ram-boulet yearling rams \$65 per head. J. W. GRAHAM, Davisburg, Mich.

RAMS Sired by a ram previously used at M. A.C. well built, splendid covering, good size, and registered in the Standard Delaine Register. Can furnish car load of good rams. C. R. PARSONS, Saline, Mich.

Registered Hampshire ram lambs for sale. Weighing up to 130 lbs. Aug. 10th., at \$25.00 and up. Also a few yearling rams. CLARKE HAIRE, West Branch, Mich.

Registered Shropshire yearling and ram lambs with best of breeding and size. Prices \$40 to \$60 also a few bred ewes at \$50. H. F. MOUSER, Ithaca, Mich.

A Special Clubbing Bargain

No. 10.

Michigan Farmer, 1 yr., wk. \$1.00
Youth's Companion, wk. 2.00
McCall's Magazine, mo.75
Poultry Success, mo.50

Regular price \$4.25

OUR PRICE ONLY \$3.25

Send all Orders to

The Michigan Farmer, Detroit

Winter Activities for Gardening Clubs

By R. N. KEBLER

HERE arose a need of a winter activity for the Potato and Gardening Clubs, whose work terminated in the fall of the year, leaving no project for the long winter months. Consequently, the Handicraft Club was introduced last fall into thirteen of the rural schools of the upper peninsula. As this section of country is a great lumber-producing area, this project was welcomed with a great deal of enthusiasm on the part of the club members. However, some of the leaders and other interested persons were likely to regard this project in a discouraging light, thinking it required a great deal of equipment, as well as skilled leadership, both of which are often difficult to obtain. But the following experiences will offer ample explanation for the objections that commonly arise. These Handicraft Clubs, of course, are conducted on the same principles as all other Boys' and Girls' Club work; that is, a certain number of articles were to be completed in a certain length of time, a report kept and a story written.

In Foster City, the local leader could not read English. Nevertheless, he was competent with tools, and as the boys read the directions, he instructed them.

The club at Birch had no leader at all, he having been called by the draft after the first few lessons had been given, whereupon the oldest boy in the club, with the assistance of the teacher, took the leadership. He is shown in one of the accompanying pictures standing beside the work bench which he constructed, having used a boughten bench for a model.

The Vulcan Club boys made their tables and drawing boards and completely outfitted a room for mechanical drawing.

At another school, Grand Marais, there were forty children under one local leader and he managed to bring thirty-six of them through with their five necessary exercises. This was done by what he called the "squad system of organization" and was arranged by having the boys divided into the groups of eight. The oldest member of each squad was the leader, who was trained by the teacher, who in this case was local leader. They in turn took their squads to the handicraft workroom where instruction and practice followed.

The only school which did not have a set of tools furnished them by the school board was Quinnesec. In this case each boy brought as many tools as possible from home, and in this way managed to get a complete set. This cooperation, one with another, seemed to work out well, as they were "champion team" of the state. They are seen in the picture, each boy holding the cultivator made by himself.

One of the photographs show a Big Bay member and the articles he completed, even with the serious handicraft of possessing only one arm.

The Diorite school did not have an extra room in which the club could work, so a vise was attached to the end of the science table and the children worked mornings, noons and nights after school, many of them finishing their articles at home.

In every school, the local leadership was taken up by the teacher or janitor of the school, or some carpenter.

The following figures will serve to illustrate what was accomplished during their club season.

One hundred and sixty-nine enrolled, one hundred and fifty completed, seventy-four per cent of these took up gardening or potato growing this spring.

They made six hundred and eighty articles, some of which were:

Thirty-eight milk stools, 108 broomholders, 54 bird houses, 34 cultivators, 60 cribbage boards for our soldiers in France, 23 book racks. There were other articles made, such as grain sack holders, wagon jacks, Ford jacks, sleeve boards, drawing desks, library tables, rabbit traps, skees, trap nests, sleds, etc.

The attitude the boys take toward this work is well expressed by the following story written by a member of the Perkins' Club, Arnold Trudell.

My Story.

"As an interested member of the Boys' Carpenter Club, I am anxious to have someone else interested. If anyone should ask me why I joined the club and why I was so interested, I would simply answer, 'I am going to be a real carpenter some day; at least a handy man.'

"What is handier than a broomholder, fly trap, iceless refrigerator, plant stand, and all these other articles we have made. I know not a woman wants to be without them, but still when she has to buy them, she has to pay three times what we would sell ours for. And I dare say ours are as nice as any you can buy.

"Not any of the articles we made

are difficult after you know how to make them. The only trouble I had was after I was almost finished with my milk stool. I tried to test it by falling on it, and when I landed on the floor, I realized I hadn't made my stool quite solid enough as I had split the seat. But I started all over, and now I dare the heaviest man to test it.

"We can make use of every single thing we hammer on—my mother can—and I know any boy's mother would greet a boy coming home with a broomholder or a plant stand.

"The next things we make are going to be book-cases and chests. We are all hoping that our present principal is back with us. We work only out of school and sometimes we forget to go home to supper. But I would rather go without supper than give any hard part up as a bad job.

"Our motto is, 'Stick to it.' We have the finest place to work in. It is well lighted, large and full of cheer. You never see a boy in there with a frown or saddened face, always a broad smile or one of those 'Edison looks' when he bumps up against a hard job.

"If any boy wants to be a man, let him join the Carpenters' Club and begin hammering."

One of the first steps necessary in the Handicraft Club is to teach the members the care of tools. One boy's ability along this line is given in the following instructions which he wrote:

The Care and Use of Tools.

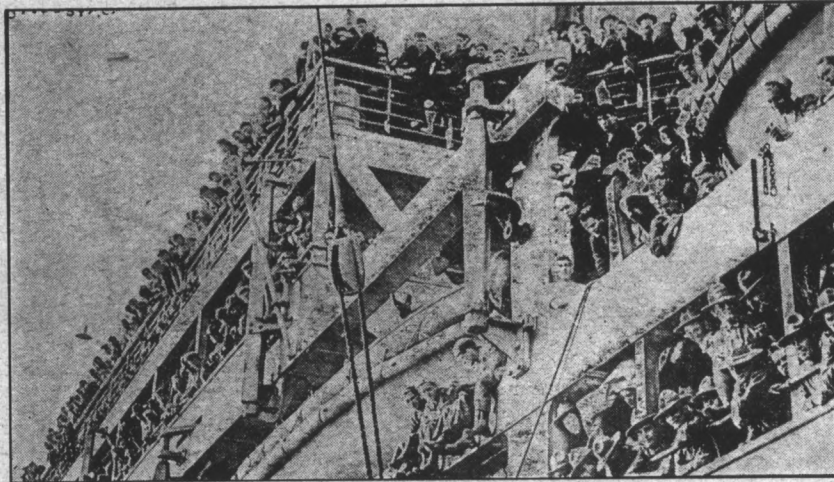
"Tools, as well as other farm implements should be carefully taken care of. It is not a good policy to buy

(Continued on page 262).

WORLD EVENTS IN PICTURES



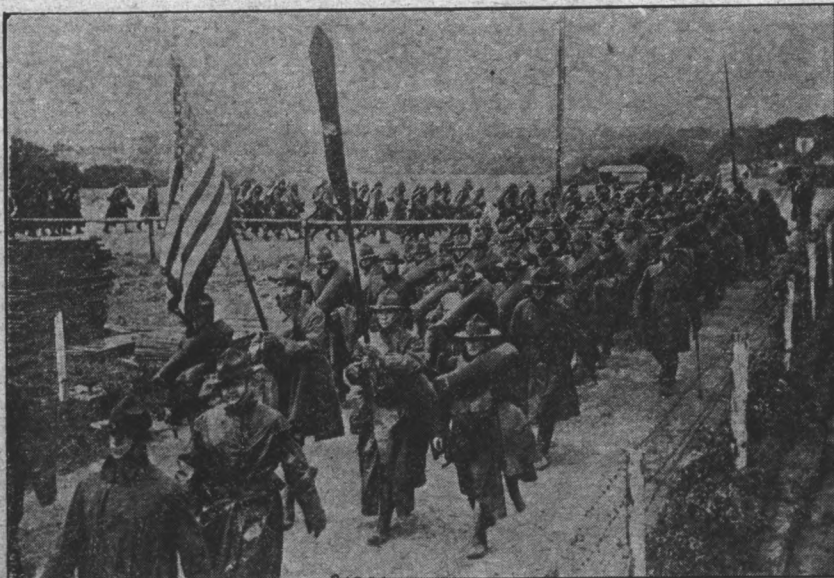
Some of the great number of cannon captured by General Mangin's army in the Marne battle in July.



American soldiers on transport approaching a French port, are in good spirits as they crowd to the rail to get their first look at the country of their chivalrous ally, France.



President Wilson whistles during the launching of the first boat at the Hog Island shipyards.



This long stream of khaki clad soldiers landing on French soil is our answer to the defiant Huns who said "it couldn't be done."



Front view of bank building wrecked when a cyclone swept over the town of Tyler, Minnesota, doing terrific damage.



(Continued from last week).

I decided to try a little strategy on him. I took out my notebook with a very serious mien and asked for his name and address. That helped. Of a sudden he grew very cordial and even invited me to come into the house for lunch. Being very hungry I accepted that invitation. After lunch I repaired my motor and then got the old fellow to hold down the tail of the bus while I started the engine. I had told him to let go of the tail when I motioned, and to take the sticks from under the wheels when I waved at him with my hand.

Everything progressed finely until the farmer went to take the sticks from under the wheels. He managed to get one of them away, and he was just starting for the other side when the machine started to turn, pushing the other stick out of the way. As the machine began to move the old man began to run.

Since I was in the wind I opened the throttle and started after the farmer, who was then going at a rate of at least twenty miles an hour and was gaining speed with every second. Just as I got up off the ground I took another look at the old fellow and found that he had caught his foot on something or other. He turned a somersault and then measured the remainder of his field to the fence by rolling all over himself. I turned back over the field and flew in a circle to see if he was hurt, but by the time I got over him he was on his feet again, shaking both fists at me. I made another flight over the field, wondering what made that man so mad, and then I noticed that something else was occupying the old farmer. The noise of the motor and the size of the huge bird had stampeded the cows again. Since I did not want to torment the old man any more than was necessary I made off for good, though I should have liked to hear what he had to say of me after that. There is no doubt that he wished I would break my neck or do something similar, but I finished my trip without further mishap.

A few days later I was to take another machine to the coast for delivery. Three other machines were in the group. We left about eleven o'clock in the morning, and we were near our destination when I saw a flock of Huns coming inland from the sea.

