

MICHIGAN FARMER

AND LIVE STOCK JOURNAL.
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DETROIT, MICH., SATURDAY, AUGUST 10, 1918

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Let Uncle Sam Tell You Why

THE greatest economic waste in the marketing of farm products results from careless packing and loading in the cars. This causes frequent misunderstandings between shippers, transportation officials and city dealers. To eliminate these misunderstandings and give the small shipper and small dealer an equal advantage with the firms who operate on a large scale, more particularly in the matter of getting an honest adjustment of differences, the federal government, through its Department of Agriculture, has stepped into the ring, if not as judge, as an expert witness.

Under the provisions of the Federal Food Products Inspection Law, which became effective last November, a grower or shipper of farm produce may now ask an agent of the Department of Agriculture to look up a particular shipment of produce, and to furnish him with a copy of a certificate stating the exact condition of the goods, position of the load in the car, the condition of the ventilating system, amount of ice in the bunkers and the temperature of the produce.

A complete list of the large markets of the country to which the Department of Agriculture has assigned inspectors is published in another column in this issue. These men may be called upon to render valuable service to the farmers of Michigan if they will only use them. The certificates which they issue will stand as prima facie evidence in any court. Their services are free and they will prove valuable witness in case you have disputes regarding your shipments.

From the day the local office of the Bureau of Markets was established we have been watching with deep concern the work of the inspectors in order that we might give the readers of The



Inspector Bloom and His Assistant, Mr. Shirley.

Michigan Farmer first-hand information regarding the workings of this new office and how it may aid them in improving marketing conditions. Last week Mr. Frank A. L. Bloom, the Department of Agriculture agent at Detroit, explained the service and various problems connected with the work, to us in the following words: "In the first place the service is free to any shipper but, of course, if he wants a reply at once by telephone or telegraph, it is customary for him to pay the tolls. Shippers are urged so far as possible to make applications only when there is a disagreement, inasmuch as the facilities are very hard to find. Until we get settled down to our regular routine of work it is important that we confine most of our work to shipments which cause trouble. As a rule, our aim is to look after the real problems of the business and discourage, so far as possible, disputes between the shippers and dealers over petty matters.

"The shipper who wants this service should file his application in the office of the inspector serving the market to which the goods were shipped, or authorize his agent to file application. The application may be made orally, by telegraph, by telephone or by letter. If made orally or by telephone it must be confirmed by a written statement of facts, as follows: His name and address, the name and address of the receiver. Name of shipping point and of destination. Date of shipment, date of actual or expected arrival, if known. Quantity and

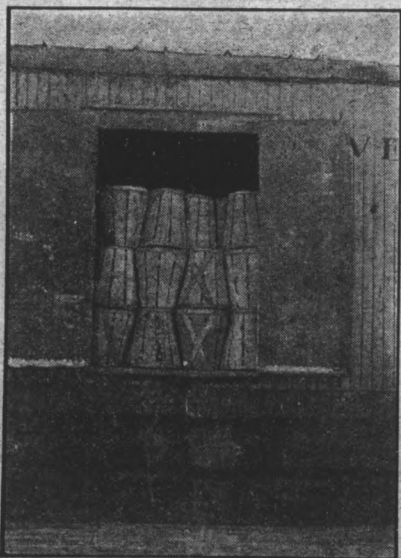
kind of produce. Grades, car initials and number and the name of the carrier, whether boat, railroad or motor truck. Name and location of storage house or place where the produce is stored, if the shipment has been removed from boat or cars, together with all other necessary information. Also the purpose for which the inspection is requested. In other words, if the shipper is only interested in the condition of a part of the shipment, the time of the inspector will not be wasted in making a complete inspection of the shipment.

"The real purpose of the inspection is calculated to assist in settling disputes; to determine the value of shipments for storage; indicate condition for reshipment or diversion; to determine the proper methods of loading to insure safe arrival, and the effect of different methods of packing and loading cars to keep the produce in good condition on the way to market. The shipper must see that the products of which inspection is to be made are accessible to inspection, and that they be placed in condition so that the inspector can make a thorough examination as to quality, etc. If the shipper is not well satisfied with the report of the inspector, he may ask for another inspection, by giving his reasons, but such a request must be made before the close of the next business day following the issuance of the first certificate. If the request is reasonable, the re-inspection will be made. "Inspections must be made, so far as

possible, in their regular order. No inspection is denied unless the applicant fails to comply with the necessary requirements. The certificates are mailed to the applicant immediately after they are issued, or wired C. O. D. if desired. A copy of the same is filed and becomes a part of the Department of Agriculture records. It is the purpose of the inspectors to look after shipments of various sizes made by train, boat or motor truck."

The commission men and transportation companies appear to look upon the work as a necessary service. The better class welcome inspection and the transportation companies realize that the work is going to prove beneficial in straightening out many troubles that are invariably coming up regarding shipments. Mr. Bloom said: "In my work I find that the average of honesty and dishonesty in human nature is about the same in every business the world over, and while the very nature of the business of handling, distributing and selling of these products may offer more opportunities for trickery than other lines of business; yet beyond doubt the proportion of fine and upright men engaged in this line of trade is as large as in any other."

That this testimony is going to play an important part in the adjustment of claims there can be no doubt; it has already done so, to the satisfaction of all concerned. Railroads are in favor of it because they feel that it is going to protect them against dishonest shippers who habitually file unjust damage claims. Commission dealers approve of it, because it tends to clarify their transactions and relieves them of many cases of dissatisfaction and trouble (Continued on page 114).



As Soon as Car is Opened Temperature is Determined.



A Standard Gauge is Used for Grading Fruits.

The Michigan Farmer

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DETROIT, AUGUST 10, 1918.



CURRENT COMMENT.

Problems confronting our national government due to our forced entry into the world conflict are so many and varied and of such individual enormity as to be entirely beyond the comprehension of the average citizen who is not personally charged with any degree of official responsibility in meeting them. Government departments are continually issuing more stringent regulatory measures along many lines, while congress is wrestling with the problem of supplying funds for the fabulous expenditures necessary to place an adequate army in the field and provide them with the necessary equipment to pursue a victorious campaign.

In their efforts to meet these stupendous problems, public officials announce regulations and pass laws of which the average layman finds an easy, and to him just cause cause to criticize. That there is often just cause for criticism is apparent in the making of recent history. Public officials who have to meet new and stupendous problems of this kind are bound to make many mistakes, and often the correction of such mistakes is hastened by constructive criticism on the part of the press and the public. But, notwithstanding this criticism, the public is standing solidly behind the government for the winning of the war. As is usually the case in any great public emergency, we are all working to the same end. We may differ somewhat as to the most direct methods to that end, but there will be general cooperation with those in authority until the desirable end is attained.

The war problems of the individual are also great. This is true of practically every class of people at the present time, but it is particularly true of farmers, upon whom rests the responsibility of producing food stuffs for the winning of the war, than which there is no other single factor of such importance. The accomplishment of this task under the handicap of present labor conditions caused by the op-

eration of the draft law, and the great industrial demand for labor is indeed most difficult. In very many cases unfavorable climatic conditions have added to the handicap, making the farmer's lot a very hard one indeed, but our farmers are meeting the situation with the same courage exhibited by the boys at the front, and they will continue to go "over the top" on food production, so long as it is humanly possible until the war is finally won.

With an abundant grain crop already made for this year, the government's great solicitation is naturally for the speeding up of production along equipment lines for the early striking of an effective blow on the western front. This is undoubtedly public economy, because the more effective the fighting, the sooner the war will be over, but with the extension of the draft age care must be exercised in the protection or replacement of essential farm labor, to the end that our cause may not be further handicapped by even an impending food shortage.

In the days of reconstruction the farmers of the country will have much coming to them as a matter of right and justice. They should be preparing for it now by more effective organization on their own initiative. This will enable them to take care of their own interests in the readjustments which must follow the war. In the meantime we must all work together to the end that we may ultimately do our own adjusting, rather than have it done by Prussian war lords, backed up by Huns in spiked helmets.

Last week the Detroit Market Milk Area Milk Commission met to review the market milk situation and

fix the price of milk for the ensuing month. The testimony of the producers' representatives indicated that pro-

duction costs would run very high during August, owing to the failure of pastures on account of drought, and that a price of \$3.50 per cwt. at the shipping station in the first freight zone would be necessary to yield producers a fair profit. Dairy men from one important milk producing section figured that \$4.00 per cwt would be required to net producers a ten per cent profit, and this view was backed up with figures presented by the county agricultural agent. These figures were arrived at through the use of Prof. Pearson's formula, so-called, rather than by actual cost records on representative farms, compiled by the State Experiment Station, which the commission had at its disposal.

In arriving at its decision after long consideration, the commission took into consideration every factor of the situation and arrived at the conclusion that a gradual increase in price to both producers and consumers during succeeding months was the only feasible course to pursue. In fixing the price at \$3.10 for August and \$3.40 for September this course was followed. This is a higher price than is received by the producers in any other market

milk section in the country, and while it will not be wholly satisfactory to producers, it will be equally unsatisfactory to the distributor, as will the increased price to consumers, especially for September. At the same time it will enable producers in the Detroit area to get over the period of short pasturage better than the producers in other sections until a gradual readjustment can be brought about which will give them a more compensatory price with a minimum shrinkage in the consumption.

The task confronting the Detroit Area Commission is not an easy one, and the cooperation of producers, distributors and consumers is essential to its successful accomplishment. To date this cooperation has been sufficiently general to have made possible the maintenance of more compensatory prices to producers than have ever before been enjoyed, and the insurance of a more dependable supply of milk to consumers. Continued cooperation will make possible a continually increasing degree of these benefits, where the lack of it would tend to destroy the progress already made. So far as it has already been worked out the solution of the market milk problem in this area has been more successful than in any other section of the country. Continued cooperation will bring increasingly satisfactory results.

The conference of editors of Michigan weekly publications held last week under the auspices of the

office of publicity of the Michigan Agricultural College, was an unqualified success. All credit is due Mr. Tranger and those who were associated with him in the arranging of so excellent a program. We believe the conference will do much good. It defined

A Few of the Good Things Coming

Among the good articles to appear in the coming issue of the Michigan Farmer will be the following:

HOW OTHER FARMERS MEET THE SAME PROBLEM. J. M. Wendt tells how he is encouraging the farmers of St. Joseph county to visit other farms and exchange ideas regarding farm problems.

GIVE THE WOMEN FOLKS A SQUARE DEAL. C. B. Ford tells how farmers can simplify the care of farm poultry by providing conveniences for the women folks to handle the flock.

QUESTIONS AND ANSWERS ON PROBLEMS THAT ARE CONNECTED WITH COLD-PACK METHOD OF CANNING. Here will be found answers to your questions about this popular method of preserving food.

the responsibility of the local publications in the present crisis; pointed out the greater obligations that promise to be theirs during the reconstruction days after the war, and suggested sources of information which should prove valuable to those progressive and patriotic men who are unconsciously doing so much to shape American ideals. We believe a new era is here for the local country newspaper. Democracy demands that the material, intellectual and moral resources of every community be fully developed. This development will depend, as it should, in a country like ours, very largely upon the initiative of the local community. There is no institution in closer touch with this program than this self-same country newspaper. Conferences like that just held at the M. A. C. will go far in preparing our country editors to meet these new demands. So far as agriculture is concerned, there should be the closest cooperation between the local editor and the county agent. This relationship should bring the editor in touch not so much with broad general agricultural problems, but with those specific farming practices or problems obtain-

ing in his own community. It will only be through the fullest support of the local farm folks that the country editor can render this service. On the other hand, when a real service is being given that support will come. May the day speed when the country newspaper will come into its own.

The announcement of Patronize Your the Michigan State Fair. Fair which will be held in Detroit from

August 30 to September 8 inclusive, will reveal to the reader that the 1918 State Fair will be of broader educational value this year than ever before. In addition to the agricultural, live stock and industrial exhibits, the educational features will include exhibits by the United States War, Navy, Commerce, Interior and Agricultural Departments and the Food Administration. Wild life exhibits prepared by the State Game Department will also be a valuable educational feature to the boys and girls, as will other features introduced especially for their benefit, including boys' and girls' canning club displays, boys' State Fair school, etc.

The "Better Babies" contest will have a wider interest than common this year, in view of the national survey of children being made by the federal government. This feature of the State Fair is one which should attract general interest, and is a feature of great educational value to Michigan mothers.

The industrial exhibits should this year be studied with more care than ordinarily by every farmer, since his only way out of the labor handicap during the continuation of the war will be the more general use of labor-saving farm equipment.

The agricultural exhibits may always be studied with profit, and will this year be especially valuable, on account of the county exhibits which are being prepared under the supervision of county agents in many counties. The live stock exhibits should also be carefully reviewed, as an aid in the solution of the live stock problem which has become an important one on a large percentage of Michigan farms.

The amusement features are varied and interesting, and will create pleasant diversion from the more serious study of the fair from an agricultural and industrial angle. Notwithstanding the exceptional value of time this year, every farmer who can do so should attend the State Fair and take his family. It comes at a season when the time can be spared without serious neglect of home work, and at a time when a brief outing will be appreciated by every member of the family. Incidentally, any Michigan Farmer reader who has products of superior value should aid in making the fair a greater success by exhibiting them this year.

ADDITIONAL PARAGRAPHS.

Boys, watch this paper. You will be farmers in a few years; start right.

Fewer fences well kept up are cheaper and more valuable than many of the tumble-down variety.

If there is any daylight the average farmer doesn't use this year he would like to know how to save it.

The boy who has an interest in the farm or its stock usually is more likely to stay on the farm than is the lad who knows nothing but work.

When sowing mangels late, sprout the seed before sowing. It will gain a week or ten days in growth and give you a better chance at the weeds.

A school house with an assembly hall and reading room is a necessity in most rural school sections. The best way to get such is by consolidation.

The difference between the poor feeder and the good stockman is quite apparent from a glance at the herd now on pasture. The poor feeder is the loser every time.

Can the Race Live Without the Cow?

CERTAIN scientists have maintained that milk and butter were not absolutely necessary foods. They see the time when cheaper substitutes will take the place of milk and butter-fat. The oleomargarine people have had this vision for some time and the scientists of Germany have claimed they could produce a substitute for milk from soy beans which could not be detected from actual cows' milk except by careful analysis. Vegetable oils and the cheaper animal fats can be produced much cheaper than butter-fats, so also this milk substitute from soy beans can be produced much cheaper than cow's milk, consequently, the time is coming when economic conditions will cause substitution of these cheaper products for the milk and butter-fat of the cow.

But another scientist, working along different lines, has proved that a certain element of butter-fat is absolutely necessary for the growth of children and health maintenance of adults. This man is Dr. McCollum, of Johns Hopkins University. By careful experiments, covering the period from 1907 to 1917, Dr. McCollum proved there are two what he calls "protective foods." Without a certain amount of these protective foods in the diet children cannot develop, neither can adults maintain vigorous health. It used to be thought that a diet of tubers, grains,

roots and meat could be made a perfect diet but the experiment of Dr. McCollum in feeding various foods to young animals for these ten years proved that they cannot develop unless these protective foods are used.

And these two "protective foods" are obtained so far as known at the present time from only two sources—the leaves of plants and the butter-fat of milk. If people could consume enough of the leaves of plants they

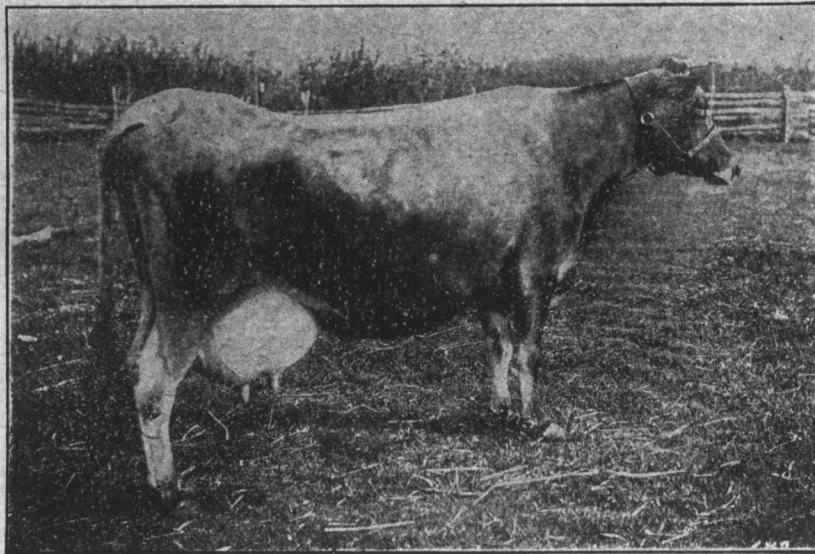
could get along without butter-fat, but this is not possible and consequently to have vigorous health butter-fat must be a part of the ration. Dr. McCollum has called this protective element the "Fat Soluble A."

Many people today are hailing Dr. McCollum as the saviour of the dairy industry because he has proved to the world that the dairy cow is necessary to the maintenance of human life in a vigorous condition. The only argument

against oleo up until now was that butter-fat was more easily digested than the animal and vegetable fats used in oleo; it would melt at a lower temperature. Observing people had noticed that young children did much better when a part of food contained butter-fat and attributed it to the fact that butter-fat was more easily digested and assimilated. But Dr. McCollum's experiments indicate the reason was because butter-fat contains this vital element (fat soluble A) which is not found only in the leaves of plants, consequently it is the best argument against the substitution of oleo.

The medical profession, public school teachers, colleges, universities and the reading public now understand this idea and are spreading the gospel of truth so it will only be a short time before intelligent citizens understand this idea and when they do they will hesitate before they substitute oleo for butter, even though it is much cheaper.

The dairy cow will not be put aside because we can imitate her products. She is necessary to civilization and, no matter what comes, is destined to endure. When the people understand the importance of butter-fat in a diet, especially children's, they will be willing to pay a sufficient price for whole milk and butter-fat, so that the dairy industry cannot be driven to the wall by cheap substitutes.



This Foster Mother is Making Twenty Babies Fat and Happy.

Drying of Surplus Fruits and Vegetables

By C. A. SPAULDING

THE last five years have witnessed a revolution, both in methods used and the amounts of home preservation of fruits and vegetables. With the added stimulus of food conservation as a war measure, last year approximately 80,000,000 jars of fruits and vegetables were home canned. The preservation of food products in the home as a contribution to war needs is necessitated even more this year by the present food and transportation emergency. Home canning and drying obviates expensive labor, needed transportation, and from the economic standpoint eliminates a large share of the ultimate cost. The can of tomatoes grown on the farm by expensive labor, hauled to market or canning factory several miles distant and there canned by expensive labor, shipped to the wholesaler, reshipped to the jobber or retailer, and finally bought for your table, costs about twenty cents. The same can of tomatoes raised in the home garden and home-canned, can be placed on the table for about eight cents.

While canning, and especially the canning of vegetables, has become more popular and more widespread, due to the efforts of the Department of Agriculture and the various State Colleges of Agriculture in advocating the use of the one period cold pack meth-

od of canning, there are several factors existent this year that make for a return to some form of that older method of conservation drying as an aid and side-partner in the conservation program. The cost of tin cans, glass jars, and other containers used

The Department of Agriculture and the State Colleges of Agriculture have been working for some time in an effort to determine the best methods of drying, the proper amount of heat necessary for successful drying, and the other many problems connected with

a large per cent of the foods so prepared is water and the weight and bulk consequent on drying is but a fraction of the original. For example, one hundred pounds of apples will dry to 14.5 pounds of the dried product; one hundred pounds of spinach to nine pounds; one hundred pounds of sweet corn to 17.5 pounds. This fact renders it possible to ship several times as much nutriment in the same space and to ship at any and all seasons of the year without danger of freezing or of breakage. It also makes it possible to furnish our soldiers and sailors with fruits and vegetables, the year around with a large saving in car space and shipping tonnage.

What to Dry.

