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Supply-and-Demand Price Unjust to Farmer

By JAS. N. McBRIDE

Market Director for Michigan

FEW men have studied agricultural needs more than David Lubin, the founder of the International Institute of Agriculture at Rome. Lubin was an Americanized Jew who had made a fortune as a merchant and banker in California, who with the most enlightened conscience and pureness of heart viewed agriculture as a matter of merchandizing.

With indefatigable zeal David Lubin visited the legislative bodies and rulers of the world and secured appropriations for securing the statistics of the world's output from the soil. These reviews and abstracts are valuable, yet they have fallen far short of David Lubin's expectations of giving advantage to the producer of food stuffs.

Orthodox economists of agriculture have argued that supply and demand were the inexorable laws that made prices and that a knowledge of the supply would establish just prices. The elaborate statistics of farm products provided by all civilized countries have followed these lines with hopes of valuable service.

Many well meaning persons have studied agriculture's needs and condition and came up against the supply and demand theory and diagnosed the ills of unrequited toil in food supply as unavoidable.

I have a letter before me from the Quartermaster General's office in Washington who declares that it is his purpose to purchase potatoes at the lowest figure at which he can secure them. This officer from his viewpoint and the general one also held by those in authority in the nation, is right. The viewpoint is the old one of supply and demand and this is the cul de sac of thought. David Lubin thought if all had a knowl-

edge of the world's supply, then demand would compel an equitable adjustment and the producers would gauge their production to demand.

The statesmen who legislate and the students of economics who advise have neglected at least two fundamentals of agriculture. The first is that seasonable crop conditions are not within man's control and that the acreage to produce surplus must exist to prevent famine in case of adverse seasons. The nicety of adjustment of supply to demand of the merchant or the manufacturer is not possible.

The second is that supply and demand of farm products are not interpreted from the standpoint of service in distribution but for profit to the distributor or to those who manufacture finished products from the farm raw

material. Mr. Hoover recognized the latter when he proposed to prevent profiteering. The rule of a fair profit for the service rendered was eminently just but agriculture was in no position to express itself or to present its claim.

In the great struggle for adequate compensation agriculture was handicapped by the general acceptance of the doctrine of supply and demand being adequate to pay fair prices and the lack of organization to present its claims for cost and a profit. The producers of steel, copper and manufactured products were able to present

ture was employed, such as supply and demand, cooperation and standardization, etc., but these were as impotent as ever in the emergency. While legally the United States fixed prices only on wheat from the farm, actually all prices were largely fixed by the United States as a large buyer of supplies. Simply as the largest buyer the prices which were paid by the United States were made the general price of such commodities. The price except wheat and possibly in the purchase of Colorado and California beans, was made apart from the producer. He had no part nor was he considered as a busi-

ness man to participate in the details of food after he had produced it. The government in this regard followed the procedure of the past except as noted above and can scarcely be criticised in all fairness. The procedure, however, struck home to the producer in a manner altogether different than ever before.

As a loyal citizen and putting forth his best efforts to win the war with food he was ignored as to price fixing. There were business and professional men who sat on the commission to determine wheat prices, while no agricultural representatives appraised the prices paid for manufactured products, steel, copper and other material used by the government. The purchase of food stuffs was made largely by competitive bidding. This was the opportunity and compelled bidders to place low and still lower prices on the stuff they were to furnish, for the lowest bid received the award.

In the potato supply for example, a perishable product, the price paid was below cost. The service that the potato grower rendered was ignored by the old methods and his stock was made to feed the nation without profit—a discrimination that should never exist. These conditions prevailed prior to governmental regulations and it is scarcely to be expected that unaided if not unasked the changes would be made. The government, however, becoming a party to what had before been objectionable indeed, pointed toward a remedy, viz, agricultural organization for price fixing.

It is the inherent right of all producers to appraise their products at a price that will maintain the general equity of production. This is the right of the copper producers' organization, also of the American institute of iron and steel. It must be that of the producers of agricultural products, for without profit there can be no capital. The English are using the word "Food Insurance." That is a sufficient margin above cost to in-

The opposition to agricultural price fixing by the sure reproduction in succeeding years.

producers comes first from the sporting spirit of the speculator who sees his opportunity for manipulation forever gone. The extent of these speculative conditions is not by any means confined to the products from first hands but extends to extreme rivalry among dealers who secure advantages over one another. This places odium on the middleman who was really giving service and who in some form is indispensable. Price fixing by the producers eliminates speculation and makes the middleman render a service and also protects him from price raiding. The best judges of distribution doubt if ever the opportunity for speculation will again be allowed in staple foods.

Mr. Hoover has laid the foundation
(Continued on page 604).



What Will the Harvest Be? Nobody Knows

ample cost sheets and prove their points. The inability of agriculture to sit in the councils of the nation is to be regretted. That there was a limited presentation of the case of agriculture made may be admitted but this was done in a perfunctory manner by persons usually apart from the farm and existing off agriculture rather than by it.

The over-used formula for agricul-

ness man to participate in the details of food after he had produced it. The government in this regard followed the procedure of the past except as noted above and can scarcely be criticised in all fairness. The procedure, however, struck home to the producer in a manner altogether different than ever before.

As a loyal citizen and putting forth his best efforts to win the war with

A Difference

Manufacturers can thrive when the price of their goods is regulated by supply and demand because these manufacturers are usually in a position to control the supply.

But fixing prices on farm products by this method frequently works great hardship since the supply here is largely dependent upon conditions beyond the power of the farmer to change.

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DETROIT, MAY 11, 1918



CURRENT COMMENT.

The report of the conference held with Food Administrator Hoover by the Michigan bean committee, as published in our issue of last week, should inspire the bean growers of Michigan with confidence in the situation, and encourage the planting of a normal crop of this important staple on Michigan farms this year.

In this connection, a better knowledge of the pinto bean which caused the recent furor will doubtless be welcomed by the reader. The pinto is a speckled brown bean, as indicated by its name, somewhat larger and flatter in shape than the Michigan navy bean. A native of Mexico, this bean has been grown to some extent in the semi-arid sections of the middle west for many years, but has not until very recently attained any prominence as a market variety. While it is grown to some extent under irrigation, its production has been greatly stimulated by the introduction of dry farming methods in what has come to be known as the pinto bean sections of Colorado, New Mexico and Utah. Grown under dry farming methods, the yield is not large, but the production cost is comparatively low where grown on a large scale, and the quality is generally good, owing to favorable climatic conditions for securing the crop.

This crop has never before assumed so considerable proportions as was the case last year, and it was due to the fact that last year's crop afforded a considerable supply of valuable food material, for which there was no established market in this country, that the crop was taken over by the Food Administration as a food reserve and for limited distribution, as noted in the committee's report which was published last week.

While it is possible that the pinto bean may have a more or less important effect upon the navy bean market in future years, particularly in years of large production, there is no probability that it will supplant the navy bean for domestic consumption to any considerable extent, due to the fact that when cooked it has a less appetizing appearance, and is not in demand by consumers on an even price basis.

It is probable that last year's experience will encourage liberal planting of pinto beans in the sections above mentioned, this year, but being grown under dry farming methods to a large extent, the yield will be problematical, and, with a continuation of war conditions the crop can be disposed of in the same manner in which the bulk of this year's crop is being handled.

Another factor in favor of the navy bean as a profitable food crop is the prospect that with the maturity of the next crop the ship building program now in progress will provide bottoms for a much larger shipment of food stuffs to Europe than has been possible, notwithstanding the great need of our European Allies, during the present year.

Michigan farmers who are equipped to grow beans economically will do well to plant their normal acreage this year. While the farmer most always assumes the bad weather risk in any production program which he may undertake, it is not likely that last year's extremely unfavorable conditions will be repeated this season. In any event, the season having been especially favorable for rushing the spring work, the possible danger in this connection can be forestalled by earlier planting than was general last season.

The United States Bureau of Markets has extended its services in market centers to include the inspection and grading of perishables shipped to such centers. Under established trade practices the shipper of perishables has had no protection at the point of destination of his shipment. Even though the shipment might have been sold before delivery, the purchaser could refuse same on the ground that the quality was below the grade purchased, or the condition of the shipment upon arrival was such as to make it unmerchantable. In such case the shipper had no remedy except to go himself or send a representative to inspect the shipment at its destination and make such disposition of it as circumstances permitted. Under these conditions rejections were naturally numerous, particularly on a falling market.

To obviate this difficulty, the Bureau of Markets has placed a man in charge of this work in Detroit and many other large market centers throughout the country. This man is given the official title of Investigator of Marketing, but in addition to his other duties, he has authority to pass upon the condition and the grade of shipments of perishable food stuffs arriving in the market from day to day. This will be a great advantage to producers and cooperative organizations who desire to ship their products in carlots to the Detroit market centers where a similar service is maintained.

Conservation of sections of Michigan have been discouraged over the future prospect,

due to the curtailment of shipments of condensed milk to foreign countries. The shortage of ships in which to ship this product which is badly needed by our European Allies, has caused a surplus of dairy products to accumulate with a prospect that increased accumulations might constitute a real menace to the immediate future of the dairy industry in this state.

In this connection, dairymen who contribute to the market milk supply are likely to find encouragement in the campaign now under consideration with the object of educating the consuming public regarding the food value of milk and other dairy products. The dairymen who contribute to the condensed milk factories will find encouragement in the fact that the government officials believe that by next autumn our shipbuilding program will

have reached the point where production will exceed the submarine toll, and the situation above noted will be relieved by the increased amount of tonnage available for the shipment of food products of all kinds to Europe.

It is fortunate for the dairymen that this period of surplus has come during the summer season when the cost of production is comparatively low, instead of during the winter season when the cost of production was exceedingly high, due to the high price of feeds. That there will be some loss in the handling of the milk from the dairy where the normal market for the output is restricted is unavoidable, but this loss will be much less during the pasturing season than could possibly be the case during the winter feeding season. With the prospect that there will be a reasonable or normal outlet for his product by next fall, the wise dairyman will hesitate before sacrificing his good cows under existing conditions.

As previously noted, the outlook for dairying in the period succeeding the war is particularly bright, not alone because of the certain demand which will exist for dairy products of all kinds, but as well because of the need of foundation stock to rehabilitate the herds of devastated Europe. The good dairy cows in every herd should be conserved even at the cost of a present loss if necessary, in order that the future profit may be realized when normal conditions are reestablished. This is good business as well as the patriotic thing to do under present conditions.

To Aid the Potato Market

A MEETING of vital importance to Michigan potato growers was held in Detroit Tuesday morning of this week. The object of this gathering was to determine whether any practical program looking toward a larger use of Michigan's surplus potato crop could be carried out. Various interests were represented at the session; the Food Administration, the Bureau of Markets, the producers, carlot receivers, chain store managers, retail grocers, hotel mens' association and the Detroit Aircraft Club.

The proposition was discussed from all angles and it was the unanimous opinion of those present that the consumption of potatoes can be materially increased. Financial and publicity committees were appointed to work out in detail the practical suggestions brought out during the discussion. The finance committee is to seek ways and means of carrying out the ideas developed by the publicity committee. The men appointed immediately went to work at their tasks. It is hoped that financial assistance can be secured from the state war board for putting out a comprehensive advertising campaign.

Some of the practical ideas that the publicity committee plans to carry out may be stated: Window displays for retail stores will be worked out. It was reported by one of the chain store managers that the sale of potatoes had been increased 300 per cent through publicity of this character. Leaflets setting forth the place potatoes should occupy in the human dietary will be put into the homes through the agency of the schools. The hotel men will see to it that their menu cards emphasize potatoes more than has been the custom and that the portion of potatoes allowed guests be increased. Public bulletin boards will also be used and a general press campaign is to be carried out.

A representative of the federal bureau of Markets has made a careful survey of the situation in Michigan and partially as a result the transportation lines and the distributive machinery are in shape to carry out the proposed campaign. The only uncer-

tain factors are the producers who hold the supplies, and the consumers. It is generally believed that the proposed publicity campaign will move consumers to do their part, consequently the one real uncertainty over which these men are anxious is whether the Michigan potato producers will deliver the potatoes at loading points and thereby keep a continuous supply of tubers moving marketward to take care of the increased consumption.

It is estimated that there are about 3,000 cars of Michigan's commercial crop still in the hands of producers or at country loading points. The potatoes have been moving more freely of late but a very substantial increase in the daily outgo of cars will be necessary in order to relieve our growers of the necessity of allowing the tubers to decay or to be fed to stock. Hence it is of vital importance in this program that the growers act promptly in delivering their surplus. Current prices should be accepted to insure as large a saving, as possible from the 1917 crop. Prices will fluctuate, no doubt, but the chances are that they will be instead of higher.

Another factor emphasized was that the various interests are showing their good faith in making this special effort largely to aid the farmer to realize something from the old crop, much more than would be possible if the markets were allowed to take their usual course, and that the farmer should reciprocate by planting this year a normal acreage of potatoes. We believe that our growers will respond in the fullest measure and thereby show their appreciation for the efforts being made in their behalf.

HAPPENINGS OF THE WEEK.

Wednesday, May 1.

Allied forces gain at three strategic points—French retake Loire, the British drive the enemy nearer Mount Kemmel, while Haig's forces compel the adversary to give ground in front of Amiens.—Along the entire battle front in Italy artillery bombardments are taking place and small manoeuvres are being carried out. Allies predict a Teutonic drive on the Italian front ere long.—Secretary of War Baker makes a plea for an army of at least 3,000,000 men to be raised with the greatest possible dispatch.—Villa bandits wipe out an entire village forty miles southeast of Chihuahua City.—No strikes of importance are on in America on war's May Day, when labor difficulties are most likely to be in evidence.—Michigan's first day as a "dry" state is ushered in with apparently few mourners for the old regime.

Thursday, May 2.

American troops are attacked near Villers-Bretonneux on the western front, where severe fighting has recently occurred, but the enemy is driven back with extremely heavy losses.—Military observers declare that the German offensive on the west has become deadlocked.—Pursuing retreating Turks in Mesopotamia, British troops capture over 2,000 prisoners and war munitions.—Official information from the Italian front states that Bohemian troops are deserting the Central powers and joining the Italian army.—Secretary Baker asks for free hand to enlarge army to a sufficient number to win the war.—French warship rams an American ship off the Atlantic coast and sixty-five persons perish.—Local policemen and Protective League operatives round up 1,200 radicals, including I. W. W. workers, pretended socialists and others, in Detroit.

Friday, May 3.

Both artilleries are active north and south of the Avre river on the western front, also near the Vosges mountains.—Allies capture enemy machine-gun nests on the Amiens front.—Roumanian soldiers numbering 18,000 formerly fighting under the Austrian flag, and captured by the Italians, have asked permission to fight for Italy, which permission has been granted.—A Turkish report declares the British have been repulsed in Mesopotamia.—Brit-

A FLYING FIGHTER.

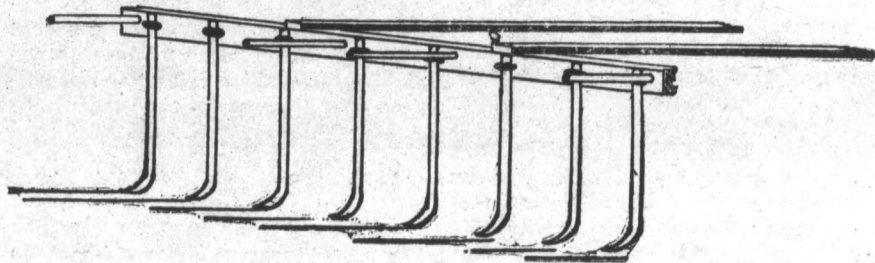
Are you interested in knowing what will be done by our aerial fleet, when it sails over France? Then read "A Flying Fighter," page 602.

Our Readers Suggest Practical Ideas

A SATISFACTORY MARKER.

I have found the marker made after the following directions to give much better satisfaction than those ordinarily constructed by farmers. One of the chief advantages is that the marks made by this implement can be readily seen after heavy rains, which is not always true of those in which wood is used to make the marks.

Here is the way I constructed mine: I used a hardwood 2x6, thirteen feet long, and six ordinary spring drag teeth. The teeth should be taken to a blacksmith and straightened out with the extreme end bent backward at an

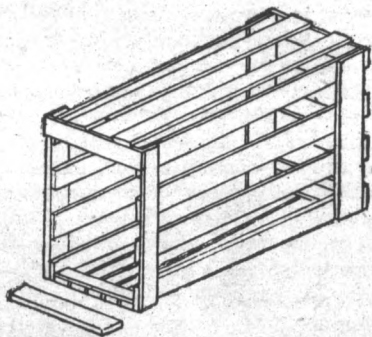


angle of about sixty degrees. Lay out the 2x6 so that the teeth will be the proper distance apart for the purpose you desire it. I placed mine two and a half feet apart for potatoes, and twenty-eight inches for beans. Use the clips and bolts from the old drag frame to fasten these teeth to the 2x6. Have the bent ends of the drag teeth turned backward; bore two holes in the 2x6 at the proper place to insert thills for hitching the horse. Four other holes should be bored to provide handles; two of these are near the center to be used for turning around at the end and then one is placed at each end of the 2x6 for guiding when going to and fro across the field.—J. Terpstra.