My machine had a gun, but I had no ammunition. We were near the aerodrome to which we were to take the machines and dove down to it with all possible speed to get ammunition. The other men had also seen the Huns and were coming after me with all possible speed. We had just landed in the aerodrome and were taxiing our machines to the shed, when a Hun bomb struck in a nearby field and exploded with a tremendous crash.

I had gone to see the commanding officer to get ammunition when an order came over the telephone that no machine destined for the troops in France should go up. That order had hardly been received when another crash came, and this time we took to our heels across the aerodrome. We were near the other side of the field when a third bomb crashed to the ground and exploded near us; so we ran back like mad. The Huns aloft seemed to have it in for us, and our running about merely showed them that their bombs were having some effect. Then somebody shouted:

"Lie down! Lie down!"

The order was accompanied by some

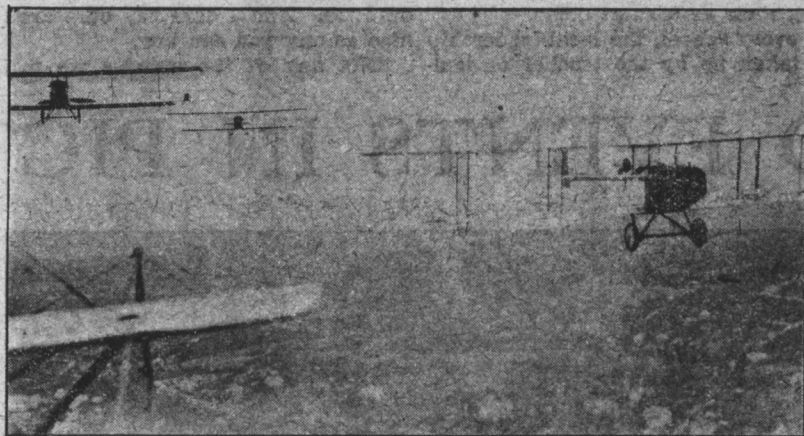
caustic remarks, and we had hardly obeyed it when more bombs dropped around us.

By the time that the necessary ammunition had been issued to us and we were ready to take up the chase of the Huns they were well on their way home. This raiding party was never caught by the patrols in England though those in France spotted them and gave battle, bringing down two of them.

On the following day we learned that a good many people had been killed in Folkestone, and that considerable damage had been done by the raiders. The result of our experience was the issuance of an order that in future all machines flying in England or being ferried to France were to carry ammunition. Most of the boys were praying for a chance to get even with the Huns. It was the first time that Hun flying machines had made a raid upon England and did any damage in that section.

CHAPTER XX. Meeting the King.

NOT so very long after that some of us got the chance we were looking for. Early one morning the alarm came that the German air raiders were coming. Those of us who



In Battle Formation.

had machines that were ready went up immediately, and others went up in machines that were not ready, the result of which was three rather serious accidents in which three men were badly smashed up.

But a few of us got up and cruised about at an elevation of sixteen thousand feet. In our hurry many of us had not taken the time to put on our heavy flying clothing, and these men came near freezing to death in that high altitude. We had cruised around for nearly an hour and a quarter when I saw one of our machines make a straight line for the sea. I followed, and before long I was able to count twenty-two Hun machines coming towards us. I recognized them as the big bombers used by the Germans.

The Huns were a little to one side of us, so that I and the other man who had flown towards the sea were on their flank. The man in the other bus was old Ham, as I learned presently. He had a faster machine than I had and was endeavoring to get above the Hun formation. After a while he succeeded, and then he dived through the Hun machines and separated them. After that the Huns proceeded in groups of four and five. Meanwhile I had overtaken one of these groups for the purpose of cooperating with Ham.

Then I picked out another, and went to work on him. I was above him and took a dive during which I hoped to

put him out of action with my gun. But as I plunged towards the machine I found that I had run into a wasp's nest; I noticed that the air was full of blue streaks made by the explosive bullets which the Huns used.

I decided that I would have to climb again and try to take him unaware. I manoeuvred upward and got a new position, but before I once more came within fairly good range of the Hun machine the men in it dropped all their bombs into the marshes along the coast.

It was necessary to act quickly if this machine was not to get away. The bombs had been dropped for the purpose of making the aeroplane lighter and enable it to rise more easily. The bombs had hardly exploded beneath us when the Hun machine started upward in a spiral. When I thought the machine was in proper position for me I dived under it and took it under fire from below. I had not spent many rounds of ammunition when I noticed the rear gunner in the Hun machine roll to one side; then he disappeared in the cockpit. At the same time the machine began to fall. But just then my gun jammed and before I succeeded in getting it to work again the Hun had managed to get such a start over me that pursuit was useless. I was given credit for helping to bring down one Hun by the commanding officer of the squadron, as someone else had fought him at a lower level.

But I had fared much better than a good many others. One poor little chap who had taken to the air in a "Sopwith pup" had gotten under the tail of one of the Hun machines. The man in the German machine got in his

not see. As I felt about my face I noticed that something was hanging in front of me. The next thing I came to understand, after the first shock was over, was that the motor was no longer running. My feet had been forced off the rudder control. I groped around to find the stick but could not find it for a few seconds until I had gotten some of the oil out of my eyes. An examination of the various controls showed that the machine was totally unmanageable. I was falling—falling in such a manner that earth and sky seemed all mixed up. The machine passed from one loop into another, skidded sideways, then sailed on its tail for a second, righted itself again, and kept plunging earthward faster with every second. To my own surprise my presence of mind did not desert me. One moment I seemed to be

(Continued on page 259).

"By the Way"

U. of C. STUDENT WARNS THE KAISER.

To show the kaiser where "he gets off," J. B. Loftis, a student at the University of California, who started for Berlin, sent the following lines back from an Atlantic port:

"We are coming, Kaiser William,
Ten hundred thousand strong;
Our boys are going over
To show you where you're wrong.
The laws of God and nations
You set aside and scoff;
We'll show you, Kaiser William,
The place where you get off.

"We are coming, Kaiser William,
We warn you to beware;
Our soldier boys are eager
To meet you over there.
So, for the cyclone cellar
You'd better make a dive;
There's something coming to you
As soon as they arrive.

"We are coming, Kaiser William,
To right a grievous wrong;
We are coming with the spirit
That moves the world along.
To wipe out German kultur
Our boys will cross the sea,
And in its place establish
A world democracy.

"One million strong we're coming
To end this bloody war,
And if it's necessary
We'll send a million more.
We are coming, Kaiser William,
To run you out of France,
So paste this in your helmet:
You haven't got a chance."

SAFETY FIRST.

A certain (F. W.) a representative of an agricultural paper took his family to the State Fair, and as they were spending the day there, they brought along a well-filled lunch basket. The crowd became very dense, and feeling that they would become separated, the head of the family said: "Give me that lunch basket, wifey; don't you see that we are sure to lose each other in this crowd?"

DISMISSED.

A certain defendant acknowledged that he hadn't spoken to his wife in five years, and the judge took a hand from the bench in examining the witness.

"What explanation have you?" he said severely to the defendant, "for not speaking to your wife in five years?"

"Your Honor," replied the husband, "I didn't like to interrupt the lady."

WATCH YOUR STEP.

Small Sammie—You'd better not go boating with sister, Mr. Slowboy.

Slowboy (sister's admirer)—And why not, Sammie?

Small Sammie—"Cause I heard her tell Cousin Clara this morning that she was going to throw you overboard.

(Continued from page 258.)
sailing towards the sky, while the next left no doubt at all that I was rushing towards the ground.

Presently the machine began to swirl around on its own axis while describing the regular spirals or spins.

I wondered how soon it would be over.

Another moment or two and then the crash would come.

I have never been much of a praying man, but then and there I said my little "Now I lay me down to sleep."

It was the only thing that came to my mind.

Then the thought occurred to me that I ought to make another effort to right that machine, but in an instant I had discovered that it was useless.

Through my mind flashed every experience I had had, and I remembered how the boys had asked me what flowers I wanted for my funeral. I was just wondering what difference it could make to a man what flowers he might get, when all of a sudden the machine righted itself and began to sail upon an even keel.

That fact restored me to normal. It flashed over my mind that I had just made a glorious nose dive, and I once more sought the control. But the stick would not move. As we say in the service, "it had taken the bone in its teeth," and that being the case there was nothing I could do to keep the machine righted. I was heading for the ground at the rate of about one hundred and twenty miles an hour, and, strange to say, had now given up all thought that I would be killed by the fall. I pictured the surgeons pulling struts out of my back and connecting rods from my knees. The thought filled me with a very peculiar fury. I would not go to another hospital if I could prevent it. No, not if I had to break every control in the machine!

The machine was now diving toward some trees standing by a roadside. I feared that I would hit the first of them, but the machine just cleared them. Just as it "zoomed" over the top of the tree the displacement of air from the plane waved the tree-top, so close did it pass. I was not far from the ground now and still going at terrific speed. I would give those levers another try, I thought. I tugged away at them with all my might but not a one of them responded. The machine hit the ground and a hedge just as I was straining every muscle at the controls. The first contact threw me out of the cockpit. After describing three somersaults I landed on the ground, striking on my shoulders and neck. My escape had been truly miraculous, so much so that I began to feel myself all over in an effort to find the bones which I thought were surely broken. I felt no pain, and so with that I finally concluded that I was still whole. I lit a cigarette and then walked over to view the wreck of the machine.

I saw that it could be written off the lists. I found that a defective tappet rod had caused the trouble, cutting the cowl around the engine, which revolved at the rate of thirteen hundred revolutions a minute, and that in some manner, which will never be explained, the propeller got tangled up with the machine gun and that the force of this contact strained every part of the machine to such an extent that it became unmanageable, allowing the engine to fall back on my knees and push my feet off the rudder control.

Some people came tearing down the road in a motor car. One of them was a doctor, who insisted that I should come over to his house for an examination. I had convinced myself that I was still in working order, but I wanted to reach the headquarters of my squadron by telephone, and for that reason I gladly accepted the invitation of the doctor.

(Continued next week.)

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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 Sale to close an Estate 180 A. Good buildings well fenced, plenty of water and timber. Also 36 head fancy Angus feeding steers. For particulars address **W. S. CADY,** Litchfield, Mich.

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Have several A1 farms in Springwells and Ecorse townships Wayne Co. to rent. See **A. N. MARION,** 816 Union Trust Bldg., Detroit.