The same general rules that apply in the canning of fruits and vegetables will apply in the drying of these products. A good rule to follow in drying this year will be to dry all fruits and vegetables that can be more easily and more economically dried than canned, that is, if their food value will remain the same.

Corn, peaches, apples and plums have been dried for many years but the possibilities of home-drying are not limited to these. Peas, string beans, asparagus, spinach, beets, cherries and berries can also be preserved in this (Continued on page 123).

For Further Information

Drying, as a method of food preservation, has assumed a position of prominence in the nation's conservation program. Exact methods of drying fruits and vegetables, instructions for using the dried products successfully and other interesting data on the subject has been worked out by the Department of Agriculture. This information will be found in the Department Bulletins Nos. 841 and 984. These bulletins will be furnished free upon request to the Division of Publications, Department of Agriculture, Washington, D. C., or from the Michigan Agricultural College, East Lansing, Michigan.

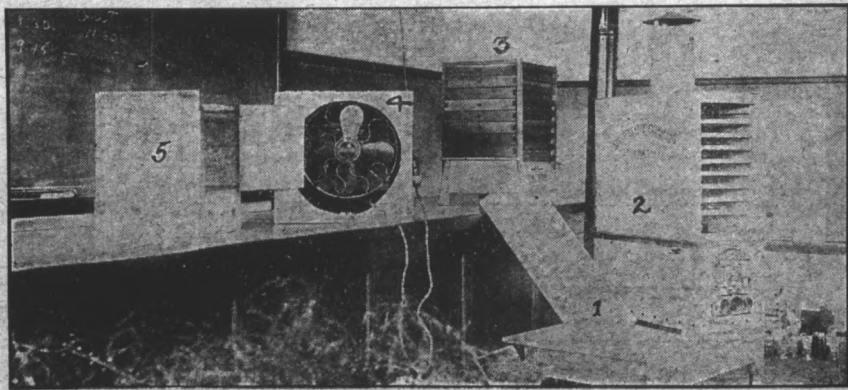
in the home-canning is on the increase, and moreover it is almost impossible in some sections to obtain sufficient stocks to take care of the demands. Fuel is also higher and in some places more difficult to obtain. For these reasons a much greater use should be made in fruit and vegetable conservation of this old-fashioned method or some modification of it.

the method. The results and actual experience of the many housewives and clubs of boys and girls, all tend to prove that this method may well be used to a much greater extent than at present.

Not only can some products be more economically dried than canned, but the dried article as a commercial product conserves space in shipping since

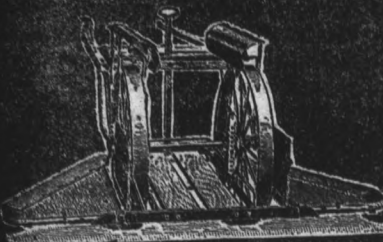


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You Can Select Most Any Style of Evaporator that You Please.

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The AKRON SULKY CORN CUTTER saves time, money and much labor; is absolutely safe; inexpensive; efficient; light draft; only one horse required; saves twine; cuts one or two rows at a time, adjustable for height of cut.

We want you to know more about our Corn Cutter but this space is too small for that, so we have published an illustrated booklet containing full description and testimonials which we will mail free to all interested readers of this paper. Send us a postal card request at once, and you will receive this booklet by return mail. We will also tell you what dealer in your neighborhood handles our Corn Cutter, so you can go and see this complete machine.

Write now

Right now.

THE AKRON CULTIVATOR CO.
AKRON, OHIO.

The PERFECT CORN HARVESTER

Sold Direct \$20.00 JUST THE THING FOR SHOCK OR SILO CUTTING



Works in any kind of soil. Cuts stalks, doesn't pull like other cutters. Absolutely no danger.

Cuts Four to Seven Acres a Day with one man and one horse. Here is what one farmer says: "Gentlemen: Am well pleased with your Corn Harvester as it works equally well in light or heavy corn. I cut 46 shocks in 3 hours, just after a heavy rain when the soil was very loose, but did not pull the corn. Thanks for prompt shipment. I remain yours for success. Yours truly, D. H. SPRINGER, Celina, Ohio."

Sold Direct to the Farmer

Send for booklet and circulars telling all about this labor-saving machine; also testimonials of many users.

LOVE MANUFACTURING COMPANY
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Special Parcel Post Offer Mens Dr. Edwards CUSHION SOLE \$3.95



Shoes. Real vicil kid uppers, good welt soles, kid trim size 6 to 12 Footform shape plain or cap toes. Matchless value.

Sent FREE. Heavy cushion insoles.

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Only \$2 DOWN ONE YEAR TO PAY

\$38 Buys the New Butterfly Junior No. 23. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here. Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money. ALBRIGHT-DOVER CO., 2165 Marshall Blvd., CHICAGO

Agricultural Lime Hollow Building Tile Drain Tile

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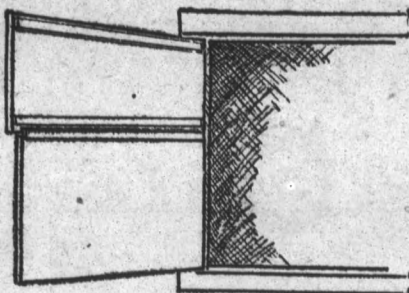
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A Few Practical Suggestions

HALF-DOORS.

There are many of the smaller buildings on the farm where half-doors come in handy. These doors provide for good ventilation and yet prevent drafts along the floors. In stormy



weather they keep the rain and snow from blowing in and at the same time allow air and light.

In the door here illustrated the cut in the middle is covered by a cleat which is fastened only to the lower half. A slot in the cleat allows a staple in the upper part to protrude enough to be secured by a pin which hangs on a string, thus allowing the use of the whole door when desired. —H. L. S.

A HANDY SPRINKLER.

The common sprinkling can with a small nozzle is very slow to use in watering a flower garden or hot-bed. Take a leaky galvanized or tin pail and drive the bottom full of holes with a hammer and a shingle nail. Place the pail beside the garden or hot-bed. Then carry the water from the well in another pail and empty it into the perforated pail just before using. Swing it slowly over the flowers or the hot-bed and the plants will be treated to a pleasant shower. This is much quicker than using the small nozzle sprinkler and better for the plants than pouring an entire pail of water around them. —R. G. K.



An Attractive Farm Sign Board that Tells the Public what is Needed and For Sale.

POWER GRAIN ELEVATOR.

I wish to put in an elevator from the threshing floor in my barn to my granary, 16 feet above. What size pulleys, cups, and drive pulleys shall I need? I have a gasoline engine with four-inch drive pulley.

Montcalm Co. M. D. S.

From the conditions given in this letter, where a four horsepower gas engine is to be used with a four-inch driving pulley, and the grain is to be elevated sixteen feet, I would suggest a sixteen to twenty-four-inch pulley to drive the elevator from the four-inch one on the engine.

If canvas belting or webbing is used for the elevator it should be about six inches wide and have cups on it holding from one to two pints and spaced from six inches to one foot apart on the webbing. These sizes and speeds are given so that the belt will not run at too high speed and the friction will be enough to drive the pulley.

A chain with cups attached might be used instead of webbing, but would doubtless be more expensive and have to be purchased special.

It is probable that the elevating belt would need to be considerably higher than sixteen feet, as mentioned in the letter, so that a sloping spout could be used to deliver the grain from this elevator shaft to bins or the desired parts of one bine.

It would be desirable to enclose the elevator belt, either in a single pipe of boards or in two shafts, one of which would contain the elevating side of the belt and the other the return side.

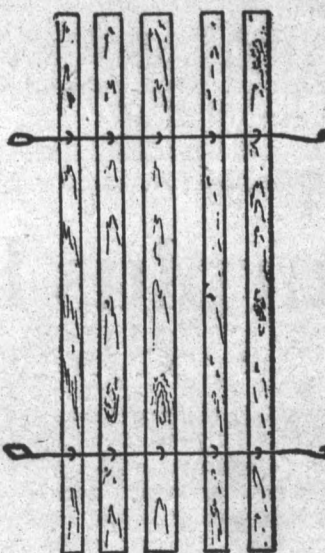
A convenient dump box with sloping sides should be made at the bottom of the elevating shaft so that the cups will fill properly as they are elevated.

H. H. MUSSELMAN,

Farm Mechanics Dept., M. A. C.

A HANDY TREE PROTECTOR.

A handy protector to keep rabbits away from young trees may be made by fastening four or five laths to two galvanized wires by the use of small staples. One end of the wire is bent



in the form of a hook while the other is made in a loop. These "hooks and eyes" allow the protector to be put on and taken off with ease. Besides protecting the trees from the rabbits, the laths also protect them from sun scald. —H. S.

TO IDENTIFY YOUR AUTO.

You never know when some thief is going to break into your garage and steal your car or drive it away from where it was left for a few minutes. What was the license number? What was the engine number? Of course, these are the first things the police want to know; they constitute a valuable part of the description of the car in the search for it. In addition to having these facts in a book it is well to take a small paint brush and print them neatly along the inside of the garage. —J. L. J.



By Inserting a Hoop in the Mouth of a Sack Much Time will be Saved when Gathering Seed Corn.

DIG POTATOES THE FARQUHAR WAY

No. 1, 2 and 3 Elevators for Large Growers



It means more potatoes and in better condition with a considerable saving in labor. Farquhar diggers are built to stand the strain of hard, continuous usage. They dig clean and leave the potatoes convenient for picking.

Elevator Digger illustrated above is built in three sizes with special equipment to suit different soils. Engine drive on large digger if desired. The No. 1 Elevator has paid for itself in one season on four acres of potatoes for some users.

Our "Success Jr." is the peer of plow diggers. Gets more potatoes in one time over the row than a turn plow in three trips. Price so low that it is in reach of the smallest grower. The "Gilt Edge" for those who desire a more elaborate Walking Digger.

Special catalogue giving full particulars of the different Farquhar Diggers sent free on request. Write us today.

A. R. FARQUHAR CO., Ltd.
Box 212 York, Pa.



How about the Corn? A silo means that you are sure of the crop. Order your silo — have it ready. Early order means early shipment — freight cars will be scarce this fall. Write for information about Saginaw and Liberty silos.

The McClure Co.

Saginaw, Mich. 12 Cairo, Ill.

EVERLASTING SILO Ironstone Blocks

Under our special proposition, you can save \$25 to \$50 on an EVERLASTING SILO, guaranteed for the life of the purchaser. Blocks of ironstone, vitrified glazed tile, triple wall design, self reinforced and interlocking, with double lock cement mortar joints. Extra steel reinforcing. Built for service.

Write for complete information and prices.
LEWIS McNUTT,
23 S. Walnut St., Brazil, Ind.

UNCLE SAM WANTS YOU To Produce Big Crops

As a Patriotic Duty, you owe it to Your Country to help produce food. Don't take a chance and guess as to the requirements of your soil. Don't waste valuable labor, seed and other fertilizers, for if your soil is lacking in lime, your soil will not produce, to its full production capacity. Test your soil with The Simplex Soil Testing Machine. Guaranteed to show the exact amount of lime and ground limestone your soil contains and if lacking, requires.

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WITTE Kero-Oil Engines

Twice the Power at Half the Cost. Sizes 2 to 30 H.P. — Select Your Own Terms — Direct from Factory prices. Write your own order — Save \$15 to \$200. Prompt shipment. The new catalog, "How to Choose Engines" FREE — by return mail. Postpaid. WITTE ENGINE WORKS 219 Oakland Ave., Kansas City, Mo. 2130 Engine Bldg., Pittsburgh, Pa.

Money Back if not satisfied on my New 90 Day Engine Offer

Study of Production and Profits

Many dairymen claim that there is no profit in feeding high-priced grain to dairy cows. They argue that they might better cut out this feed and take what production they can get from their cows rather than to increase the production by feeding high-priced grain. When the feed bills are so exceedingly high one is liable many times to draw conclusions without a proper investigation of the underlying facts.

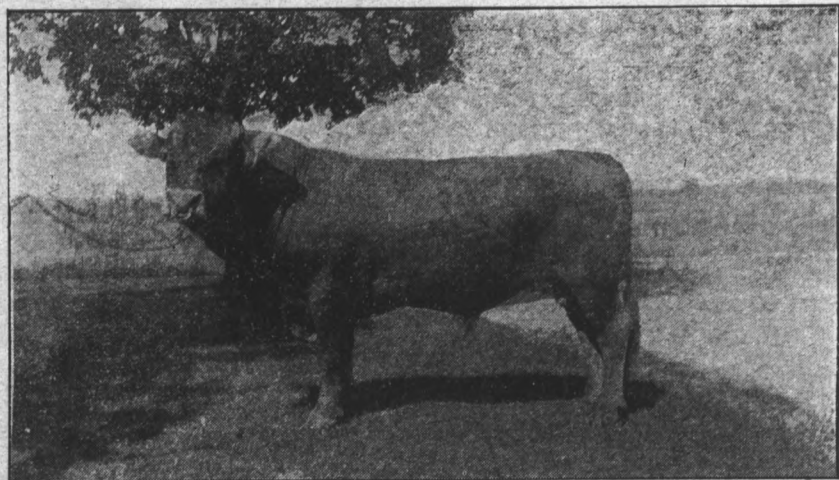
The dairy cow is a machine for converting feed into salable products. Now, in ordinary business affairs, it pays to operate that machine at its maximum capacity or near it. It does not pay to run a saw-mill or threshing machine at half its capacity. The profit lies in having such machines work at full capacity and it is that way with the dairy cow. No dairy cow is capable of maximum production unless about one-third of her ration is concentrates, some kind of grain. To ask her to produce maximum production on an entirely bulky ration is simply asking the impossible and even though grains are high dairy products are also high and at present prices we have figures to show that it will pay to feed a dairy cow a liberal ration.

Prof. J. C. McDowell has compiled figures from various cow-testing associations which go to show that there

is more profit in feeding the average cow liberal rations of grain at the present price than to cut the grain ration to the lowest limit and depend upon bulky feeds so largely.

For instance, in the study of these records it was ascertained that 1,511 grade Holsteins showed that production and profit mounted steadily with the outlay for grain. The cows were divided into classes according to grain fed, and there was a regular advance in production and profit as the grain increased. For example, as the grain increased from an average of \$9.20 to an average of \$32.78, the return above feed cost rose steadily from \$32.75 to \$104.86. Also the study of the records of 1,667 grade Jerseys and 652 grade Guernseys showed the same result. The class of Jerseys which got only \$5.76 worth of grain lost money while the class which got \$30.32 worth of feed returned \$91.77 above feed cost. These figures represent only extremes, but the complete figures show a steady advance in production and net returns in the intermediate class as the grain was increased. Cow-testing records show beyond question that the average dairyman doesn't feed a sufficient amount of grain, and never has, to realize the highest profit from his cows. The average cow is not given a fair chance.

Brown Swiss Cattle in Michigan



Stasis Boy of Sedgely, No. 3836 Grand Champion bull at National Dairy Show-1917. Owned by L.S. Marshall and Sons, Leslie, Mich.

For several years there has been a tendency on the part of many breeders of dairy cattle to look upon the Brown Swiss breed as sort of a novelty because they departed from the established dairy type so common in America. These rugged cattle from the mountains of the little European republic first came to us in a rather rough form with bone far heavier than desired, even in beef types, and hides that usually lacked much of mellowness. But when one of the breed made above three pounds of butter a day in public test, we began to revise our belief that milk could probably come from the types with which we were best acquainted. The evolution of the Brown Swiss into the latter-day type has been among the most noteworthy achievements of American breeders, and in this work they have had the help of breeders in the native home of the cattle. That they have proved their worth as dairy performers has long since ceased to be a matter of discussion. The sensation of the breed came some time ago in the announcement of the completion of the year's test of the Brown Swiss cow College Bravura 2nd at the Michigan Agricultural College, which reached the record for the breed of 19,304 pounds of milk averaging 4.1 per cent butter-fat, which is equivalent to 1,005 pounds of butter. The Brown Swiss breed is well adapted to conditions in Michigan.

W.M.K.

Buy It Now

FARMERS who plan to build silos this year should lose no time in putting in their orders. All of the manufacturers are having difficulties in securing materials and labor and it is very certain that many farmers who wait until the eleventh hour will be disappointed.

We need more silos. Last year's crop of soft corn proved this more than ever. Farmers who were caught without a silo for their soft corn suffered a tremendous loss. If they had provided silo space they could have saved all of the feeding value of their crop and added a vast amount of fertility to their farms.

From present indications more silos will be needed in Michigan this year than ever. With grain feeds at present prices there is no money in feeding stock unless cheap feeds form a prominent part of the ration. The silo is a money saving and feed saving proposition. If you decide to erect another silo do not hesitate to order it now. Manufacturers cannot make quick deliveries this season.

We Fed Your Cows



¶ Almost every high American record for fourteen years with any breed was made with our Ajax Flakes as an important base of the grain ration.

¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

¶ You can hardly find a pure blood whose maternal ancestors were not fed on Ajax or Unicorn.

¶ Unicorn is recognized as a safe efficient and economical dairy feed.

¶ Unicorn during the past year made more high records than any other brand of feed.

¶ Unicorn really costs less per pound of milk or fat produced than other feeds.

Chapin & Co., Dept. M, Chicago

ROYSTER'S FERTILIZER

F.S.R.

**ORDER FALL GOODS NOW
FOR EARLY SHIPMENT**

**F. S. ROYSTER GUANO CO.
TOLEDO, O.**

OFFICES & FACTORIES
BALTIMORE, MD.; NORFOLK, VA.; TARBORO, N.C.;
CHARLOTTE, N.C.; COLUMBIA, S.C.; SPARTANBURG, S.C.;
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When Writing to advertisers please mention The Michigan Farmer.

Grow Pedigreed Grain



M. C. I. A. Trademark

Produced by the Michigan Crop Improvement Association.

Why grow common varieties of wheat and rye when you can obtain pure seed of improved varieties which have been thoroughly tested at the Michigan Experiment Station and by hundred of farmers of the state.

Red Rock Wheat and Rosen Rye were developed at the Michigan Agricultural College where, after a number of years testing against hundreds of other varieties, they have proved superior to others.

Registered Red Rock Wheat

Is a Hard Red Wheat

Stools Abundantly

Is a Good Milling Wheat

Is Winter Hardy

Has Stiff Straw

Is Pure

Registered Rosen Rye

(Compared to Common Rye)

Has Shorter, Stiffer Straw

Has Longer, Larger Heads

Has Larger, Plumper Grains

Has Greater Leaf Surface

Has Better Filled Heads

Yields Twice as Much per A.

A number of farmers,—members of the Michigan Crop Improvement Association, have had their fields inspected under the auspices of, and by agents of the Association. After threshing, this grain is again inspected. That which meets requirements is Registered and given a Registry number on the books of the Michigan Crop Improvement Association.

Registered Seed

Is now offered for sale at Market price plus the cost of putting it in condition to meet the Registry requirements. The prices are:

Red Rock Wheat, 1-9 inclusive, \$3.50 per bu.; 10 bu. and over, \$3.25.

Rosen Rye, 1-9 bu. inclusive \$3.25 per bu.; 10 bu. and over, \$3.00.

Winter Barley, 1-9 bu. inclusive \$3.00 per bu.; 10 bu. and over, \$2.90.

To pass inspection, the fields in which these grains were grown must show less than 1% mixture of other varieties.

For list of farmers from whom you can obtain Inspected Seed of the above varieties, write to the Sec'y of the Michigan Crop Improvement Association.

J. W. NICOLSON,

East Lansing, Michigan

Help Save The Canadian Crops

When Our Own Harvest Requirements are Completed
United States Help Badly Needed
Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this will get a

**Warm Welcome, Good Wages, Good Board
and Find Comfortable Homes**

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes, may be had from the

UNITED STATES EMPLOYMENT SERVICE

Branches at Detroit, Grand Rapids, Port Huron, or Traverse City

FIRST-OLD DETROIT NATIONAL BANK

MEMBER FEDERAL RESERVE BANK

WITH a capital and surplus of \$7,500,000 this bank is able to render a distinctively valuable service to business men or individuals to whom a Detroit connection is desirable.