FOR CRATING ANIMALS.

Farmers having occasion to ship live stock by express, find the design of crate illustrated, practical, since it is easily built, strong and light, and being smooth on the bottom, easy to move on rollers in handling a heavy animal. It was built of 1x4-inch boards although the principle can be used with any boards handy. The bottom end-board is removed to show construction.

To build it, first procure the three dimensions of the animal, then make the floor the length and width. The floor-cleats are nailed on top of the floor-boards, care being taken to have the outside edges and the ends even. Cracks may be left two inches wide between the floor-boards. Nail the bottom side-boards securely to the edges of the floor before nailing on the four upright corner pieces, which are saw-



ed about two inches taller than the animal. The bottom end-boards are nailed securely into the floor-cleats as well as the corner pieces. This holds the sides snugly up to the edges of the floor, affording it all the shearing strength of the nails. Cattle that are to be tied in the crate do not need as tall sides and no-top is necessary, but sheep and hogs require top-boards which are nailed lengthwise of the crate into the top end-boards. For some

hogs it is well to further secure the top by a wire over the top-boards near the front end.

Hog crates need not weigh more than twenty-five to thirty pounds to the one hundred pounds of hog. Sheep do not require as strong crates and thinner lighter lumber may be used.

Calhoun Co.

D. P. C.

SHORT CUT HAYING METHODS.

One of the heavy hot-weather jobs coming on in which it is desirable and important to shift as much of the work onto the horses as possible, is the haying. To this end the writer is plan-

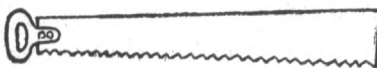
ning to adopt a combination of a number of common labor-saving devices the coming summer. In various parts of the country the hay sweep rake is in common use. These are heavy rakes twelve feet wide and with teeth eight feet long, placed a foot apart. They are mounted on wheels eighteen or twenty inches in diameter, and a horse or even a team, is hitched to either end. The hay can be taken from the windrow or cock, or from the swath, and 500 to 1000 pounds can be gathered at a load. Where the haul is not too long the load is hauled direct to the barn or stack without loading onto a wagon, and the hay can be taken up with the horse fork. They are put out by a number of implement manufacturers and cost less than half as much as hay loaders and require much less storage room when not in use. They are so arranged that the front end of

rack and the other on the ground. A good rope will also be provided long enough to reach from the hay across the wagon rack lengthways and out in front far enough to hitch the team to it. The hay can then be drawn onto the wagon one bunch at a time until the load is on. The hay will be left in the slings, perhaps tying the ends together to hold them in place, and the load hauled off with them when the barn is reached. It may be prudent to nail some cleats across one end of the planks to butt against the hay rack and prevent the planks sliding up.

We younger fellows who are on the shady side of sixty, and are liable to have to get into the haying game are on the lookout for such labor-saving schemes, and this will save not only time but perspiration as well.—Edward Hutchins.

KEEPING THE SCALES CLEAN.

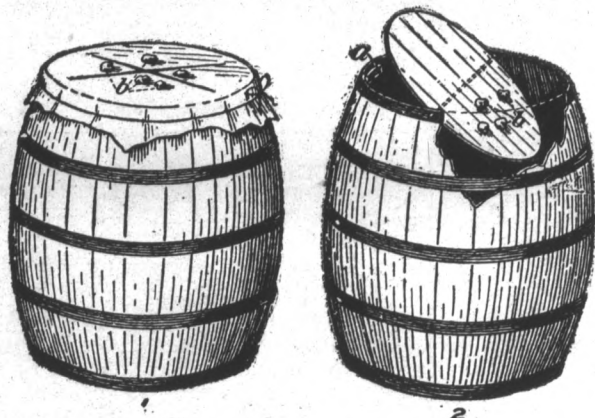
When platform scales are located in the driveway of the barn, chaff and debris sifts down into the cracks round the edge of the scales and interferes with weighing. When such stuff is packed in the cracks the scales will not weigh accurately. To remove the chaff we made an instrument like the one shown below which is kept hang-



ing high in the driveway of the barn. It consists of a short section of an old cross-cut saw, with a handle on one end. It takes but a minute to clean round the scales with it. The teeth of the saw lift the debris out instead of pushing it down under scales.—J. J.

BARREL TRAP.

About sixty years ago a writer in the Cornhill Magazine gave details of a trap, by means of which it was claimed that 3,000 rats were caught in a warehouse in a single night. The plan involved tolling the rats to the place and feeding them for several nights on the tops of barrels covered with coarse brown paper. Afterwards a cross was cut in the paper, as shown in the illustration, so that the rats fell into the barrel. Many variations of the plan, but few improvements upon it, have been suggested since that time. Reports are



Two Types of Barrel Traps that are Particularly Efficient in Ridding the Premises of Rats.

the teeth can be raised from ground when loaded.

Now the adaptation planned is to use the hay slings in connection with the sweep. Half of the sling can be drawn beneath the load as it rests on the sweep and the other half laid on top. The teeth can then be lowered and the sweep backed away. The hay is then ready to draw into the mow with the sling the same as when the sling is used on a wagon. In this way the hay is delivered into the mow without any hand pitching at all, and it is only necessary to spread it in the barn by hand.

Where the haul is too long to use the sweep entirely and a wagon is necessary we propose to provide slings enough for a full load. Hay enough will be brought together with the sweep to make a load and deposited in the slings as brought up. A wagon will be backed up near these bunches and two or three stout planks placed with one end on the rear end of the hay

frequently made of large catches of rats by means of a barrel fitted with a light cover of wood, hinged on a rod so as to turn with the weight of a rat. Fig. 2 shows how a barrel can be fitted with such a cover.

FERTILIZING HOED CROPS.

It frequently becomes necessary to apply fertilizer to hoed crops after the crops have started to grow. In doing this it is necessary to prevent the fertilizer from coming in direct contact with the tender leaves of the plants, since the highly concentrated material is quite certain to burn the plant tissues.

The accompanying illustration shows how this work may be done very rapidly and efficiently. To an ordinary fertilizer distributor are attached pieces of burlap so as to guide the fertilizer safely between the rows of plants. Any handy person can easily arrange the burlap after a glance at illustration.

As best results are obtained when the fertilizer is thoroughly mixed with the soil, the proper procedure to follow is to apply the material between the rows and then follow with thorough cultivations. This will mix the fertilizer and soil and allow the moisture



Distributing Fertilizer on Truck Crops.

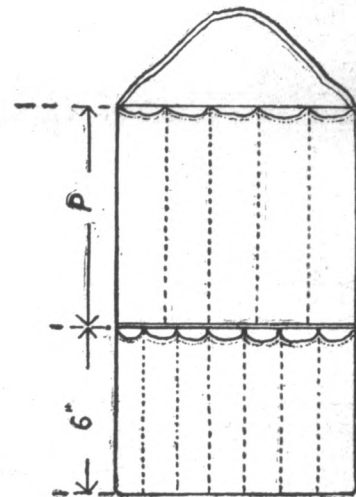
contained in the latter to dissolve the plant food of the fertilizer and make it ready for the small fibrous rootlets of the plant that reach out in the center of the row for nutrition.

Regarding the question of burning foliage with fertilizer, it should be added that this happens when the leaves are moist. Should the fertilizer fall on the dry plants no harm may be done unless it remains there until the leaves are moistened by rain or dew, when damage will result.—S. I. C.

CONVENIENT TOOL BAG.

There are a number of small jobs about the farm that require the use of small tools, such as fixing fences, repairing doors and buildings, and making repairs and adjustments on farm machinery out in the field. It is certainly exasperating when one gets to working to find that he has left back at the shop the tool that would do the work the easiest.

The most convenient way to avoid doing this is to have a tool bag like the one shown in illustration, in which a wide assortment of tools can be kept for using away from the shop. The



A Handy Tool Bag.

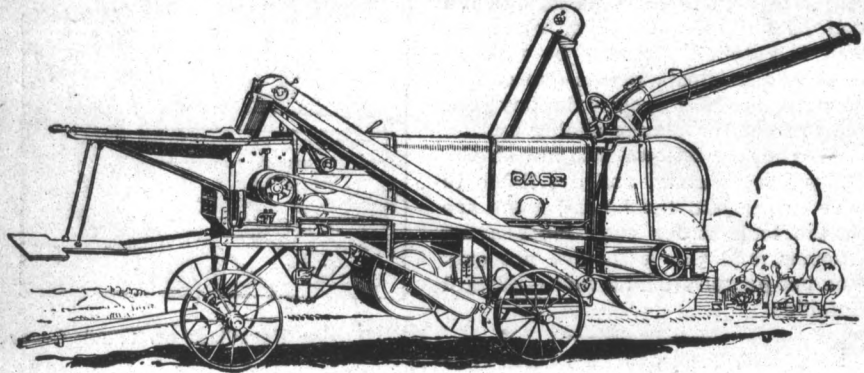
bag may be made in a few minutes.

It is made from an old grain bag. Cut the bag off about fifteen inches from the bottom. Sew it across below the middle, that is, about six inches from the bottom. The pockets for holding the tools are next made by sewing up and down. The upper pockets are made of different sizes and wider than the lower ones, so the larger tools can be slipped in them. The lower pockets are used to carry such articles as cold chisels, bits, etc., while the upper ones can be made to accommodate such larger tools as are most generally used.

For carrying, put a strap handle at the top. In this way the bag can be hung up in a convenient place where one is working, and afterward hung in the shop on a nail when not in use.—J. L. J.

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Goulds Fig. 1904 for pumping water and air into air-pressure water systems

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Horseradish Culture

By W. F. PURDUE

ANYONE can easily grow all the horseradish the family may be able to use, and a great many people do have a small patch of it. All that one need do is to stick a few pieces of roots, or the crowns from which the edible root part has been removed, into the ground in any waste or weed-overgrown spot anywhere on the premises and the plants will give one a lot of roots that will do well enough for supplying the home table with this popular relish. It is far more difficult to eradicate the wild sort of horseradish than to set it going, as it spreads rapidly and it is next to impossible to get rid of it when once it has gained a foothold. Because of its spreading propensity this sort is usually thought of as a noxious weed by many people. But there is a great deal of difference between this sort of horseradish and the commercial varieties that have been bred up and grown for profit. With proper care while the crop is growing and at digging time, there is little danger of the improved sorts spreading.

Market Easy to Find.

Every town of any size offers a market for horseradish at certain seasons of the year and many market gardeners are making good profits by grating

inches or so below the ground level; a small iron bar can be used in setting the roots. Cultivation should be given until the tops shade the ground.

The principal root growth of horseradish is made in the fall with the beginning of cool weather and digging should not commence until just before the arrival of freezing weather. The roots run down quite deep, and much pains must be taken in digging to get as much as possible of the straight root. Any side branches that may have grown should be kept for next season's planting. The salable roots can be marketed when dug, or they can be stored in a root cellar or buried in sand and worked up during the winter. The roots for next season's planting should be stored in the same manner as the salable stock; there is no need to purchase sets after the first season.

CONTROLS FIRE BLIGHT OF APPLES.

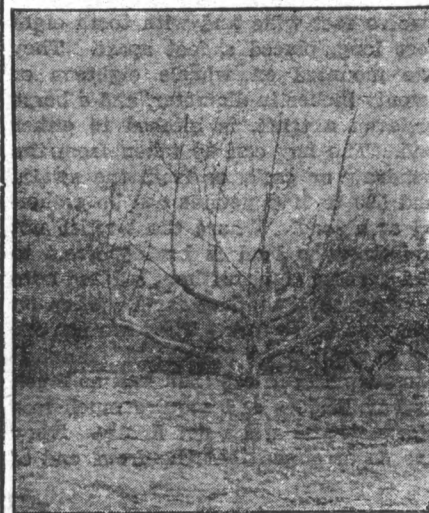
In recent years a disease has been spreading through the apple orchards of this state, killing much of the newly set fruit and many of the young growing shoots of the trees. This disease is fire blight. It attacks the pear as well as the apple and quince. It develops to a serious degree almost every year in pears. It rarely causes as much injury in apples as it did last year. It is caused by a bacterial parasite which develops in the growing layer of the tree, causing the tissues to die during the spring and early summer. There is no other known preventive than cutting out and burning the blighted parts.

When to Cut Blight.

The best time to cut out blight is in early spring just before and just following the blossoming season. It winters over mostly in pears, though occasionally in a few apples, like Jonathan and Yellow Transparent. While in June the blight shows in millions of places on the twigs, it will winter over only in a few places here and there in the trunk, main limbs or occasionally in the twigs. In early spring these winter pockets of blight may be seen in blistered areas on the bark which give off honey-like exudations. Insects feed on these honey-like masses oozing from winter blight pockets. These honey-like masses are full of germs of the disease which are carried by the insects to blossoms and growing points in spring. If these winter pockets can be cut out and the wounds painted, no blight germs will be left and the disease will not spread during the spring and early summer. If a blight pocket here and there is overlooked near blossoming time, the disease will spread from it to the flower clusters and growing twigs. The first blighted parts in the flower clusters and new twigs put out honey-like exudations, which stand in little beads on the young twigs, leaf stems or young fruit stems. If these are cut out just after the blossoming period, enormous spread of blight can be prevented. It will be well to keep this point in mind this spring and cut out blight early, before it spreads through the orchard.

Treatments of Little Value.

Treatment with salt, calomel, iron and other things, has been recommended for preventing blight. None of these except cutting out the blight, is of any use. The reason why salt or iron stirred into the soil under a blighting tree or calomel injected under its bark seems to check the blight is because the spring blight runs its course so quickly that by the time it is observed and the alleged remedy applied, the blight is usually ready to stop of its own accord.



Orchards of Poor Varieties Should Not be Neglected. They Can be Made Profitable by Top-working.

and bottling it for the grocery trade, or for private customers. It pays the market gardener well, even if the soil is not an ideal one for the crop, for he can work up roots that are not considered first-class by the manufacturers of condiments who use thousands of tons of horseradish roots every year. In producing horseradish for manufacturers the aim must be the production of large, straight main roots that are not covered with a lot of slim side shoots. To produce these the soil must be clean, deep and loose and special treatment may have to be given in order to prevent the growth of a lot of side branches. It is the nature of the horseradish root to issue a large number of side branches, often quite long and slim, and these are worthless for any commercial use except as sets.

Sandy Soil Best.

A nice sandy, rather moist loam is what is wanted for commercial horseradish growing. The soil should be worked deeply so that the roots will have ample opportunity to lengthen and enlarge. Increase the fertility of the soil by heavy feeding with manure. Pieces of the side shoots, perhaps of pencil thickness and from five to six inches long, should be obtained and planted in early spring in order that they may have the benefit of a long growing season. Place the sets twenty inches apart in rows three feet apart. Each root should be set deep enough so that when the soil is formed above it the upper end will be a couple of

1918 Roadwork In Michigan

INGHAM county has plans to improve twenty-three miles of road this year, but the labor shortage may cut down the program. The work will include the following: Continuation of state reward road from Holt to Mason and one and a half miles south of Mason; work on four miles south of Webberville; two miles in Alaiedon township; three miles near Stockbridge, besides other connecting links with roads already improved.

Ransom and Amboy townships in Hillsdale county have sold their road bonds, amounting to \$32,000 and \$16,000 respectively, to a Hillsdale bank. Ransom will build about four and a quarter miles and Amboy two and a half miles of sixteen-foot class B gravel road.

Road building will cost more this year, according to bids on material received in Saginaw county. An advance of ten cents per ton is made on all stone, while the increase in other material is from ten to forty per cent.

Monroe county supervisors have authorized the road commission to use \$300,000, the balance of the state reward money, to complete roads now under construction in the county.

Saginaw county was allowed its first \$1,000 state reward money in October, 1905, on a mile of road in Buena Vista township and since that time the state has paid this county \$188,149.70 in rewards and has approved of applications for an additional \$56,141, which will be paid later.