Woman and Her Needs

At Home, and Elsewhere

Salt Down Surplus Tomatoes

THE process of preserving tomatoes in brine is exceedingly simple and the only equipment needed is good water-tight kegs. While salted tomatoes may not equal fresh in quality, they help materially to build up the food reserves and, when they are well cooked and seasoned, the flavor, though different from that of the fresh vegetable, is good. If put up as directed they will keep their crispness and color.

General Directions.

Gather when in the best condition and pack while they are crisp and tender. Cover top with grape leaves, or horseradish.

Weight with a clean stone resting on an inverted plate. Do not allow molds to form, and keep vegetables covered with brine.

When all bubbling has ceased about a week after packing, cover the surface of the brine with cottonseed oil or melted paraffin. Store in a cool place and examine once or twice a week for a month.

For the brine allow one and two-thirds cups of salt to one gallon of water. This is a ten per cent salt solution.

For a salt-and-vinegar solution allow three-fourths of a cup of vinegar to one gallon of above solution.

Green Tomatoes.

Salted green tomatoes may be made into tomato stew, stuffed tomatoes, breaded tomatoes and salad, or converted into mincemeat and chutney.

Choose well-developed green tomatoes and pack in salt solution. Green tomatoes packed in salt-and-vinegar solution are good for salads and relishes.

When taken from the brine the green tomatoes will be slightly discolored but firm and of good quality. Soak in cold water for two hours before using.

Ripe Tomatoes.

Select medium-sized ripe tomatoes free from cracks or bruises and pack in brine solution. Follow directions and your tomatoes will be firm and of good color when removed from either the brine or the salt-and-vinegar solution.

Ripe tomatoes preserved in the salt solution generally require soaking for two hours before being used. After this soaking the skins slip off easily, and the tomatoes can be used as though fresh. For soups or scalloped or casserole dishes, soaking for one hour is usually sufficient, for the excess salt seasons other ingredients.

Ripe tomatoes preserved in the salt-and-vinegar solution require soaking for only about thirty minutes. When used in combination with fresh vegetables they need not be soaked at all. The skins slip off easily, and the flesh is firm. The color and the flavor of the tomatoes are practically no different from those of fresh tomatoes.

Stuffed Green Tomatoes.

Soak salted green tomatoes for two hours. Remove a thin slice from the top of each, take out the seeds, and

fill the cavity with a mixture of boiled rice, well seasoned with onion and paprika. Place the tomatoes in a baking dish, and add sufficient stock to almost cover them. Cover the dish, and bake it slowly until the tomatoes are tender, about one hour.

Ripe Tomato Salad.

Use tomatoes that have been preserved in salt-and-vinegar solution. Soak them for thirty minutes. Peel them, and remove the stem ends and the seeds. Fill the cavities with minced green pepper that has been preserved in salt-and-vinegar solution and rinsed but not soaked, and with celery moistened with salad dressing. Place a spoonful of the dressing on top, and serve the tomatoes on lettuce or finely sliced cabbage.

Mock Mincemeat.

- 3 pounds salted green tomatoes
- 2 pounds apples
- 1 cup chopped suet
- 2 cups molasses
- 1 cup corn syrup
- 1 pound raisins
- 1 cup vinegar
- 1 teaspoon cloves
- 2 tablespoons cinnamon
- 1 teaspoon allspice
- 1 teaspoon nutmeg.

Soak the tomatoes for two hours, and chop them fine. Chop the apples. Add the other ingredients, and cook the mixture until it is thick. This mincemeat will keep for some time in a covered jar.—U. S. Food Administration Bulletin.

Pillows for Soldiers

Did you ever have an accident or a sickness which kept you in bed for days? Do you remember how you ached just from lying in bed? Perhaps mother or grandmother tucked pillows around you and you can recall how those pillows eased you. If you can you know just how the wounded soldiers must need pillows—hundreds of them, all shapes and sizes. There's the "splint" pillow and the knee or elbow pad with the little hole in the center like a doughnut, and the ordinary feather pillow—13x17 is a good size—but the easiest pillow for girls and boys to make is the "snippings" pillow. Even the small folks who love to cut can help make these. Use the scraps from the handkerchiefs and other articles you have made and the old cloth too worn for other use. Only white or very light rags will do and all the seams and tucks must be ripped or cut off or the pillow will not be soft. Now sit down with a sharp shears, a newspaper on your lap, and a sack—a flour-sack will do—beside you. Cut or snip the cloth into little pieces of one square inch or less, just as though you were cutting the ends off of carpet rags. These little clippings don't need to be the same shape or size but they must be small. As you put them into the sack you will notice when you reach your hand in how soft they are—almost like feathers.

A "snipping" party is lots of fun. The boys might snip against the girls. Who do you suppose can snip the fastest? Be careful about the sharp shears. Cloth and hands must be clean. Don't put the cloth on the desk or on your lap but always on a clean paper.

And don't let dust get into the bag. Colored material must not be used be-



THIS gown is of black satin with the new panel effect in back and front. Tiny self-covered buttons outline the panel which is finished across the hem with heavy silk fringe, a favored trimming this season. The skirt is draped in soft folds at the sides. The normal waist line has a crushed girdle, and the V-shaped neck is finished with a white satin collar.

cause colored lint might get into a wound and poison it. White cotton or percale will make a good tick for a clippings pillow, but regular ticking must be used for feather pillows or the feathers will come through. The snippings pillows must have an outside case just like the feather pillows. White cotton or percale will be good for the pillow cases. You can make them in sewing class. After you have stuffed the ticks—not too full or they'll be hard—sew them up with strong thread and be careful to fasten all the threads so the work will not rip. One of the greatest troubles with much of the Red Cross sewing is the ripped places where the thread was not well fastened at the beginning and the end of a seam. Think of how ripping accidents will bother over there where everybody is so busy.—H. Henderson.

STRETCHING THAT SUGAR ALLOWANCE.

How have you solved your sugar problem?

A great many families have not solved it. They have simply said,

"It can't be done. We eat more than half a pound a person right on the table every week, so how is a body to do any baking or cooking if they eat up more than their allowance right on the table?"

Where sugar cards are not in force these earnest souls spend more gray matter studying ways to cheat the government and get more than their share of sugar than they would need to think up methods of getting along with their half-pound a week. If they happen to live in a county where sugar cards

have been issued they sit around and grumble and patronize the bakeries.

In one county where sugar cards are used one family has solved the matter this way. Each member of the family has an individual sugar bowl. On the day sugar is bought each person has one-half his half pound put in his sugar bowl for table use. The rest is put in a jar for baking at the end of the week, if enough is left. When the sugar bowls are empty those who want can have them filled again. But if they do, they get none of the cake or cookies which are baked from the supply of other members of the family—the penalty of indulgence.

Usually the half cup lasts the whole week. The children have found out that cereal tastes really better with a half-spoonful of sugar than they did with one and a half or two spoonfuls. Mother takes her cereal with no sugar so as to have a spoonful and a half in her coffee, and father takes black coffee and uses the sugar on the cereal. Fruit is consumed "au naturel" instead of having all taste buried in sugar and drowned in rivulets of cream.

Also fudge making is a lost art.

It is not a bit like last year, and still less like the year before last. But everyone is in good health and the sugar regulation is observed. Best of all, to mother, she isn't spending nearly so much time in the kitchen with a hot oven going these days.

HOT FRUIT SAUCES.

Educate the family to demand fruit acids as an accompaniment of meat to replace part of the starch usually consumed.

Apples with Bacon.—With crisp bacon serve apples, piping hot and bursting with juice, baked without sugar. Or cut the apples from the core without peeling, place in a deep pan with a very light sprinkling of sugar and half a cup of water. Cover and steam until tender; remove cover, sprinkle top with brown sugar or brush with syrup and brown in hot oven. Serve from dish sizzling hot.

Peaches or Pears with Roast or Steak.—Ripe peaches or pears steamed until just tender through make an appetizing sauce for meats. Peel but do not cut. Cook in a saucepan, tightly covered, with just enough water to prevent burning. Allow one tablespoon of sugar to a dozen peaches or pears. Steam until tender and serve hot. Be careful not to overcook.

Plums with Chicken.—Blue plums are especially good with chicken. Add a very little sugar and little or no water. Heat slowly to prevent burning and cook until plums are broken. Serve hot. Peaches or apples quartered and cooked clear in a syrup of water, sugar and a bit of lemon make a delicious accompaniment for chicken. Serve rice with this combination.

NEWS OF THE WEEK

Wednesday, September 11.

Storms and a stiffening of the defense are slowing up the Allied advance as they approach the old Hindenburg line. The French, however, have improved their position about the St. Gobain forest, which protects the southern end of the above line, while the British have worked their way to within three miles of St. Quentin.—Announcement is made that registrants eighteen years old and men thirty-seven years and over will not be called on the next draft.—Secretary McAdoo calls on congress to reduce the proposed tax on Liberty Bonds.—Twenty-nine Russian chiefs are reported slain by the Bolshevik authorities.—Strike of 1,000 employees ties up Canadian Express Company.

Thursday, September 12.

British troops on the north and the French troops to the south are in a hard race for the prize of St. Quentin. Both armies are making consistent advances which movements are outflanking both St. Quentin and St. Gobain.—It is unofficially reported that the Ex-Czarina of Russia and her four daughters have been slain by the Bolsheviks. In round numbers 13,000,000 men in the United States; of whom 500,000 are in Michigan, register under the new man-power act for government service.

Friday, September 13.

American troops under General Pershing capture eight thousand prisoners and smash to within ten miles of the German fortress of Metz in their drive to reduce the St. Mihiel salient east of Verdun. This fight widens over a front of fifty miles with our troops advancing to within a mile of the German border.—Emperors of Germany and Austria are in conference to prepare a new peace move, according to dispatches through the Scandinavian countries.—President Wilson signs the law creating dry zones about shipyards, munitions factories and other war industries.

Saturday, September 14.

Americans succeed in blotting out the St. Mihiel salient, capturing so far 13,300 prisoners. The front line of our troops is now facing the enemy's border line, in spite of the order to his troops to "hold or die." French and British slowly work their course around St. Quentin.—Representatives of milk producers from various parts of the United States are in conference at Washington with the federal food administration discussing the milk situation of the country.—Vigilance on the part of our State Dairy and Food Department and county officials is resulting in the capture of large quantities of liquor being smuggled into Michigan.

Sunday, September 15.