DETROIT

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

Let Uncle Sam Tell You Why

(Continued from first page.)
with their shippers. It is going to mean the elimination of the fly-by-night commission house which preys upon innocent victims and which has given the whole business a black eye. This type of dealer is not in favor of any movement that will throw the light on his dealings."

At the request of Mr. Bloom we accompanied him to the Michigan Central freight yards where he and his assistant Mr. Shirley inspected carloads of apples and watermelons. The farmer who imagines that those inspectors are merely office men who sit in easy chairs have another guess coming. Careful inspection of carloads of food products requires a lot of heavy lifting and working in uncomfortable places. In inspecting a carload of apples a thermometer is inserted in an apple to take its temperature. Several containers from different tiers and parts of the car are opened and a careful inspection is made of the size and quality of the apples. In the case of a carload of watermelons the temperature of some of the melons is taken, a count made of the number in the car and a percentage that show signs of decay. Notes are also made of the different fungus growths that tend to injure the keeping qualities of the melons.

One of the big things that this sys-

tem of inspection is undertaking is that of giving advice to shippers regarding the selection of containers, methods of grading the products and the loading of cars for shipment. The inspectors are also at your service in assisting in securing cars for shipping perishable products and aiding in every way possible to get your goods on the market in prime condition and to see that you get a square deal after they arise at the markets.

Mr. Bloom says: "The most important work that we can do is to awaken producers and shippers to the need of improvement in their methods of packing and grading farm products. The first thing, of course, is to get farmers to realize the importance and necessity of careful grading. It would seem as though a few unhappy experiences might teach them, but there are many who still load unsorted potatoes in bulk into a freight car, or who pack good apples at each end of the barrel with little mean ones in the middle." One of the leading Detroit dealers said about apples: "I have to sort them out when they get to me, because the farmer puts big apples in the top of the barrel, medium sized in the bottom, and culls and windfalls in the center. Many growers are still foolish enough to pack peaches with the best ones on the top of the basket. Not

(Continued on page 116).

Study This Transaction Carefully

At 7:00 A. M., May 10, 1918, Chas. M. Green telegraphs Frank A. L. Bloom, Federal Inspector, Bureau of Markets, 314 Hammond Bldg., Detroit, Mich., as follows:

"Inspect M. C. 179682 now in Detroit M. C. tracks and wire results. Contains 275 sacks round white potatoes consigned to Black & Co., receivers. Car is rejected, receivers claiming heavy decay."

UNITED STATES DEPARTMENT OF AGRICULTURE		ORIGINAL
BUREAU OF MARKETS		
FOOD PRODUCTS INSPECTION CERTIFICATE		
Market	Detroit, Michigan	Date May 10, 1918 10:00 A. M.
To	Chas. M. Green,	Shipper
Address		Pine Grove, Michigan.
I certify that I am an agent of the United States Department of Agriculture, authorized to investigate and certify the condition as to soundness of food products under provisions known as the food products inspection law, of section 8 of an Act of Congress, approved August 10, 1917 (Public No. 40, 45th Congress), and the rules and regulations prescribed thereunder; that at the time and on the date stated above I inspected the following lot of food products received at the above market, an important central market designated by the Secretary of Agriculture, pursuant to said law and rules and regulations; and that the condition as to soundness, at said time and on said date, of such food products is that stated below:		
Car initials	M. C.	number 179682; where inspected M. C. Train Tracks, 12th Street
Position of vents	Box ends	Per-Plugs
Products inspected and distinguishing marks: Manifest shows "275 sacks round white potatoes". Sacks tagged "U. S. Grade No. 1, Chas. M. Green, Pine Grove, Michigan, Shipper".		
Condition of load and containers: Sacks loaded 3 layers high, bottom layer sacks upright, upper two layers sacks on sides on top of upright sacks, alley way through center of		
Condition of pack: car. Load intact.		
Temperature of product: Not taken.		
CONDITION OF PACK: Generally full pack.		
Maturity: Mature stock.		
Decay: five sacks midway between door and B-end of car show 20% tuber rot (Fusarium) (Dry Powdery type). Balance sacks show practically sound.		
Fungous injuries other than decay: Practically none.		
Insect injuries: Practically none.		
Other blemishes and defects: Practically none.		
Remarks: Except for decay in the five sacks noted the stock in this car shows fairly uniform in size, sound, smooth, clean, and attractive in appearance.		
Application for inspection made by		Chas. M. Green.
Relation to shipper		

At 11:14 A. M. of the same day, Inspector Bloom wired Mr. Green, of Pine Grove, Mich., the results of his inspection:

"Results inspection your car M. C. 179682 follow: Five sacks between doorway and brake end show twenty per cent decay, balance sacks show stock sound, smooth, clean." (Names are fictitious).

Training Stock for the Fairs

IF one has in his possession an animal fit to show, the next most important thing is to fit it for the show and it may be said in passing that a great deal depends upon how an animal is fed and trained whether or not it is able to do anything in competition among its peers. Many a man goes to the fair and while looking over the show yard fence, there comes a great increase in his estimation of his own cattle. An expression often heard among the spectators at any fair is this: "There are just as good cattle running around in my barn lot as there are here." In the great majority of cases, however, this is only lack of ability to compare the two, either as to fleshing qualities or as to conformation. Really, if a man has "just as good cattle" in his barn lot as are at the fair the fact that he did not fit them is a reflection on his good judgment for, while the fitting of cattle has many details, it is not so complicated but that an amateur could master it in a short while.

Feeding the Show Animal.

Feeding the show animal is one of

should be given because of the fact that we are using so many substitutes. It will perhaps suffice to say that a balanced ration should be given and that oil meal and corn and oats will have to form the bulk of the ration for show cattle. Occasional feeds of bran now and then have a laxative and toning effect, not to mention the fact that the bran helps to keep the animal body cooled down. This is very important when large quantities of corn are being digested daily. The period of feeding should be so gauged that the greatest amounts are fed just previous to going on the circuit or to the fair.

When the animals start for the fair is the point where many showmen "lose out." If the cattle are shipped, the owner cannot take the same feed with him that he was using at home and so it becomes necessary to substitute. As has been mentioned before, quick substitution is a thing to be avoided. While the cattle are on the train or in the show barns, they will eat very little anyhow unless they have been there a great many times before, and it is doubly imperative to



Even the Culls Need Training Before Being Judged.

the most important points. An animal might as well not show at all as to appear in such poor flesh that it will be at a great disadvantage. In the first place, certain standards of conformation are desired and in the next place, this conformation must be cushioned with enough fat and flesh to give the animal a rotund and well kept appearance. When an animal is in good condition for showing, it has what the showmen know as a "bloom."

After a while this bloom leaves and the animal does not show with the same vigor that was evident before. The "bloom" is quite largely dependent upon the method and period of feeding.

It is customary to start to fit animals for the show two or three months in advance of the opening date. In some cases, however, a splendid finish can be put on by a short period of intensive feeding as well as a long period of extensive feeding. In feeding the show animal one must be constantly on the lookout to see that no changes are made abruptly. The health condition of an animal rapidly gaining in flesh is at a delicate balance and nothing will throw the mechanism out of order so quickly as a generous feeding of something to which the animal is not accustomed. Changes in feeds and increases in the amount of the feed should come very gradually. If this can be accomplished there is but little reason to be afraid that the animal will go off feed.

This year nothing much can be said definitely concerning the feeds that

give them the same sort of feeds they had been accustomed to receiving.

After the show is over, the mistake made by nine out of every ten exhibitors is that the animals are taken home and turned out to pasture thus reducing their grain ration in a single day. This is "the colossal mistake" and it explains why some cattle appear so much out of sorts after the showing season is over. The reductions in feed should be about as gradual as the increases were.

Exterior Appearances.

In show season, it is an occasional occurrence to have relatively poor animals placed at the head of the list while those much superior are placed farther down. This is explained by the simple fact that many of these cattle are trained "to put the best foot forward," as is proper. It is not only necessary to have a well fed animal with good individuality, but he should also know how to perform in the show ring so that the finest points may be brought out. One of the first requirements is to keep the animal clean. To this end liberal bedding is essential. Then cattle should have their tails washed out and loosely braided each night. The next morning these braids may be undone and the switch brushed out. This will give the tail a showy appearance. The tail should by all means be clipped from the switch to the tail head.

There is a good deal of variation in the practice of clipping show animals. Many exhibitors clip three or four

(Continued on next page).

Last Call For Silos

By prompt action you can still get that new silo which you had planned to build. Don't hesitate buying a silo because you think it is too late. We carry an immense stock and can promptly ship any size silo you need. Our facilities enable us to give you quicker and better service than you could expect to get.

Don't let that good fodder go to waste—"can" it for winter use. See our nearest representative at once, or send your order direct to factory for

Kalamazoo TILE AND WOOD SILOS *"The World's Standard"*

—the silos that are known for their durability and convenience, perfect keeping of ensilage and weather-defying qualities. When you buy a Kalamazoo you get a silo that is guaranteed right in every detail, "from the ground up." Whether you choose the wood or the more permanent tile, you're sure of satisfaction and extra value for your money.

All Kalamazoo Silos, whether wood or tile, have the famous Kalamazoo Galvanized Steel Door Frames and continuous doors, which are universally recognized as the best ever designed.

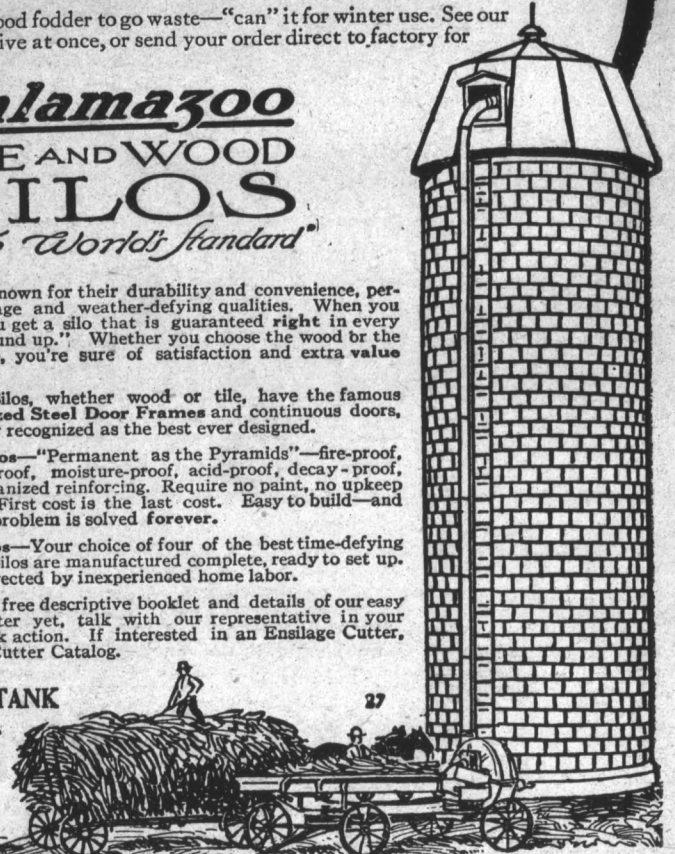
Glazed Tile Silos—"Permanent as the Pyramids"—fire-proof, frost-proof, storm-proof, moisture-proof, acid-proof, decay-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. First cost is the last cost. Easy to build—and once built your silo problem is solved forever.

Wood Stave Silos—Your choice of four of the best time-defying woods. Kalamazoo Silos are manufactured complete, ready to set up. Quickly and easily erected by inexperienced home labor.

Write today for free descriptive booklet and details of our easy payment plan. Better yet, talk with our representative in your locality and get quick action. If interested in an Ensilage Cutter, ask for Kalamazoo Cutter Catalog.

KALAMAZOO TANK AND SILO CO.

Dept. 223
KALAMAZOO,
MICHIGAN.



SAVES ALL THE CORN

You can prevent useless waste of corn by continuing to fill your Silo until the silage is thoroughly settled. Fill and refill your Silo to capacity with a

Papec Ensilage Cutter

After you have stored all the corn possible in your Silo, shred the dry stalks remaining with a Papec equipped with shredder knives. Don't allow the fodder to stand in the fields over winter.

Let us tell you more about the "Papec"—The Ensilage Cutter Plus. Write for our 1918 catalog. It may save you from \$75.00 to \$150.00 yearly in your own feeding costs.

PAPEC MACHINE COMPANY
150 Main Street, Shortsville, N. Y.

26 Convenient Distributing Points

Get a 2-Man Silo Filler Fill Your Own Silo

Produce your own cheap feed this year—avoid buying feed at high prices. You can get Silver's famous "Ohio" in a variety of sizes, 4 horse-power up. 40 to 300 tons per day. "Silverized" Silage—cut even, packs air-tight—makes better feed.

Write for Free Catalog

The Silver Mfg. Co.

Box 390 Salem, O.

"Modern Silage Methods"

264 pages, 25 cents



CORN HARVESTER

Self-Gathering for cutting Corn, Cane & Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only \$25 with fodder binder. The only self-gathering corn harvester on the market, that is giving universal satisfaction. Dexter L. Woodward, Sandy Creek, N. Y. writes: "3 Years ago I purchased your Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Huggins, Spearmore, Okla.: "Works 5 times better than I expected. Saved \$40 in labor this fall." Ray Apple, Farmersville, Ohio: "I have used a corn shaker, corn binder and 2-rowed machines, but your machine beats them all and takes less time of any machine I have ever used." John F. Haag, Mayfield, Oklahoma: "Your harvester gave good satisfaction while using, filling our Silo." K. F. Ruegnitz, Otis, Colo.: "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.

PROCESS MFG. CO., Salina, Kansas

Bone Spavin

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

Fleming's Spavin and Ringbone Paste, \$2 a Bottle

One application usually enough; sometimes two required. Intended only for the established cases of Bone Spavin, Ringbone and Sidebone, causing chronic lameness.

Fleming's Spavin Liquid, \$2 a Bottle

For the recent cases of Bone Spavin, Ringbone and Sidebone and for Bog Spavin, Splint, Curb, Soft Enlargements, etc. Your money back if these remedies fail. Write for Fleming's Vest-Pocket Veterinary Adviser. 192 pages, 67 illustrations.

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TRAINING STOCK FOR THE FAIRS.

(Continued from page 115).

months before the show and then keep the animal blanketed or otherwise protected from the flies and the hot rays of the sun. I have seen animals, however, appear in just as fine condition where they had never been clipped, but it is necessary to take some special care in having the animal protected from the sun and flies. "Fly dope" is pretty likely to make the hair coarse and bristly and for this reason, should be very sparingly used on animals intended for exhibition. The horns and hoofs should be kept polished and for this purpose, a piece of glass or sharp steel is very serviceable. Really, I like the glass better than the steel, since the steel usually has some ragged edges that do not easily wear off nor is the glass quite so harsh.

Training to Stand.

There is no one thing that shows the amateur quite as much as to bring animals into the ring that are not actually broken to lead. The show animal ought to be taught to lead right up beside the master and not have to be pulled and hauled and tugged. Animals being shown for the first time should be previously led about so that they are accustomed to the noise of automobiles, shouting, etc. In teaching an animal to walk up beside the master, a long buggy whip held around

behind one's back will be found quite useful. It is not necessary to mistreat the animal to teach him to lead. Most animals are easily taught if approached in a sensible sort of way.

In dealing with bulls they should, of course, be sufficiently handled so that they are tractable, but the only safe bull is a dead bull and most fairs make it a misdemeanor to bring a bull into the ring without a staff. The one thing to remember about handling bulls with a staff is to keep their heads up. As soon as a bull can get his head down, he can use the huge muscles of his neck, but as long as his head be kept up, he can be handled with considerable ease.

Animals intended for show should be started on feed at once. Showing has always been accounted a means of advertising and it has never been looked upon as a money-making scheme. The young breeder should by all means show at least at his local fairs since a man usually gets his first and often his best advertising right in the home community. There is no "hocus pocus" about showing animals despite the fact that once in a great while a judge can be deceived into putting an inferior animal ahead of a good one. Animals with good individuality, well-fed, well-taught, well-bred and with all exterior appearances in first-rate form cannot help but be a credit to the breeder, even though they do not stand in first place.

Let Uncle Sam Tell You Why

(Continued from page 114).

until all farmers have come to realize the great importance of grading and packing, will wastes from this source cease altogether."

The new system of inspection is sure to prove valuable in putting farm products in cold storage. The freight, sorting charges and the cost of disposing of the refuse from shipments must be paid by someone. Sorting on the farm saves the middleman's charges and the cost of storage which ultimately fall back on the producer. There is a great saving in freight charges when the produce is sorted and graded at the original shipping point so that it may be put into storage without re-handling. All of this work costs more in the cities than it does in the country. And in addition to these losses there is a great amount of produce occupying perfectly good space and storage room that is almost absolutely worthless for food. Almost any carload of produce unloaded in a commission house today will contain a vast amount of waste. The railroads receive freight and the storage houses receive pay for the space the waste occupies, besides waste products have a tendency to spread disease and decay among the better grades mixed with it in the shipments.

The greatest good that can possibly result from this new service of inspection and claim adjusting is the fact that it is going to put the entire business from the farmer to the consumer on a more honorable and business-like basis. The farmer will find it necessary to harvest his produce at the right time, handle it carefully, pack it properly, and load it in the cars so that it will reach the city terminals in sound condition. The transportation companies will find it necessary to furnish cars promptly as possible, settle all claims with small shippers on the same basis they do with the larger ones, keep the cars moving and place them so that they can be inspected and unloaded promptly when they arrive at the city terminals. The commission dealer or buyer of farm produce can no longer reject shipments because the market has dropped, because the federal man is on the job to report to the shipper the exact condi-

tion of the shipment and furnish him with a certificate of same.

On the other hand, the farmer or shipper is insured against loss, due to negligence on the part of the transportation company, and dishonesty on the part of the city dealer. The transportation company is protected against unjust claims for damages to produce or losses during shipment that are due to careless methods of harvesting and loading the produce on the cars. And the city commission dealer who desires to do business on the square is protected against unjust criticism from shippers when their produce reaches the markets in bad condition. Honest men connected with growing, distributing and selling farm produce are finding Uncle Sam a pretty square referee in deciding the plays in their new game of feeding the world.

In order to conserve the time of the inspector it is requested that all inquiries regarding the Food Products Inspection Service be addressed to Mr. B. B. Pratt, Supervising Inspector, 139 North Clark Street, Chicago, Ill., or to the Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.

LIST OF FEDERAL INSPECTORS.

The United States Department of Agriculture, Bureau of Markets, has established a Food Products Inspection Service for the inspection of fruits and vegetables in the markets named below. Applications for inspections in any market should be addressed to the inspector in charge of that market, or to the Bureau of Markets, Washington, D. C.

Atlanta, Ga., 414 Connally Bldg., W. H. Beckham, Inspector.

Baltimore, Md., 411 Custom House, S. F. Shreve, Inspector.

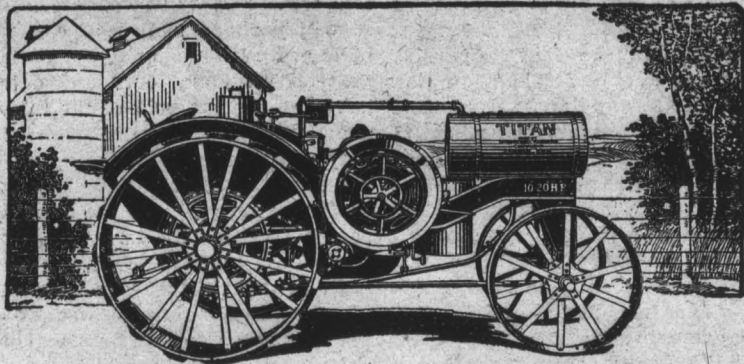
Boston, Mass., 405 Fidelity Bldg., 148 State St., C. E. Merrill, Geo. W. Payne, Inspectors.