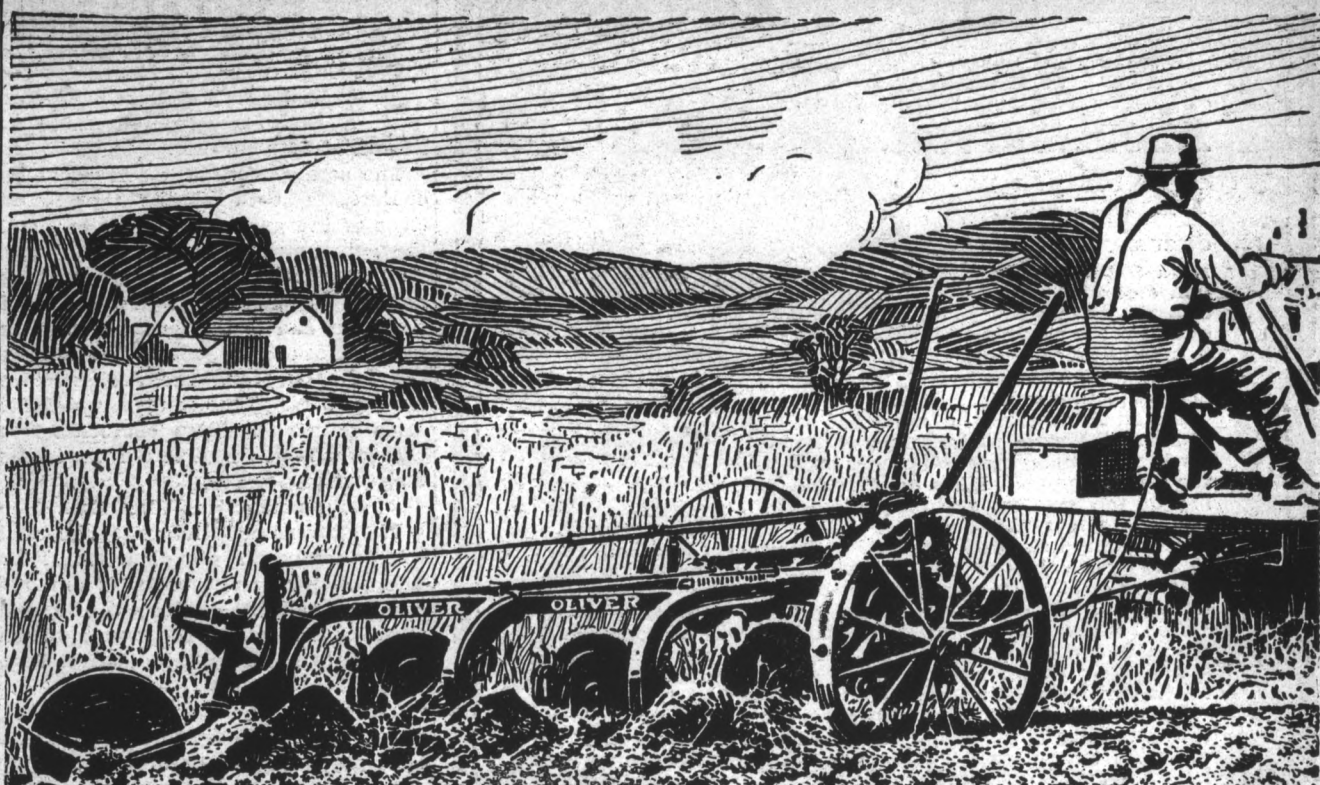
Kalamazoo county will receive bids up to March 25 for building gravel road, one mile each, in Charleston, Cooper and Portage townships, one and a half miles in Pavilion and half a mile in Schoolcraft township.

While Charlevoix county has voted a bond issue of \$350,000 for good roads there will not be great activity during the war. The supervisors have voted to sell only \$10,000 of the bonds at this time, using \$8,000 of this to complete the cement road between Boyne Falls and Boyne City. The \$2,000 will be used in making surveys for roads to be built later.

Oakland county has arranged for the sale of its third series of road bonds and was unable to obtain a premium on same because of the condition of the bond market and the proximity of the third Liberty Loan. Speaking before the road commission at Pontiac, State Commissioner Rogers said: "We have been assured that important main roads are considered war measures and that it would be a patriotic thing to carry on such work. The state highway department is interested in connecting up the main highways. Just now we are anxious to see three miles in Oakland county on the Grand River road improved west of New Hudson. When this and three miles just over the line in Livingston county are improved there will be continuous good roads from Lansing to Detroit. It might be difficult for you to get permission to build broken sections of road in the county, especially if it were necessary to ship the materials in. The state highway department has slowed down thirty per cent in its work during the last six months of 1917 and there is reason to believe it will continue to slow down during the progress of the war.

Construction of the Saginaw-Midland river road, which includes 11.6 miles in Saginaw county and about five miles in Midland county, was endorsed at a meeting in Midland called by the state highway department to hear objections. It is probable the road will be fifteen feet wide, with stone bottom and gravel top and will be paid for by an issue of ten-year bonds.—A. G.

It is better to eat a corn dodger than to be one.



For the Tough Job

Every section of the country has its own peculiar soils that present great plowing difficulties.

Marsh land—stiff sod—heavy weeds—gumbo—the toughest soil conditions everywhere find their master in Oliver Tractor Plows

If you chance to own such land, remember that thousands of just such acres have become easily tillable when Oliver plows were put on the job.

Oliver plows are *built* for the tough jobs—and built to do them *right*.

Oliver Tractor Plows are furnished with combined rolling coulters and jointers, quick detachable shares, with chilled or steel bases.

2 Bottom Plow, \$175—3 Bottom Plow, \$220—
4 Bottom Plow, \$310—Plus Freight Charges

Oliver Chilled Plow Works
South Bend, Indiana

OLIVER

The two Oliver factories, South Bend Indiana, and Hamilton, Ontario, have a daily capacity of 500 tractor plows alone. Oliver can always make deliveries.

No Worry About Harvest

HAVE you noticed how discussion of the food supply situation seems to center around the number of acres it is possible to plant rather than around the harvesting of those planted acres?

It is an unconscious, but none the less wonderful, tribute to the genius of the inventors of the reaper and binder that the American public takes the harvesting of the greatest grain crop ever planted as a matter of course. The sole question now is, "How many acres can we plant?" The power and help required by the planting will be amply sufficient for the harvest where **Champion, Deering, McCormick, Milwaukee or Osborne** binders and binder twine are used.

And, where they are used, the harvest will be complete. No matter whether the grain be tall or short, heavy or light, standing or down, lodged and tangled, an International Harvester binder cuts and binds it all without waste.

It is an easy matter to be fully prepared for harvest. Buy the largest binder you can use. An 8-foot is better than a 7, and a 7 better than a 6 or 5 because the larger sizes conserve labor. Buy a new machine if there is any question about the efficiency of the old one. There is a limit, you know, to the dependability of repaired machines, while a new one is absolutely reliable.

Through our 90 branch houses and over 30,000 dealers, we furnish promptly either new machines or repairs for old ones. Do not hesitate to call on our organization for any help we can give in the harvesting of this year's grain crop—the most important crop ever raised. See the local dealer or write us direct.

International Harvester Company of America

(Incorporated)

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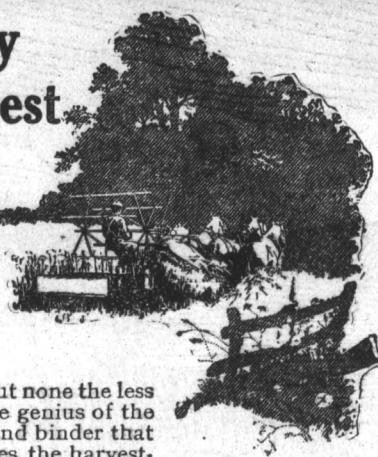
U S A

Champion Deering

McCormick

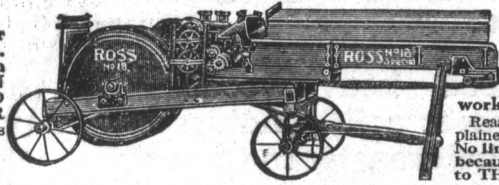
Milwaukee

Osborne



ROSS SILO FILLERS with STEEL BLOWER AND CUTTING CYLINDER

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No Silo too high or requirements so great but what the ROSS Silo Filler will do the work with ease.

Reasons for this fully explained in ROSS Catalog. No limit to our guarantee because there is no limit to THE ROSS.

For jobbing work and extra heavy neighborhood work these Silo Filler have no equal. Individual Guarantee with every machine. Our proposition is especially interesting to Early Buyers.

THE E. W. ROSS COMPANY Box 114 **SPRINGFIELD, OHIO** 68 Years' Experience
Machinery and Repairs carried at convenient points.



Use the Moline Foot Guide Cultivator For Wide or Narrow Rows

FOR cultivating crops planted in narrow rows such as peas or beans or for wide row crops such as corn, potatoes and tobacco, use the Moline Foot Guide Cultivator. With it you will do a better job and do it much easier than with any other cultivator. In addition, you will get a cultivator which will outlast any other.

Pivot wheels give the operator absolute and quick control over the gangs. In addition the operator can easily change the space between the gangs; adjust the gangs for depth; hinge the pole to regulate the front shovels for depth or to balance the cultivator. Any of

these operations may be made while the Moline Foot Guide Cultivator is in motion. These splendid features, the strong steel, light construction and the complete equipment, make the Moline Foot Guide remarkably effective and satisfactory in the field.

Wheels can be adjusted from 32 to 44 inches apart.

A great variety of spring trip and pin break shovels can be furnished. In addition such attachments as disc hilling, hilling shovels, spring trip center, spring tooth, center and tobacco attachments can be furnished.

Ask your Moline dealer about this splendid cultivator or write us for full information.

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Corn Planters, Cotton Planters, Cultivators, Corn Binders, Grain Binders, Grain Drills, Harrows, Hay Loaders, Hay Rakes, Lime Sowers, Listers, Manure Spreaders, Mowers, Plows (chilled and steel), Reapers, Scales, Seeders, Stalk Cutters, Tractors, Farm Trucks, Wagons and Stephens Salford Six Automobiles.

MOLINE PLOW CO. **MOLINE, ILLINOIS**
MANUFACTURERS OF QUALITY FARM IMPLEMENTS SINCE 1865

Federal Control of Wool Prices

THE government has definitely fixed the price of wool, taking as a basis the scoured value in Boston on July 30, 1917.

The arrangement was arrived at by conferences between the representatives of the growers, the dealers, and the government.

It is desired that the wool shall, as nearly as possible, follow its usual channels, and to this end the growers have agreed to deliver to the dealers the new clip, and the dealers have agreed to distribute it upon a definite basis of compensation conforming to the government's direction as to its distribution.

Government Has First Call.

The government has not obligated itself to buy the clip, but does have first call upon any portion it requires and it will allot the balance of the wool to mills throughout the country, such balance to be made use of for civilian purposes.

The Boston prices as of July 30, 1917, are net to the grower, except that he is to pay transportation charges to the Atlantic seaboard and interest on such advances as may be made to him at the time of shipment.

The dealers are to be permitted to make a charge of three per cent of the selling price if the wool is not graded, and three and a half per cent if it is graded.

This commission is to cover all storage, cartage, and insurance. The commission charge is to be added to the price of the wool as it leaves the dealer's hands.

Blanket Advance to Grower.

The dealers are arranging to make a blanket advance to the grower at the time the wool is shipped, the balance of the price of the wool to be paid to the grower when the wool is sold and delivered by the dealer.

Speculating or any form of buying directly or indirectly is to be prohibited. The dealers in wool will be ap-

proved by the War Industries Board, and no approved dealer will be allowed to take on consignment more than can be stored and expeditiously graded and transferred to the mills.

Dealers desiring to be approved by the War Industries Board to handle wool shall first make application stating their capacity for storing and grading. Application for approval shall be made to the Wool Division of the War Industries Board.

Economy in Shipment.

All shipments will be made in such manner as to effect the greatest economy in transportation and time.

After the wool is in the hands of the dealers and graded it will be valued by a government valuation committee.

The wool growers, the wool dealers, and the woolen manufacturers will each be represented on a government committee which will take charge of the details of operation.

A method of handling wool in the fleece wool sections and other sections where the clips are small is now being worked out which will probably allow selling in small lots. This plan will be made public as soon as it is definitely decided upon.

Full Schedule of Prices.

A full schedule of prices will be distributed without delay by the wool trade associations, or can be obtained from the Wool Division of the War Industries Board.

Naturally there are many details yet to be worked out, but the foregoing is the substance of what has been definitely thus far agreed upon.

The War Industries Board has created a new commodity division entitled, "Wool Division." Mr. Lewis Penwell, of Helena, Mont., has been appointed chief of this division. All communications relative to the subject of wool should be addressed to "Lewis Penwell, Chief of Wool Division, War Industries Board, Council of National Defense Building, Washington, D. C."

Have You Ordered Binder Twine?

FARMERS are earnestly requested to place their orders for binder twine requirements as soon as possible, so that the local dealers can provide by early shipment for an adequate supply of twine to meet their harvest requirements. Shipping conditions are such that more time must be allowed from factory to local distributing points to avoid danger of shortage in supply.

The pre-war price for Mexican sisal, which comprises the bulk of binder twine, averaged about seven cents per pound. It was seven and a half cents landed at ports of entry in June, 1916. In July of the same year, it was increased to ten cents, and held about at that point until December, 1916, when it rose rapidly to sixteen and a half cents in March, 1917. Last August it reached nineteen cents at gulf ports and nineteen and a half cents delivered New York.

It was at this period that the United States Food Administration decided to act, because of the imminence of further advances by the Mexican trust. Through the efforts of the administration, a further rise in price was prevented, although the price of Manila hemp rose as high as thirty cents per pound. We have been trying since to get a lower price, but our efforts, so far, have not been successful, as the production lies outside the United States.

Efforts to Find Substitutes.

In view of the exorbitant price exacted by the Comision Reguladora, the Yucatan monopoly controlling sisal, the amount of sisal used in the United States will be much less this season, than in previous years. As a result,

the stock of sisal in Yucatan is rapidly increasing, while the demand in the United States is rapidly decreasing, and every effort is being made to find further substitutes, large quantities of which are being used for binder twine.

The Comision Reguladora and the planters of Yucatan must realize sooner or later, that more reasonable prices must be made or the sisal business will be completely curtailed.

Every effort possible has been made to provide binding twine for the harvest season of 1918, at prices as low as possible under the circumstances of inability to more than partially control the raw material. For the accomplishment of this end, the Food Administration entered into an agreement to purchase and distribute to the manufacturers, all of the sisal actually required for the manufacture of binding twine. It also entered into a contract with the binder twine manufacturers, the terms of which provide that the Food Administration shall purchase and distribute the sisal required, and that the manufacturers shall manufacture it into binding twine on a basis of the cost of raw material plus cost of conversion, plus a reasonable profit.

Ample Supply if Ordered Early.

In conformity with these arrangements, the manufacturers have made semi-monthly reports of the amount of binder twine manufactured from sisal allotments, and from the materials, and after careful investigation by the Food Administration, supplemented by investigations of the cost of manufacture by the Federal Trade Commission, the cost of five-hundred-foot twine was established at twenty-three cents F. O. B. factory, other grades in proportion.

More Sheep--Why?

In 1900 we had in the United States 0.80 sheep per capita. In 1917, the figure dropped to 0.46 per capita. Again mutton is 21.8 per cent of the meat food of Great Britain. It is 3.78 per cent here. The reason presumably is that Great Britain with no great western ranges to depend on, has solved the problem of raising sheep cheaply and abundantly on the farm. We would use mutton extensively under the same conditions.

The figures with regard to wool production are equally striking. In 1890 we produced 4.29 pounds of wool per capita. In 1917 only 2.72 pounds per capita.

We import now fifty per cent of our wool consumption. We ought to produce that at home; and we can if we will.

Sheep increase rapidly—from fifty to one hundred per cent annually as compared with the number of ewes. It is, therefore, natural to ask, "why can't we get the necessary increase at once by conserving the lambs instead of sending them to market?"

There are two reasons. One is that the western ranges already have all the sheep they can feed without deterioration of the range. The other is that many sheep raisers depend for their income as much on selling lambs as selling wool. The industry is very largely on that economic basis.

It comes, therefore, largely, down to a question of using for sheep raising our cut-over timber lands and our farms. That sheep can be raised abundantly and profitably on farms is evident from the experience in England. Sheep killing dogs have always been one obstacle to this; but the dog problem is doubtless soluble. Dogs killed about 100,000 sheep in states east of the Mississippi in 1913.

SHEEP INDUSTRY IN MICHIGAN.

The Upper Peninsula Development Bureau, through efforts of its president, L. C. Harmon, has closed contracts with nine western cattle and sheep men for grazing privileges and several thousand cattle and sheep are expected to arrive soon in Cloverland.

Prof. L. M. Geismar, Houghton county agriculturist, has organized a sheep growers' association with ninety-two members, and has bought 350 Hampshires and Shropshires near Stanton, Montcalm county, as foundation for flocks in the copper country.