In their drive toward Metz the American troops have already captured seventy French towns and villages, 210 square miles of territory, taken 20,000 captives, including 5,000 Austro-Hungarians, and found great stores of war materials. French strike a new blow south of the St. Gobain forest, moving forward from two to three miles on a front twelve miles long. Two thousand prisoners are taken. British also advance between Cambrai and St. Quentin.—The production of coal in the United States for the year will be 17,000,000 tons short, according to Washington estimates.—Proofs removing all doubts that Lenin and Trotsky, the Bolshevik leaders, are paid German agents, are now in the hands of the authorities at Washington. They show these men were paid \$25,000,000 to betray Russia into the hands of Germany.

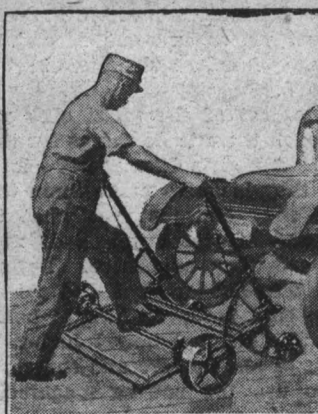
Monday, September 16.

Belgium receives a direct offer of peace from the Kaiser, while Great Britain gets a note from Austria proposing terms of peace. American guns are now bombarding the German fortress of Metz. Pershing's men move forward on a thirteen-mile battle line. French capture 3,500 men in continued drive along the Aisne river.—Bolshevik leaders leave Moscow because of growing unrest in Russian capital.

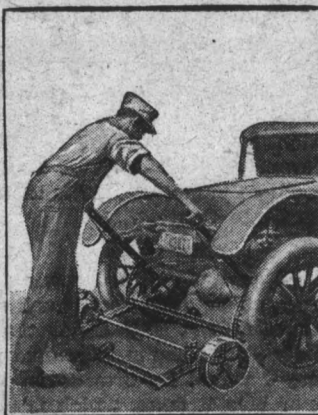
Tuesday, September 17.

American troops are consolidating their lines along the Moselle river north of Pont-a-Mousson near the Lorraine border facing Metz. British and American bombing machines are shelling the lines of communication toward Metz. The British make small gains east of Ypres. French have advanced nearly a mile in the vicinity of Laon. French cooperate with Serbs in opening an offensive in Macedonia against Bulgarians, with some success. In Russia many Bolshevik leaders have been executed, and Lenin, recovering from wounds inflicted by a would-be assassin, advises his associates to form a defensive and offensive alliance with Germany. The Czechoslovaks are steadily gaining in numbers and strength. Poles endeavor to raise an army of 100,000 to assist Serbia.—President Wilson rejects Austria's peace proposal for a peace parley, submitted through the Swedish minister. Balfour, British Foreign Secretary, says there is no way open for the acceptance of Austria's proposals.—Twenty-six ships with an aggregate tonnage of 140,520, have been delivered to the shipping board by American yards since September 1.

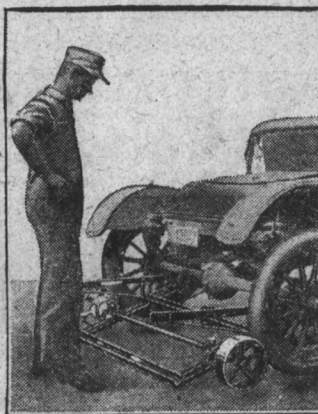
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How We Made Our Garments

I HAVE been a member of the Girls' Garment-making Club for three years. My mother and a neighbor lady have been the leaders each year.

Our club was organized on June 6, 1917, with sixteen girls responding, but only ten finished. We decided to make the corset cover, dress, (or sport suit) and shirt waist.

First came the corset cover for which I crocheted a yoke. I cut the corset cover out and sewed it up. I next hemmed the yoke on, which was the hardest part, made the buttonhole for shir string and the garment was finished.

The second garment was the dress. First I cut out, basted it up and prepared for the stitching. I had gotten both cuffs all on when I found that I had one of them on upside down. Of course, that meant that I had to take it all off and fix it. I felt very much discouraged when I found that I had to take it off, but I did, and afterwards was glad, because I did it better the last time than the first.

When I came to make the skirt I found that I did not have cloth enough and the storekeeper that I had bought the first cloth of had gone out of business. I had planned to have a plaited skirt but as it was I had to have a gores skirt. In order to have stripes match I sewed the gores on by hand.

My last garment was a white waist. First I cut it out and sewed it up. I was planning to crochet the lace for it, but it was getting so near the time for me to have it done, that I decided to buy the trimming. I had everything done except the lace on the fifteenth of September, so I thought I would try once more and make it, so I took it to school every day and worked noon and recesses, set up until ten o'clock at night and by the next Satur-

day I had it all crocheted and sewed on.

We had very good times at our club meetings. Twice we had picnic suppers. The last time our mothers were invited. Mr. Turner, the county leader of the Boys' and Girls' Club work, came to some of our meetings and the last pot-luck supper. The twenty-second of September all of our garments went to the local fair where I received two first prizes and one second. At the county fair I received two first and one third.

The object of the girls' club work is to teach them to do things for themselves. All girls like pretty clothes, and if they learn to make them themselves, they can just get what they want, and at less expense, as ready-made are very expensive. Before I began the club work I had no idea how to sew, not even how to hold or use a thimble, but now I understand sewing. I also understand the correct way to use the sewing machine, do hand-work, and cut and baste.

I feel that I owe a great deal to our leaders for the interest and patience they have taken in teaching us to sew, also Mr. Turner for his help.

Since I have had three years of sewing I think next year, if convenient will take up the canning project.

Written by Miss Gladys A. Westcott, Jerome, Mich., R. F. D. 1, Hillsdale County Champion, 1917, and third place in State Contest.

I HAVE always disliked sewing and I have never done very much of it—at least not any more than I could help—but I began to realize that some day I would have to do my own sewing or hire it done, which is not a very satisfactory way of doing. So, with the idea in mind that perhaps I

might learn by doing, and might also enjoy sewing better, I took up the project of garment making.

Another reason that I took up this project was, I believe it is every girl's duty to learn to do, at least, her own sewing. The majority of girls are sometime going to be wives and mothers and it is their duty to fit themselves for this work in the best possible way, and so I decided that a pretty good way to learn was to take up sewing as a project.

The first thing I decided to make was an underwaist, and as I was not experienced in sewing, I did not know how much work it would require. I sewed on lace and insertion until I could sew over and over with my eyes shut, and the worst part of it was, I got one part wrong so that I had to rip it off twice. The most difficult things were the buttonholes and the first ones I made looked like oblong holes; but at last the garment was done and it looked quite presentable, and I had learned many things which will never be quite as difficult as they were the first time.

The next garment I made was a nightgown and there was not as much work on this as on the underwaist so I made it in a short time, and the good thing about it was, there were no buttonholes to be made. I had some trouble in stitching straight and one of the hardest things to do was to baste everything before it was stitched; but our club leader said that was the only way to learn, and I believe it is, although it sometimes seems like a big waste of time.

I decided to make a shirt waist for the third garment and so I began making tatting for it. I found this to be a very slow job, and I was so long making it that I thought I would not have

it done for exhibit. However, I had it done, by "cramming," as we speak of in school. My garments were exhibited at our local club exhibit and at the Hillsdale County Fair, and I was given third prize on them.

We have had some jolly good times this summer at our meetings, besides our training in sewing. At some of the meetings we had programs, which was another way in which we got good training.

I believe next year I could make an improvement in my garments by making a better looking inside to them. I used to think that it did not matter how the inside looked but I noticed that the judges looked at that first, and I have also found that home-made garments are made much better than ready-made ones and that they are also not as expensive, and so I think a good way to be economical in these times, when we must conserve everything is by making your own garments.

Written by Meriel Payne, Live Wire Canning Club, Hillsdale, Michigan.

CLUB NOTES.

BY E. O. LINDEMANN.

All clubs should hold their annual exhibits as soon as possible. This phase of the work should follow the close of the season's work without loss of time. All exhibits should be conducted before Christmas. Reorganization should begin in January.

Over thirty Boys' and Girls' Club Demonstration Teams competed at the State Fair at Detroit. The championships will be announced later.

In the State Live Stock Judging Contest the team from Clinton County won first honors in the senior class and the team from Kent county won first place in the junior class.

cheap tools for they will soon get worn out. It is best to buy a good set of tools, if you buy at all. The tools should be well oiled so they will not get rusty. They should be rubbed with pulverized pumice stone, which is sold at all drug stores, for rubbing down to a fine finish. All tools that have an edge should be kept well sharpened. It will be found that much time is wasted by using dull tools, and lost time is never found again.

"Care should be taken that the edges of planes, bits, chisels, etc., are not dulled by using them on boards that have metal or dirt on the surface. All nails should be taken out and all dirt should be brushed away. A plane should never be used after sand paper has been rubbed on the board, because there are some particles of sand left on the board and it will make the plane dull. If the tools are dull, they can be rubbed on an oil stone or else on a grindstone. Saws must also be kept sharp."

A Chicago mail order company con-

Winter Activities for Gardening Clubs

(Continued from Page 257.)



Uncle Sam's Helpers Two Months After Organization.

sidered the handicraft project of enough importance to offer twelve tool chests for the best clubs in the state, no two clubs in one county to receive a chest. The caliber of the work in the upper peninsula was of such a nature that five of the twelve chests were awarded to Alger, Delta, Dickenson, Luce and Marquette counties respectively.

Competition developed throughout the Handicraft Clubs of the entire peninsula when it was announced that the State Fair would pay the railroad expenses for the two best demonstrating teams, including local leaders, to attend the fair. The object of the trip was for them to demonstrate the making of a Michigan Garden Boy Cultivator, several lower Michigan teams competing there with Quinnesec and McMillan teams of the upper peninsula for state honors.

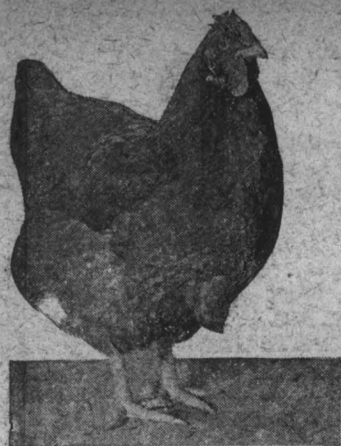
Watch for what the boys have to say in a later issue about their Detroit trip and their experiences at the State Fair.



Quinnesec Patriotic Club and the Exercises they Completed.



Quinnesec Patriotic Club and the Cultivators they Made.



Bred-to-Lay Flocks

By R. G. KIRBY

Well Bred Flocks Produce More Uniform Products. It is Possible for Farmers to Increase the Value of their Products Twenty-five Per Cent Without Adding to the Cost of Production Through a Better System of Breeding.