Buffalo, N. Y., 232 Post Office Bldg., George E. Engels, Inspector.

Butte, Mont., 428 Rialto Bldg., L. J. Case, Inspector.

Chicago, Ill., 905 City Hall Square Bldg., 139 North Clark St., B. B. Pratt, Supervising Inspector; S. C. Vandenburg, Fred J. Baehler, Paul W. Barnes, Myron S. Foster, Inspectors.

Tractor Safety



FOR twelve years and more, shrewd and careful American farmers have kept us busy filling their orders for International, Mogul, and Titan Kerosene Tractors. In those twelve years our tractors have had to meet every possible combination of field and climate conditions. The types and sizes we sell today are the ones that have successfully met every test. Any one of them is a safe tractor to buy.

One great advantage to farmers who buy our tractors is the fact that we can also supply all the implements and machines that go with the tractor. We know farm needs. Buying from us, you get a complete, well balanced outfit for field or belt work.

Another advantage is our extensive dealer and branch house organization. A telephone call to a nearby dealer brings you promptly a repair, replacement, or adjustment for any machine we sell.

Look at it any way you will, you cannot make a safer tractor investment than to buy an International, Mogul or Titan kerosene tractor. See our dealer in your town, or write us for full information about a safe tractor for your farm.

International Harvester Company of America



CHICAGO

(Incorporated)

U S A



Champion

Deering

McCormick

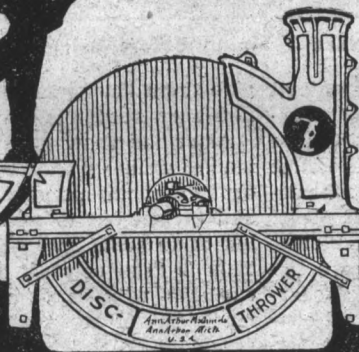
Milwaukee

Osborne



The Disc Thrower Wheel

That Makes the Disc Thrower Silo Filler the Most Effective



No silo filler is better than its wheel. The Ann Arbor Disc Thrower patented wheel is the thing that makes this silo filler the best available. It is solid crucible steel and a marvel of strength, simplicity and efficiency. The Ann Arbor Disc Thrower is MADE RIGHT by men with 35 years manufacturing experience. It is made in two sizes—the smaller with 78 square inches of feed opening is within the reach of any silo owner.

Let us send you a free booklet on filling the silo.

THE ANN ARBOR MACHINE COMPANY

170 Main Street,

Ann Arbor, Michigan

The American

Double Cylinder

Bean and Pea Threshers

The Bean and Pea Farmer's Friend

Built in three sizes—14x14 inch, 20x20 inch and 26x26 inch cylinders, to meet the demands of all. Threshes and cleans all varieties of beans and peas, and shreds their vines, as they come direct from the field, in one operation. Capacity and perfect separation guaranteed.

PRICE When you learn the price of these threshers you will be surprised. Write today for catalog, full particulars and prices. Just drop us a card.

AMERICAN GRAIN SEPARATOR CO.

1017 Essex St. S. E.

Minneapolis, Minn.

"Does the Work of a Crew of Men"



The SHAW Motorbicycle

A dependable, easy running, speedy, high power motorbicycle at low cost. Chain drive. 90 to 125 miles on a gallon of gasoline. Absolutely guaranteed. Write at once for full information, also about the Shaw Attachment—makes your old bike a motorbicycle.

SHAW MFG. CO., Dept. 225, GALESBURG, KANSAS

Honey Wanted

Comb and extracted honey wanted in quantities of 500 pounds and upwards. State quantity and source M. H. HUNT & SON, Box 525, Lansing, Mich.

We are in the market for Seed Wheat. CARLOTS MAIL SAMPLES Farmers Elev. & Pro. Company, Bad Axe, Mich.

Mention The Michigan Farmer When Writing Advertisers

Magazine Section

LITERATURE
POETRY
HISTORY and
INFORMATION

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

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

WORLD EVENTS IN PICTURES



American and British Army and Navy United Against a Common Enemy.



Crew of British Battery Works in Sweltering Heat.—(British Official Photo).



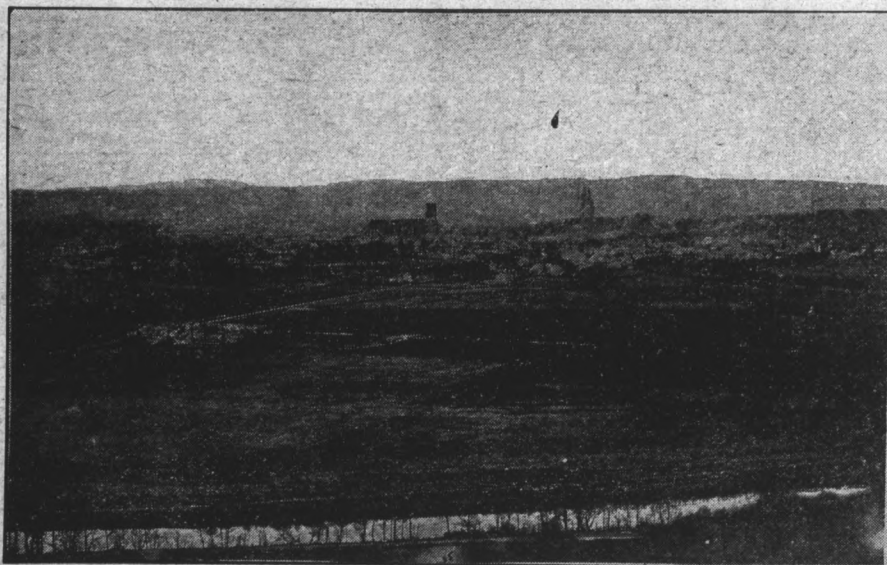
Preparing Dummy Bombs Used in Practice in our Aviation Camps.



Dwelling in French Village Wrecked by German Gun.—(Br. Official Photo).



Geraldine Farrar, Famous Opera Star, Aids Belgian Babies.

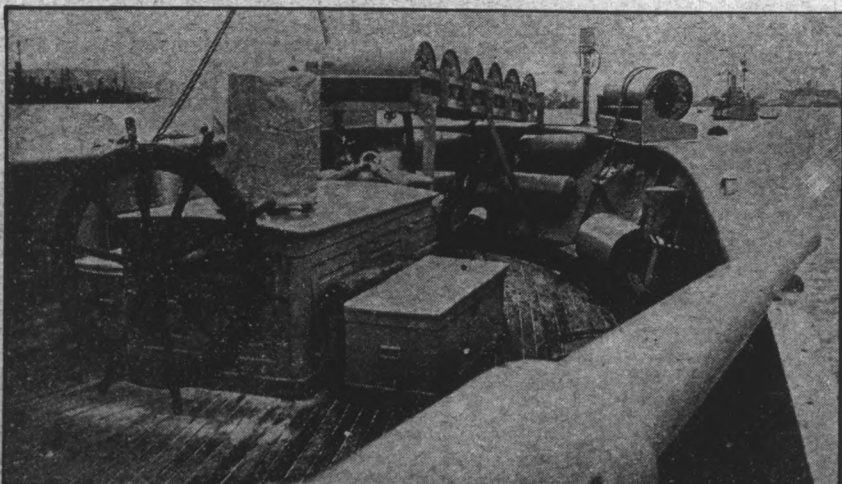


Panoramic View of Soissons as it Looks Today.

This famous city, now a mass of ruins, is the pivot on which the right wing of the German army under the Crown Prince is turning in its retreat from the Soissons-Rheims salient, where they have been defeated by the Allied forces. The city is situated on a hill and is of considerable strategic importance.



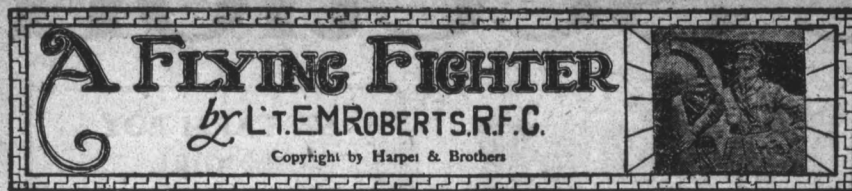
Princess Mary, of England, in Volunteer Aid Detachment Uniform.



Depth Bombs Aboard American Patrol Prove Effective Against U-boat.



Captured German Tank is Repaired by French.—(French Official Photo).



(Continued from last week).

As seen from above, the spot I had selected appeared to be a lawn, but as I came nearer to it I began to see hop poles; however, I was now so low that I had to continue. I landed slap-bang in that hop field and the mess I made of those little poles for a distance of about one hundred feet was great. But the machine was a mess as well. The poles had gone through the planes and through the body—through everything, in fact. A couple of them had gone through my clothing. I pulled them out and then I climbed out of the car to review the remains of what had once been a perfectly good aeroplane.

Presently the owner of a field came out with a gun. He wanted to know what I was doing in his field. I explained to him that I had had engine trouble, and that he could make out a bill of damages then and there for me to sign. This he did. The man then helped me get the machine into an open field, but before we succeeded in doing that more damage had been done to the hops. It was a day's job and it was dark before we got the bus out.

After that I had to telephone my commanding officer and tell him of the accident, and have a wrecking lorry sent to my assistance. He said he would send some men and a wrecking lorry.

We dismantled the bus, loaded her on the lorry and took her to the aerodrome.

The chances that I would lose my assignment in Paris seemed very good. But the skipper was nice about it. Instead of firing me peremptorily he sent me back.

On the next trip I had an excitable French sergeant, who insisted that I should take him to another flying school. It was only sixty miles out of my way so I consented. But it seemed like waiting for Christmas before we arrived at the aerodrome at about 5:30 in the afternoon. The weather was raw, and I thought I would warm myself while the mechanics were busy filling the tanks of my machine. Before I was ready to start it was too dark. I would have to stay over night in that camp, and since I could find no accommodations there I decided to go into a little town nearby. Some of the French flying men were staying there.

I met them. They had never met a khaki flying officer before and insisted upon entertaining me. I was dined and had a splendid time all around. I reached the aerodrome of the squadron without trouble, but found that another man had been sent to Paris to take my place. I was to fly south to another school with a bus. On returning from the southern school I was sent to Paris to fly a French machine back to our school. I met boys at the school who pleased me very much. I received my railway warrant which passed me free on any train going from A—to Paris, and with my haversack containing my shaving tackle and clean collars and pajamas, I started off. I reached Paris about nine at night on a pitch black night, which was made worse by a nice, heavy rain; so with the idea that the weather would not be fit for flying the next morning, I started out to see the sights. I took in the Folies and the Alhambra and then went to my hotel.

I did not put in a call to be awakened at any special time, feeling sure it would be raining in the morning. I slept like a log.

At 9:30 in the morning I was rudely torn from my dreams and presented with a wire which came from my

squadron commanding officer stating that I must be home as soon as possible. I looked out of the window and though the rain had stopped, the sky was heavy and the clouds were low. But orders are orders. I decided to fly the machine back as soon as possible. With this in mind I called up the French aircraft park and told the officer in charge to have the machine ready as I was coming right down to fly it away. I then called up the Paris Naval station to send a car down to take me out to the park. In the interval of waiting I dressed, had breakfast, and when the car rolled up to the hotel door I was ready.

As I got into the car it was just starting to rain, and by the time we got out to the flying grounds it was pouring again. On arriving I put on my flying clothes and asked where my machine was. I was taken to it and on examining it found it to be wet through.

I had made up my mind to fly away that morning at all costs, so as soon as the rain showed signs of letting up, I climbed into the bus, found a couple of mechanics and started to try to get my engine working.

The French way of starting an engine is quite different from ours. Our mechanics would shout:

"Switch off, petrol on, air closed, suck in!" and after a good charge of gasoline vapor had been sucked in by turning the propeller by hand, they would shout:

"Contact!" whereupon the pilot applied the switch.

They would then give the propeller a pull over until they felt a cylinder on compression. Giving the propeller a smart pull now, the cylinder would be forced over compression, and, getting the required spark, the engine would start.

But the French had ways of their own, and it took us about an hour to start the engine, which would only hit on about half of its required cylinders. I had to shut down and have it looked over and after another hour we got it started again.

The motor was not all that could be desired in the way of a smooth running engine, but I decided to take a chance on it. I had mapped out the course I was going to take and put my map alongside the seat where it would be handy.

I taxied to the far end of the aerodrome and got into the wind, which was coming right over the top of the hangars, and took off, when, without any warning, my engine stopped. I was about fifty feet off the ground. Not being a balloon I had to come down and I could not turn as I hadn't enough height. There was nothing to it but land on top of the hangars, and I did.

The roofs were made of canvas and I flew for a center beam which I thought would bear the weight of the machine. I miscalculated, however, and landed between two of them. It was all done so fast that I did not have time to get scared, and before I knew it I was pinned upside down underneath the machine and inside the hangar. The wings of the machine had been left on top and I came on through with the fussalage of the machine, which had turned while coming through the roof and landed on its back with me underneath. The gang of workmen saw the fall and rushed over, rolled the machine over to its natural position and pulled me out. I had had my right shoulder bruised somewhat, but it did not hurt very much.

I reported to the officer in charge, with the log books of the machine. He asked me if I were still set on flying away and on my answering "yes," he gave me the books for another machine. This one was dry. We had no trouble starting the engine and I was mighty glad when I found myself about five thousand feet over the aerodrome.

I was not even then done with my hard luck, for, on getting about forty miles from the 'drome, I ran into a rain storm. In order to dodge it I had to fly about twenty miles in a roundabout way. I eventually got back into my proper course, but I had gone along for only an hour, when I was driven to within a hundred feet of the ground by fog. I could not see two fields ahead of me, but bent upon getting to the squadron as soon as I could, I kept on flying. Soon I had lost my way, so that I had to steer by my compass.

I wanted to reach my destination as quickly as possible, but when my gasoline ran out I had to land, and when

I did I found I was fifty miles out of my course. My compass had not been swung to the machine and was useless. I obtained some gasoline and oil and as soon as the fog lifted I got under way again, after being tossed around by the bumps that prevail after rains. I finally came in sight of the naval aerodrome. I was mighty thankful the trip was over, as my right shoulder, which seemed to be getting worse, was beginning to hurt badly, and I was thankful to climb on board a good old train and start for home.

When I returned from this eventful trip I was sent to England to take a post-graduation course prior to going on active service in France. I reported and was detailed to a squadron in the north of England.

There I met old Beaw, a chap with whom I had been an observer in the first squadron I was with in France. A Yank named Ham from Toronto and a few others, made up the greatest (Continued on page 121).



Wednesday, July 31.

Through a barrage as deadly as any the Germans have laid down on any sector for months, American soldiers, comprising men from the middle west and the eastern states, pushed their lines forward a little more today, while the French on both sides of Pershing's men move forward, pressing steadily on the enemy's flanks.

A tax of ten per cent on autos was written in the new revenue bill today, the tax will hit the maker directly.

Sisters of soldiers are to be permitted to aid in relief work in France.

The United States Steel Corporation increases pay to its laborers ten per cent.

The vessel output is gaining on the U-boat war. The world's tonnage is now increasing at the rate of 100,000 tons each month.

Thursday, August 1.

On the last day of the fourth year of the war, the Americans fighting at the apex of the Aisne-Oureq-Arde battle field, registered fresh progress locally, and held their own wherever the Germans launched new, powerful and desperate counter-thrusts, east and southeast of Fere-en-Tardenois.

Governor Sleeper has asked the state to build a community house at Camp Custer for camp visitors.

A tax on gasoline and an excess tax on the use of automobiles were adopted by the house committee today. The schedule will be from \$10 to \$140 on each machine, and two cents per gallon on gasoline.

Friday, August 2.

The Allies smash on in their Soissons-Rheims drive and capture the enemy salient north of Oureq, gradually closing in towards Fismes, three villages are taken as Foch drives through enemy's strongest defenses. There have been 33,000 prisoners captured by the Allies since the new offensive began.

The new top draft age may be fixed at forty-five years, while the minimum will probably be nineteen years.

Sea pirates again strike at a United States ship 150 miles off Sandy Hook this morning. The liner gave battle and one shot is thought to have hit the U-boat.

Michigan Central train hits an auto near Jackson. One dead and four injured. The second may die.

Lieut. Ross, Michigan airman from Muskegon, has been killed in an accident at Payne Aviation Field.

There are now 5,000,000 British soldiers in the fighting lines. A total of 7,000,000 have answered that country's call.

Saturday, August 3.

Soissons and Ville-en-Tardenois are captured by the Allied army. The Germans are in flight on a thirty-six-mile front as Foch's armies sweep forward. The Crown Prince's right wing has caved in and his left is collapsing. The Germans are in full retreat all along the salient between the Aisne and the Marne. On the west the French and British troops continue their push of yesterday and have reached Plateau Chaudon between the Coevres and the Crise Valley.

Exact information as to losses suffered by the American army in the present offensive will be given to the American people within a day or two. The gathering of data is a slow process as the wounded are in many hospitals and mixed with those of other armies.

Henry Ford announces that he will not spend a cent in the campaign for United States Senator.

Sunday, August 4.

The German retreat continues unabated, with the Allies everywhere in hot pursuit. Apparently the situation has resolved itself into a race for the northern bank of the Aisne river by the Germans. General Pershing announces that our troops have taken Fismes by assault and hold the bank of the Vesle in that section. American troops up to Saturday had alone captured 8,400 prisoners and 133 guns.

Draft changes will give us an army of 7,000,000. Michigan's quota is estimated at 374,317. The bill provides for new age limits of from eighteen to forty-five years.

Three Russian ex-grand dukes, one of whom seems to be Nicholas Nicholasewitch, former commander-in-chief of the Russian armies, have been executed by the Bolsheviks.

Monday, August 5.

Allied troops have established two strong bridge heads on the north bank of the Vesle—at Bazoches, three miles west of Fismes, and at Jouchery, six miles east of Fismes.

The German losses in the Fismes region have been as severe as at any point of the retreat, included in the material captured by the Allies are 1,500,000 shells of 77 millimeter caliber. Since July 15 von Hindenburg has engaged eighty-seven divisions (1,044,000) men.

Today's casualty list contained 407 names, the largest number reported in one day.

Tuesday, August 6.

The Germans are withdrawing under more or less pressure along most of their dangerous salients from near Ypres south to Rheims. The rear guards are fighting desperately under cover of the big guns to cover the retreat of the army.

There are indications that the Germans are preparing for another great assault and wish to retire to natural defensive positions while reorganizing their forces. They have also renewed their bombardment of Paris by long range guns.

U-boat torpedoes British hospital ship Warilda, 105 to 130 sick and wounded perish, including several women nurses.

New casualty list gives Marne figures of 706.

Heat wave spreads over the entire country east of the Rocky Mountains.

New tax levy on higher incomes is proposed, ranging from 55 to 75 per cent on incomes from \$200,000 to \$5,000,000.

Delegations from Russia and Finland have opened up negotiations for a conclusion of peace between the two countries. Germany consents to "assist in the negotiations."

"By the Way"

A TALE OF WOE.

BY F. L. WELLS.

Oh, girlie sweet, with tresses neat,
And saddened violet eyes.
Come gently sigh, the reason why
Such grief and woe within them lies.

She bowed her head, and slowly said
A happy maiden once was I,
When a poet rare, with uncombed hair
Vowed that for love of me he'd die.

The tale is grim, I married him,
And maiden happiness forsook,
'Tis my desire, to him inspire
But, oh! he wishes me to cook.

HEARTY.



A negro preacher addressed his flock with great earnestness on the subject of "Miracles" as follows:

"My beloved friends, de greatest ob all miracles was 'bout the loaves an' the fishes; dey was 5000 loaves and 2000 fishes, and de twelve apostles had to eat 'em all. De miracle is dat dey didn't bust."

Said the teacher to the little Hebrew boy: "Ikey, is the world flat or round?"

"It ain't needer vun, teacher," said Ikey.