H. C. Abbott, vice-president of the New Mexico Wool Growers' Association, has been engaged to take charge of the 10,000 acre ranch of the Cloverland Sheep & Wool Co., located near Iron Mountain. Mr. Abbott is enthusiastic over the advantages of upper peninsula lands for sheep.

The "start a flock" campaign inaugurated at the Michigan Agricultural College is meeting with success, with nine clubs of boys and girls started within the first three weeks and 150 enrolled. This represents more than 500 pure-bred sheep, since each boy or girl must have at least three sheep as a condition of membership. C. A. Spaulding is in charge of this work, and there are clubs at Traverse City, Cheboygan, Lewiston, Alpena, Rogers City, Onaway, and several in the upper peninsula.

Kent Co. ALMOND GRIFFIN.

AMERICAN FARMERS EFFICIENT.

President Wilson says that measured by the man test, rather than the acre test, the American farmers are the most efficient in the world. They produce less per acre but much more per man. The man test is a better test.

Live stock is reported to have withstood the past winter with about the same losses as the year previous.

Used Where Duty Demands Utmost Power

- in automobile or tractor
- in motor boat or aero-plane
- in gas engine or motor-cycle
- in motor truck or any form of internal combustion engine

En-ar-co National Motor Oil will give utmost satisfaction—a matchless lubrication service. This uniform oil means more power, less carbon—longer life to the motor and least upkeep expense.



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Motor Oil Made By Graduate Workmen

Note How En-ar-co Refiners Have Solved Motordom's Lubrication Problem

MOTOR users face a problem of motor oil selection that puzzles even the most experienced. Hundreds of brands confront them. Many are good. Some excel others. But which oil to use is perplexing. "Why should I use this brand in preference to others?" is a question often asked.

Oils excel as do the men who make them. When nature made the crude, she knew no favorites. Refiners received the same raw materials. All were supplied alike.

Then certain fundamental methods were perfected. Formulas were developed. Tests were standardized. The crude followed much the same routine from the wells, through the refinery, to the finished product. Yet these lubricants differed. Often a refiner's own product changed from time to time.

How En-ar-co Quality Originated

En-ar-co systems now change all this. We knew there was something more than mechanical methods. And so we started at the beginning—with the workmen.

We established well defined standards of efficiency. Each man passed through a primary course of refining instruction. Then through the higher grades of En-ar-co training. As these high standards were attained, the workmen were awarded their degree.

Now each workman strives for his master degree. For without it he is not entrusted with the responsible tasks.

Scientific Refining

Thus we have developed Scientific Refining. We have eliminated all quality fluctuation. We have produced the best that skilled men can make. For 35 years we have given the world a lubricant that is uniform—En-ar-co National Motor Oil.

We ask only that you try En-ar-co National Motor Oil. Regardless of the motor you use, whether in automobile, tractor, motor boat or engine, your investment demands that you lubricate with oil made by "men who know"—men who are graduate workmen.

Get This FREE Handy Oil Can

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state and quote prices on
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in the market about
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I use....gals. motor oil per year
I use....lbs. axle grease per year
I use....auto grease per year. I use....gals. kero-
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Blocks of Iron Stone.
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Tile, triple wall design,
self-reinforced and in-
terlocking, with double lock cement mortar joints.
Extra steel reinforcing does not depend on mortar to
hold in place, as it is laid direct against the block. Built
for service and satisfaction and guaranteed for the life
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Write for more complete information about the silo itself
and ask for special money-saving proposition under which
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SEED BARLEY \$2.40 BU
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**HOFSTRA Kills Lice
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**Keep Your Hens
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Eggs are high. Keep your
hens in laying and brooding
condition by keeping them
free from vermin. Hofstra
kills lice, mites, roaches,
ants, flies, mosquitoes, many garden bugs.
NO POISON. Powerful but harmless.

FREE Loaded Metal Gun FREE.
Send your dealer's name
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Built of everlasting Brazil Vitrified Fire
Clay. Reinforced with steel ribs bedded
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Are you suffering from rupture without
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The automatic air cushion clings
closely without slipping or chafing.
Guaranteed to comfortably retain
the hernia. Draws and binds
together the parted tissue and
gives Nature a chance to knit
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As specialists of 30 years'
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worth. Made to your measure.
Durable—cheap.

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

News for the Milk Producers

A MEETING of the Board of Directors of the Michigan Milk Producers' Association was held last Thursday in the city of Detroit. The advertising problem is a large one and calls for much money and thought. The result of our last advertising campaign in the city of Detroit, which reached 100,000 homes has resulted in an increase of consumption of milk of about five per cent. It is hoped to launch a new and larger campaign in the immediate future, which will greatly increase this percentage of consumption.

Detroit Prices.

Detroit area milk prices are from twenty to forty cents per hundred pounds better than any nearby city, and yet this does not correspond with the cost of production, neither is it on a par with the high price of farm labor in the Detroit area.

The Dairy and Food Department of the State of Michigan has assigned a man to cooperate with the Michigan Milk Producers and he is now in the Detroit area at work. When questions of test arise, he will help to settle them.

Surplus Dairy.

The nation-wide milk situation is the most unfavorable that has faced the producers for years. There is at present a surplus of 35,000,000 cases of condensed milk, and 37,000,000 pounds of cheese. This is largely the result of a lack of shipping facilities for foreign trade. It is also claimed that there are 362,000 more cows in the country than one year ago. This statement is, in our estimation, much like the widely heralded reports last fall of the tremendous corn crop and the surplus of 600,000 tons of cottonseed meal, neither of which materialized.

But these facts stand before us. We have a surplus that will affect the market until it is disposed of. If we have more cows than one year ago, we will have more milk. We are not now getting cost of production. With greatly increased over-production, there must be increased consumption, or ruin to the industry.

A Suggested Solution.

Every other industry of any magnitude, if facing such a condition, would move at once in two ways. First, for increased consumption, and then for decreased production. What shall the dairyman do? First, eliminate every unprofitable cow. Cut them out just as the manufacturer of any other product would eliminate his unprofitable machine. He would throw it on the junk pile and be considered more patriotic because he had the courage to eliminate unprofitable over-production. The dairyman should dispose of his unprofitable cows at once—sell them, and be sure they go to the butcher, then increase consumption. Begin at home. Use more milk on your own table. This is the best obtainable food product for your growing family—in fact, it is indispensable to the growth and development of every normal child. In some recent experiments with children with defective vision, it was found that by the addition of butter-fat to their diet, that the eyesight was strengthened and restored, and present investigation may show that much of the eye trouble to which children of recent years have been subjected, is a result of lack of milk and egg fat in their diet.

An Inexcusable Practice.

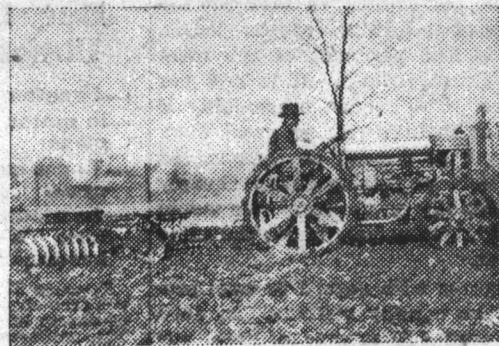
Use more butter on your table. Don't use oleo, or butterine or any other butter substitute. Merchants, the country over, tell us that farmers who were contending for a higher price for milk and milk products are large users of oleo and butter substitutes. This is one of the inexcusable freaks of human nature. You, farmer, ought to

(Continued on page 611).

Built Special for Your Light Tractor

The efficiency of your tractor is dependent upon the good work of the tools used behind it.

This special engine disc has been designed and worked out in every detail with the advice and assistance of the manufacturers of the leading light tractors to insure to the tractor user the greatest advantage from his power.



Roderick Lean

Light Automatic Engine Disc

The only disc of its style. Automatically adjusted and operated from the engine seat. Gangs angled as desired to suit soil conditions by the draft of the engine. No exertion, no need of stopping to make adjustments.

Embodies the famous Roderick Lean idea of double draft bars and flexible rear section—the one feature that has revolutionized disc harrow construction. Means light draft, less strain on

harrow and engine, even depth of cutting on turns, and deep and thorough work at all times.

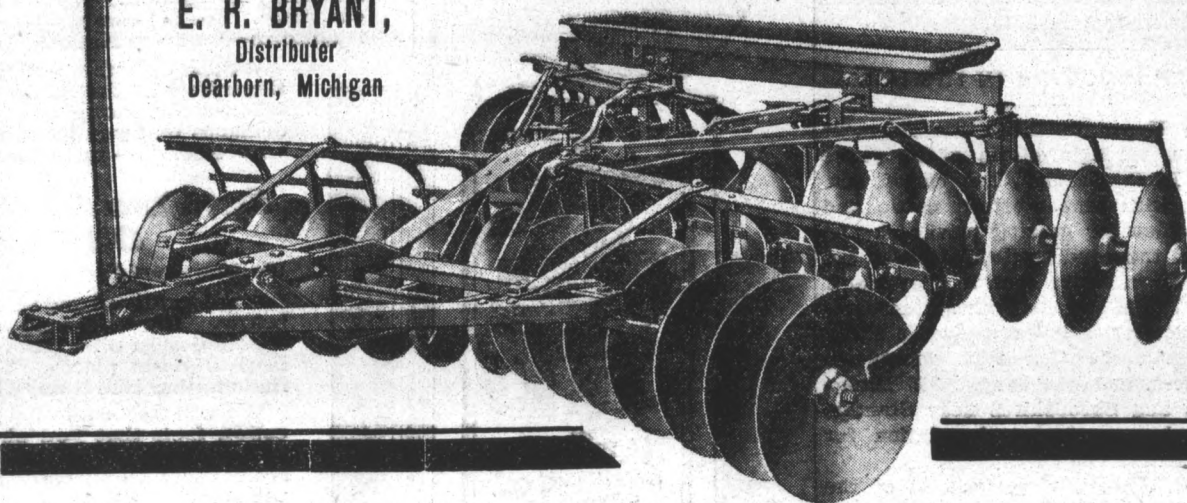
Recommended and endorsed by many tractor builders to their users for best results.

Made in 6 and 7 ft. sizes with 16 and 18 inch round and cutaway discs for engines developing 5 to 7 H.P. on drawbar. Weight boxes front and rear, adjustable cleaners, etc., etc. complete.

The use of this Roderick Lean Light Automatic Engine Disc makes your tractor worth more. See your dealer or write direct for prices, full information.

Roderick Lean Mfg. Company, Mansfield, Ohio

E. R. BRYANT,
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Beware of Southern grown for Seed purposes, it tests high, but will prove disastrous in this climate. If situated so you can come and see the largest and best stock of Seed Corn in the state.

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King of the Earliest Dent
Pride of the North Dent

Reid's Yellow Dent
Improved Leaming Dent
Longfellow Flint

All shelled corn. 56 lbs., price \$8.00 per bu. f. o. b. Ypsilanti, bags extra 50c each. Cash with order, we ship immediately.

Also SWEET CORN
Stowell's Evergreen
Early Minnesota

Golden Bantam
Kendall's Early Giant

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MARTIN DAWSON COMPANY, Ypsilanti, Michigan



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SEED

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Early Y. D., 100-day variety & Kaufmann's 90-day Yellow-Ear grown. Germination good. Graded corn shipped upon approval. Price \$8 per bu. C. H. & J. Graves, Antwerp, O.

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	Each	10	100
See 2 yr. 6 to 7 ft. xxx Apples,			
Plums, Pears	\$1.30	\$2.50	\$18.00
2 Medium size 5 to 6 ft.	.25	2.00	15.00
Sweet & sour cherries 6 to 7 ft.	.35	3.00	24.00
Quinces xxx 4 to 6 ft.	.30	2.50	22.50
Medium size 3 to 4 ft.	.25	2.00	18.00
Peaches 1 yr. 5 to 6 ft.	.20	1.50	12.00
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Seed Beans Early Wonder White pea beans pure and best for field planting. Sample on request. Nine dollars bu. bags included. WILLIAM J. THOMAS, Cannonsburg, Mich.

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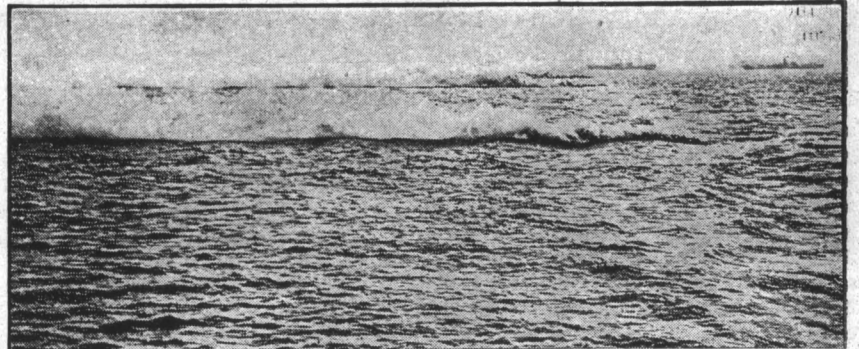
MICHIGAN FARMER
AND *LIVE STOCK* JOURNAL
PUBLISHED WEEKLY. ESTABLISHED 1843.

The FARM BOY
and GIRL
SCIENTIFIC and
MECHANICAL

WORLD EVENTS IN PICTURES



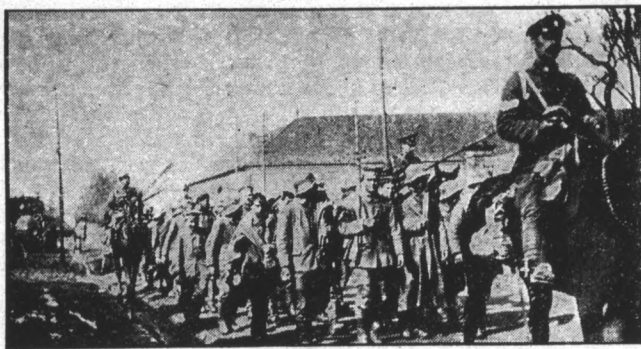
Captured Officers and Crew of German Submarine U-58 Sunk by U. S. Destroyer, Arrive at Fort McPherson where they will be Interned.



Allied Merchant Ships under convoy Hidden from the Enemy Submarines by Screens of Dense Smoke sent up by a Guard of War Ships.



Gen. Haig Greeting a French Colonel, who has come to assist British.



German Prisoners, Captured During the Fighting about Montdidier, being Marched to Rear by Captors.



Gen. Pershing and Sec'y of War Baker on Dock at Base Port in France.



Women Inspectors in Leather Substitute Plant of American Concern Adopt Uniforms for Efficiency and Safety.



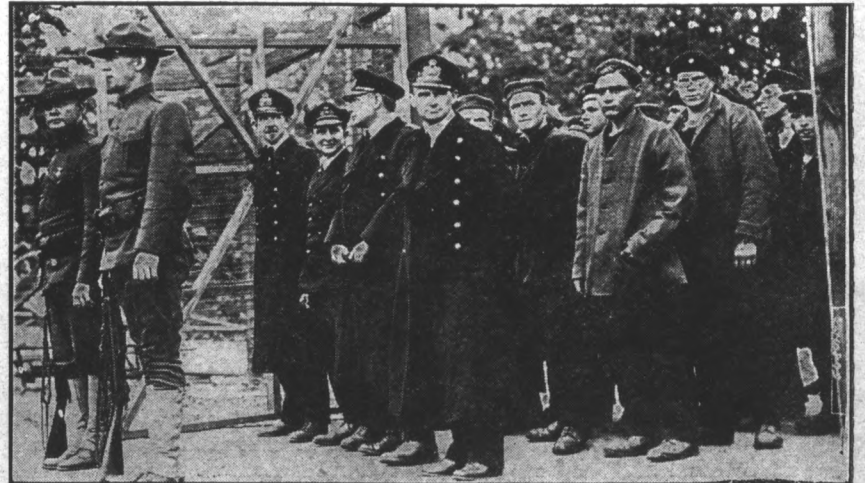
French Dirigible Flying Low keeps a Vigilant Watch over American vessels Passing through Danger Zone.



Lillian Walker, Popular Screen Star, plans Community Vegetable Field on her 350-acre Farm near Saratoga.



The man at the bow of this U. S. Submarine is Signalling a Message to Another Ship in the Distance, while the Officers in foreground are watching for a reply.



Officers and Crew of Submarine U-58 inside first barbed wire gate at Fort McPherson. When a U. S. Destroyer sank the Submarine these men were rescued from the Sea by our Jackies.

A FLYING FIGHTER

by L.T.E.M. ROBERTS, R.F.C.

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CHAPTER I.

A Start at Soldiering.