IN developing flocks of farm poultry the bred-to-lay factor is deserving of much emphasis. Several systems for selecting laying hens have been tried with varying success but there is no method of accurately determining which hens are the best layers except the trap-nest. Breeders who have been making trap-nest records for a long period of years have been able to produce hens which possess a marked ability to lay eggs and transmit the power to their progeny.

Some breeders claim that the high normal layers are the best breeders and this seems sensible. The two-hundred-egg hen may frequently be a better breeder than the phenomenal layer which produces nearly three hundred eggs. It is the flock averages that count. Stock from a strain with eight or ten generations of two-hundred-egg hens is more reliable than stock from two generations of hens which will lay two hundred and fifty eggs per year. The two-hundred-egg stock bred over the longer period is more apt to have the characteristic fixed to stay.

In selecting bred-to-lay stock the time that the eggs are produced has some influence on their market value. Five birds of a prominent strain made a record of one hundred and thirty-four eggs during January in a Missouri laying contest. At a January price of fifty cents per dozen these eggs would have been worth \$5.58, or about \$1.12 per hen for the month. In May another pen produced one hundred and thirty-three eggs, but at that time eggs were selling for about twenty-five cents per dozen. Their eggs would only bring \$2.77, or about fifty-six cents per hen for the month. Undoubtedly this ability to lay winter eggs can be developed in some strains of fowls to such an extent that they can be made much more profitable than the ordinary type of farm hen. The breeders who develop these high-

quality winter layers seem to depend very largely upon the trap-nest to produce high records. Of course, they also emphasize vigor which is of prime importance in developing a flock of birds with the vitality to lay winter eggs.

Keep the Hens Busy.

Busy hens lay because exercise is fundamental to health and the bird that is not in a healthy, vigorous condition is not prepared to produce eggs. Keeping the hens busy in the winter also keeps the poultryman on the jump. Plenty of clean litter must be supplied for scratching. Dust baths must be prepared and filled with clean garden loam so that the hens will have a chance to fight pests and sun themselves while dusting in the earth.

It pays to have something for the hens to peck at during winter months. Clover can be wrapped in a small cylinder of poultry wire and suspended from the wall of the house. The birds will enjoy pecking at the leaves and blossoms and will obtain much healthful food by that means. Mangels placed on nails will supply green food and help to keep the birds busy.

Watch the flocks occasionally at night and note the hens that are always willing to stop work and go to bed early. They are often the hens that are poor producers and also the ones that are the slowest to come from the roost in the morning and start scratching. The busy hen seems to have a good disposition; she is apt to be the bird that sings while she hunts for feed in the litter. The lazy hen which spends much of her time humped up in the corner is usually a poor layer. She may show some signs of life at feeding time but she is more apt to watch for the grain the other hens scratch out rather than do her own hunting. The busy hen is apt to lay and pay, and during the winter one of the poultryman's biggest jobs is to keep the hens busy.

Fall Ailments of Poultry

By E. C. FOREMAN

Poultry Specialist, M. A. C.

I am finding as many as five of my chickens dumping around at night and some of them just tip over and die. They seem wet under the wings without a mark on them.

Eaton Co.

M. O. A.

From the description of your trouble namely, "wet" under the wings and general weakness, especially among the pullets, I do not hesitate to say that your stock is suffering with fall colds, or simple catarrh. At this season of the year especially, the young chickens are subject to colds and every precaution should be taken to guard against an outbreak of such. The treatment is one of prevention rather than cure, although it is not a particularly difficult problem to eliminate and eradicate the trouble, especially if the stock is hardy and vigorous. Weak chickens, and especially pullets, are more susceptible, when the stock is immature and have not commenced to roost. Cool nights induce huddling and the weaker ones are the first to succumb.

Treatment.

1. Clear, dry, comfortable quarters

should be provided, free from drafts.

2. Disinfect house with a five per cent solution of formalin or some good coal tar product.

3. Wash heads of the affected birds with a two per cent solution of potassium permanganate and also put enough in the drinking water to give it a deep claret wine color. (Potassium permanganate can be secured from any druggist. An ounce or two will probably be sufficient). For drinking purposes use about what can be placed on a five-cent piece to a gallon of water. Remove all other sources of water supply.

4. Feed plenty of good wholesome grains and a mash (wet) of bran middlings, corn meal and meat scraps, using about a teaspoonful of mustard to each twelve chicks. The mustard has a stimulating effect, and also acts as an appetizer.

By following the above directions, paying special attention to housing, thus removing the cause, a speedy recovery can be looked forward to.



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Rhode Island Reds Both combs. No stock for sale until December. **INTERLAKES FARM,** Box 89, Lawrence, Mich.

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R. C. Br. Leghorn Cockerels bred from Madison Sq. winner, \$2 and up. 100 choice yearling hens \$1.25 each. **Flemish Giant Rabbits,** Black and Gray. **E. HIMEBAUGH,** Coldwater, 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.

White Wyandotte eggs for hatching also baby-chick out of choice stock; send for a 1918 circular. **DAVID RAY,** 709 Norris St., Ypsilanti, Michigan.

DOGS

Scotch Collie Pups For Sale. Pure bred stock, prices reasonable. **O. E. HAWLEY,** R. 3, Ludington, Mich.

Pure Bred Scotch Collie pups for sale at \$3 and \$5. **F. J. MAURER,** R. 4, Nashville, Mich.

Second Annual Sale

of the Southern Michigan Shorthorn Breeders' Association

Will Be Held at

The Hillsdale Fair Grounds

Tuesday, Oct. 1, 1918, at 1 o'clock.

51 -- High-Class Shorthorns -- 51
41 -- Cows and Heifers -- 41
10 -- Extra fine Bulls -- 10

The cows are with calves by their side or nearly all safe in calf to pure Scotch bulls. They are as fine a lot of cows as ever offered for sale in Michigan.

Hillsdale is on the New York Central R. R. with direct connections from all points.

Auctioneers: Andy Adams and O. A. Hoopingarner.

For Catalogue and particulars write

JOHN S. SOUTHWORTH, Allen, Mich.

DISPERSION SALE

OF

Registered Holsteins

At Jackson, Mich.

Wednesday, Sept. 25, 1918

Sixty young, healthy females in dairy working condition, bred to a thirty-eight pound grandson of Pontiac Lass.

The herd bull, King Korndyke Oriskany Pontiac, will also be sold. He is sired by a son of Pontiac Lass, the 44 lb. cow, out of a 31 lb. dam, whose milk tested 5.52, and who has three A. R. O. daughters.

My son is in France and my health will not permit me to continue.

One of the oldest and best herds in Michigan.

No old cows, all healthy and tuberculin tested.

Many A. R. O. records.

BOARDMAN FARMS,
John W. Boardman, Prop.

DISPERSAL SALE of THOMAS B. BUELL & SON.

Consignments from the herds of Sidney Smith, William Tase, John Gintling, Ray Parham
FIFTY-FIVE HEAD

Herd Bull. Two year old grandson of King of the Pontiacs and Pontiac Aaggie Korndyke, a combination never before offered in 30 lb. breeding. Eight two yr. old heifers, just ready to freshen, sired by a \$3000 son of King of the Pontiacs.

A 24 lb. cow that made 96 lbs. milk her best day and 17,000 lbs. in year. Two of her daughters.

A daughter of a 26 lb. cow.

A 22 lb. daughter of Pontiac Aaggie Korndyke.

Three granddaughters of Pontiac Aaggie Korndyke.

All the animals in this sale are from the best blood of the breed, Pontiac Korndyke, King of the Pontiacs, Hengerveld De Kol and King Segis. They are guaranteed against contagious abortion and tuberculosis for 60 days.

Col. B. V. Kelley, Auctioneer, S. T. Wood, Director of Sale.

Union City is reached via Air Line of Mich. Central and by jitney from Battle Creek or Coldwater.

Sale At the Farm, Oct. 1, 1918 12 M.

Oct. 24, 1918

Oct. 24, 1918

5th ANNUAL SALE

At Howell Sales Pavilion

85 Head of Registered Holsteins 85

Mostly Milch Cows Consigned by Sixteen Livingston County Breeders.

Howell Sales Co., of Livingston County

JAY B. TOOLEY, Sec. - - - Catalogs Oct. 5th.

Attention Michigan Breeders!

IN reply to several complaints regarding Express Companies refusing to accept for shipment animals weighing more than 500 pounds, we have taken the matter up with the officials and find that the ruling does not apply to breeding stock. If your agent refuses to accept your animals for shipment, notify us giving name of station where shipment was refused.

THE MICHIGAN FARMER.

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

TRON-ERIOAS & 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 many 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.

THE GUERNSEY

stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy?
Write for free literature.

Guernsey Cattle Club,
Box 1, Peterboro, N.H.

Registered Guernseys

A fine two year old commencing to spring, will cost you just \$200 don't wait on this one she is right.
J. M. WILLIAMS, No. Adams, Mich.

GUERNSEYS must reduce herd, so offer a few choice females of Glenwood breeding also bulls, all stock of A. B. breeding, herd tuberculosis tested.
T. V. HICKS, Battle Creek, Mich.

Guernseys 45 Registered head, all tested. Nora's May King, son of Imp. May Rose King heads our herd. 10 of his half sisters sold averaging \$1850 each. His bull calves are booked ahead at reasonable prices.
Avondale Stock Farm, Wayne, Mich.

For Sale Registered Guernsey bull calves May Rose breeding.
JOHN EBELS, Holland, Mich.

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

FOR SALE Guernsey Females of all ages. Choice breeding.
ST. AUSTELL FARMS, R. 3, Jackson, 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.

I Always Have Holsteins To Sell

If wanting Registered cattle write me your wants before placing your order elsewhere.
L. E. CONNELL, Fayette, Ohio

Holsteins For Sale Extra Fine Breeding

5 Grand Daughters of King of the Pontiacs. 9 Grand Daughters of Spring Farm King Pontiac 6th. All above are from 7 to 14 months old. The best 3 year son of King of the Pontiacs also for sale.

GEO. S. BIGELOW,
Breedsville, Michigan

HOMESTEAD FARMS

A Federation of Interests

Holsteins: From a herd of 50 Holsteins headed by the Bull King Zerna Alcartra Pontiac, son of King Segs 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.

OAK Leaf Farm. Herd sire Lenawee 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 798.3, butter \$2.51—315 days milk 23782.3, butter \$26.775.
E. H. GEARHART & SON, R. 4, Marcellus, Mich.

Parham's Pedigree Stock Farm offers Reg. Holstein cattle, Chester White Swine, and other breeds in calves and fall pigs. Bulls half price.
R. B. PARHAM, Bronson, Mich.