"But what is it, Ikey?" asked the teacher in surprise, "if it is neither round nor flat?"

"Vell," said Ikey with conviction, "mine fader he says it vos crooked."

Brown has a lovely baby girl,
The stork left her with a flutter;
Brown names her "Oleomargarine,"
for he hadn't any but her.

DECLINED.

A little boy was sitting on one of the benches in Central Park, New York, watching people ride donkeys. An exceedingly fat woman hired a donkey and was about to mount when she saw the small boy and said to him:

"Little boy, don't you want me to hire a donkey for you, too?"

"No, thank you, I'd rather sit here and laugh."

A COLD RECEPTION.

They were newly married, according to the New York Sun, and on a honeymoon trip. They put up at a skyscraper hotel. The bridegroom felt indisposed and the bride said she would slip out and do a little shopping. In due time she returned and tapped gently on the panel.

"I'm back, honey. Let me in!" she whispered. No answer.

"Honey. Honey! It's Mabel! Let me in!"

There was a silence for several seconds. Then a man's voice, cold and full of dignity, came from the other side of the door.

"Madam, this is not a beehive. It's a bathroom."

BEST IN THE LONG RUN

Tires Good as Rain

GOODRICH

SERVICE VALUE TIRES

HARVEST MILES

TIME was when a pneumatic tire meant luxury and pleasure to you men of the farm. To-day it spells quicker work, and more of it.

Hauling by automobile and motor truck make the tire a bigger and bigger item of expense in farming.

The hour has come for you farmers to reckon a real dollar-and-cent profit out of tires, just as from your ploughs and reapers, and count pleasure extra profit.

That is the Goodrich point of view, and Goodrich urges you to get profit by putting the speed, efficiency and economy of Goodrich Tires into harvesting your crops and hauling them to market.

Nearly a half century of scientific and practical rubber making has built a maximum service in Goodrich tires for all road conditions.

Goodrich prestige and reputation for square dealing, the Goodrich name and brand guarantee their service, and farm experience has taught the value of a trustworthy name and brand.

Whatever tires you need for a small or large automobile, for your motor truck, motor cycle or bicycle, the Goodrich trademark is your guide to durability and dependability in tires.

A glance at the big, generous size of Goodrich Pneumatic Tires gives you confidence in them. Goodrich Truck Tires have outworn steel in actual work.

Cut the cost of tire expenses on your farm with **SERVICE VALUE TIRES.**

GOODRICH

TESTED TIRES

Where You See This Sign Goodrich Tires are Stocked

Buy from Goodrich Dealers Located Everywhere

THE B. F. GOODRICH RUBBER COMPANY

THE CITY OF GOODRICH · AKRON, OHIO.

Put

SOLVAY

PULVERIZED

LIMESTONE

ON

YOUR LAND

SOLVAY

PULVERIZED

LIMESTONE

There is little need of discussing the advantages of applying land lime. Every progressive farmer knows them. Every farm authority urges the use of lime. You will find it best to use Solvay Pulverized Limestone because it is so fine and contains such a high percentage of carbonate that it will produce maximum results at a minimum cost.

Extensive additions to our equipment this season enable us to promptly take care of your fall requirements.

Let Us Supply You With Litmus to Make a Soil Test

Solvay Process Company, 580 W. Jefferson Avenue, Detroit

In Bulk

or in

100-lb.

Paper Sacks

in Box Cars

GUARANTEE

94% Carbonates

95% thru 50-mesh screen

Furnace Dried

Fine as Flour

Get Cash

For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are "pay 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.

WERTHAN BAG CO.

61 Dock St. St. Louis, Mo.

Branch Offices: Houston and Nashville

WERTHAN PAYS HIGHEST PRICES FOR EMPTY BAGS

Working Ranch Foreman Must be able to lead in work concerning developing 4000 acres of land in Northern Michigan. Knowledge of general farming and cattle essential. Must give references and history in writing. To right man, salary and bonus. Box R. 83 care of Michigan Farmer, Detroit, Mich.

Farms and Farm Lands For Sale

Beautiful Home and block (8 lots) of land a block and a half from Central Michigan Normal School, all kinds of fruit, shrubbery, shade, will sell or trade for good farm.

Cooper, Gover and Francis, Mt. Pleasant, Mich.

Wanted To hear from owner of farm or unimproved land for sale.

O. K. HAWLEY, Baldwin, Wisconsin

60-Acre Farm \$1200, with Stock, Tools and Crops,

Money-maker on main state road, near neighbors and beautiful lake, one mile to village stores, churches, creamery; productive tillage, wire-fenced, brook-watered pasture, estimated 400 cords wood, 20,000 ft. hemlock timber; 50 apple trees, other fruit; 6-room house, 2 good barns; owner for immediate sale includes horse, 3 cows, hens, cream separator, buggy, harness, etc., hay and other crops. \$1200 gets every thing, easy terms; details page 9 Strout's Catalogue of this and other bargains many with stock, tools, crops included, mailed free.

E. A. STROUT FARM AGENCY,

Dept. 101, 150 Nassau St., New York, N. Y.

Please Mention The Michigan Farmer When Writing to Advertisers

Our Boys and Girls

At Work and play

Michigan Club Leaders' Conference

Projects for Individual Club and Community Gardens

By MARY M. ALLEN

GARDENING projects in Boys' and Girls' Club work, divide into their classes, individual gardens, club gardens and community gardens. Individual efforts are no longer encouraged by leaders since the chief object of club work is to develop leadership and emphasize the value of community service rather than glorify or financially benefit the individual.

Michigan club leaders at the East Lansing conference had a splendid opportunity to study these projects in actual operation in the gardens of the girl students in horticulture, in the home gardens of East Lansing and in the school gardens. Special emphasis is put on the growing of seeds as a conservation measure in the college gardens. Leaders received practical demonstration of the growing of carrot, parsnip, beet, rutabagas, salsify and cabbage, and all of these being in a well advanced stage in the plot.

Leaders received several good points in conservation of moisture. An excellent growth of tomatoes was shown in sandy soil in which plants were hoed after a soaking rain, then mulched five inches deep with straw. No further cultivation was needed, no weeds flourished and plenty of moisture was present under the straw layer. Another practical and timely demonstration in pruning tomato vines was given. Vines were pruned to a single stem, all auxiliary shoots being pinched off as fast as they developed. A heavy stake set deeply held the vine upright, it being attached to the stake by strips of cloth about two inches wide, tied rather loosely to prevent

the first and last being the most difficult to conquer. Both wet and dry poison preparations were demonstrated, dry mixtures being slightly more expensive than wet ones, and practical only in small gardening projects. Much valuable information for preparing spray mixtures is found in Farmers' Bulletin No. 14. This gives formulas for small quantities of mixtures measured in tablespoon and teaspoon measures.

An especially interesting discussion

seeds were sown in flats in greenhouse. When three inches high the seedlings were transplanted to plot five inches apart. The transplanted green house grown seedlings made much larger growth and much better developed onions than the others.

Some interesting demonstrations in vine growing were given. This season being dry experimental planting was made, the object being to study moisture conservation. Cucumber vines climbing up trellis, two in a

night. Plants watered lightly develop shallow root systems. Soil close to surface is depleted, hence we have a stunted plant.

Hoes are much better than hose in controlling moisture in a garden.

Battle Creek boasts the best garden club in the state.

Garden clubs, canning clubs, then handicraft and garment-making clubs through the winter. What could be more practical?

Become Canners

BOYS and girls of Michigan, who have already contributed notable service as farm workers and gardeners must help out in the canning campaign if we are to be saved this winter from a shortage of canned foods. The department is calling for volunteers to "put up" 400,000 quarts. These 400,000 quarts, it is explained, is the quota which Michigan's youngsters must can, either for sale or for home use.

"We need the help of 20,000 boys and girls and of one thousand adult club leaders," declares E. C. Lindemann, state leader of Boys' and Girls' Clubs. "The United States government must have canned goods for the army and navy. This demand, naturally, is diverting from us a large part of the supply that hitherto has been produced to meet our domestic wants. This means that to make up this shortage, we must do more canning in the homes.

"The United States Department of Agriculture has assigned to Michigan boys and girls a quota of 400,000 quarts—and Michigan must not fail.

"We need more canning clubs, more canning club leaders and more canning club centers. Our services are at the disposal of the public for organization purposes. Communications should be addressed to the Boys' and Girls' Club Department of the Michigan Agricultural College, East Lansing. Recipes and literature can also be obtained by writing to the same address.



A Well-arranged Garden Exhibit.

of the eradication of root maggots, such as attack radishes, turnips and onions was given. The State Entomologist of Wisconsin has developed an effective bait for the flies which lay the egg of the onion maggot. Five grains of sodium arsenite is dissolved in a gallon of hot water. Half a pint of New Orleans molasses is added to

place, all auxiliary buds removed, and ground well cultivated around roots, showed best results. The trellis made it possible to cultivate around the roots and the removal of auxiliary buds gave straight uniform fruits.

Only seasonable demonstrations were taken up. Boys and girls learn the "why" of everything they attempt in gardening, they feel they are doing their best—not their bit—to help feed the world. The idea of service to others is constantly before them—service to their family in supplying vegetables for the table, service to their community by dividing seeds and table vegetables in some cases to their neighbors, service to their country by their contribution to the world's food supply in the present world need.

Timely Garden Hints.

Don't cut asparagus tips in July. This drains the vitality of the plants. Sow carrot seeds after a rain in July. This will provide tender rootlets for canning.

Pinch off the ends of squash vines after several fruits have set. This insures larger fruits.

Keep up a dust mulch in August.

Spray potatoes weekly with Bordeaux mixture; add arsenate of lead to this when needed.

Spray cabbage before heads appear, with arsenate of lead, after heading with Hellebore. Hellebore loses its poisonous qualities when exposed to air and light.

Do not cut heads within five days after spraying.

Pick all seed beans, both shell and lima—before the frost kills the vines.

One thorough watering once a week is better than light sprinkling every



An Attractive Exhibit of Farm Products.

barking. When the vine had attained the height of five or six feet the terminal bud was broken off and all auxiliary buds were kept out. Large, perfect fruits developed, there is never any rot from contact with the ground and many more plants can be grown on a given area by this method.

In connection with garden work, comes spraying to eradicate insect pests. Great loss is sustained every year by amateur gardeners because of insect pests. Three kinds of insects prey upon plant life, namely sucking insects, chewing insects and fungus, to

attract the fly, with a small amount of purple dye as a warning color. Eight or ten shallow pans in which this mixture is placed in the garden, the pans covered with a screen coarse enough to admit the small fly, fine enough to keep out honey bees, will treat an ordinary plot. In case sodium arsenite cannot be obtained, mix together white arsenic and ordinary sal soda in proportion of one part arsenic and five parts soda. The college gardens showed a comparison of two methods of growing onions. One plot was sowed to seed and thinned. At the same time



Peter Rafin, a "Live Wire."

A Flying Fighter

(Continued from page 118).

squadron I had ever been in. They were always happy and had a commanding officer who was one of the boys and who knew the flying game, having been decorated with the French Legion of Honor and English military crosses. He was an Oxford "blue" and a member of a famous Oxford eight—a gentleman of the highest order.

Within a short time I had flown every war type of machine they had in the place. I perfected myself in dropping bombs and learned how to take photographs.

It was at this camp that I took my first solo flight at night. I had been up at night before as a gunner in France, and had some idea what it was like to fly in the dark. Three of us were to go up that night; I was the second.

The route was once around the aerodrome, then land and go up again for another turn around the aerodrome.

The man who was to be No. 1 had no trouble carrying out this program. The flares were up and so arranged as to show the wind direction.

It got to be my turn. In flying at night, and reasonably close to the ground, the aviator can make out the woods, roads, lakes and rivers, and the lights in houses. Going up and flying is a simple matter, but coming down in the dark is quite a different thing. The last twenty-five feet of the descent is usually made with nerves on edge. It is impossible in the night to judge distance to the ground and careful judgment is needed to avoid a pile-up.

Night flights in this aerodrome had on previous occasions resulted in the "crow act in the hedge," as we call it, when a man lands his machine on top of a tree. I wished to avoid that, if possible, and surveyed the surroundings of the aerodrome carefully before I went up.

The first spin around the aerodrome and the first landing were made in very good form. But while going around the second time my engine started to cut out and I came near making a forced landing on the roof of the sheds.

There were a few other stunts I had to do and then I was given my graduation certificate and my wings. That meant that I had to take down my flying "O," which stands for observer.

CHAPTER XVI.

Stunts and Accidents.

I HAD hoped that I would be sent to France immediately, but instead of that I was made an instructor. There were all classes of men in my group. Two of them were particularly interesting. One of them was an Irishman and the other a Scotchman. The men of the squadron looked upon them as "nuts."

The Irishman had been flying slow buses and when put on a fast one threatened to hurt himself. However, the instructor had patience with him, as he was a decent fellow. After about two weeks of dual instruction, he was sent up solo, being warned to be careful and put on proportionate bank and rudder while making a turn. He was further instructed not to stay up any longer than twenty minutes.

The Irishman started off and flew straightways from the aerodrome towards the coast. The instructor waited and waited and after a while became anxious. The twenty minutes were up and there was no sign of the Irishman. There was nothing to do but start after him.

(Continued next week).

The kaiser's troops fail to shock the Yanks.

They have their absorbers on.



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Woman and Her Needs

At Home and Elsewhere



Don't Be a Hermit

WHATEVER we may think of the inspiration of Holy Writ, who can deny that there is more human nature in it than in any other bit of writing extant? Written thousands of years ago, as most of it was, much of it by unknown authors, handed down for centuries by word of mouth, and painstakingly translated into English only a few centuries ago, it still tells off with marked fidelity the traits of humans today. Go way back to Genesis and in the second chapter we find the Creator saying, "It is not good that man should be alone." In these notes the keynote of society was struck, and thus early in the world's history it became an accepted fact that man was intended for society—not to live a hermit existence.

Every experience of the ages has tended to prove this truth. Granted, "He travels the lightest who travels

do, and whether she will or not, she finds herself a hermit. For, while little children are company, they furnish no particular mental stimulus and the busy woman finds herself alone, except at meal time, with nothing but her work and her own thoughts for company. Having no outer opposition she falls into a mental rut. She goes through the same routine day after day, her mind and hands busy with the same tasks done in the same way, because there is no one to suggest any other way. She becomes perfectly satisfied with herself and her way of doing things, and acquires a quite superior feeling to everyone who does differently than she does. In a word, she gets to a point where she is above learning, and then her case becomes hopeless. Instead of craving society, which is a normal, healthy feeling and one much to be desired, she doesn't

neighbor and talk her deaf, dumb and blind. If you simply can't steal Monday, or Tuesday or Wednesday or Thursday or Friday or Saturday, take Sunday. Don't work on Sunday. You can't, or won't, go to church, get out and see a neighbor. Get away from Sunday. Don't work on Sunday. You yourself some way, and pick up at least one new idea. Don't be a hermit!

DEBORAH.

Drying the Surplus

(Continued from page 111).

manner and experiments show that all of these dried products can be "brought back" to a natural state for consumption if the proper methods of soaking are used. Small amounts of left-over fresh fruits and vegetables can also be dried with profit.

Principles in Drying.

The old method of stove drying and the older method of sun-drying and modifications of these two are being used successfully to preserve food products. In the more arid climates, the necessary amount of moisture is absorbed by the warm air in a relatively short time if properly exposed. In Michigan, however, certain essentials must be observed if the resultant product is to be of a good appearance and of salable quality.

1. A complete circulation of air over, under, around and through the drying products must be provided for if the drying is to take place swiftly and evenly.

2. The air around the drying product should be maintained at a relative high temperature and this temperature should remain constant within small limits.

3. The product when once started in the drying process should not be allowed to reabsorb moisture from the cooler air currents, from steam vapors, from the ground or other damp material. This would lengthen the process and render the product of a poorer quality.

4. The products for drying should be fresh, sound, and firm and should be evenly graded before drying.

5. Certain products, as potatoes, apples, etc., tend to darken or tarnish when exposed to the air for any length

of time. This can be prevented in the drying process by soaking the products in a weak solution of salt and water, using about one ounce of salt to a gallon of water.

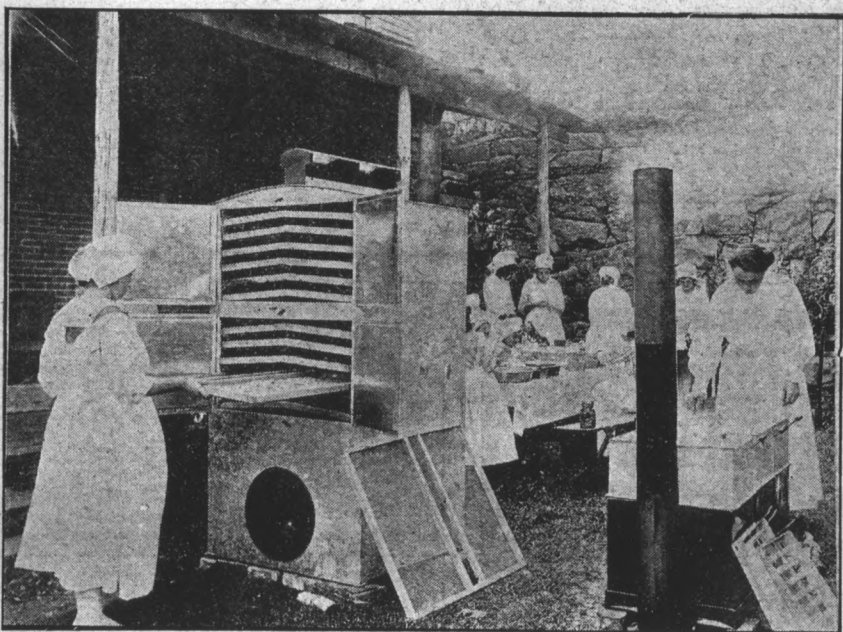
These principles apply to the drying process, no matter what type of dryer is used.

Preparation of Products for Drying.

All products should be first carefully graded and washed. The vegetables should be blanched in boiling water or steam for a varying length of time, (see accompanying table). Following the blanching the products should be plunged into cold water or "cold dipped." This blanching and cold dipping loosens and opens the pores and thus facilitates the drying process. It also kills the eggs of any weevils or other insects, should such happen to be present in the products. The vegetable may now be sliced thinly in preparation for the next step. If large quantities are to be prepared, it is well to provide one of the small slicing machines as it will prove economical in the end. For small amounts, a sharp paring knife may be used. Fruits will not need the blanching and cold dipping but some of them, as apples, will need to be left for five minutes in the salt solution before mentioned. They may then be removed and dried briefly on cheesecloth or muslin and spread out upon the drier.

Methods of Drying.

One of the most widely used methods of drying at the present time is stove drying. Trays constructed of lath and muslin, pearl screen or other open material may be suspended from the ceiling and the heat of the stove utilized in the drying as long as the



A Michigan Canning and Evaporating Club. Canning and Evaporating Supplement Each Other and Together Give the Householder the Maximum of Products for Winter Use.

alone," it also follows that he doesn't travel the safest nor the most pleasantly. Probably every country neighborhood has its recluse, the man or the woman who shuns his kind and lives an isolated life, unmolested by wife or husband, children or parents, neighbors or friends. One avoids a lot of work or responsibility in that way, but who of us would change places with the hermit? Hopelessly selfish, abominably dirty or painfully neat, according to sex, suspicious, mercenary, grouchy, unloving and unloved—who would choose such a lot voluntarily, even to avoid the pinch of poverty or the grind of hard labor? Normal human beings prefer society with its attendant responsibilities and blessings to isolation with its consequent mental and spiritual sloth.

None of us would voluntarily choose such a condition, but in these busy days there is danger of many housewives getting into much the same hermit state of mind quite unconsciously. Help for the kitchen is not simply scarce, it is an unknown quantity. Unless the children are grown, the average farm woman has more to do than any two women ought to be asked to

want to go out, and is peeved if anyone comes and interrupts her schedule.