A N' American, born in the city of Duluth, Minnesota, I had inherited a love of adventure which asserted itself strongly while I was young. When a lad ten years old, I ran away from home and started out to see the Great Northwest and make my own way in the world. And since that time the greater part of my schooling has been in the University of Hard Knocks. A great many of my companions were men made famous by Jack London in his works; indeed, Jack himself was a good friend of mine, having done me many a good turn; in fact, he once saved my life.

After leaving home, I was attracted by the woods and took up lumbering. But after an accident in a sawmill, I had to give it up. Then I crossed the border over into Canada and from that time on I took up anything and everything. I went into mining, then I went into the automobile game. Then I tried railroad construction work, cow-punching, sheep-raising, and when the war broke out I was up in the foothills of the Rockies drilling for oil. It will seem incredible when I say that the battle of the Marne and the first battle of Ypres were matters of history before I knew that there was a war, and that the greater part of the civilised world was arrayed against Germany and German Militarism. In October, 1914, I started from the plains for a short visit to Calgary. On my way I had to catch a train at Okotokos, where I had bought a steak which was wrapped up in a newspaper. Butchers and customers in that country were not particular in matters of hygiene. I saved the paper to read, for I had been away from all settlements for some weeks and had heard nothing of the war. The headlines broke the news to me that Germany had taken it upon herself to decide the questions of the day by the sword. It struck me that this would provide the excitement I had been looking for. But I little thought when I first saw those headlines that from that time on my fate would be in the hands of the destiny and that the breaking of log jams on the Five Miles Rapids in the Mississippi, service with the sheriff's posse chasing cattle thieves, and shootups in the barrooms of cow towns where half the participants were killed would all be like pink teas compared with what lay before me on the western front of the great war.

I had come to Okotokos for the purpose of having a couple of days in which to clear up some freight which lay in the yards. In spite of that, I soon found myself on the way to Calgary, where I figured on having a few days with friends whom I had not seen in a long time. I had come ninety miles from my camp, making the trip in a day and a half in my eagerness to see town.

At Calgary I met an old friend of mine called Ross, but known to his intimates as "The Fish," from the fact that he was a native of Nova Scotia. The only thing we talked about was the war. "The Fish" told me there had been a call that morning for some two or three hundred men for service in Europe, and he added, "Let's join."

I said, "Jake," meaning all right, as that was exactly what I expected to hear from Fish, for I knew him to be an adventurer and a good fellow. And though neither of us had ever soldiered a day in his life, we made up our minds to join the forces that were being raised if they would have us. We spent the greater part of that night talking war and killing a few regiments of Huns.

Next morning the papers were full of what the Germans were doing in Belgium and that increased our determination to enlist. We were a little cautious, however, and before starting for the recruiting place we looked up a friend and had him explain to us the formalities that would have to be gone through. The only advice he could give was that if we didn't hurry up, it might be all over before we enlisted. This was quite enough and inside of two hours I was a member of the Tenth Canadian Infantry Battalion.

After taking a look at the barracks I thought it no more than prudent to straighten out my personal affairs. My boss, an American by the name of Sanders, thought I was crazy and said so.

"Before you get over there the war will be over," he said.

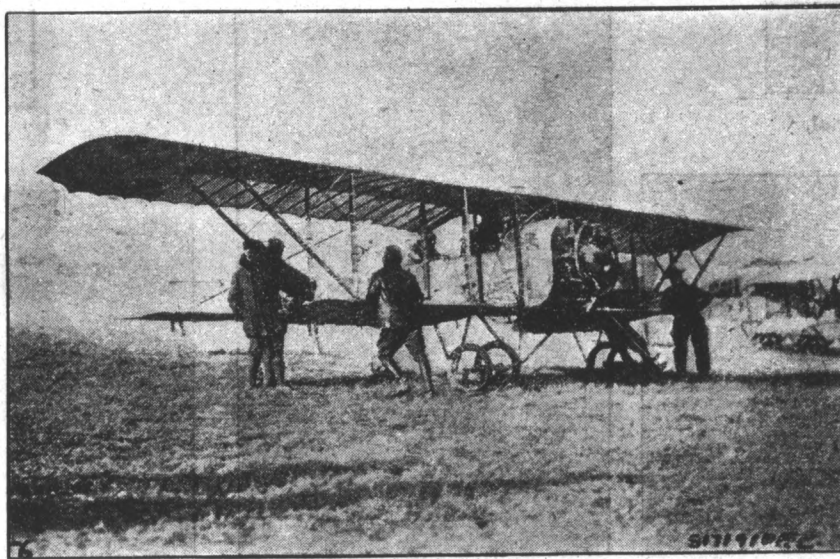
"And before it is over you will get into it," I returned.

I cannot recall now whether I meant

days in the zone of danger were over then and there. Later, however, I was to find out that this was a very premature conclusion, especially when trench warfare, and warfare of several other kinds, came to be my daily lot.

I managed to get my pal, "The Fish," transferred with me, and that helped both of us to get over the rude shock to which our great enthusiasm had been subjected. The day after enlisting we were sent in a western draft column to Valcartier, Quebec. Henceforth, "fours right" and "fours left" got to be all there was in life.

"Evoluting" on the camp ground gave me a new opinion of military life. I could not see why on earth we had to do all this when they wanted men in France. Of course, I had a hazy notion that discipline was necessary, and that I should not call the Colonel "George" on parade. But why all this walking? My idea of warfare was to fight from tree to tree and rock in the manner which once was famous in the west. I knew nothing of trenches and cannot say that I cared to know anything about them. My vision of handling shovels was too closely associated with railroad building and mining. I have done pick and shovel work in my time and it seems to be an excellent occupation for men with weak minds and strong backs. But not for me.



Going Up After a Hun.

that or not, but, as the saying goes, many a true word is spoken in jest. Ten months later, Mr. Sanders had taken up recruiting work for the Canadian government, being too old for service in France.

As a parting present he gave me a box of cigars, together with the good advice one generally hands out to a young man about to become a soldier.

I returned to the barracks and did my best to find military life agreeable. While the call issued had been for three hundred men, at the most, about seven hundred actually volunteered, so that I thought myself lucky to have been accepted.

The officer in charge of the barracks knew me quite well. He also knew of my familiarity with mechanics, and for that reason caused me to be transferred to a mechanical transport section. I cannot say that this pleased me very greatly. That job seemed a little too tame. At any rate I thought that my

However, they have the knack of shattering dreams around the military camps. Mine went with the rest, but the cause, for which I had enlisted, seemed so good that I resolved to put into practice the meaning of the motto—everything is worth trying once. Moreover, soldiering did not seem so very uninteresting, despite its routine and restrictions. Finally, here was the chance of seeing a new country.

Weeks and weeks of training were our lot. It was a case of getting up at 5:30 in the morning in temperatures that seemed to stay more or less around thirty degrees below zero. After getting up we would run several times around a race track for exercise, have breakfast, and then spend the greater part of the day in similar body and mind hardening work. I will confess that had I known what was in store for me no team of horses could have dragged me into an army. My idea had been that I should be given

a uniform and a gun; then I would sit down and wait for orders to sail to France and get into the thick of it. Some of the boys grumbled a little at the delay, but in the end we all made up our minds that now we were in it there was nothing to do but stick to it and hope for the best. The first seven years would be the worst, said some kind people, intending to be facetious.

But all things come to an end, and so did the eternal setting-up drills at the camp. Finally I got a job driving one of the heavy motor trucks, known in the British Army as a "lorry." Not very long after that I was made a sergeant in a mechanical transport section and sent to Toronto, Ontario, to train with the Second Division.

This transfer was not what I had been looking for. I had hoped to stay in the mobile army and get some fighting in the line. But people had a knack of remembering that I knew a little about the automobile, and in Canada such men were rare.

The order came that all Americans were to be ousted from the army. But the Commanding Officer called the Americans together and asked us if we wanted to take our discharge or not. One man did this but the rest of us stayed. We were required to sign new attestation papers, but before we could do that, we had to select some particular part of Canada as our nominal birth place. I stated that I was born in Sasalta, Alberta. Another man said that he hailed from Toronto—in fact, none of us had any trouble finding fictitious places of birth in the Dominion until it came to Tom Kelly, of Chicago, who had given the matter no thought. To the officer who questioned him, he said that he was born in Beansville. The officer wanted to know where Beansville was located, and Kelly replied:

"Oh, somewhere in Fish County."

The officer promptly put down Beansville, Nova Scotia, and everything was in order.

I didn't drive the lorry very long after that, being set to work to initiate recruits into "fours right and left," "sections and half-sections," and the like. When not occupied with drill I would take a turn as orderly (dog) sergeant of the day, mount guard at night, and see that everything was clean and ship-shape in the little zone that was mine, in order to please the officer of the day when he did his rounds.

There was also a great deal of clerical work to do. I had to write all the passes for the men getting leave to go into town. With that came responsibilities, which often were irksome. The passes for the men had to be taken to the Commanding Officer for his consent and signature, and when the officer refused to honor one of them, I generally was blamed for it, especially when a fellow had made an appointment with some young lady.

There was a fence around the camp and many a man, refused admission to go to town, had his first experience there at "going over the top." And though the top of the fence was lined with barbed wire, the boys put a plank over it, and many a night that plank worked overtime. To get back into barracks was a little more difficult,

however; but generally the man who had gone without leave straightened things out with one of the guards, and so avoided trouble with the authorities.

It was an easy thing in those days to get kicked out of the army altogether, for men were still plentiful, and one had to be almost a physical marvel to get into the service at all.

We spent some time in a camp on the shores of Lake Ontario, where uniforms were finally issued to us. The funny little coats they gave us, and the regulation breeches had a queer look about them; I felt that my friends back home, had they seen me in this get-up, would have had me examined as to my sanity. For riding breeches were only used by the idle rich, in the Northwest.

The underwear they issued us was even more of a trial. It was rough and a person putting it on for the first time had the impression that the "kooties" had settled all over him, as indeed they did in the case of many.

Though I had done everything possible to keep these insects away from me, I discovered that my efforts were unavailing. It got to be a question of how to get rid of the pests, and, having heard of a method that would accomplish this, I thought that I would try it. We had a dog for a mascot, and dogs, as everyone knows, have fleas. It is said that there is eternal enmity between kooties and fleas and that one will not stay where the other is. With that in mind, I transplanted a few of the fleas upon myself, so that they might declare war upon the kooties and drive them out. But before the experiment could be successfully concluded, I thought it well to apply a chemical remedy; anyway the desired result was obtained, which gave me what I hoped for.

By this time most of us had become familiar with the little tricks of barracks life. We had a good doctor, who thought nothing of excusing us from drill and other hard work so long as we said that we were sick. The result of this was that many of us were sick every cold morning that came along. But the Doc got wise, and after that when a man went sick he got a dose of castor oil at the very least.

Our military training was making some headway, however. We came to understand the different bugle calls, and we learned how to handle the rifle and bayonet and how to shoot.

We were now told that our training would be completed in England; France seemed as far away as ever. Most of us thought that the war would surely end before we got there. As week after week passed away chances of seeing the battlefield seemed more remote.

But one fine day in March we received orders to get ready to entrain. There was much hustle and happiness—faces were glowing, and the old grudges were forgotten. The preparations for our departure were made in jig time. A few telephone calls to wives, mothers and sweethearts, and the men were ready.

On the day of our departure the camp grounds were packed with relatives and friends who came to say good-bye; in the case of many it was to be a last farewell.

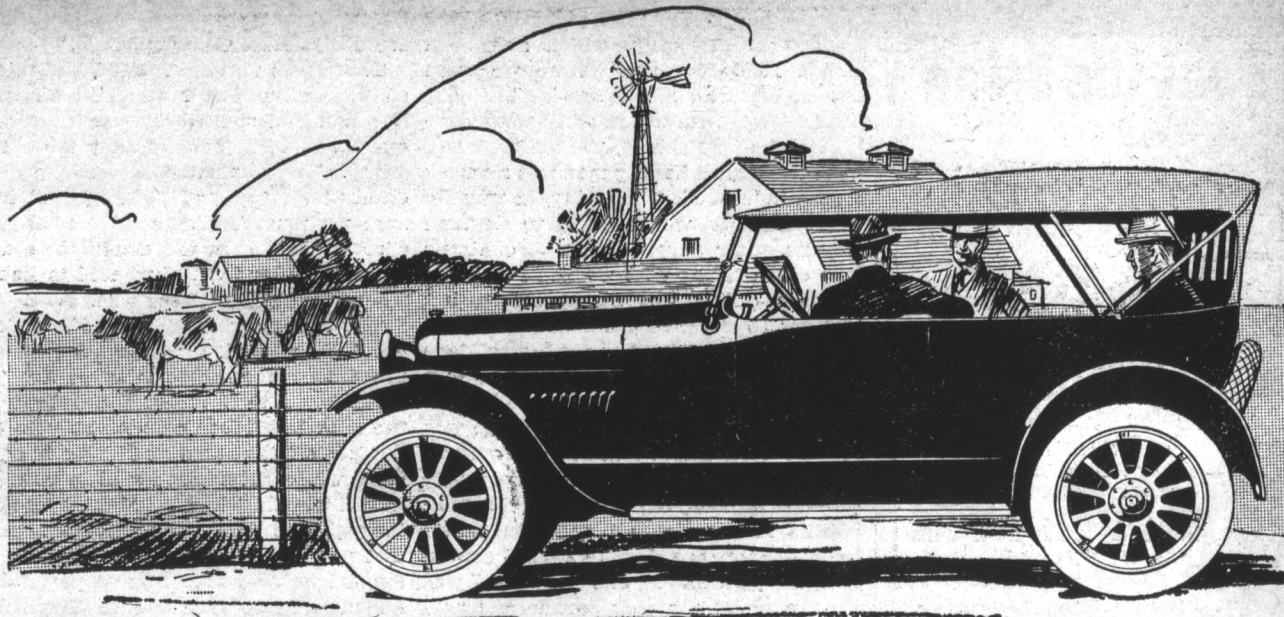
CHAPTER II.

Getting Near the Front.

NEEDLESS to say, we had a very hearty reception everywhere on our trip east. Within six hours of our arrival at Halifax the organization had embarked and was on its way to Europe.

The first thing that attracted my attention on our arrival in Liverpool was the funny little English trains. The coaches with their compartments did not impress me favorably, but I found them quite comfortable for all that. They were so packed that some of us had to sit on the floor. I also discovered that these little English trains could move at a mighty good speed.

At about one o'clock in the morning



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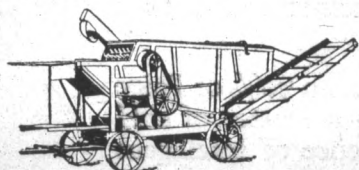
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we stopped, detained, and made a long march to the camp which had been made ready for us. There we were given blankets and a cup of hot tea; and then we turned in and soon everybody was fast asleep, the railroad trip and the march having made us a weary crew, indeed. Next morning, at reveille we found that we had come to England for no other purpose than to continue the dull drilling that we had left off in Canada. This was disappointing, but we set to work to get over it. It had been raining and the mud was deep enough to lose your shoes in. We were not used to wet weather and within two or three days the sick parade was bigger than usual, and not a few of us were laid up for a long time. The climate proved too much for me also. Chills had settled all over me, and I was hoarse, but despite that I continued my duties. On one occasion I was in charge of the sick parade and as I marched the men over to the doctor I had practically no voice left. The doctor had some difficulty in understanding me, but he was quite cheerful about it.

"What's the matter with you this morning?" he inquired. You make a sound like a codfish."

I explained that I did not know exactly what was the trouble, so the doctor took my temperature and called the ambulance. I was to be taken to a hospital, the very thought of which gave me the shivers. I suggested to the doctor that possibly the affair could be settled without going to the hospital.

"Well," he said, "if you don't go now your friends will be walking slow behind you next week."

That seemed good advice to me, especially since I was under the spell of the big medical term which the doctor had made use of so casually—bronchial pneumonia.

I managed to survive the attack and upon return to my unit found that the Commanding Officer had decided to give me back pay and three days' leave to go to London, a city which I then saw for the first time.

"The British capital was known to me only through a few pictures of the more important places, such as Westminster Abbey, the Tower, and St. Paul's Cathedral. But I had heard a lot about Leicester Square, Hyde Park, the Strand, Charing Cross and Piccadilly Circus, and I wanted to see them. As a natural result, at two o'clock in the morning, after my arrival, I found myself lost in the streets of London. I stated my trouble to a very obliging Bobby, who was somewhat handicapped in helping me, for the reason that I had forgotten the name of the hotel where I was stopping. There was nothing to do after that but to hire a taxi and spin around until I should have located the place, some hazy notion as to its locality being still in my mind. The taxi hadn't gone more than thirty yards when I saw the house for which I had been looking so anxiously just across the street. And there I learned that the London taxi driver knew his business, and also how to charge.