Winn--Wood Herd

Registered Holsteins
Sire in Service
Flint Maplecrest Boy

Who is bred for real production his sire Maplecrest Korndyke Hengerveld is one of the best bred long distance bulls in the world. He or his dam are brother or sister to six cows with records above 1,200 lbs. of butter in one year and ten more above 1,000 lbs. in a year. Flint Maplecrest Boys' Dam is Gluck Vassar Bell 30.57 lbs. of butter in 7 days, 121 lbs. in 30 days. Butter fat test 5.27. Is there a reason why Flint Maplecrest Boy is not one of Michigan's greatest young sires? None of his females are for sale until after we test them. But we have 10 of his bull calves from 2 to 9 months old, with A. R. O. dams which we now offer for sale at prices any dairy farmer can afford to pay. Just tell us the kind of a bull you want.

JOHN H. WINN, Inc.
Lock Box 249, Roscommon, Mich.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pierette.
Do you want a Pontiac in your herd?
Pontiac State Hospital, Pontiac, Mich.

"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.

\$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, Bedford, Mich.

The Traverse Herd

This is the chance you have been looking for. We will sell a few good A. R. O. cows. One with 27 lbs in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices but hurry for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.
TRAVERSE CITY STATE HOSPITAL
Traverse City, Michigan.

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 Aagie 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

Holsteins: Bull calf born Oct. 6. A nice individual well grown in good condition. His seven nearest dams average butter 7 days 23.36 lbs. milk 533 lbs. Dams record 18 lbs at 2 1/2 yrs. W. B. Reader, Howell, Mich.

DO YOU WANT

A Holstein Bull calf ready for service with exceptional breeding? Write
HILLCREST FARM,
Kalamazoo, Mich.

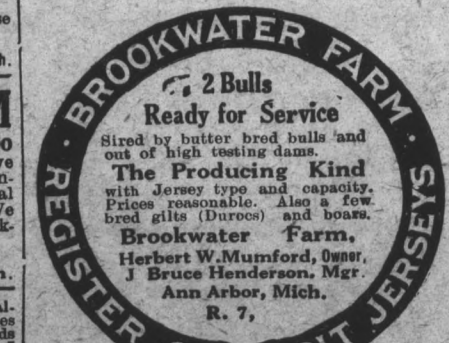
FOR SALE 3 Pure Bred Holstein Cows. Will freshen within a few days, price to sell.
A. C. FROST, Lennon, Mich.

For longest milking and largest yield!

Pure Bred HOLSTEINS

hold all records for a week—a month and a year.
The Holstein-Friesian Association of America, Box 164, Brattleboro, Vt.

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



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

WANTED

Ten Jersey Heifers

Due to freshen this fall. Either grade or registered.
Fred L. Bodimer, Reese, Mich.

For Sale Registered Jersey Bulls ready for service \$75.00 each.
NOTTEN FARM, Grass Lake, Mich.

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

THE Wildwood Jersey Farm offers for sale choice bull calves for fall service from R. of M. daughters of Majesty's Wonder by Majesty's Oxford Fox. Herd tuberculin tested. When looking for a sire to head your herd, get a Majesty. Alvin Baldwin, 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. Deane, Ypsilanti, Mich.

Mendale Interested Owl No. 11311 heads my herd. Bull calves from this great sire and out of R. of M. dams for sale. C. B. WEHNER, Allegan, Mich.

Lillie Farmstead Jersey Cattle. Several heifers bred to freshen next fall. Also a few heifer and bull calves of choice breeding. Colon C. Lillie, Coopersville, Mich.

Maple Lane R. of M. Jersey Herd. For sale one four-year-old cow, also bull calves and heifer calves sired by a grandson of the Pogis 99th of Hood Farm. IRVIN FOX, R. 3, Allegan, Mich.

For Sale Registered Jersey Bull, three years old. Hugos Streamland Boy. Sire, Hugos Best Dam, Judy Girl. Test eight. Cheap for quick sale. Streamland, Phone, Ganges, R. 1, R. I. Pennville, Mich.

HEREFORDS

3 Extra nice yearling heifers, 3 extra nice heifer calves old enough to wean, 4 extra nice bulls from 8 to 12 mos old not related to heifers. Prince Donald, Farmer and Perfection Fairfax breeding. If interested come and see them.
ALLEN BROS., Paw Paw, Mich.

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

BIDWELL SHORTHORNS

For Beef and Milk.

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. Attend the Shorthorn Sale at Lansing Oct. 9th. We invite you to inspect the cows and heifers we have listed in this sale.
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 at price reasonable. Come and see; we like to show them.
P. P. POPE, Mt. Pleasant, Mich.

The Kent Co. Shorthorn Breeders Association are offering some choice animals at reasonable prices. Write your wants.
L. H. LEONARD, Sec., Caledonia, Mich.

FOR SALE my herd of Dairy Shorthorn Cows for sale cheap.
J. B. HUMMEL, Mason, Mich.

SHORTHORNS

Cows, heifers & young bulls for sale at farmers prices; herd catalog mailed free. Horrlerton Farms, Hart, Mich.

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

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. PATTULLO, R. 4, Deckerville, Mich.

HOGS

Registered Berkshire gilts and sows for fall farrowing. 3 boars and spring pigs, either sex.
CHASE STOCK FARM, R. 1, Marlette, Mich.

Berkshires—Registered Pigs of both sex, fine quality.
FAIRMAN FARM, Plymouth, Mich.

Big Growthy Berkshire Pigs. Both sexes, large prolific strain.
W. H. Every, Manchester, Mich.

Durocs. Choice spring pigs out of selected sows and sired by our best herd boars. They are of the big type, strong boned, smooth and of excellent quality and include some of the most popular blood lines such as Orion Cherry King, Top Col. Defender, Brookwater etc. Prices reasonable. 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 pig in country. Weigh 200 lbs. not fat.
NEWTON BARNHART, St. Johns, Mich.

DUROC Jersey Spring boars for sale. Good breeding and large bone. Prices and descriptions on request.
J. D. CRANE & SON, Plainwell, Mich.

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

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

DUROC JERSEYS
B. D. HEYDENBERG, Wayland, Mich.

Choice Duroc Jersey Gilts For Sale.
OAREY U. EDMONDS, Hastings, Mich.

Duroc Jerseys for sale. spring & fall pigs of both sex also Shorthorn bulls milking strain.
CHAS. BRAY, Okemos, Mich.

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

Chester Whites, spring pigs either sex, can furnish a few pairs or trios not akin from strictly big type mature stock at reasonable prices. F. W. Alexander, Vassar, Mich.

Crandell's Big Type O. I. C's Champion herd everywhere shown in 1917. Herd headed by five champion boars. Our sows won Senior, Junior and Grand Champion prizes at Illinois, Missouri, Ohio and Michigan 1917. Special prices on all spring pigs. Get our catalog it is free.
Crandell's Prize Hogs, Cass City, Mich.

LAST fall gilts all sold, have a good lot of last spring L pigs from 3 sires good growthy stock. Farm 1/2 mile west of depot. Citizens Phone 124.
OTTO B. SCHULZE, Nashville, Mich.

BRED GILTS and SERVICEABLE BOARS

J. CARL JEWETT, Mason, Mich.

O. I. C.'s a few choice Apr. and May pigs either sex and 4 reg. Holstein heifers.
CLOVER LEAF STOCK FARM, Monroe, 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.

O. I. C. spring pigs for sale. I ship C. O. D. and guarantee to please.
F. C. BURGESS, R. 3, Mason, Mich.

L. S. P. C. all sold out, except the largest gilt raised last year, bred for June farrow.
H. O. SWARTZ, Shoolcraft, Mich.

Big type P. C. Big boned fellows from Iowas greatest herds, special prices on spring boars and choice bred gilts.
E. J. MATHEWSON, Burr Oak, 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 plan—More Money from Hogs.
G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

Big Type Poland Chinas. Spring pigs for sale. Healthy and growthy. From large litters. Prices right.
L. W. Barnes and Son, Byron, Mich.

LARGE Type P. C. Just 5 choice summer gilts bred for July and August farrow. Come and see them.
W. J. HAGELSHAW, Augusta, Mich.

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

POLAND CHINA PIGS for sale. The 1000 lb. and Big litter kind. Brother Farmer quit raising runs.
CHAS. STORMS & SON, Centerville, Mich.

Large Type P. C.

Bred gilts and boars all sold nothing to offer at present.
W. E. LIVINGSTON, Parma, Mich.

Large type P. C. fall gilts up to 385 lbs. ready to ship bred for Aug. and Sept. farrow. Fall sale Nov. 29.
Wm. J. CLARKE, R. 7, Mason, 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.

OLD FASHIONED Spotted Poland-China Hogs Spring Gilts and Fall Gilts bred or unborn, reasonable.
J. M. WILLIAMS, No. Adams, Mich.

Big type P. C. Boar one yearling. Large and fine every way 2 fall yearling 10 Apr. boar. Write for prices. Satisfaction guaranteed.
R. W. MILLS, Saline, Mich.

Big type P. C. Boars all ages the kind that make good, meet me at the fairs.
E. R. LEONARD, St. Louis, 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, 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 Registered Percherons, Shorthorn cattle and Jersey Hogs.
J. M. HICKS & SONS, R. 2, Williamston, Mich.

For Sale 2 more colts Black coming 2 and 3 years old this spring.
O. S. HUGHES, R. 1, Mayville, Mich.

Percherons for sale. Stallion three years old. Mare six, at the right price to close out.
E. J. ALDRICH, Tekonsha, Mich.

Additional Stock Ads. on Page 267

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, September 19.

WHEAT.

Wheat was quiet on the Detroit market, and easy. There is no improvement in milling demand, and shipping is attended with much difficulty. The price a year ago was \$2.19 for No. 2 red. Local prices are unchanged from last week.

No. 2 red	\$2.19
No. 2 white	2.17
No. 2 mixed	2.17

CORN.

The demand for corn seems to be lacking in the Detroit market, and the result is a drop of 5c, and an easy finish. There was cold weather and some frost in the northwest, but aside from this the market offered little encouragement to buyers. While news of ample receipts, plenty of consignments were noticed, indicating a continuation of the supply and an extension of embargoes that have been hindering the movement gave the bears sufficient reasons for action. The war news also had a weakening effect, as it seemed to indicate an early end of fighting. No. 3 corn sold one year ago at \$2.13 per bushel. Present quotations are:

No. 3 corn	\$1.60
No. 3 yellow	1.65
No. 4 yellow	1.60
No. 5 yellow	1.50
No. 6 yellow	1.45
No. 3 white	1.85

OATS.