She draws mental pictures of herself in comparison to the other women she knows, much to the other's disparagement and her own aggrandizement—a fatal thing to do. Her family, her children, her husband, her way of doing things become in her eyes models for everyone in the universe to copy. She, herself, has nothing to learn.

Thus, entirely without her knowing it and through stress of work, she becomes as much of a hermit as though she lived on an inaccessible mountain peak. Often more of one, for the hermit who is isolated in fact could often be converted if you reached her. Indeed she is often not a hermit in mind, for she realizes her danger and fights against it. While the woman who, surrounded by society, becomes a mental hermit, is all too often hopeless. She doesn't want to be different.

These are busy days and it seems ridiculous to ask women to do more. So I am not going to. I am going to ask you to do less, and take time to play. At least once a week go visiting. If there is no grange or club, go and spend a day with your nearest



These Club Members Sought to Conserve what Contained the Most Nutrition, so they Evaporated 136 Pounds of Sweet Corn.

above principles of drying are not violated. These trays may be raised and lowered at will if a hook is placed in the ceiling above the stove; and the heat of the stove, which would be otherwise wasted, while baking, ironing, etc., may be used to dry successfully. There are also on the market several types of stove dryers designed especially for that purpose. One type is in the form of a tight double-decked shallow pan. The pan is kept partly filled with water and is placed on the stove or over one burner at least. A leg is fastened to one end so that one end may be supported from the floor. The products to be dried are placed on the top of the pan and the heat from the water below drives off the moisture. A funnel attachment makes it possible to keep the drier full of water. This type of drier has given good satisfaction when properly handled. They may be purchased in different sizes at prices ranging from \$6.00 to \$11.00.

Another type of stove dryer is the galvanized cupboard type. Many of these are now on the market commercially and are being made up by local tinmiths for home use. In this type of dryer it is essential that the top be arranged with a ventilation opening that may be opened and closed to regulate the temperature. The bottom must be open or perforated so that the hot air arising from the stove may pass up through the trays of drying products. The door on this dryer should fit tightly and should be large enough to allow the trays to be removed and replaced conveniently. These trays are generally made with metal sides and galvanized wire screen.

The oven dryer is perhaps the simplest form of stove drier. Trays of screen or other light open material may be arranged with short legs placed at each corner to keep the tray up off the floor of the oven. The temperature may be regulated by the width to which the door of the oven is opened. This method is well adapted to the drying of corn, apples, berries, peas and other easily dried products.

The oldest method of all is sun-drying. In its simplest form the sun drier consists of a tray so placed as to receive the heat of the sun and to exclude the dampness of the ground at the same time and so protected as to keep out insects and other pests. The cold frame adapts itself readily to sun-drying with a few slight modifications. The home-made sun-drier should have a hinged window-glass top so as to let in the sun's rays and still protect the drying product from the fall of damp air should atmospheric conditions suddenly change. The bottom can be of either metal or wood, provided it fits tightly enough to keep out the dampness of the ground. The sides should be of cheesecloth and the trays should be so arranged as to allow for a free circulation of air through them at all times. Ventilating holes near the top should be provided for the outward passage of the moisture laden air, especially if the drier has tight wooden sides. With the above conditions for sun driers in mind it will be seen that both the hot-bed and cold-frame may be used for sun-drying.

Use of Fan or Air Blast in Drying.

The use of the fan or air blast as an aid to drying has sprung into wide popularity and use in the last few years. The fan insures a forced circulation of air over and through the products at all times. The air in passing absorbs the moisture and if the air can first be heated a greater amount of moisture will be withdrawn and the drying will be hastened. It is in combination with some of the other methods of heat drying that the fan finds the greatest use at present. It adapts itself particularly well to stove drying.

One of the home-made dryers now being extensively used is made in the form of a box, six feet long and about

eighteen inches wide. This is equipped with regular tray and is placed so that one end may draw the heat from a stove or other source while a fan is inverted at the other end to draw the warm air through the drier. This type of drier is used commercially in connection with the blow fan which seems to give quicker results in drying.

Electric fans are, of course, out of reach of most rural homes. There are on the market, however, several types of alcohol and gasoline fans which are very efficient and which can be operated for the small cost of a few cents per day.

Some products which mature late in the season, such as apples and sweet corn, can be economically and conveniently dried in trays over the ordinary furnace register. Many examples of success in last year's work are so re-

ported. Here again the fan can be used to hasten drying. Many types of containers are to be found on the market that are adaptable to the storing of these dried foods. Chocolate cans, baking powder cans, coffee cans, and other containers which the ordinary home affords may be used successfully. All such cans should be sealed, however, by pasting a strip of gummed paper around the top where the cover meets the can. This will render the contents both insect and moisture proof. Pasteboard boxes with tight covers may be dipped into paraffin and sealed in the same way.

All dried products after packing should be at once carefully labelled and stored in a dry ventilated place until needed for use.

Using Dried Products.

Space does not permit giving the recipes for using dried products nor

Save This Table for Future Use

Vegetables.	Blanching Time. Minutes.	Drying Time. Hours.	Temper're Fahrenheit Degrees.
Asparagus	5 to 10	4 to 8	110 to 140
Beets, until skin cracks .....	.....	2½ to 3	110 to 150
Brussels sprouts	6	3 to 3½	110 to 145
Cabbage	10	3	110 to 145
Carrots	6	2½ to 3	110 to 150
Cauliflower	6	3 to 3½	110 to 145
Celery	3	3 to 4	110 to 140
Garden peas	3 to 5	3 to 3½	110 to 145
Green string beans	6 to 10	2 to 3	110 to 145
Kohl-rabi, celeriac and salsify	6	2½ to 3	110 to 150
Leeks	5	2½ to 3	110 to 140
Lima beans (young)	5 to 10	3 to 3½	110 to 145
Okra	3	2 to 3	110 to 140
Onions	5	2½ to 3	110 to 140
Parsnips	6	2½ to 3	110 to 150
Peppers .....	.....	.....	110 to 140
Pumpkin	3	3 to 4	110 to 140
Rhubarb	3	.....	110 to 145
Spinach, parsley and other herbs .....	.....	3	110 to 145
Summer squash	3	3 to 4	110 to 140
Sugar peas	6	3 to 3½	110 to 145
Sweet corn	5 to 10	3 to 4	110 to 145
Swiss chard	3	3 to 4	110 to 140
Tomatoes, to loosen skin .....	.....	.....	110 to 145
Wax beans	6 to 10	2 to 3	110 to 145
Fruits.			
Apples .....	.....	4 to 6	110 to 150
Apricots .....	.....	4 to 6	110 to 150
Berries .....	.....	4 to 6	110 to 140
Cherries .....	.....	2 to 4	110 to 150
Peaches .....	.....	4 to 6	110 to 150
Pears .....	.....	4 to 6	110 to 150
Plums .....	.....	4 to 6	110 to 150
Quinces .....	.....	4 to 6	110 to 150

ported. Here again the fan can be used to hasten drying.

Conditioning or Curing Out.

All dried products should be thoroughly conditioned or "cured out" before packing away in storage. This is accomplished by placing the dried products in boxes or pans and thoroughly mixing them twice a day for three or four days. This will insure an even distribution of the necessary moisture content. Should any of the product prove too damp, it may be removed and dried further. The tests usually applied to fruits to determine if they are dried enough is to press some of the products between the thumb and finger and if no stain results we can be sure the product is dry. Fruits should not be dried too much, however, as it spoils the texture and breaks down regular cell formation. Most fruits should not be dried until they "rattle." Vegetables may be dried more than fruits and most of them, such as peas, string beans, and corn may be dried enough so that they will rattle. Vegetables dried only to the "leathery" point are apt to mold.

Storing Dried Products.

It is essential that the dried product be kept free from egg-laying insects during both drying and curing processes. Otherwise the entire pack may later be destroyed by the worms which hatch from the eggs so laid. One method of insuring against this danger is to place the product in a temperature of 160 degrees F. just previous to storing it. This will kill any eggs that may be present.

Dried food products must not be allowed to reabsorb any moisture or become spoiled through improper stor-

for explaining the ways of soaking for use. These may all be found in the bulletin referred to above.

Drying should not, and in fact, cannot be used to replace canning, but it can and should be made a valuable adjunct in the present struggle in the conserving and preserving enough food for both our Allies and ourselves.

Time Table for Drying.

The exact time for drying fruits and vegetables cannot be given for much will depend upon the efficiency of the method used and upon the temperature to which the products are subjected.

The proper temperature for quick drying consistent with the most natural resultant products seems to be from seventy-five to 140 degrees F. for fruits and from 100 to 160 degrees F. for vegetables.

The time requirements given in the accompanying table are approximate for the temperature given. Vegetables are to be first blanched and cold dipped.

SHORT CUTS TO HOUSEKEEPING.

To get the best results when mashing potatoes, heat the milk before adding it to the potatoes, and they will be light and creamy.—C. E.

One accustomed to doing needlework of all kinds is aware of the discomfort caused by the needle pricking the finger which holds the under side of the cloth. This can be prevented if the worker will moisten a small strip of court plaster and stick it on the end of this finger.—Mrs. J. D.

There is no deferred classification in food conservation.

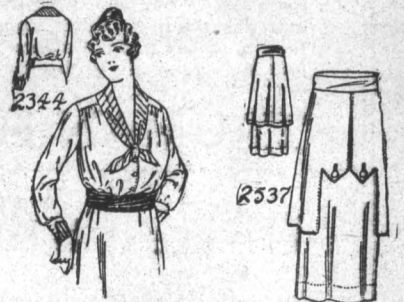
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No. 2517—Ladies' House Dress. Cut in seven sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. Size 38 requires 5½ yards of 36-inch material. The dress measures about 2½ yards at the foot. Price 10 cents.



No. 2344—Ladies' Waist. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 3¾ yards of 36-inch material. Price 10 cents.

No. 2537—Ladies' Skirt. Cut in seven sizes, 22, 24, 26, 28, 30, 32 and 34 inches waist measure. Size 24 requires 4¾ yards of 40-inch material. The skirt measures about two yards at the foot. Price 10 cents.



No. 2529—Dress for Misses and Small Women. Cut in three sizes, 16, 18 and 20 years. Size 18 requires 5½ yards of 36-inch material. The skirt measures about 1½ yards at the foot. Price 10 cents.

No. 2541-2462—Ladies' Costume. The blouse, 2541, cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. The skirt, 2462, cut in seven sizes, 22, 24, 26, 28, 30, 32 and 34 inches waist measure. For a medium size it will require about seven yards of 36-inch material for the entire dress. The skirt measures about 1½ yards at the foot. Two separate patterns, 10 cents for each pattern.



No. 2524—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. Size 10 requires three yards of 44-inch material. Price 10 cents.

No. 2531—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. Size 12 requires 3¾ yards of 44-inch material. Price 10 cents.



Truman H. Newberry

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WOODCOTE ANGUS

TRIO-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.

For Sale—Three Aberdeen Angus Bulls ready for service, prices reasonable. LANG BROS., Davison, Michigan

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

Registered Guernseys

Two choice heifer calves, \$300. One bull calf with above \$75; this bull calf is no relation to heifer calves. J. M. WILLIAMS, North Adams, Mich.

Guernseys 45 Registered head, all tb. tested. Nora's May King, son of Imp. May Rose King, heads our herd, 19 of his half sisters sold averaging \$1950 each. His bull calves are booked ahead at reasonable prices. Avondale Stock Farm, Wayne, Mich.

For Sale Registered Guernsey bull calves May Rose breeding. R. 2, Holland, Mich.

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

Registered and grade Guernseys. One registered heifer 18 mos. old. 2 high grade heifers 15 and 3 1/2 mo. old. FRED ROBBINS, Ypsilanti, Mich. Cranes Stop, Saline Car Line.]

FOR SALE 2 registered Guernsey cows and 1 Bull calf. FRANK NASH, R. 3, Box 57, Fremont, 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. OLARKE, Vassar, Mich.

OAK Leaf Farm. Herd sire Lenawee Pontiac Cal-Oamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 796.3, butter 22.51—315 days milk 23782.3, butter 525.775. E. H. GEARHART & SON, R. 4, Marcellus, 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.

I Always Have Holsteins To Sell

If wanting Registered cattle write me your wants before placing your order elsewhere.

L. E. CONNELL, Fayette, Ohio

Jack Bill
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.

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.

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

\$50 Liberty Bond gets 1 mo. old grandson of Pontiac Maid 30.1-5 lb. Other granddam sister to grandsire of 42 lb. 4 yr. Herd free tuber. Apr. adv. for females. Terms, M. L. McLaurin, Redford, Mich.

Letters from Our Readers

MICHIGAN FARMER READERS:

We want you to make the fullest use of this page. It has already been instrumental in presenting some real live subjects for discussion. May we have a shot or bouquet from you. Remember, be brief, for a to-the-point-letter is most interesting.

Yours Sincerely,
THE MICHIGAN FARMER.

HOW CAN HE AVOID HIGH COSTS?

Here is my case: I have a fair apple crop and it has been my custom to barrel the fruit and ship it to a market where for many years I have received a premium over the regular quotations. But this year I am afraid for the reason that costs are too high. My labor will cost me \$4.00 per day and board, which will increase it to about \$5.50. Barrels are also high, the trade asking \$1.00 each. Anyone who has had experience knows very well that with labor and barrels at these prices the cost of apples on the market will be very high. Should I change my methods of packing I fear that I shall lose my prestige, as buyers will look for my fruit in barrels. So there you are. What should a fellow do?—R. E. S., Allegan County.

RYE VS. WHEAT.

In your last issue is mentioned that more rye and less wheat should be planted the coming season. Where the land is really too light or too poor to raise a profitable crop of wheat. I agree with that idea. On much of the lighter lands we find a class of farmers who do raise considerable rye as a cash crop. But to me it seems the middleman reaps too great a profit on the rye business. Rye, we know, pound for pound, contains as much food practically, as wheat. Rye flour is seldom retailed for less than wheat flour, weight for weight. Rye flour sells as high as wheat flour in Europe and is relished by the people, more so than wheat. Now, note our local markets in Kent county. They offer \$1.50 for rye. The new crop soon will be coming in. The "light land" farmer must sell to meet his debts. The market will stay way down till the grain dealers have control of the crop. After that you will see rye go up to the level of wheat almost. Is there not something to look into for our food administrators?—A Rye Farmer.

HE HAS A DRAINAGE PROBLEM.

In your last issue I read your remarks on Michigan drain laws, which appeal to me and my case direct.

I came from what was, a few years ago, starving Gratiot county, now due to tile and open drains, the garden spot of Michigan.

I purchased what is termed by many, the poorest farm in our township, with the fact in view of draining what is now worthless swalls which cut the place up in zigzag courses so as to make it impossible to square up a ten-acre field without tile drains.

To begin with, I purchased one thousand glazed tile, four-inch, at a cost of \$60, and hauled them eleven miles. This spring I laid same through a fourteen-acre field all cleared but a little open ditch running cornerwise across, same which caused the loss of about one and a half acres each year, also about an acre on each side of that was always so wet it would produce nothing much.

This land is a black loam top and clay bottom, the most productive by one hundred per cent, of any of the land adjoining it. Now it is into corn and potatoes and absolutely in the best of shape for farming.

My outlet is along the highway about

four hundred feet, then back across my place again. Where it goes back across the place I wish to tile, as it is only a narrow swail about six to eight rods across, with cleared land on both sides.

What would be just for both the township and myself on the four hundred feet along the highway, which I have already dug out for my outlet?

It needs a six-inch tile along same, as I expect to run another branch about four rods from one already in and don't think a four-inch tile will handle the water from both springs.

Would it be advisable to have an open ditch along the highway between my outlet already in and the other contemplated tile drain across my place.

The soil along the road is such that it caves in so it has been necessary to clean it three times in two months and in order to get away from that it would have to be dug so wide in one place to get the depth of about eight feet that it would be no credit to me or the township.

Then for my main outlet we have a natural water course which, if a proper open ditch was dug for about two hundred rods from the back of my place to a point west, we would have twenty feet fall in the next half mile without digging at all in a natural water course to a lake. I proposed an open ditch about four feet deep, with proper slope to the banks and proper width which would give all concerned an outlet that would answer for the tile or open ditch into same and with good fall would keep itself clean and forty to sixty acres of the best of farm land instead of unsightly willows, poplars, logs, brush and mire holes extending the whole length of proposed drain across several farms and making a breeding place for mosquitoes and frost which hit some crops along same about a week ago so as to ruin same.

Under the present laws, which call for one-half of the land owners through drain passes, on a petition, we are up against it, as those near the lake would derive no actual benefit from same only as an increase in value to property from same, therefore I do not blame them much for not signing a petition and without them we are up against it.

What should be the estimated cost of a drain as before mentioned, figuring man and team at \$5.00 per day, and hand labor at \$2.50?

If this is done in next two months horses can be used without any trouble. What are the laws regarding a neighbor throwing his water on adjoining lands?

Is not \$60 for four-inch drain tile, glazed, and \$150 for six-inch, an enormous price?—B. C. Gilbert, Levering, Michigan.

HE SAYS, KEEP IT UP.

Editors Michigan Farmer:

I have read with deep interest the letters of Lillie, Baxter, McBride and Hutchins. I am in sympathy with their plans for the organization of a National Board of Agriculture. We have had enough one-man controlled organizations. It is time we pulled together and did something to boost agriculture, instead of sitting back and letting other industries get all the consideration in the readjustment of business at the close of the war. Keep up the good work.

Branch Co.

W. E. PHELPS.

ANOTHER SALE

This Explains Why I Must Repeat My Sale of June 3rd--a Great Opportunity for You

**THURSDAY,
Aug. 29, 1918**
I Will Disperse My
**50 Head Hol-
stein - Friesian
Dairy Cattle**

from my farm, one mile east of Wayne, Mich., on Michigan Ave., Ann Arbor car line, 16 miles west of Detroit.

This is the sale you have been waiting for. The herd contains daughters of Pontiac Korndyke, King of the Pontiacs and Rag Apple Korndyke 8th. Send for catalog, all stock will be given the T. B. test and guaranteed free from all contagious diseases.

Robert R. Pointer & Son,
Dearborn, Mich.

ROBERT R. POINTER WILL HAVE ANOTHER SALE

Robert R. Pointer, who held what he supposed would be a complete dispersion sale of his fine Holstein herd on June 3rd, finds himself with \$10,000 worth of cattle still on his hands, and advises that he will hold another sale some time in August.

Inasmuch as it was announced that Mr. Pointer disposed of his entire herd at the previous sale, which was considered one of the most successful of the year, an explanation is due as to the reasons for the second sale.

Among the active bidders was a Farmington man, who made successful bids on over \$10,000 worth of cattle. When it came time to settle under the terms of the sale, the buyer was unable to produce either the money, bankable paper or security. It developed that he was not sufficiently responsible financially to handle any reasonable deal which Mr. Pointer was willing to make, and as a result, some of Mr. Pointer's choicest animals were thrown back on his hands. Hence the second sale.

CATTLE

A Few Fine Bulls For Sale

Nigelows Holstein Farms, Breedsville, 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 Plotertje.

Do you want a Pontiac in your herd?

Pontiac State Hospital, Pontiac, Mich.

For Greatest profits, buy big, healthy, vigorous

Pure Bred **HOLSTEINS**

Official tests prove them champion milk and butter producers.

The Holstein-Friesian Association of America, Box 164, Brattleboro, Vt.

The Traverse Herd

Great Values In Bulls

from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.

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 Aggie Korndyke, with six daughters above 1000 pounds of butter in one year.

Peaceland Stock Farm, Three Rivers, Mich.

C. L. Brody, Owner Post Huron, Mich.

Charles Peters, Herdsman

As I Am of Draft Age

& expect to be called this fall I am forced to dispose of my entire herd of pure bred Holsteins, consisting of 23 head. Priced to sell. Write or come and see M. MOON.

Brunswick, Mich.