But further adventures were to come. A day or two after my arrival in town I thought I would like to see Piccadilly Circus, hoping, of course, to find a big tent and a lot of side shows, and all that goes with an establishment of that sort. I asked a Bobby for directions and I remember his making the remark:

"This 'bus goes right through it."

Thinking that the omnibus was a "Circus Special," I started on my ride without bothering much about my destination. There ought to be no trouble finding out when I was at the circus. After a ride of about half an hour the conductor climbed up the stairs for another fare.

"Say, isn't it near time we got to Piccadilly Circus?" I said.

"Why, you went through there about

twenty minutes ago," he replied. "You are at Clapham Commons now."

There was no doubt that I had missed the Circus, but I was still anxious to see it and started out once more in quest of it. I took another omnibus, gave the conductor his four pence, climbed on top and rode until I felt sure we must be somewhere near the Circus. Just then the conductor came up for another fare. I wanted to know where Piccadilly Circus was.

"Why, man, this is Hyde Park Corner," he replied. "We went through the Circus about five minutes ago."

Having fifteen minutes the best of the first lap, there was nothing to do but get off that 'bus and think it over for a while. It seemed a little strange that I should be constantly going through the Circus and not see anything of it. I decided to try a taxi, to the driver of which I gave particular instructions to take me to Piccadilly Circus and drop me off in the middle of it. The man smiled and drove off. In about three minutes he stopped and opened the door for me to get out. I looked around for a circus but saw none. The only thing that came at all near reminding me of a show were some flower girls near a fountain. Under the circumstances it seemed best to take the taxi driver into my confidence. After much explanation on my part, which afforded not a little amusement to the chauffeur, I learned that Piccadilly Circus is a sort of semi-circular place into which lead seven thoroughfares from the several parts of the city.

The constant traveling I had done on the 'buses had given me a very good appetite, and to appease it I walked into the first place I came to. This happened to be one of London's ultra-fashionable tea parlors. The place was fairly well packed at the time but I managed to find a place at a table. I noticed that everybody was sipping tea and eating cakes, but that was not the sort of food I was looking for. The waiter wanted to know whether I had come to take tea, to which I replied that a steak about the size of a barn door, done rare, and served with fried onions, would suit me much better. The man's jaw dropped, and everyone around began to smile. I was informed that this was a tea-room and not a restaurant. Too timid to leave the place, I ordered some tea and ate about two dollars worth of biscuits before I had satisfied my appetite. I found out then and there that the cost of living in England was much higher than I had thought. It was just as well that my stay in London was limited to three days.

Upon my return to the camp I found that I had been transferred to a mechanical base to drive a mobile workshop. This detail gave me a good opportunity to see much of rural England and its beautiful scenery. The fine old trees especially interested me, as did the lovely old-fashioned houses, the fine lawns and well-kept orchards; also the hop fields.

A little later I was one of those picked to go to France in a draft for the mechanical service. Little by little I was moving up closer to the front. There was a possibility of running into a submarine or "tin fish," as the boys called them, while crossing the English Channel, though it was known that they were not out in full force just then. We landed in France after an entirely uneventful journey, and in a little French estaminet we drank our first French wine. It did not taste good to me; in fact it was sour. I noticed, however, that there were many good-looking girls about the place and they made a much better impression upon me than the wine had done.

On the same afternoon I made the acquaintance of the French railroads, the passenger cars of which are just as funny and little as those of the English lines. We traveled in freight cars however, which are large enough to

carry, as stated by a signboard on the sides of the car, forty men or eight horses—forty hommes or eight chevaux.

In this manner we got to a railroad where we were met by an English sergeant-major and taken to a camp which was about six miles behind the lines.

We thought that we were real soldiers now. The Commanding Officer of the base to which we had been taken was not of that opinion, though. The sergeant-major, who had been our reception committee, had brought us to attention before the Commanding Officer with results that did not seem to have pleased either of them. The Commanding Officer gave us to understand that we were to be drilled and have discipline instilled into us, even if he had to do it with a sledge hammer. That was definite enough, but we had the satisfaction of knowing that we would not stay in that place forever, consequently we let his remarks go in one ear and out by another.

There was a businesslike air about the place which impressed us all the more when presently they issued to each of us a rifle and fifty rounds of ammunition, and assigned us the lorries we were to drive.

Before the day had grown much older I was given a good lesson in discipline. There was a queer mark on the body of the lorries—a triangle with a bar in its center. I wanted to know what that meant, but was given to understand that it was none of my "blinking" business. All I had to do was to drive that lorry and keep it clean. There was a great deal of terseness (Continued on page 605).

SUPPLY AND DEMAND PRICE UN- JUST TO FARMERS.

(Continued from first page).

of sugar, canned goods, etc., upon an established price of raw material to the producer and a proper allowance for manufacture and sale thereafter. It is estimated that eighty-five per cent of the farm products are basic to manufactured goods. This allows only fifteen per cent which are susceptible to direct distribution from producer to consumer. Citrus fruit distribution is pointed out as the model for marketing. If oranges or lemons had to be manufactured as is wool or cotton the marketing would not be so simple. Direct marketing by the state as tried in California and New York was abandoned because it threw upon the state the perishable articles at less than fifteen per cent of the total as pointed out above. The staple manufactured products like flour, cereals, meats, soap, sugar, canned goods, etc., which the retailer handled, enabled him to carry these stocks and sell them cheaper than where handled alone. Every effort to market direct has been exerted by the United States with the parcel post with but little patronage of farm products. Selling direct to customers of farm products is not long adhered to. Mutual dissatisfactions arise and the plan is abandoned. As a rule the advocate of this form of selling is by those who have not tried it or have not been advised of the experience of states where abandoned.

The logic of price naming is not revolutionary. It is merely the interpretation of cost, supply and demand by the producer rather than by the distributor. The naming of the price is notice to others of this interpretation and the right to make such a determination. The daily market report of farm products is the viewpoint of the distributor which will afford him a profit. The advertising page of the same paper on automobiles, for example, is the price that will afford the manufacturer a profit. This right, the producer of food stuffs has long felt as but a matter of justice but how to accomplish this end and what has been done in other countries will be made the subject of a succeeding article.

A FLYING FIGHTER.

(Continued from page 604).

about that remark, and I decided not to ask any more questions that seemed out of order.

Before long that old wagon became to me bedroom, sitting-room and what-not, all rolled into one. It wasn't such an uncomfortable home at that.

My lorry belonged to a column that carried ammunition from the nearest railroad to the front. The first hurry call we had lasted three days. The Huns were getting busy on the salient. On arriving at the advance dump—the place where the gun-limbers get the ammunition for the batteries—I heard shells scream for the first time in my life. It gave me a peculiar sensation at first, though someone said cheerfully:

"Oh, you'll get used to this."

For all that, I always retained a wholesome respect for a high explosive shell.

CHAPTER III.

Gassed.

ON the morning of the first day of the second battle of Ypres, I happened to be doing some repair work on the section commander's automobile. In a nearby field was an artillery ammunition dump, and this the Germans seemed bent upon reaching with their shells. The fire was scattered, however, and before long it became entirely too hot around the car I was repairing and I was obliged to find shelter in a bomb-proof. There was a lull in the fire presently, and I concluded that it might be safe to resume my work. I had hardly come to the surface, however, when the Huns reopened their fire. It seemed best to get in the car and speed as far away from the front as was possible. I had gone down the road some two hundred yards when the section commander caught up with me and demanded his car, saying that he was in a hurry. So I jumped out and let him have it.

(Continued next week).



Abandoning the use of massed attacks and relying more on the use of heavy artillery, the Germans are continuing to strike on the Picardy front, but with very little success.—The Haig line succeeds in checking the Bethune rush, and gains at Amiens. The French counter-thrusts capture many prisoners.—In the vicinity of Hanyard (1) the British have given up Villers Bretonneux eleven miles east of Amiens, but have pushed the Teutons out of their positions on the Albert front (2) near Robecq (4) the Germans have suffered heavy losses.—The British have regained some ground northwest of Festubert (3).

The Tractor for all the World

PLOWS THE GROUND

PREPARES THE SOIL

PLANTS THE CROPS

REAPS THE HARVEST



ALL year 'round utility characterizes the Cleveland Tractor. It performs its varied duties regularly, season by season. It is a "man-of-all-work."

It plows. It harrows. It plants. It reaps.

And it does all of these things *faster and better* than was possible before.

But that isn't all. It does the thousand and one other things that require mechanical power. It pulls your manure spreader. It runs your saw. It operates your pump. It cuts your ensilage. It drags logs and lumber. It pulls road machinery. It does practically everything! that horsepower and stationary engines can do. It develops 12 horsepower at the drawbar for hauling and gives 20 horsepower at the pulley for stationary work.

The Cleveland Tractor plows $3\frac{1}{2}$ miles an hour—eight to ten acres a day—which is equal to the work of three good men with three 3-horse teams.

It travels on its own endless tracks which it lays down and picks up as it goes along.

It operates easily over gullies, ruts, and uneven ground of all kinds. Because of its 600 square inches of traction surface it goes over sand, gumbo, mud and slippery clay without packing the soil, without sinking, miring or floundering.

The Cleveland weighs less than 3200 pounds and is so small that it can be readily driven under and among small fruit trees.

THE CLEVELAND TRACTOR CO., Dept. AD, Cleveland, Ohio, U. S. A.

It steers by the power of its own engine and will turn in a twelve foot circle.

It requires less space to house than a single horse.

The Cleveland Tractor was designed by Rollin H. White, the well known motor truck engineer—and is manufactured under his supervision.

He has designed the track for long service. The sections are constructed to prevent filling or packing with mud and protection is provided to prevent dirt and mud from falling into the track. The sections are joined with hardened steel pins which have their bearings in hardened steel bushings.

Gears are protected by dust-proof, dirt-proof cases and are of the same high quality as those used in the finest trucks. Materials used throughout are of the best.

Every step must be taken this year that will speed up farm work—that will enable machinery to replace muscle—that will help produce—and increase harvests.

The Cleveland Tractor is already bearing a big share of the war burden. Farmers are producing larger crops because of the Cleveland—and are making greater profits.

You too can help the nation meet the food emergency—and incidentally make more money for yourself. Write to us *now* for complete information and the name of the nearest Cleveland dealer.

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

WAR NECESSITY FOR NURSES MET BY SPECIAL SUMMER CLASS

As a war measure, Mount Sinai Hospital School of Nursing is entering a special class, June 15th, 1918. Recognizing the need for additional nurses for military and civilian purposes, the Mayor's Advisory War Committee of Cleveland, and the Western Reserve University have made this Course possible, the former, by supplying the funds, and the latter by offering its facilities for a ten weeks' course in theory. Students will live at the hospital which is in close proximity to the University. No tuition will be charged for the course at the university. Living expenses will be met by the Hospital. This plan offers unusual opportunities to qualified young women wishing to serve their country. Applications should be made at once to Miss C. A. Wheeler, Principal of Mount Sinai Hospital School of Nursing, 1800 East 105th Street, Cleveland, Ohio.

Railroad Traffic Inspectors Wanted.

\$125 a month and expenses to start; short hours; travel; three months home study, under guarantee; we arrange for position. No age limit. Ask for booklet L28. FRONTIER PREP. SCHOOL, Buffalo, N. Y.

All kinds of bill stuff and barn timbers for sale. Native timber. Ithaca, Mich. J. H. SMITH.

Seed Corn: Early 90 day Yellow Dent, 90% Germ. Guaranteed \$6.50 bu. Samples free. THEO. BURT & SONS, Melrose, Ohio.

Sir Walter Raleigh Seed Potatoes. Free from blight and scab, 60 cents per bu. Also marketable size if you prefer them. DAVID LEENHOUTS, R. 2, White Cloud, Mich.

SEED CORN

King's Early Yellow Murdock, \$8; Iowa Gold Mine, \$8; Smut Nose or Flint, \$8; King's Improved Red Cob Ensilage, \$5. Your money will be refunded as once it stock sold out upon receipt of your order. H. C. KING SEED CO., Battle Creek, Michigan.

For Sale CHOICE SEED CORN. 500 bushel 100 day Yellow Dent, 400 bushel White Cap Yellow. Order early. Woodfields Farms, Wycombe, Bucks Co., Pa.

Farms and Farm Lands For Sale

\$1,000 Down Secures Farm, 14 Cows, Pr. Horses and

Calf, wagon, sleds, tools, implements, harnesses, machinery, etc., etc. 180 acre dairy farm in America's greatest dairy County, where the butter is made for the U. S. Navy. Aged owner to secure immediate sale offers everything for \$3650 with \$1,000 down. Productive tillage, 20-cow spring watered pasture, maple sugar grove and woodland, 2-story 11-room house, barn, wagon shed, poultry and milk houses. For details this New York Money Maker and one of 87 acres equipped for \$1700 see page 15 Strout's Spring Catalogue of 384 bargains, dozen states. Copy mailed free. E. A. STROUT FARM AGENCY, Dept. 101, 150 Nassau St., New York, N. Y.

FARMERS: Come up and let me sell you a farm on Our Grand Old Prairies. No stumps or stones. GREATEST GRAIN & STOCK COUNTRY IN THE WORLD. One good crop puts you on Easy Street. U. S. Needs Food, prices are high, big profits accordingly. Do Your Bit. Write J. B. STREETER, Devils Lake, N. Dak.

Wanted To hear from owner of farm or unimproved land for sale. O. K. HAWLEY, Baldwin, Wisconsin



Our Boys and Girls

At Work and play



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

NOW, you will say, well, if I am going a long way from home where they do not know me at all, and where I have no acquaintances what am I to do about it? How am I to identify myself so that I can get money from time to time as required. You will very properly say, I do not wish to carry any large amount of ready cash as it is not good policy to do so, what will I do?

Well, here again, your banker will help you out. You can go to him and he will sell you what is commonly called A. B. A. checks. On being interpreted this means American Bankers' Association checks. Here again you will find it of value to you to have established a credit with some good bank for there will be no hesitancy whatever in issuing such checks to you where you are known. He is entitled to charge you fifty cents per hundred dollars for this service and it is surely a cheap insurance of safety and convenience.

These checks are issued in denominations of \$10, \$20, \$50, \$100 and \$500, but for convenience in ordinary traveling on the style that "our folks" are likely to go the \$10 and \$20 denominations are most convenient, with perhaps a few \$50 for emergencies if on a long trip.

Now, if you do this, your banker will

require of you when you make the purchase that you sign the A. B. A.'s as they are familiarly called, in his presence. Of course, being entirely familiar with your signature he will not stand over you and see that you really did sign, as he will know your signature when he sees it.

He then virtually becomes sponsor for the checks and when you need money anywhere in the United States and in most large cities of Europe, all you have to do is to sign your name again exactly like the first signature and there will be no hesitancy whatever in securing the cash. Hotels, steamboats, railroad offices, wholesale houses, bankers, express companies, telegraph companies, anybody and everybody who is familiar with business at all will accept them in payment of bills and give you the change.

Banks, hotels, railroads and steamboats will cash them outright usually. You do not have to pay exchange for cashing them. That was all settled when you purchased your checks and paid the fifty cents per hundred for them. A. B. A. checks are rarely stolen as they are of no use to any other than the owner, being non-negotiable, until signed by the original purchaser.

Now, when you go up to a counter to use an A. B. A. check never sign it

until the party whom you are expecting to cash it for you is at liberty to take notice of the transaction for here, unlike your purchase at your own bank the party does not know you or your signature and will not therefore pay it unless they actually see the owner of the check sign it, and again, always take note just how you signed it the first time when you purchased them. Do not sign J. A. Doe in one place and John or John A. Doe in another, for this is confusing and may require much explanation.

Of course, one may, under ordinary conditions buy a New York or Chicago draft or have one's own personal check "certified" and get by with it all right but strictly speaking, you are again right up to the point of requiring identification.

Now, some of our boys or girls may ask what is a certified check. It is your own personal check drawn on your personal account, which you have taken to the proper officer (in a small bank it will usually be the cashier, president or vice-president, or perchance maybe the assistant cashier or paying teller), who will stamp it certified and upon so doing will charge it to your account just the same as if it were actually paid. Why? Simply because he has guaranteed this check—the bank has, and they become responsible for its payment, hence the law requires, as well as good business practice, that it be charged to your account.

This certified check then becomes in the same class with a cashier's check so far as validity is concerned, that is

if the bank is good the check is good in either case, but the entire stranger to you does not know if you came by the check honestly or if the bank upon which it is drawn is good so you may have your identification troubles.

Now, suppose you do not use a certified check, what will you do with it, tear it up and scatter it to the four winds of the earth? Well, that is what is frequently done and it causes no end of trouble.