Active government buying and also foreign demand has prevented a decline in oats. The demand is fair from millers and shippers and the market shows a gain of one to ten cents over last week. Standard oats sold on the Detroit market one year ago at 62½c per bushel. The present prices are as follows:

Standard	73½
No. 3 white	73
No. 4 white	72

RYE.

Rye seems to be in no demand and the market shows a falling off of 2c from last week. The quotations on the Detroit market for No. 2 rye is \$1.63 per bushel.

BARLEY.

Barley is moving very slowly and prices are unchanged from last week, the present sales by sample are made at \$1.98@2.10 per cwt.

BEANS.

There is not much change in the bean market. Trading in beans remains inactive and easy, with not much change in price from last week, with the quotation at Detroit at \$9 per cwt. for immediate and prompt shipment.

FEEDS.

Feed prices are unchanged from last week. The prices quoted in 100-lb. sacks to jobbers are: Bran \$34.66; middlings \$36.66; coarse corn meal \$67; cracked corn \$68; chop \$48@55.

SEEDS.

The seed market is quiet and firm, with prices showing an upward trend. The Detroit market quotations as follows: Prime red clover, spot and October \$22; alsike \$17.50; timothy at \$5.50.

POTATOES.

Firmness continues to prevail in the potato market. Supplies in general are moderate and the demand is good. At Detroit Early Ohios are bringing \$4.75 per 150-lb. sack. At Pittsburgh jobbers are paying \$3.15@3.30 per cwt. for Cobblers, sacked. At Indianapolis Early Ohios are now bringing \$2.80 in sacks. The demand is good and market has an upward tendency. The Cincinnati market is paying \$2.75 for the same variety ungraded. The early potato crop was light. Late potatoes have suffered severely from lack of moisture in the southern and central counties, but are generally good in most of the northern counties.

BUTTER.

At Detroit the butter market is quoted firm at the present high price and demand is fair. The creamery

firsts are quoted at 54½@55c; extra creamery 55½. In Chicago the feeling continues firm and prices irregularly higher than last week, with the creameries ranging from 48½@57c. In New York creamery butter is quoted at 53@58c.

CHEESE.

The cheese market remains firm and the offerings are light. Prices at Detroit are: Michigan flats 28½c; New York 29c; brick 34c; longhorns 31c; Wisconsin daisies 29½c; limburger

26@26½c. At New York state fresh specials bring 28½c.

POULTRY.

The poultry market is easy and dull. Offerings are fair but there is a light demand. Live broilers bring 31@32c per lb. for large, and 29@30c for the small; hens 32@33c; Leghorns and small hens 30@31c; geese 20c; ducks 28@30c; turkeys 24¾@25c.

HAY.

The demand for hay is active and the supply quite limited. Farmers are not attending to the marketing of hay. In Detroit the prices range as follows:

No. 1 timothy	\$29.50@30.00
Standard timothy	28.50@29.00
No. 1 mixed	24.50@25.00
No. 1 clover	23.50@24.00

EGGS.

Eggs continue scarce and the price high and firm. At Detroit Michigan candled firsts in new cases are selling to jobbers at 45½c while current receipts bring 43½c. In Chicago firsts are quoted at 43@43½c and ordinary firsts 40@42½c. The New York market is quoted steady, with fresh gathered extras at 51@52c; fresh gathered regular packed extra firsts 48@50c.

DETROIT CITY MARKET

Business continues brisk at the Detroit Eastern Market. Potatoes selling for \$2 per bushel; tomatoes \$2; carrots 75c; cabbage 50@60c; summer squash 50c; Hubbard squash \$1; cucumbers from \$1.75@2 for small and 50c for large; eggplant 75c; onions \$1.75; pie pumpkins \$1; apples range from \$1@1.50, according to quality; muskmelons are selling at \$2.50@2.75 per bushel. Eggs are bringing 60c. The hay market remains the same as last week, with prices ranging from \$27@30.

LIVE STOCK NEWS.

Advices from southern Montana and northern Wyoming are optimistic as crops are in excellent shape. While comparatively little live stock has been shipped from there so there are many cattle and sheep about ready for market, and from now on shipments from that part of the country will be liberal, with quality said to be better than usual. In northern Montana the ranchers are not faring so well as they passed through several dry spells which shortened the hay crop and dried the grass on the range. They will either be compelled to ship hay in for winter or ship out the cattle, many of which are thin and light in weight.

Including the first week of September the combined receipts of cattle, hogs and sheep at the seven principal markets totaled 31,060,000, an increase of 3,650,000 compared with the same period last year and 2,300,000 compared with the corresponding time two years ago. Cattle, alone, increased over 1,300,000 while hogs gained over 2,000,000 and sheep showed an increase of 400,000. These remarkable increases show what the farmers of the country have been doing to fill the wants of the government for meat and fortunately they are getting reasonable profits for their efforts as prices have ruled comparatively high.

Canada is very short of live stock, according to reports. Arnold Westcott, head hog buyer for the Western Packing Co., at Chicago, who recently returned from a motor trip of 2,000 miles, said: "I passed through a fine section of the rural part of Canada and what impressed me most was the scarcity of live stock. Hogs were even scarcer than cattle and I drove several days without seeing any. One could tell the difference upon entering Michigan. There hogs were plentiful and cattle also seemed to be numerous."

Commission charges for selling live stock have been increased at twenty different markets of the country. The increase at Chicago amounts to \$2 a car but excess charges have been eliminated. The Bureau of Markets United States Department of Agriculture, conducted an open meeting last week at Chicago and later will hold others in Denver and Kansas City where farmers and country live stock organizations can give their views. The commission men gave very good reasons for the increase, chief among them being increased expenses to keep service to their customers up to a high standard.

Live Stock Market Service

Reports for Thursday, September 19th

CHICAGO.

Cattle.

Receipts 16,000. Market steady. Good to prime choice steers \$16.25@19.50; common and medium butchers \$10@16.25; heifers \$7.65@13.75; cows \$7.60@13.25; bologna bulls \$7.75@13; canners and cutters \$6.65@7.65; stockers and feeders, good \$11@14; stockers and feeders, medium \$8@11.

Hogs.

Receipts 20,000. Market slow, and mostly 20@25c lower.

Tops \$20.55; heavy \$20@20.40; mixed and light \$20.25@20.50; packers' hogs \$19.35@19.65; medium and heavy \$19.50@19.85; light bacon hogs \$20.25@20.65; pigs, good to choice \$18.50@19.25; roughs \$18.50@19.25.

Sheep and Lambs.

Receipts 23,000. Lambs strong to higher. Sheep firm.

Choice to prime lambs \$17.65@18.50; medium and good lambs \$16@17.65; culls \$10@13.50; medium, good and choice feeders \$16@17; choice yearlings \$13.75@14.25; medium and good yearlings \$13.25@13.75; wethers, medium and good \$12.25@13.25.

BUFFALO.

The cattle market is steady with Wednesday. Hogs are 25c lower, pigs bringing \$20.25; others \$20.75. Lambs are quoted at \$18.50; calves bring \$19.50.

Reports for Wednesday, September 18th

BUFFALO.

Cattle.

Receipts 20 cars; market 25@50c lower; prime heavy steers \$17@17.50; best shipping steers \$15.50@16; medium shipping steers \$14@14.75; plain and coarse \$13@14; best yearling steers 900 to 1000 lbs \$15@16; light yearlings, good quality \$13@14; best handy steers \$12.50@13.50; fair to good kinds \$11@12; handy steers and heifers, mixed \$10.50@11.50; western heifers \$11@12; best fat cows \$10@11; butchering cows \$8@9.50; cutters \$7@7.50; canners \$5.50@6.25; fancy bulls \$10.50@11.25; butchering bulls \$8.50@9.25; common bulls \$7@8; best feeding steers 900 to 1000 lbs \$10@11; medium feeders \$8.50@9.50; stockers \$7.50@8.50; light common \$7@8; milkers and springers \$6.50@15.00.

Hogs.

Receipts 15 cars. Market is lower; heavy and yorkers \$21@21.10; pigs and lights \$20.50@20.75.

Sheep and Lambs.

Receipts three cars; market steady; top lambs \$18.50; yearlings \$14@15; wethers \$13@14; ewes \$11.50@12.50.

Calves.

Receipts 1200; market steady; tops \$19; others \$7.

CHICAGO.

Cattle.

Best steers sold steady and some prime 1,480-lb. Shorthorns from an Illinois feed lot made \$19.50. Next best on sale landed at \$18.90, which is evidence that the proportion of choice lots is falling off. Many of the offerings between \$15.50@17.50 looked 25c lower as buyers claim they are selling to near the better grades. The plain kinds, selling at \$11@15 were about steady. Butcher stock sold about steady but there was a weak undertone to the market. Canners sold steady and were soon bought up, most of them going at \$6.50@6.85. One load of fancy heifers on Tuesday made a record of \$17.50 but cows and heifers are selling mainly at \$7.50@11.50. Bulls were steady to strong. Good call for feeding cattle at steady prices. Around 9,000 rangers were on sale and a prime class is quotable at \$18 and higher, some averaging 1,480 lbs., making a record of \$18.10 on Tuesday.

DETROIT

Cattle.

Receipts 3,261. Market strong. Best heavy steers \$12.50@14.00. Best handy wt bu str. 11.00@12.00. Mixed steers and heifers 9.00@10.00. Handy light butchers 8.00@8.50. Light butchers 7.50@8.00. Best cows 9.00@10.00. Butcher cows 8.00@8.50. Cutters 6.75. Canners 6.00@6.50. Best heavy bulls 9.00@10.00. Bologna bulls 8.50@9.00. Stock bulls 7.50@8.00. Feeders 9.00@10.00. Stockers 8.00@8.50. Milk and springers \$65@135.

Veal Calves.

Receipts 804. Market 50c lower. Best \$18.75@19.00. Others 7.50@16.00.

Sheep and Lambs.

Receipts 3,064. Market strong. Best lambs \$17.25@17.50. Fair lambs 16.00@16.50. Light to common lambs 13.00@15.00. Fair to good sheep 10.50@11.00. Culls and common 5.00@7.50.

Hogs.

Receipts 6,076. Market 25c lower. Pigs \$19.75. Mixed grades 19.70@21.40.

Calves continue to sell well unless they are grassy, and prime vealers topped at \$19.50. Receipts are estimated at 16,000 making 63,800 the first three days of the week and included 25,000 rangers. Combined native and western run stood 5,000 larger than same time the previous week and showed a similar increase over corresponding time a year ago.