HOLSTEINS of quality. Bull calves from dams with

records high as 31 lbs. in 7 days. Also collier puppies.

E. A. HARDY, Rochester, Mich.

Holstein calves, 25 heifers, & 2 bulls 15-18ths pure, 5 weeks old, beautifully marked, \$25 each, created for shipment anywhere. Buy only the best.

EDGEWOOD FARMS, Whitewater, Wis.

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 1/4 yrs. W. B. Reader, Howell, Mich.

\$100 Registered Holstein bull calf 6 months old for \$75.00 30 lb. breed.

RIVERVIEW FARM, Vassar, Mich.

For Sale-- Registered Holstein Bull 2 1/2 yrs. old from a 40 lbs. sire and a good A. R. O. heifer for price and pedigree write Wm. GRIFFIN, R. 5, Howell, Mich.

2 Bulls

Ready for Service

Sired by butter bred bulls and out of high testing dams.

The Producing Kind

With Jersey type and capacity. Prices reasonable. Also a few bred gilts (Durocs) and boars.

Brookwater Farm,

Herbert W. Mumford, Owner,

J. Bruce Henderson, Mgr.

Ann Arbor, Mich.

R. 7.

REGISTER OF MERIT JERSEYS

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 Pegasus 99th of Hood Farm.

IRVIN FOX, R. 3, Allegan, 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.

For Sale Registered Jersey Cattle

of both sex. Smith & Parker, R. 4, Howell, Mich.

For Sale Jersey Bull

Goldie's Foxhall No. 161955. Dropped March 22, 1917. Solid color, black tongue & switch. A fine individual large of his age, will sell cheap. Also a young cow & several bred heifers, all of solid color.

NEWMAN'S STOCK FARM, R. 1, Marlette, Mich.

For Sale The Belding Land & Improvement Co. offers for sale a nice bunch of female Jerseys, thoroughbreds. Calves, yearlings and two year olds also 16 mos. old young bull. Address W. P. Hetherington, Agt. Belding, Mich.

JERSEY bull and bull calves for sale from R. of M. cows, also heifers and cows of all ages.

C. B. WEHNER, R. 6, Allegan, Mich.

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

For Sale A fine, dark, solid color Jersey bull 16 mos. old. Double grandson of Royal Majesty and out of R. of M. cow.

C. & O. DEAKE, Ypsilanti, Mich.

Ten Jersey Heifers For Sale Price \$600.00 for the bunch.

NOTTEN FARM, Grass Lake, Mich.

Herefords Bob Fairfax 49427 at head of herd. 14 bulls for sale all ages either polled or horned. EARL O. McCARTY, Sec'y Mich. H. B. Ass'n, Bad Axe, Mich.

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

Hereford for sale 4 bulls; 1 three years, 1 one year and 2 six mos. old.

BEED SCHULTZ, Homer, Mich.

HEREFORDS

6 bull calves for sale, Perfection Fairfax and Prince Donald breeding.

ALLEN BROS.,
PAW PAW, MICH.

For Sale Anxiety Ninth. Two years old. Double Standard Polled Hereford Registered bull. Good size, straight lines, big bones, good disposition. Photographs on request. Colin P. Campbell, Grand Rapids, Mich.

Shorthorns—Scotch and Scotch Topped animals of both sex for sale. Prices reasonable. GEO. D. DOSTER, Doster, 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. O. depot, 1 hour from Toledo, Ohio. Automobile meets all trains. Write

BIDWELL STOCK FARM,

Box B, Tecumseh, Mich.

Richland Farms
Shorthorns

IMP. Lorne in Service. Grand Champion Shorthorn Bull of Mich. We offer for sale a choice collection of young bulls by some of the leading sires of the breed. You cannot afford not to own one of these bulls at the prices we are asking for them. We invite correspondence and inspection.

O. H. PRESCOTT & SONS,

Farms at Prescott, Mich. Office at Tawas, City, Mich.

Moorland
Shorthorns for Milk

Young stock of both sex for sale from record of merit and daughters of record of merit cows.

Walgrave Robin (Imported in dam) at head of herd. Dams record in England over 10,000 lbs.

Geo. T. Fuller, R. 10, Battle Creek, Mich.

Francisco Farm Shorthorns

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

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

Shorthorns. Three Scotch bulls ready for service. Price reasonable.

W. B. McQUILLAN, R. 7, Howell, Mich.

Dairybred Shorthorns of best Bates Strains, young stock of both sexes for sale.

J. B. HUMMEL, Mason, Mich.

SHORTHORNS

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

Shorthorn Cattle of both Sex for Sale

W. W. KNAPP, Howell, Michigan.

For Sale Shorthorns of Quality Scotch and Scotch Topped descendants of Archers Hope, Avondale, Maxwilton Sulton and White Hall Sulton by the Oscola Co. Shorthorn Breeders Ass.

JOHN SCHMIDT, Sec. Reed City, Mich.

Shorthorn herd bull, A roan by the great Avondale, H. B. PETER, Carland, Mich.

Registered Shorthorn bulls, and registered

Bedell & Wheatlake, Big Rapids, Mich.

Red Bull Calf 7 mos. old also two

heifers for sale. **J. E. TANSWELL,** Mason, Mich.

HOGS

Registered Berkshire gilts and sows for fall farrowing. 3 boars and spring pigs, either sex.

CHASE STOCK FARM, R. 1, Marlette, Mich.

HOMESTEAD FARMS

A Federation of Interests

Duroc Jersey and Hampshire Hogs

A number of well bred fine young spring boar and sow pigs are offered for sale. Please write for description and photographs. One Hampshire sow to farrow in August.

BLOOMINGD'LE ASSOCIATION

Bloomington, 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.

50 Duroc Sows and Gilts

for fall farrowing, bred to Orion's Fancy King 8387 the biggest pig of his age ever shown at International. 1 mile N. E. of town. Visitors welcome 7 days in week. Newton Barnhart, St. Johns, Mich.

DUROC JERSEYS

E. D. HEYDENBERG, Wayland, Mich.

Duroc fall boars sired by Crispin Critic T., Satisfaction and Brookwater Principal, priced right. Bred

sows all sold. **M. O. TAYLOR,** Milan, Mich.

Choice Duroc Jersey Gilts For Sale.

CAREY U. EDMONDS, Hastings, Mich.

For Sale Reg. Duroc Jersey Sows Bred for

Aug. & Oct. farrow. Service boars, and open gilts Big bone, high back long kind, come and see or write for pedigree and prices, satisfaction guaranteed.

L. J. UNDERHILL, Salem, Mich.

Duroc Jersey's—Fall boars of the large heavy boned type. Gilts bred to Junior Champion boar for

June farrow, also spring pigs pairs not akin.

F. J. DRODT, R. 1, Monroe, Mich.

Duroc Jerseys for sale. Bred sows & spring pigs both

sex also Shorthorn bull calves, milking strain.

CHAS. BRAY, Okemos, Mich.

Duroc Jerseys spring pigs for sale. Pairs and trios

not akin. Breeding and prices on request.

J. D. ORANE & SON, Plainwell, Mich.

Chester Whites, spring pigs either sex,

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

pigs from 3 sires good growthy stock. Farm 3 miles

west of depot, Citizens Phone 124. **OTTO B. SCHULTZ,** Nashville, Mich.

Raise Chester Whites

Like This

the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at any months old. Write for my plan "More Money from Hogs."

C. S. BENJAMIN, R. F. D. 10, Portland, Michigan

BRED GILTS and SERVICEABLE BOARS
J. CARL JEWETT, Mason, Mich.

O. I. C.'s all sold except some fall gilts. Order

C. J. THOMPSON, Rockford, Mich.

O. I. C.'s Big type serviceable boars. Spring far-

rowed boar pigs. Bred gilts to farrow July

and Aug. **G. P. ANDREWS,** Danville, Mich.

For Sale Bred gilts and spring pigs of Mar. and

April farrow. Ship C. O. D. **F. C. BURGESS,** R. 3, 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.

BIG TYPE POLAND CHINAS

Bred Gilts and Spring Pigs. One extra

well bred Holstein Bull Calf.

HILLCREST FARM,

KALAMAZOO, MICH.

A 500 lb. Gilt just one. We sold Smooth

herd, Lansing, Mich. watch his smoke. This gilt

is bred to him for Aug. farrow "Liberty Bell" is

the best gilt in Michigan you can buy her for just

\$100. Bell phone. **J. C. BUTLER,** Portland, Mich.

Large Type P. C.

Bred gilts and boars all sold nothing to offer at present.

W. E. LIVINGSTON, Parma, Mich.

LEONARD'S Bred sows all sold, fall pigs, orders book-

ed for spring pigs at weaning time. Shipped C. O. D.

E. R. LEONARD, St. Louis, Mich.

L. S. P. C. all sold out, except the largest

farrow. **H. O. SWARTZ,** Schoolcraft, Mich.

Big type P. C. Big boned fellows from Iowa greatest

herds, special prices on spring boars and choice bred

gilts. **E. J. MATHEWSON,** Burr Oak, Mich.

Big Type Poland Chinas. Spring pigs for sale.

Bhealthy 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.

Poland China Swine of all ages

for sale. **R. W. MILLS,** Saline, Mich.

Big type P. C. spring pigs of the best producers in the

West, priced for July at \$25 to \$35. Guaranteed to

please. **C. E. GARNANT,** Eaton Rapids, Mich.

Big Type P. C. Spring Boars for sale, also Hamp-

shire Ram lambs. **A. A. WOOD & SON,** Saline, Mich.

Large type P. C. fall gilts up to 365 lbs. ready to ship

for Aug. and Sept. farrow. Fall sale Nov. 29.

Wm. J. CLARKE, R. 7, Mason, Mich.

Hampshire Pigs only for sale now, a bargain

in boar pigs. **JOHN W. SNYDER,** R. 4, St. Johns, Mich.

Yorkshires For Sale. Bred gilts and sows for

late summer and fall

farrowing. **WATERMAN & WATERMAN,**

Packard Road, Ann Arbor, Mich.

SHEEP

LATEST MARKET REPORTS

SECOND EDITION.

The markets in this edition were revised and corrected on Thursday afternoon, August 8.

WHEAT.

Wheat is moving from the farms in liberal quantities and the visible supply shows an increase of 8,986,000 bu. for the past week. Mills are now tolerably well supplied, and the urgent need for wheat to keep the rollers going no longer exists. As a result prices have declined to a point near the minimum established by the government. Threshing is going on under favorable conditions, and yields are generally higher than the earlier estimates placed them. A year ago No. 2 red wheat sold on the local market at \$2.43 per bushel. Present prices at Detroit are:

No. 2 red	\$2.21½
No. 2 mixed	2.19½
No. 2 white	2.19½

CORN.

Whether the extreme high temperatures will damage the corn plant to any considerable extent is a question, however, traders early this week became exercised over the situation, and bid up the grain on the Chicago market. Lack of buying support during the early period of this scare failed to bring about any advance on the local exchange. While corn has been suffering for lack of moisture in a few of the outlying states, the main crop in the corn belt is generally reported to be good. The United States visible supply decreased 626,000 bushels during the past week. Prices show a general tendency upward. Present quotations here are:

No. 3 corn	\$1.70
No. 3 yellow	1.75
No. 4 yellow	1.70
No. 5 yellow	1.55
No. 6 yellow	1.45

Chicago values have advanced as follows: No. 2 yellow \$1.72@1.77; No. 3 yellow \$1.60@1.70; September corn \$1.61½; October \$1.63½.

OATS.

Prices for oats are now on the basis of the new grain. Although the 1918 crop is assured, and the total yield for the country will be large, prices moved upward this week with the advance in corn. Any damage to the latter crop would certainly bring an unusually heavy demand for oats. The U. S. visible supply shows a decrease of 1,681,000 bushels for the past week. A year ago standard oats sold on the local market at 81c per bushel. Present quotations here are:

Standard	70½
No. 3 white	70
No. 4 white	69

RYE.

The market for this grain is suffering somewhat for lack of attention, and values have declined from those quoted a week ago. Cash No. 2 is held at \$1.60 on the local exchange.

BARLEY.

An extremely dull market is prevailing for this grain. The new crop is being threshed in some sections, although the movement to market is by no means large.

BEANS.

Another advance has been made in bean prices. The market is strong at the new figures, and attention is almost entirely confined to fancy grades. Michigan's new crop promises to be a good one, although in some sections lack of moisture is stunting growth. The present quotation at Detroit for choice hand-picked is \$10.25 per cwt. Up-state markets have advanced with elevators buying on an \$8.50 basis. The Chicago price for Michigan hand-picked stock, fancy, is \$11@12; red kidneys \$9.50@12; brown Swedish \$8.50@9; California whites \$13.50.

POTATOES.

No change of importance is reported from the various potato growing districts of the state except that in a few cases the crop continues to suffer for lack of moisture. The early potato market is being better supplied, with

the tone of the trade slightly easier. At Detroit, however, the demand is brisk. Early Ohio's are selling here at \$2.50 per cwt. At Chicago supplies are adequate, with the same grade selling at \$2.30@2.40, field run.

CHEESE.

Values show further advances. Flats are selling at Detroit at 24½@26c, and daisies at 25@26c. In New York the market is firm with fresh specials at 25½@26c, and do average run at 25@25½c. Full milk cheese is firm at Philadelphia at 25½@26½c per pound.

BUTTER.

The butter trade is steady to firm. Production is being curtailed by short pastures and increased demands for market milk. At Detroit fresh creamery extras are higher at 43½c, and do

firsts 42½@43c. Chicago market is steady with creamery prices ranging from 39@43½c. New York has a firm trade with creameries ranging from 43½@46½c. They are paying 45c for western creamery extras in Philadelphia.

EGGS.

While local prices show a decline from those quoted last week, the general market situation is steady to firm. Canned stock from the state in new cases is quoted here at 39½@40c to jobbers. At Chicago quotations are higher. Firsts are bringing 38@38½c, ordinary firsts 36@37½c. The New York market is irregular, with western stock ranging from 38@60c, according to color and grade. The market is firmer at Philadelphia, where western firsts sold at \$12.90@13.80 per case.

HAY.

Offerings on the local market are light and prices are higher and firm. Dry weather has shortened the crop considerably, and the general impression has gone out that values this coming winter will reach new high levels. Present prices at Detroit are:

No. 1 timothy	\$22.50@23.25
Standard timothy	21.50@23.00
Light mixed	21.50@22.00
No. 1 mixed	18.00@19.00
No. 1 clover	15.00@16.00

Pittsburgh.—The outlook is for a very strong market. Receipts are light and demand is very urgent. Prices are higher as follows:

No. 1 timothy	\$26.00@26.50
No. 1 light mixed	23.00@24.00
No. 1 clover mixed	21.00@22.00
No. 1 clover	20.50@21.50

CABBAGE

In Bay and Saginaw counties the cabbage acreage is about the same as a year ago. Some of the plants have been set rather late, but the earliest is being cut in a small way. The kraut crop, which is practically all the cabbage grown in this locality, is generally in good condition. Considerable resetting had to be done because of dry weather but the stand is now very good. The following acreages this year are estimated for Saginaw and Ingham counties; At Mason and Okeanos in Ingham county 300 acres; at Bridgeport, Burt, Saginaw, Swan Creek, and Milwaukee in Saginaw county 2,075 acres.

DETROIT CITY MARKET

The municipal markets are doing a big business these days. Potatoes now bring \$1@1.75 per bushel; tomatoes \$2.75; cucumbers from \$1@2.75, according to size; cabbage \$1.50; onions \$1.75; carrots 75c\$1.50; apples \$2@2.25; string beans \$1.50; red peppers \$6; green peppers \$1.50; cauliflower \$1@1.50; eggs 55c; sweet corn \$2 per 8-doz. bag.

LIVE STOCK NEWS.

The wide-spread drought is responsible for the general rush of stockmen to market cattle prematurely from the southwestern pastures and northern ranges, glutted markets bringing about big declines in prices. Conditions in the southwest are described as desperate, and everywhere beyond the Missouri river, except in the mountains, shipments are attaining vast proportions. In a recent Monday the combined cattle receipts in western markets aggregated about 75,000 head, with Kansas City receiving the greater part, and prices everywhere had a big slump. Already good supplies of northern range cattle are reaching the Chicago market, shipments coming from Montana, Wyoming and South Dakota, while the dry districts of Oklahoma, Texas, New Mexico and Kansas are marketing large supplies of light weight grass cattle. In the meanwhile prime corn-fed beefs are making fresh high records, and the other day fancy heavy Angus steers brought \$18.80, beating the previous high record by five cents, while a bunch of superior 900-lb. yearlings sold at \$18.50 per cwt. Owners have sacrificed many poorly fed yearlings, and now prime ones are scarce. A few yearling heifers are going at \$14@15.

The highest price ever paid for hogs was \$20, that figure having been received last year. Recent sales have been made not much below that price, the demand being lively in the Chicago market, the highest prices being paid for prime light bacon and the lighter butcher hogs. Very few pigs or underweight hogs are being shipped to market, recent Chicago receipts having averaged 242 pounds, being seven pounds heavier than a year ago and 11 pounds more than two years ago.

There is a lively call for breeding eyes, and choice yearling ewes have sold as high as \$18.25 per cwt. High-grade feeders are also much wanted at high prices, with nowhere near enough offered to satisfy the pressing demand. Range lambs are marketed largely fat enough to make good killers.

Keep the horses' shoulders clean. This goes a long way towards preventing shoulder trouble.

Live Stock Market Service

Reports for Thursday, August 8th

BUFFALO.

All grades of hogs sold on the local market today at \$21@21.15. The lamb market ruled steady with tops at \$18; yearlings \$14.50@15; wethers \$13.50@14; good ewes at \$11.50@13. Calves ruled steady, selling between \$7 and \$19 per cwt.

CHICAGO.

Cattle.

Receipts 10,500. Market very slow. Good choice and prime steers \$17.25@18.80; common and medium butchers \$10@17; heifers \$7@14.25; cows \$7@14; bologna bulls \$8@13.50; canners and cutters \$6@7; stockers and feeders, good \$10@13; stockers and feeders, common and medium \$7.50@10.

Hogs.

Receipts 16,500. Market 10@15c higher on good hogs; slow on others. Tops \$20.05; bulk of sales \$18.40@20; heavy \$19.25@19.80; mixed and light \$19.70@20; packers' hogs \$18.20@18.65; medium and heavy \$18.40@19.10; light bacon hogs \$19.40@20.05; pigs, good to choice \$18@18.60; roughs \$17.75@18.10.

Sheep and Lambs.

Receipts 16,000. Market is steady. Choice shorn natives \$17.50; choice to prime lambs \$17@18.25; medium and good \$15.75@17.60; culls \$12@14; medium and good choice feeders \$16@17.45; choice yearlings \$15.75@16.25; medium and good yearlings \$13.75@15.75; wethers medium and good \$13@14.50.

Reports for Wednesday, August 7th

BUFFALO.

Cattle.

Receipts 2 cars; mrkt steady; prime heavy steers \$17@17.50; yearlings 950 to 1000 lbs, \$15@16.50; light native yearlings, good quality \$13.50@14.50; best handy steers \$12.50@13.50; fair to good \$11@12; handy steers and heifers \$10.50@11; western heifers \$10@11.25; best fat cows \$10.50@11; butcher cows \$8@8.50; cutters \$7.50@8; canners \$6@7; fancy bulls \$10.50@11; butcher bulls \$9@10; common bulls at \$7.50@8; best feeding, 900 to 1000 lbs, \$9.50@10; medium feeders \$8@8.50; stockers \$7.50@8.50; milkers and springers \$7.50@15.00.

Hogs.

Receipts 5 cars; strong; heavy at \$20.50@20.75; yorkers and pigs \$20.90@21.10.

Sheep and Lambs.

Receipts two cars. Market steady. Top lambs \$18; yearlings \$14.50@15; wethers \$13.50@14; ewes \$11.50@13.

Calves.

Receipts 1500; 50c higher; tops \$19; fair to good \$17@19; fed calves \$7@9.