Never destroy a certified check that has not been used; return it to your bank and re-deposit it to the credit of your account. You will recall that it was charged to your account and hence must be returned if unused. Should you destroy it, your banker is ever at a loss to account for it and may even require a bond of you to cover the amount before he will consent to give your account full credit for the amount and do not blame him if he does so. It is exactly the thing he should do and that is why I am giving you this advice.



Oakdale Garden Club.

HOW well I remember my first gun. I have never seen another quite like it. It was offered for sale for one dollar, and it was fully guaranteed to kill at three rods.

Thirty years have passed since I last saw the dear old Connecticut farm, but I can come within five feet of pointing out the exact spot where my father stood, cutting wood, when I broached the subject of purchasing my first gun.

Father listened while I talked—fortunate the boy whose father is a good listener. I rehearsed the good points of the gun. I emphasized such points as being a great bargain, light and easy for a boy to handle, sure death to game at a reasonable distance, etc. I expressed my conviction that I was old enough to own a gun, my absolute certainty of being careful in its use, and urged our need of protection from unprincipled hawks who were making inroads on our chickens.

Father always thought before he spoke. In this case he may have thought two minutes—it seemed two hours to me. At last he spoke: "Yes, George," said he, "I think you are old enough to have a gun."

O, joy! That was one of the happiest moments of my boyhood days. I would not dare to tell you just how few the minutes were that passed by before I had covered the half mile to the coveted gun, paid my dollar, and was marching proudly homeward with my treasure. No millionaire was richer than I that night. What dreams I had in the noon o' the night as I wandered in game-filled forests.

That gun was old, decrepit, breech-

burnt—as homely as the proverbial hedge fence—but to my youthful eyes its lines were perfect, its power unlimited. I now own a little-used, beautiful Parker hammerless gun. This gun is a thing of beauty, but it can never look as beautiful to me as did my first gun, the old, worn, homely muzzle loader. I enjoy shooting as well as ever, but I do not like to kill, and the living birds and squirrels look more beautiful to me with each passing year.

But I would not blot out from my memory those charming days when I



Memories---My First Gun

By G. W. TUTTLE

wandered in the woods of old Connecticut with only my gun for a companion. Sometimes I returned empty handed, but more often with squirrels for a savory stew, or with yellow-shafted flickers, or even with robins, which were considered fair game for a boy four decades ago. As I grew older an occasional quail was bagged as I learned to shoot upon the wing; and; and—crowning joy—on rare occasions some cunning old cock partridge thundered up only to be stopped in midair by a fortunate shot. Ah! but that was a proud moment for a boy! What a noble bird! How white and delicious the meat! A savory pound, indeed!

When I think of the charges that went into that old, breechburnt gun, at times, I wonder that I am now alive. In those days we dropped the ramrod into the loaded gun, and placed our fingers against the ramrod. If the ramrod projected three fingers the charge was medium, four fingers was heavy, and five fingers was very heavy, doing great execution at the rear of the gun. I remember an amusing incident that occurred one day when I had overloaded the gun:

I had loaded the gun heavily—four fingers. The crows were coming into the corn and I thought I might possibly get several in range at once, so I put in two fingers more of shot in addition to the heavy charge already in the gun. Not getting a shot at the crows I

went to the woods to look for partridges. Some rough factory young men came along and tried to frighten me by threats, etc. When they discovered that I was not easily frightened they became civil and asked if they might shoot the gun. I jumped at the chance to get rid of that charge, as I felt nervous about shooting it myself.

Hanging his hat on a stake for a target the young man fired, with disastrous results to the hat. The recoil nearly turned him around, and he felt of his shoulder as if to satisfy himself that any of it remained. When he looked at his hat he was astonished, for the hat had become a sieve. He promptly offered me five dollars for my dollar gun, which offer I as promptly refused.

Better guns followed in good time but it is the first gun that is rich in memories.

ENLIST.

BY RUTH RAYMOND.

Enlist for your county by boy,
The farm is the "War Zone" today,
No foe man have you to destroy
As you gather the grain and the hay.

Enlist for the Nation has need
And calls for the loyal and true,
We have promised our Allies to feed,
Our Allies who battle for you.

Then work with a strength and a will
Be faithful and we shall succeed,
'Tis as helpful to feed as to kill,
'Tis as loyal to sweat as to bleed.

Enlist 'neath the banner my son,
While birds sing a martial refrain,
Keep step till the conflict is won
And the world has been fed with our grain.

A FIFTY-HEN PROGRAM.

The twelve years we were alienated from the farm by the allurements of the weekly pay envelope taught us, in some things, how to run the farm when we came back. Here is our program for a small flock of hens. Before we went to the city we kept hens but they were of the class of biddy that lays forty or fifty eggs per year and the birds were fed almost anything they would eat. In the city we kept hens and we learned then how to make them pay.

Give Plenty of Room.

We would advise at least four square feet of space for each bird in the winter quarters. This should be exclusive of the roosting section. When weather is suitable free range should be allowed. On the farm the hen house may be some distance from the residence, so this will be practical. Summer care of the birds will consist of cleaning the house frequently and providing means for the birds to keep themselves free from vermin. The feed should consist of dry mash and scratch feed. The particular use of dry mash is to make the hens drink a lot of water, so necessary to egg production.

In the winter a balanced ration must be fed. First provide grit and shells in proper hoppers. Also, provide a hopper for dry mash which should be filled from time to time so there will always be a supply for the birds to peck at. Ground alfalfa and beef scraps may be fed in the mash if no other sources of green and animal food are available. On the farm, however, skim-milk and cabbage or beets may take the place of the more costly ingredients. Hens must have both or they cannot make eggs.

Feeding for Egg Production.

In the morning scatter a quart and a half of scratch feed, which may be corn and salvage wheat, barley or oats. At noon feed table and household waste, also some kind of green feed. At night feed the same amount of scratch feed. This estimate is based on a flock of fifty birds. Fresh water should be kept in clean fountains and should be available at all times unless milk is fed, in which case water once a day will be sufficient.

We have kept several brands of poultry but have finally decided that the American breeds are best adapted to the needs of the farmer. One function of the flock is to supply a roasting bird at frequent intervals and a Rock or Wyandotte or Rhode Island Red makes as good showing in the pan as any breed. They also develop rapidly. The flock should be replenished yearly by pullets hatched in March or early April. The late hatched chicks will not lay during the winter, when eggs are so much desired. Finally, and most emphatic of all, keep pure stock and keep the flock up to the standard by frequent introductions of new blood.

Use Conveniences.

By providing the house with proper food hoppers, drinking fountains, droppings boards and other conveniences, the work of caring for a flock of fifty hens is not large. We have no hard and fast rules in feeding but we know that the hen must have egg-making foods or she cannot lay. In these times of high-priced grains, the kind of grain most readily obtained is fed as a scratch feed.

New. Hampshire. C. H. CHESLEY.

HEN REPRIEVE ENDED.

Although restrictions on the sale of live or freshly killed hens were removed on April 20, farmers are asked to keep all their laying hens and to market other fowls gradually. The Food Administration shortened by ten days the period of the regulation, in force since February 23, which prohibited licensed dealers from buying or selling

This Sign has helped \$10,000,000 worth of "Z" Engines to 150,000 farmers of America who demand the best for their money



LOOK FOR THE DEALER- WHO DISPLAYS THIS SIGN

SEE this sign at your local dealer's where this \$10,000,000 "Z" Engine is in action. Get acquainted with the famous "Z" Engine for which 150,000 farmers of America have paid over \$10,000,000 in backing their judgment.

They had seen all engines — they decided — and "Z" engines are proving the wisdom of their choice everywhere today on their work.

3 & 6 H.P. Use Economical Kerosene

Also Distillate — Coal Oil — Tops — Gasoline

—These 150,000 practical Farmers saw the advantages of the "Z" Built-in Magneto, everything complete, no batteries to fuss with or buy.

—They figured out the savings using Kerosene, at half the cost of gasoline, getting more than rated power in the "Z."

—They wanted the strength, simplicity and staunch durability of the "Z" Engine with its gun-barrel cylinder bore—its leak-proof compression—quick starting—low first cost—low upkeep—Fairbanks-Morse Quality.

—They bought on demonstrated performance in action—regardless of price to get the biggest dollar-for-dollar values per H.P. ever built into an engine. They acted wisely.

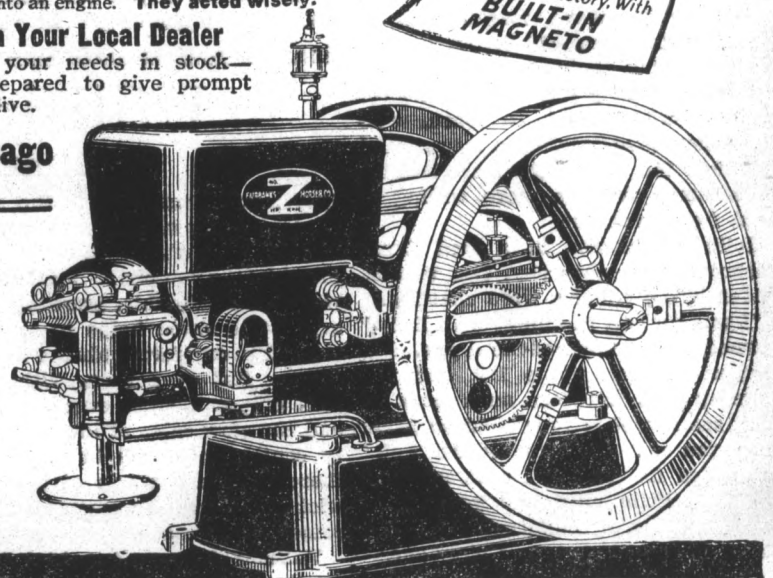
The Service You Get When You Buy From Your Local Dealer Your local dealer has just the type "Z" for your needs in stock—waiting for you. Buy from him. He is prepared to give prompt delivery and personal service right where you live.

Fairbanks, Morse & Co., Chicago
Manufacturers

Why Farmers Buy This Better Engine

1. Fairbanks-Morse Quality.
2. Economical in first and fuel cost, and low upkeep.
3. Simplicity and Staunch Durability.
4. Light-weight, Substantial, Fool-proof.
5. Gun Barrel Cylinder Bore.
6. Leak-proof Compression.
7. Complete with Built-in Magneto.
8. More than Rated Power.

Don't think of Buying ANY Engine Till You See the "Z" in Action.



Healthy Vegetables

The U. S. Dept. of Agriculture recommends that you rid your seeds and soil of infection before planting, with the greatest known disinfectant—

FORMALDEHYDE
The Farmer's Friend

It prevents potato scab and black-leg that attacks beets and other vegetables. It guards against onion rot and onion smut and smudge, cucumber root rot. It prevents mould in celery, lettuce, parsnips and other covered seeds when applied to the beds before planting. Big scientific book with full directions sent free upon request.

PERTH AMBOY CHEMICAL WORKS
100 WILLIAM STREET NEW YORK 12

For Sale. 40 horse gasoline or kerosene engine in A-1 condition. The BUNDAY BEDDING CO., Lansing, Mich.

PROFITS IN HONEY

Sugar is scarce. Honey is in great demand. High prices prevail. Make your bees produce more than ever before. Send for our catalog for prices on Bee Hives, Section Boxes, Comb Foundation, Smokers, etc. Beginner's complete outfit furnished with or without bees.

BERRY BASKETS

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Additional Poultry Ads on Page 606



Woman and Her Needs

At Home and Elsewhere



Our Way---Not the Only Way

IT would really be pathetic, if it weren't so irritating, to consider how much people lose in this world by their refusal to learn. Really, the number of people who are perfectly satisfied with their own meagre knowledge, and most contemptuous of any effort to enlighten them, is amazing. Especially, if the person who offers to help is someone they've always known. The average human being seems just naturally incapable of comprehending that a person with whom they have grown up may have learned something worth imparting, and from the days of Jesus, down to our own time, we find men and women saying,

"Whence hath this man this wisdom? Is not this the carpenter's son? Is not his mother called Mary? And his brethren, James and Joseph and Simon and Judas? And his sisters, are they not all with us? Whence then hath this man all these things?"

So the masses close eyes and ears to things which might make life easier and better for them, fearing that by admitting they can still be taught they are confessing their inferiority. And, strange as it may seem, it is the most ignorant who refuse to learn, who think they have nothing to learn. And the wiser the person the more humble he becomes and the more willing to learn from everyone.

Rolling bandages in a Red Cross workroom the other day, two women, evidently old friends, were chatting.

"I was up half the night with Billy," yawned one, the fat red-faced one. His temperature ran up to 102, and this morning he's as cross as a bear. I don't see how it is your children never keep you up. They're always well," she added fretfully. "I can't see why a skinny little mite like you should have such strong children, and a big strong woman like me has puny ones."

"The 'skinny little mite' flushed and bit her lip. But she said pleasantly enough, "It does seem rather strange, doesn't it?"

"Strange," echoed her friend, "I should say it is. George and I were talking about it this morning. You and Jack don't either one look as well as we do, and look at your children. How do you do it?"

"You wouldn't do it if I told you," said the friend, considering critically a bandage she had just finished.

"If you mean a high-priced specialist, I couldn't afford it," said the fat one.

"I don't mean doctors at all," said the little woman. "I haven't had a doctor in the house for two years, and the specialist never came after he opened my eyes to the sins of wrong feeding. It's all in the children's diet and regular habits, going to bed early and no exciting night movies."

"Well, I can't afford four quarts of milk a day at twelve cents a quart, why there's \$3.50 a week right there for milk alone," said the sleepy mother. "And eggs for custards at present prices are out of the question."

"No," said the little one tartly, "But you can afford a couple of pounds of fifty-cent chocolates a week and movies for the four of you two or three nights a week, and sodas every day for Billy and Dot. You spend \$3.50 a week

for things that are a detriment to you all and then complain because the children are sick. I couldn't afford to do that." The name "skinny little mite" still rankled, it was plain.

"Oh, I suppose if we wanted to be tightwads like some folks and never take the kids to a show nor buy them a sundae we could support a creamery, too," flung back the "lady friend." And conversation languished.

I wanted to congratulate the little woman for her courage and common sense, but that last shot scared me out. So I could only muse on the queerness of human nature. Every paper we pick up is filled with the importance of properly feeding the children, every place one turns are helpful suggestions from the clinics provided in the cities to the bales of free literature sent out by the government to rural readers. And yet hundreds of mothers are going on still, creating perverted appetites in infants, feeding chocolate candy to babies only a few months old, giving fried potatoes and salt pork

to little children who should be having cereals and whole milk and eggs, and then complaining because the children are not well. And worst of all, they scoff at the very things that would help them and back up their mistake with the argument that mother always fed the things they are giving.

Mother did, because she didn't know any better. The subject of correct feeding had not been touched upon when mother brought us up. And look at our disordered digestion and jangling nerves. Read the statistics of people dying of diseases caused almost entirely, doctors will tell you, from wrong habits of eating.

Let us get out of the idea of thinking our way is the only way. Let us be open minded and willing to be told. The woman next door may have something we don't. Let's learn it, even if she is "skinny." The government is asking us this year to save 100,000 children. We can do it if we are ready to learn.

DEBORAH.

Utilizing the Potato

By GRACE N. WHITTAKER

IN marked contrast to the effort to save every tuber for seed last year, is this year's watch cry of "use all the potatoes you can." No doubt every woman will do this, knowing that every potato eaten helps to save wheat to send to our forces abroad and to our allies. But even then, with the surplus of potatoes in every farm home and the slow sales at low prices, (thirty cents per bushel in this locality), there will be a waste of food that is wicked unless the women of the farms come to the rescue.

Without danger of making the burden too heavy, it is possible in nearly every farm home to make a few bushels of potatoes into a food product that will keep indefinitely, i. e., starch. The time to do it is now. A little later the more strenuous work on the farm will have begun and the potatoes will not be in as good condition for the sprouting changes some of the starch into sugar. If one has a fair market for the best potatoes, remember that the small ones are just as good for this purpose.

The process described below is a very simple one, the time required but two hours. With a larger and better equipment the time could be materially reduced. In homes where there are children the work can nearly all be done by them and this chance to be a kind of work which they like to do, make something new. The writer lays no claim to originality. It is an old process revived and simplified. Our grandmothers used to make this starch by the slow and oftentimes painful process of grating the potatoes.

Potato Starch.

Material.—One peck of potatoes, a colander or sieve, food grinder, several pans and basins, stiff vegetable brush and plenty of cold water.

Process.—Scrub the potatoes with the vegetable brush, using plenty of water. Rinse thoroughly. The larger ones should be cut in several pieces, the smaller ones in halves. The size

of the pieces will depend upon the size of the chopper used. The writer was equipped with a No. 2 chopper, and used the nut-butter grinder. With a chopper of larger size less cutting would be necessary and less time would be used in grinding; but the fine knives should be used since the finer the potato is ground the greater the percentage of starch saved. Grind.