Hogs.

Wednesday's hog receipts fell down to 11,000 and proved much lighter than expected, enabling sellers to check the decline started on Tuesday. Best offerings made \$20.85, standing 10c under the prevailing record. A good to prime class of butchers sold at \$20.50@20.75, while most of the choice light sold at \$20.65@20.75. Many of the packing grades sold at \$19.50@20 and mixed grades often cleared at \$19.75@20.25 where they did not carry too much weight. A rough class of heavy packers sold at \$19.15@19.25. Shipping demand has been light thus far this week but local packers have need for choice offerings. Quality, if anything, showed slight improvement since a week ago. Pigs were steady and offerings scored \$19.50. Pigs and hogs have changed little since the previous Wednesday. Three days' supply totaled 60,100 against 42,428 same time the previous week and 40,673 the corresponding time a year ago.

Sheep.

Receipts of sheep were lighter than expected, at 20,000, and prices were strong to 25c higher, with feeders mostly steady. Native and range ewes reached \$12 and a few wethers sold up to \$12.75. Range lambs, in the absence of prime stock, topped at \$18.25, best nominally worth \$18.50. Some fed westerns scored \$18 and several loads of natives sold up to \$17.50. Feeding lambs were most numerous at \$16.75 and down, while one load of Montana ewe lambs sold to a breeder at \$19. Yearling breeding ewes went at \$17@18.25 and common one-season aged stock down to \$11. Most of the feeding ewes landed around \$9 and feeders gave \$12.25 for wethers and \$13.25@13.70 for yearling wethers. Three days' offerings totaled 88,500 against 101,565 for the same time the previous week and 57,383 the corresponding period a year ago.

OUR CROPS FOR 1918.

(Continued from page 254). 4,895,000 bushels. According to the figures published by the Secretary of State, there have already been threshed over 3,000,000 bushels of this grain, with an average yield of 30.51 bushels per acre. While the market value will undoubtedly be affected through the withdrawal of demand from breweries due to the prohibition on the manufacture of beer after December 1, the local needs for grains to feed will make this big crop a godsend to our stockmen.

Buckwheat Above Normal.

Some very satisfactory reports on this crop are being received. The estimated yield is placed at 1,039,000 bushels. Last year's yield was 670,000 bushels and the average for the past ten years is 936,000 bushels. Here, too, our northern counties make a better showing than localities farther to the south. In the latter districts the dry weather rendered many fields practically worthless so far as seed production is concerned.

Pastures and New Seeding Very Poor.

The live stock industry of southern Michigan as well as of the majority of her sister states, has been jeopardized by the failure of the pasture lots. This, however, can only be said of the southern half of the lower peninsula. In the southern counties below the Straits and throughout the upper peninsula rains have been sufficiently frequent to maintain a fairly good growth of grass in all sections, with some counties having an abundance of feed from this source. New seedings are in about the same condition as are the pasture lots.

COST OF SILO FILLING.

Can you tell me anything about the cost of silo filling? What should be the price asked for the cutter and engine? I have a silo ready to erect but the price for the work looks high to me. Three dollars per hour for a 13-inch cutter, and I have to furnish the team, wagon and man to haul water. With such a small cutter it will take them a long time to fill it. The silo is 12x26 with a four-foot base. With all other help I will have to hire, (as very few seem to care to change work), it is going to bring the cost of ensilage high.

Jackson Co.

A. C.

During normal times it cost us from seventy to ninety cents per ton to haul the silage corn to the machine and put it in the silo. That was on a basis of \$1.50 per hour for engine and cutter and \$2.00 per day for men and a change of teams and wagons for hauling. At the prices you mention for engine and cutter and from \$3.00 to \$4.00 per day for men at filling time, and the increased cost of feeding the help at the farm, the cost would probably range from \$1.40 to \$1.80 per ton. It is simply a question of economics whether you can afford to build a silo and fill it for feeding at these prices. At present prices for hay and grain feeds I do not think you can afford to feed cattle or sheep without silage.

W. M. K.

HAY ON MUCK LAND.

I have muck land on which I desire to grow hay. This land is not well drained. What seed should I sow?

Ogemaw Co.

J. K. A.

The growing of hay on muck land which is not well drained presents the same difficulties as the growing of hay on any good soil which is wet. Muck farmers in Michigan have generally found that alsike and timothy will be successful. It should be sown in the spring on muck which had been plowed the previous fall and well prepared. A light dressing of manure is advisable, especially if it is new muck and not well decomposed. Where muck is well decayed and has been worked, the application of manure is not essential, but will pay well in the production of an increased crop.

EZRA LEVIN,

Extension Specialist in Muck Crops.

THE OUTPUT OF MILL FEEDS.

COMPARATIVELY little wheat is being ground in America at the present time for export, because foreign countries will use their own grains until the supplies are exhausted. Those countries are, therefore, more anxious for our wheat than they are for flour, which restricts our output of mill feeds. But even with normal production of such feeds, the demand was expected to exceed the supply since the schedule of fair prices established for this feed has made it much cheaper than other feeds of equal nutritive value.

There is an unusually large production of certain coarse grain products. Food Administration regulations provide for an extraction from barley of only fifty-five per cent flour, leaving nearly forty-five per cent of the barley berry for feed which is remarkably rich and nourishing. Barley feed in itself is not a substitute for bran, but needs to be mixed with other light material, such as oat feed, to give bulk. There is an ample supply of oat by-products at prices averaging less than the cost of bran.

The amounts of substitute cereals to be purchased with wheat flour has been modified and should increase the output of American flour mills and result in more mill feeds.

Brewers' and distillers' grains have almost disappeared from the market, but corn by-products, though uncontrolled in price, are plentiful. The period for which these conditions are likely to prevail is undetermined, but the situation will be materially changed when foreign orders for flour from this country are again being filled.

FROM OUR CROP REPORTERS.

St. Clair Co., Sept. 14.—Oats yielding about forty bushels per acre, but beans are not yielding as well as last year, potatoes about 50 per cent of last year's crop, and apples very good. There is a great deal of corn suitable for the silo, but no ears to mature. Pastures have been very poor this summer. There was some spring wheat grown in this section this year.

Allegan Co., Sept. 16.—The yield of crops as compared with normal years is as follows: Beans 45 per cent; potatoes 60 per cent; corn 50 per cent; apples 75 per cent; peaches a very light crop; other fruits about 75 per cent. Pastures are improving since the recent rains. Wheat yielded about 10 bushels; oats 40 bushels; barley 20 bushels per acre. Prices paid here are: No. 2 wheat \$2.08; oats 70c; barley \$1; rye \$1.40; hay \$28; veal calves \$15; cattle \$7@15; hogs \$19.50; milk \$3 per cwt; eggs 46c; dairy butter 43c.



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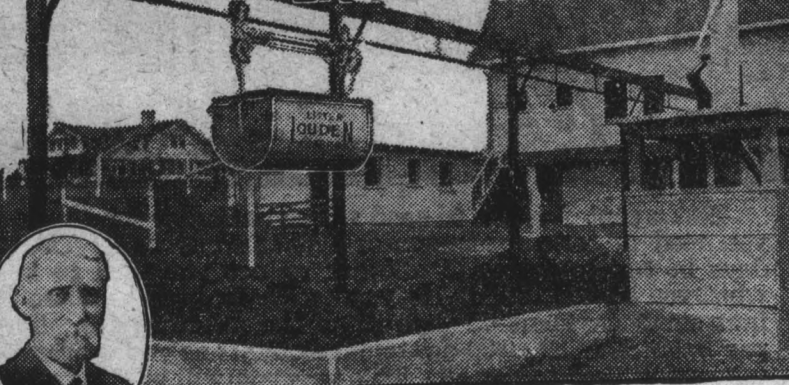
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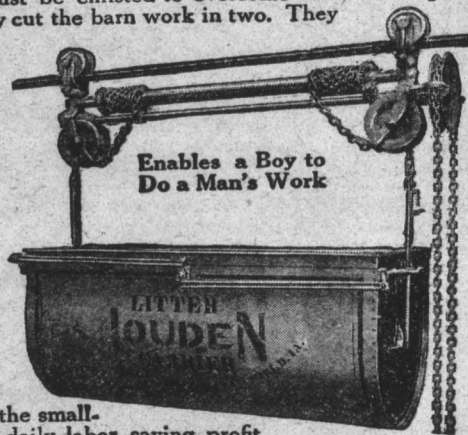
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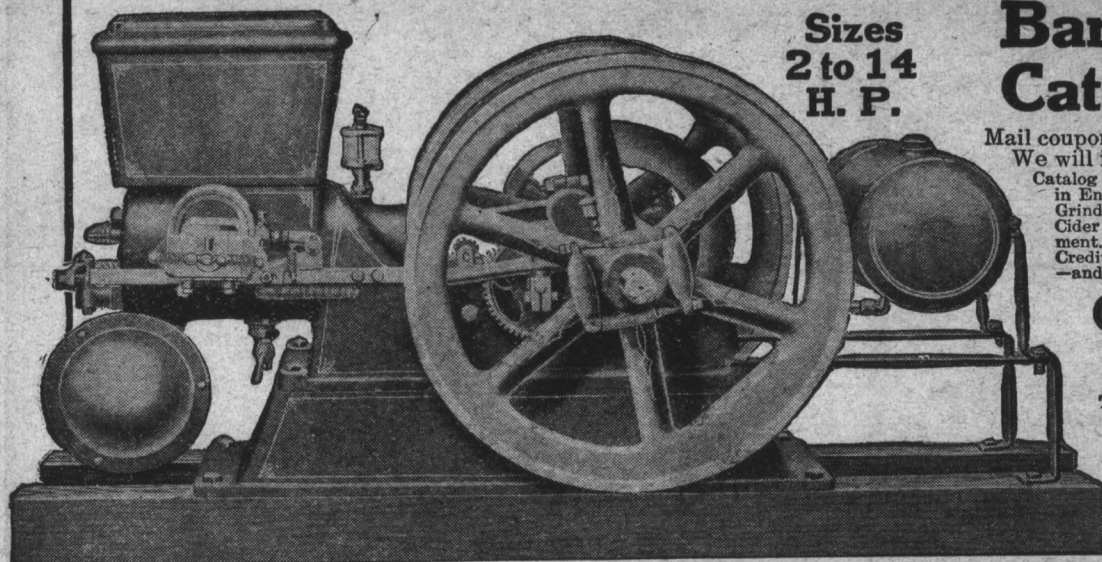
Additional Sheep Ads. on Page 26

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