CHICAGO.

Cattle.

About 6,000 head arrived today, making 36,800 for three days, comparing with 40,900 for the same time last week. Prices are steady today, but grassers are 50c@1 lower than at the close last week, while prime heavy

steers have brought \$18.80, breaking the former high record by five cents. Steers of only moderate weight passing as good are selling as low as \$17, and medium grade steers bring \$15.50 and over. Common steers are selling at \$10.50 and upward, and light killing steers are bringing \$6.50@9, these being on the canning order. Butcher stock is selling at \$7@15 for cows and heifers, few selling near the top, and canners and cutters go at \$6@6.95, while prime calves are taken at \$17.25. About 3,000 western range cattle are offered and quotable at \$12@14 mostly, with weighty "banded" steers worth up to \$17.40.

Hogs.

Only about 7,000 hogs were received, hot weather checking the movement. Receipts for three days amount to 60,700 hogs, comparing with 69,400 for the same days last week. Prices are sharply higher under an active demand, hogs going at \$17.75@19.95 and most of the pigs at \$17.25@18.75.

Sheep and Lambs.

Only about 11,000 head were received, making 41,400 for half of the week, comparing with 52,900 for the same days last week. The best offerings are held at higher prices, with sellers demanding \$18.25 for prime range lambs, while choice native lambs sell at \$17.60. Some choice feeding lambs brought \$17.25. Prime yearlings bring \$16, prime wethers \$14.50 and prime Idaho ewes \$13.90, a high record. Yearling breeding ewes sell up to \$19.

Letters from Our Crop Reporters

Allegan Co., (Aug. 3).—Beans and potatoes are 75 per cent as compared with last year. Corn prospects for a fair crop. Very few apples; no peaches; pastures dry; wheat one-third of a crop; barley and rye average; oats fair. Threshing just begun. Plenty of thin cattle being marketed; butchers are paying about six cents. Price for August milk at the condensary is \$2.75 per cwt. Butter 40c; eggs 38c; No. 1 hogs net about \$17.50, but very few are ready.

Saginaw Co., (Aug. 1).—Compared with the 1917 crop the 1918 crop is as follows: Beans 125 per cent; potatoes 75 per cent; apples 150 per cent; wheat 70 per cent; barley 110 per cent; rye 100 per cent; corn 125 per cent. But 50 per cent was grown from western seed, whose maturity is doubtful. Oats 125 per cent; \$2.10 per cwt. was paid for July milk; butter 45c; eggs 40c.

Genesee Co., (Aug. 3).—Beans small and late; early potatoes small; corn small and uneven; apples small and dropping; berries dried up; pastures very poor; hay is a light crop; wheat was nearly all reseeded to other crops, but what was left is of good quality, yield from 16 to 25 bushels; barley is good; oats good; wheat \$2.10; milk \$2.91; butter 45c; eggs 37c. Drouth has been very severe in this vicinity.

Shiawassee Co., (Aug. 2).—The bean crop throughout this locality is a fine prospect; potatoes fairly good prospect; corn looking fine and is quite well advanced for the season; fruit is rather a light crop; pastures not good on the uplands; wheat, barley and rye extra good. Milk \$1.75 per cwt; butter 40c; eggs 38c; wheat \$2.05; rye \$1.62; cattle, good \$11@12.50; hogs \$15.25@16. Farmers are rushing work.

Bay Co., (Aug. 2).—The prospect for beans is very good. Potatoes about 75 per cent of a normal crop; corn 80 per cent and apples 50 per cent. Winter wheat was badly winter-killed; barley is in excellent condition, and rye promises about 50 per cent of a crop. There are some fine stands of spring wheat. Farmers are receiving \$1.90 for milk. Other prices are: Butter 43c; eggs 38c; wheat \$.12; oats 74c; corn \$1.50; rye \$1.40; barley \$2.40 per hundred.

Gladwin Co., (Aug. 2).—We are in great need of rain. Beans, potatoes and corn now promise about 75 per cent of a normal crop; apples about 50 per cent; pastures are dried up; spring wheat is looking fairly good, while barley and rye also promise well. We are getting 48c for butter-fat; 34c for eggs; 6@8 1/2c for stock.

Kent Co., (Aug. 3).—Pastures here are dried up and clover needs rain to fll well. Wheat is yielding better than was expected. Rye and barley are good and oats promise a very high yield; wheat ground is being prepared, but cannot say the acreage that will be sown. We hope much for the sake of the boys over there. Butter is selling at 38@40c; eggs 38c. The farmers' coop has bought the local elevator at around \$30.000.

Tuscola Co., (Aug. 2).—Beans are in good shape, although a few were slightly frosted on muck soil. Corn is a little backward, but promises well. Apples will be a poor crop. Barley, oats and rye show good results. Butter 32c; eggs 38c; wheat \$2.25.

Calhoun Co., (Aug. 2).—We have a splendid stand of beans, barley, rye and corn, while potatoes promise well, and apples will be about 75 per cent of a crop. Pastures are good for the season. Would say that in general crops are looking good, and in this locality we have had a fair amount of rain. Milk is selling at \$3; butter 38@45c; eggs 41c.

LIST OF FEDERAL INSPECTORS.

(Continued from page 116).

Cincinnati, Ohio, 209 Johnston Bldg., Fifth and Walnut Sts., Howard E. Kramer, Inspector.

Cleveland, Ohio, 503 Erie Bldg., Corner East Ninth and Prospect Avenue, R. C. Butner, Inspector.

Council Bluffs, Iowa, Inspector, Omaha Office.

Dallas, Texas, Inspector, Fort Worth Office.

Denver, Colo., 12 Custom House, J. M. Mosher, Inspector.

Detroit, Mich., 314 Hammond Bldg., Frank A. L. Bloom, Charles D. Shirley, Inspectors.

Fargo, N. Dak., 619 Second Ave., O. J. McDonald, Inspector.

Fort Worth, Texas, 505 Moore Bldg., Tenth and Main Sts., L. G. Schultz, Inspector.

Galveston, Texas, Inspector, Houston Office.

Houston, Tex., 307 Southern Pacific Bldg., Wesley V. Stephens, Inspector.

Indianapolis, Ind., 1102-3 City Trust Bldg., H. A. Arenz, Inspector.

Jacksonville, Fla., 909 Bisbee Bldg., C. W. Cheaning, Inspector.

Jersey City, N. J., Inspector, New York Office.

Kansas City, Mo., 212-13 Railway Exchange Bldg., Seventh and Walnut Sts., C. F. De Souchet, J. N. Jordan, Inspectors.

Los Angeles, Cal., 204 Wholesale Terminal Office Bldg., O. W. Schleussner, Supervising Inspector; H. H. Warner, Inspector.

Memphis, Tenn., 601 Exchange Bldg., L. J. Weishaar, Inspector.

Minneapolis, Minn., 302-303 Market State Bank Bldg., F. H. Hunter, Inspector.

New Orleans, La., 314 Metropolitan Bank Bldg., F. H. Lister, Inspector.

New York, N. Y., 400-416 Fruit Trade Bldg., 204 Franklin St., E. L. Markell, Supervising Inspector; Aubrey L. Williams, John M. Rogers, R. W. Gowdy, John W. Law, Frank A. Kinsey, Clarence M. Davidson, H. H. Henderson, Frederick Wolforth, Inspectors.

Oklahoma City, Okla., 514 Mercantile Bldg., J. H. Hoover, Inspector.

Omaha, Neb., 436 Keelina Bldg., B. B. Jones, Inspector.

Philadelphia, Pa., 312 Insurance Exchange Bldg., R. J. Russell, Inspector.

Pittsburgh, Pa., 303 Kellerman Bldg., Eighteenth and Pennsylvania Aves., F. G. Robb, James A. Marks, Inspectors.

Portland, Ore., 410-412 Oregon Bldg., R. L. Ringer, Inspector.

Providence, R. I., Inspector, Boston Office.

San Francisco, Cal., 315 Consular Bldg., 510 Battery St., S. H. Boddington, Inspector.

Spokane, Wash., 424 Post Office Bldg., R. M. Rutledge, Inspector.

St. Louis, Mo., 413 Old Custom House, Third and Olive Sts., Fred T. Bryan, Inspector.

St. Paul, Minn., Inspector, Minneapolis Office.

Washington, D. C., U. S. Bureau of Markets, W. M. Scott, C. T. Moore, Specialists in Charge; T. W. Ayers, W. V. Westgate, H. W. Samson, Inspectors.

WARNING TO SALES MANAGERS.

We supposed that the man who attended an auction sale just for the fun of bidding had long since passed, along with the professional and crooked horse-trader. At a large sale attended by men from all over the country, it is practically impossible to know the financial responsibility of the bidders. This is a risk that every owner takes. Likewise many men though responsible cannot always bear out their reputations, and every breeder should lend a hand in discouraging such as these from participating at auction sales.

The unfortunate experience of Robt. R. Pointer & Son, at their dispersion sale at Wayne, June 3, should prove a wholesome lesson to other breeders who contemplate holding sales. Always plan, if possible, to ascertain the financial standing of the bidders before they bid in too many animals. It costs too much money to conduct a public sale and properly advertise it to have some irresponsible bidder leave one with a large number of the best animals to dispose of after the sale.

MICHIGAN JERSEY BREEDERS MEET.

The summer meeting of the Michigan Jersey Cattle Club will be held August 14 at the home of Dr. F. B. Shaw, Middleville. There will be good speaking and dinner will be served at noon. All lovers of Jerseys and all who are interested in Jerseys are cordially invited to attend. Come and help boost Jerseys in Michigan.

BUY IT NOW.

Farmers who need repairs for machinery this fall should order them as soon as possible. Many manufacturers of farm implements are so busy making war supplies that it is very difficult for farmers to get needed repairs. It is also advisable to place orders early for new machinery. The same rule applies to all kinds of building materials as well as silos and fencing. The coming fall and winter is sure to see considerable difficulty in securing machinery and building supplies. The only safeguard against a shortage of farm equipment is that of placing orders months ahead.

Shoot Him Down. Now



Kill the bugs and insects that destroy food crops. It's another big way to help win the war. Defending your war garden may be as important as helping to defend a trench.

HOFSTRA

(Pronounced Hoff-straw)
Sold by Grocers and Druggists.

Catches them without a gas mask. Makes good Huns—which means dead ones—of every potato or tomato bug, cabbage worm, poultry louse and many other pests.

For the House—Hofstra kills bedbugs, ants, roaches, mosquitoes. A few shots kill these home annoyances and destroyers.

Harmless to humans—Fatal to bugs. A dry powder—no liquid to spray. Just press the gun and you spread quick death among bugs. There's no hard work to applying Hofstra—it's so much fun your boys will wish to do it.

FREE GUN

Special Introductory—Gun Given With First 25c TRIAL ORDER

Take the gun out in your field or garden and try it. Watch the bugs and worms curl up and die. Send 25c for our full sized quarter package of Hofstra—enough to save many dollars worth of crops and we'll send you a Hofstra metal gun (loaded) free. If your grocer or druggist hasn't

Hofstra yet, fill the Coupon and mail with 25c.

HOFSTRA MANUFACTURING CO.

309 Nogales St.,
TULSA, OKLA.

Your business and ours—
WIN THE WAR

Hofstra Manufacturing Co.,
309 Nogales St., Tulsa, Okla.

Enclosed find 25c. Send me a full sized 25c package of Hofstra and loaded metal gun FREE.

Name

Address

P. O. and State

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WATER! Lots of It

When-Where You Want It!

DON'T DEPEND ON WIND
For the Summer's water supply! Our small pumping engine will pump water when and where you want it. Both portable and stationary type. Other tough jobs easily handled too. Order now the complete engine and pumpjack here shown and be safe.

Only \$3.50 Yearly Cost on Investment
Which is interest charges. Cheaper, more reliable than wind mills. For simplicity Galloway Engines are unequalled. Leave them running without attention for hours! 300,000 satisfied Galloway customers—some near you testify to the quality of Galloway Engines, Tractors, Spreaders, Separators. Until further notice this price of \$3.50 for complete water-cooled pumping engine and double-gear drive pump-jack. Order now.

EVERY SIZE—FREE ENGINE BOOK READY—All engine sizes from 1 1/2 to 16 h.p., heavy duty portable or stationary operate on any fuel. My new free engine book ready. A postal gets it. Also gives prices only at lowest prices on highest quality farm implements of all kinds.

\$65.40
Complete. Box 185
Waterloo, Ia.
Close shipping points save freight.

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is built into The Guarantee Lime and Fertilizer Spreader. Because each part is Guaranteed for 5 years. Then, again, the seven exclusive patented features put the Guarantee Spreader in a class by itself. Speed Up your production. Reduce your operating expenses. Save your lime, ground limestone and commercial fertilizers. Apply this valuable plant food with the Guarantee Spreader, equipped with the Guarantee Automatic Covering and Cultivating Attachment. Spread, Cover and Harrow at the same time. Don't buy a spreader until you get our big Free Book and Money Saving Offer.

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has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotor, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year.

Double Gears are used, each carrying half the load. We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.

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Growers, Shippers

and Co-Operative Associations

We ask you to get in touch with us by letter or wire at once and we will assist you in marketing your shipments in an intelligent and business like manner. Our Specialty is Carlots. Small fruits wanted right now. Leading Distributor for Michigan.

National Growers & Shippers Sales Co., Inc., Detroit, Mich.

Salesrooms Jefferson Ave., at Mich. Central Produce Yards.

EGGS:

We are paying good premiums for eggs not over four or five days old, direct shipments from the farm. Ship to us or write for particulars.

AMERICAN BUTTER & CHEESE COMPANY, Detroit, Mich.

HAY Ship To The Old Reliable House

Daniel McCaffrey's Sons, 623-625 Wabash Bldg., Pittsburgh Pa.

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HOMESTEAD FARMS

A Federation of Interests

200 Yearling White Leghorn Hens

These are hens of good size and strong layers. They are being sold in pens of 6, 12 and 24. Also a few two-year-olds. If you want first class White Leghorn layers, we shall be pleased to quote you prices on these hens.

40 Five Months White Leghorn Pullets

A fine lot of young pullets that should begin laying in October.

Also a few pullets; R. O. Reds; White Rocks; and S. O. Black Minorcas.

Young Cockerels

A number of cockerels: Buff and White Rocks; R. O. Reds; S. O. Black Minorcas; Anconas; S. C. and R. O. White Leghorns; S. O. Brown Leghorns.

It will be profitable to buy your next year's cockbirds from this young stock. If you want to buy now, please write to us.

BLOOMINGDALE ASSOCIATION, Bloomingdale, Mich.

BREEDING COCKERELS

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

Barred Rocks—EGGS FROM STRAIN with records to 290 eggs a year; \$2 per 15. Delivered by parcel post, prepaid. Circular free. **FRED ASTLING, Constantine, Mich.**

Barron English 240 Egg Strain.

White Leghorns heavy winter layers. Large size and very strong and hardy. Bred to shell out eggs and do 17. Best days laying in winter 500 pullets 400 eggs on Jan. 24th. Can common Leghorn do as well. Tested and traped in ten years. Order NOW breeding stock at our special summer prices. 3,000 choice pullets \$1.50 each, 1000 selected yearling hens at \$1.25 each egg record in pullet year of 200 eggs and over and 1000 selected breeding chicks from 265 to 272 egg dams at \$1.25 each order now your chicks for Sept. delivery. Write us your want NOW and send for catalogue. **DEVRIES LEGHORN FARMS & HATCHERY, Box 225 A, Zeeland, Mich.**

BUFF LEGHORNS, 50 Choice hens and a few cockerels selling for \$1.50 each, this is half price. **Dr. WILLIAM SMITH, Petersburg, Mich.**

Ferris White Leghorns

A real heavy laying strain, traped 17 years, records from 200 to 264 eggs. Get our special summer prices on yearling hens, breeding males, eggs for hatching, 8-week-old pullets and day old chicks. We ship C. O. D. and guarantee results. Catalog gives prices; describes stock; tells all about our farm and methods; results you can get by breeding the strain. Send for your copy now—it is free. **GEORGE B. FERRIS, 924 Union, Grand Rapids, Mich.**

Fowlers Buff Rocks Booking orders now at \$2 for 15; \$4 for 30; \$5.50 for 50; \$8.00 for 100. **R. B. FOWLER, Hartford, Mich.**

Laybitt S. C. W. Leghorns

large, great layers, pure white offered for short time only choice 2 year old hens \$1.00 each, yearling hens \$1.25 each. 8 weeks-old pullets \$1.00 each. **EVERFRESH EGG FARM, Ionia, Mich.**

Mammoth Pekin Ducks from best stock in America. Eggs \$1.50 per 11. Rose Comb Brown Leghorns from Madison Square and Mich. & Ohio Fair winners. Eggs \$1.50 per 15. Mrs. Claudia Betts, Hillsdale, Mich.

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

R. I. Red Chicks Red Chicks, Both Combs. 15c each for 25 or more, prepaid by parcel post. Last hatch July 24th. **INTERLAKES FARM, Box 39, Lawrence, Mich.**

SILVER Golden & White Wyandottes. Four Golden cockerels \$2.50 each. Eggs \$5, \$2.50; 30, \$5 by P. Post prepaid. **C. W. Browning, R. 2, Portland, Mich.**

S. C. Brown Leghorns Excellent layers. Eggs 5c each prepaid. Yearling hens \$1.25. Cockerels \$1. **FLOYD ROBERTSON, R. 1, Lexington, Indiana**

White Wyandotte eggs for hatching also baby-chick out of choice stock; send for a 1918 circular. **DAVID RAY, 729 Norris St., Ypsilanti, Michigan.**

DOGS

Scotch Collie Pups For Sale. Pure bred stock, prices reasonable. **O. E. Hawley, R. 2, Ludington, Mich.**

MICHIGAN STATE

FAIR

DETROIT

AUGUST 30 - SEPTEMBER 8

INDUSTRIAL EXHIBITS Automobiles, Motor Trucks, Tractors, Road Building Machinery, Farm Implements, Tools and Machinery, including all the latest designed mechanical labor saving devices, Dairy Equipment and Appliances, Poultry Supplies and Apparatus, Vehicle Display.

EDUCATIONAL FEATURES United States War, Navy, Commerce, Interior, and Agriculture Departments and the Food Administration Exhibits, Wild Life of Michigan Display prepared by the State Game Department, Boys' and Girls' Canning Clubs, Horse Show, Cat Show, Dog Show, Poultry Show, Boys' State Fair School, Better Babies and Body Building Contests, Mammoth Patriotic Pageant, Boys' Livestock Judging Contest, Apiary Booth, Complete Exhibit from Schools of Michigan, Handicraft and Fine Arts, including works of some of the greatest artists, Flying Pigeon Contest, Needlework, Car of Mine Rescue Apparatus sent by the U. S. Government.

AGRICULTURAL EXHIBITS Sixty Foot Fruit and Vegetable Column, Displays by Twenty County Agents of Farm Products from their districts, Exhibits of the Finest Produce from the entire state, Displays of Prize Fruit, Plants and Flowers.

AMUSEMENTS Automobile Races, Horse Races, Horse Show, Auto Polo, Push Ball Contests, Fireworks Every Afternoon and Evening Showing "The World's War", Greatest Midway Attractions Ever Assembled in Michigan, Robinson's Elephants, Vaudeville Acts in Front of Grandstand Every Afternoon and Evening, Cavallo's Famous Concert Band of Sixty Pieces, Dunbar's White Hussars, a unique musical organization, and The Great Hawaiian Ukulele Orchestra. International Wrestling Tournament.

LIVESTOCK SHOW The 1918 Exhibit of Horses, Cattle, Sheep and Swine will surpass any display ever collected in Michigan. The state has made extraordinary progress during the last year in all phases of Livestock Breeding and this progress will be shown at the Fair. Canadian Livestock Exhibits, Million Dollar Livestock Parade.

Don't Forget the Dates:

AUGUST 30 -- SEPTEMBER 8