Some of the liquid will drip from the chopper in the process of grinding. Save this carefully as it contains a large part of the starch. Put the pulp into the large colander or sieve which has been previously placed over a pan large enough to allow the colander to reach part way to the bottom of it. Turn on water enough to fill the pan nearly full. Stir the pulp thoroughly for several minutes with a stick or a large spoon. Remove the colander to another pan and repeat the process. Less starch will come from this washing. Three washings will be sufficient. Allow the water in which the pulp was washed to stand undisturbed a short time until the starch has settled to the bottom of the pan. The water will be of a dark reddish color. Turn this off carefully and put on fresh. Stir the starch well from the bottom. Strain through coarse cheesecloth. This removes the finer particles of pulp which passed through the colander. When the starch has again settled it will be found that this water is much cleaner. Change the water as many times as is necessary to remove the impurities. When the water looks clear turn it off and allow the starch to dry. The process may be hastened by breaking it up and removing to shallower pans after it has dried a short time.

Result: In this case one and one-quarter pounds of starch.

The experiment was then tried of paring the same amount of potatoes but this process required more time and gave but one pound of starch and nearly as many washings were neces-

sary in order to clear the starch of foreign matter. The refuse pulp was cooked and fed to the fowls. It was eagerly devoured so there was absolutely no waste.

Uses.—1. Food. 2. Laundry.

Food.—This starch may be used in various ways as shown below. Every spoonful used saves one of flour since its thickening value is double that of the latter. This may seem a small saving but it takes only eight tablespoonfuls to save a cup of flour. Considered from the standpoint of economy alone, it is worth using, as starch at ten cents a pound is cheaper than any of our flours since we need to use but half as much.

Chocolate Pie.

Crust.—One cup of rye flour, (barley may be used and will make a crust of lighter color), quarter of a teaspoon of salt, three tablespoonfuls of any lard substitute. Mix the ingredients as usual but be careful when adding the water to use as little as possible or the dough will be sticky. Line the pie-tin with this crust and bake in a quick oven. When done fill with the custard and return to the oven for a short time.

Custard.—One pint of milk, one tablespoon of potato starch, one egg, two tablespoons of sugar, one tablespoon of grated chocolate, half a teaspoon of vanilla, quarter of a teaspoon of salt, one teaspoon of butter. Mix the starch, sugar, chocolate and salt, add a little of the cold milk and the egg well beaten. Heat the remainder of the milk nearly to the boiling point in a double boiler. Stir the mixture into this, add the butter and cook two or three minutes, stirring all the time. Remove from the fire and add the vanilla.

If desired the white of the egg may be omitted and a half spoonful more of starch used. The white may be whipped till very stiff, a teaspoonful of powdered sugar added and the mixture spread on the top of the pie. It should then be returned to the oven to brown.

No apology is offered for giving recipes for pies. Most farmers' wives have quantities of fruit canned for that purpose. Not to use it would be a waste of good material. But the pies should be made with one crust and that of rye or barley flour.

Berry Pie.

Crust.—Make as for chocolate pie but do not bake.

Filling.—Drain the juice from the canned berries. Dissolve two tablespoons of potato starch in a little of the cold juice. Heat the remainder nearly to the boiling point. Stir in the dissolved starch and boil till thick enough. Put the drained berries in the crust, add the thickened juice and bake without top crust.

Potato Starch Pudding.

Three tablespoons of potato starch, one quart of milk, one-quarter teaspoon of salt, two eggs. Mix the starch with a little cold milk, add the eggs well beaten and the salt. Heat the remainder of the milk in a double boiler nearly to the boiling point. Add the mixture to the hot milk, stirring all the time. Boil four minutes. Serve with maple syrup.

White Sauce.

One tablespoon of butter or vegetable fat, half tablespoon potato starch, quarter teaspoon of salt, one cup milk.

Mix the starch with a little of the cold milk. Scald the remainder in a double boiler. Add the hot milk slowly to the mixture, stirring all the time. Return to the boiler and cook twenty minutes. Add butter or oil, and salt and remove from the fire as soon as well mixed.

Gravies.

Use potato starch to thicken all gravies. Remember that half as much starch as flour is needed.

War White Cake.

Whites of three eggs, one cup of sugar, one-third cup of butter or vegetable fat, half cup of milk, one teaspoon of vanilla or lemon, one-quarter teaspoon of salt, two teaspoons baking powder, one cup of potato starch, one cup of barley flour. Cream the butter or fat, add the sugar, mix well. Fold in the whites of the eggs beaten very stiff. Sift together salt, baking powder, and barley flour. Mix the milk with the potato starch. Add the flour and starch mixtures alternately, beating thoroughly. Bake in a moderate oven.

Dark War Cake.

This cake does not require potato starch but is given because it uses the egg yolks.

Yolks of three eggs, one-third cup of shortening, half a cup of molasses, half a cup of sugar, half a cup of sour milk or buttermilk, one teaspoon each of soda, allspice and cinnamon, one and a half cups of rye flour, or two cups of barley flour. Beat the egg yolks, add shortening, sugar and molasses and mix well. Dissolve the soda in the sour milk. Sift together flour, cinnamon and allspice. Add alternately with the sour milk, beating well. Bake in a slow oven.

Either of these puddings will use the egg yolks left from the war white cake.

Lemon Pudding.

Yolks of three eggs, one-third cup of a cup of sugar, four tablespoons of potato starch, one pint of water, one tablespoon of butter, grated rind and the juice of one large lemon or two small ones. Beat the yolks and sugar together. Moisten the starch with a little of the water and boil the rind and juice in the remainder for fifteen minutes. Strain. Add to the moistened starch and cook until it thickens. Add the eggs, sugar and butter, stirring well. Pour into a pudding dish and place in the oven for ten minutes. Serve cold.

Caramel Pudding.

Two-thirds cup of sugar, one pint of milk, yolks of three eggs, three tablespoons of potato starch, one tablespoon of butter. Caramelize the sugar, (have a very low fire or it will burn). Heat all of the milk except enough to moisten the starch. Add the heated milk very slowly to the caramelized sugar, stirring constantly. Add the moistened potato starch, beaten egg yolks, and place in a double boiler. Add the butter and cook two minutes, stirring all the time. Pour into a mold and serve cold with cream.

Laundry.—This starch is excellent for all laundry purposes. If directions are followed it is never sticky.

Clear Starch.

One tablespoon of potato starch, moisten in two tablespoons of cold water. Add one and a half pints of boiling water and one-quarter teaspoon of salt, stirring constantly. Boil for two minutes. Starch the clothes while this is hot.

Cold Starch.

Potato starch will be found just as satisfactory for this purpose as any of the starches used for this kind of starching.

Vines Furnish Shade and Food.—Instead of planting vines to shade the back porch, plant climbing lima beans or Kentucky wonder wax. Both are very prolific and easy to gather and afford ample shade while furnishing a vegetable for the table easy to gather. —Mrs. J. J. O'C.



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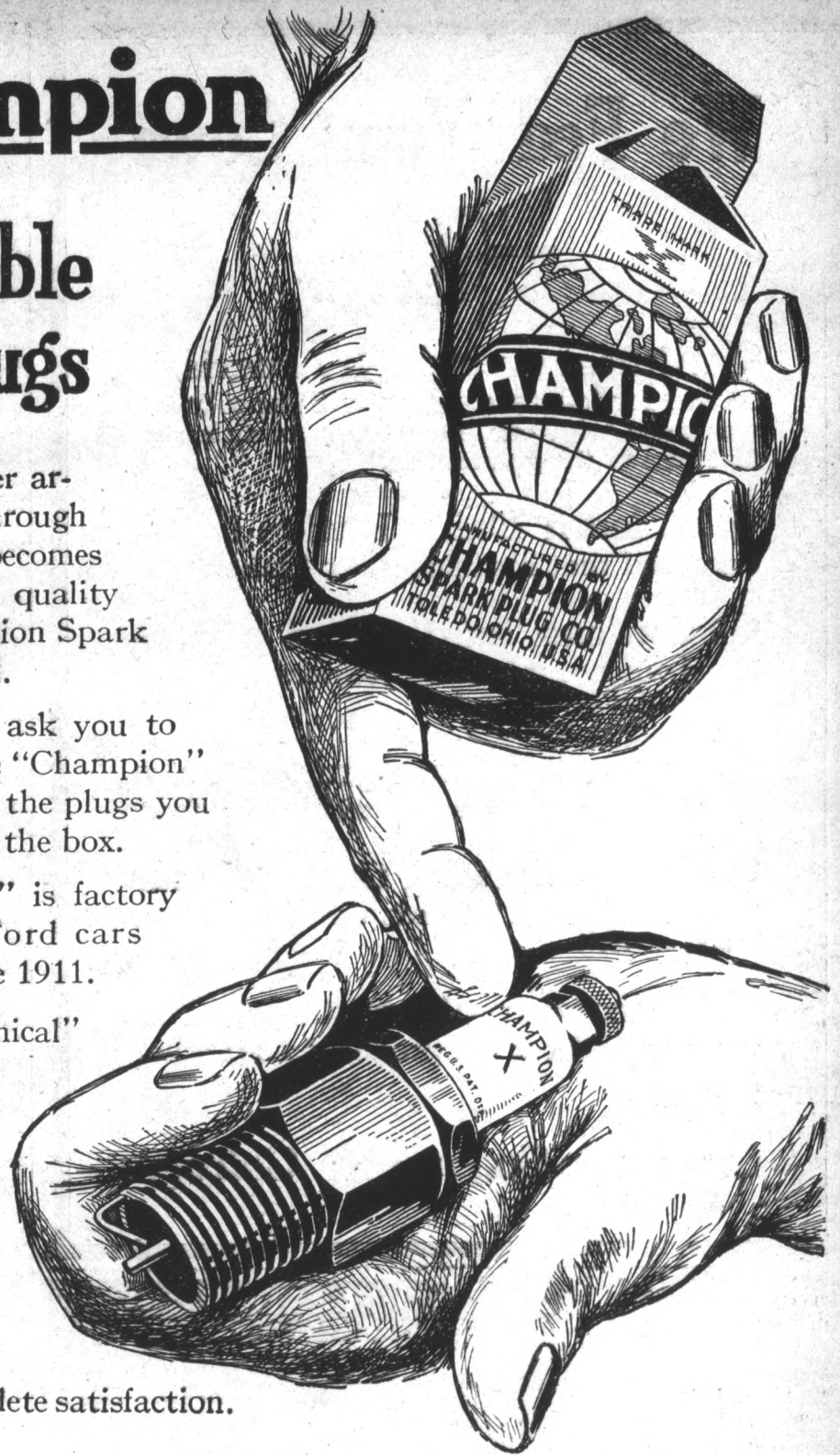
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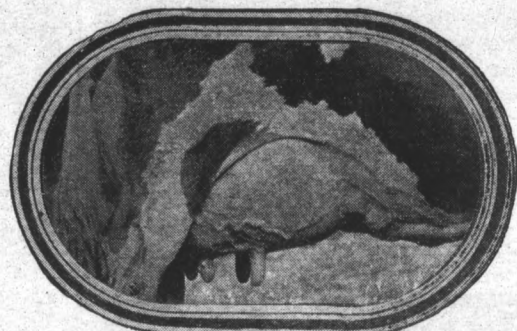
Condensaries Unable to Finance Contracts for Milk Turn Product Back to Farmers

AN over-supply of any food product in this era of food shortages would be a paradox—but this very thing has come to pass in Michigan. A surplus of milk, for which there seems at present to be no adequate outlet, is accumulating.

This surplus of dairy products, according to those who are looking into the matter, is mostly attributable to a shortage of ships which for the time being is preventing the condensaries from transporting their output to Europe, where the famine in butter-fat products is more acute by far than is the surplus of them here.

"What this means to the producer of milk, however, it doesn't require very much intuition to guess," declares J. A. Waldron, extension agent in dairying for the Michigan Agricultural College. "The experiences of dairymen near Portland, in Ionia county, are typical of what is happening in numerous other parts of the state. This district was supplying about 19,000 pounds of milk daily to a local condensary, but during the last ten days in April (and this state of affairs may still be existing), the condensary had to turn this milk back. The company would have liked to have taken in this product and stored it until the finished condensed milk began to move, but it lacked the capital necessary to enable it to do this—and many other of the smaller condensary enterprises in the state are finding themselves in the same predicament.

"Another cause of the surplus is to be found in the effort at adjustment of milk prices that has been made in several of the larger cities within the past winter. As a result of this effort and the growth of a feeling by much of the public against the producers, the consumption of milk in the cities has fallen off markedly—and this despite the fact that even at twelve and fourteen cents a quart it is one of the cheapest and most nutritious foods the consumers can purchase. The new lessons in food conservation and thrift are also having their effect in lessening the demand for butterfat products in France, Belgium, England, Italy and other European countries. For the American dairyman a possible solution of these current difficulties might be found if the government would place orders for future delivery upon which the condensaries and the milk corporations might borrow money—though there is nothing to indicate at present that this will be done. An organized campaign of advertising of dairy products by the dairy associations, in the manner in which the California growers enlighten



How will the Normal Increase in Milk Production be Cared for this Year?

Under the circumstances, it is the opinion of the writer that in the long run it will be wiser for dairymen to struggle along as best they can for the present, rather than to sacrifice any of their herds, for while the present may look dark enough, a future is in prospect which from the standpoint of profit and general good of the industry should amply repay producers for existing hardships."

News from Dairy Associations

THE Allegan County Cow-testing Association has finished its fourth year and despite adverse conditions the herds came very close to the marks of the preceding years, the average being 6.568 pounds of milk and 274.3 pounds of fat per cow. Seven herds out of twenty-five averaged above 300 pounds of fat per cow. J. D. Wedge's herd of Jerseys won first place with average of 388.9 pounds. Roscoe Ellis, Jerseys, was second with average of 360.3 pounds and L. A. Arndt, grade Holsteins, was third with average of 385 pounds of fat. The Arndt herd also leads with an average of 8,878 pounds of milk per cow. The records show that fourteen cows are making a net profit of \$90 each and that twenty-eight cows are "boarders."

Four cows made over \$100 net profit in spite of high feeds. Records for the year cover 256 cows and the leader in each class was as follows: Mature, grade Holstein owned by Wm. Iliff, 11,392 lbs. milk and 493.3 lbs. of fat; four-year-old grade Jersey, owned by Wilmot, 6,404 lbs. milk and 432.1 lbs. fat; three-year-old, registered Jersey, owned by Wedge, 7,518 lbs. milk and 511.9 lbs. fat; two-year-old, grade Jersey, owned by Godfrey, 5,927 lbs. milk and 379 lbs. fat; milk class (any age), registered Holstein owned by Washburn, 13,376 lbs. milk.

The cooperative creamery at Harbor Springs, in Emmet county, which has not been operating for about a year, is in the hands of Allen W. Reynolds as receiver and will be sold.

Condensed milk intended for the boys "over there" has been piling up at Atlantic ports, due to lack of vessel room, and this is hitting the dairy farmers. A Grand Ledge milk company has discontinued some of its milk routes. For example, Ionia county farmers were shipping 11,000 pounds daily from one station and this business was dropped with only a few hours' notice.

Kent Co. ALMOND GRIFFIN.

IMPLEMENT REPAIR WEEK SUCCESSFUL.

That the farmers generally responded to the idea of "implement repair week" the first week in March is indicated by returns from various parts of the country. Orders received by dealers and manufacturers during the spring season have been larger than usual. Not only did the orders come for the repair of spring tillage implements, but also for mid-summer harvesting equipment. This indicates that growers throughout the country were deeply interested in putting their implements in condition for the entire year.

The cooperative creamery at Harbor Springs, in Emmet county, which has not been operating for about a year, is in the hands of Allen W. Reynolds as receiver and will be sold.

Keep adding little to little, and soon there will be quite a heap.—Virgil.



Here's Shoe Economy

"Farm Wear" Shoes are economical for you to buy because they are made especially for farm service—double tanned to resist uric acid. Built to give more miles to the dollar.

A hundred thousand farmers are wearing

"FARM-WEAR" Shoes for Farm Wear

You'll like them, too.

If your dealer doesn't carry "Farm-Wear" Shoes, tear out this advertisement, write your name and address in the margin, also size and height of shoe wanted—if single or double sole—and advise us if we shall mail you a pair.

Dealers: Salesman upon request

NUNN & BUSH SHOE COMPANY
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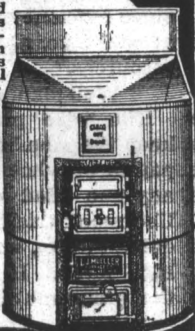
ALL the comfort, health and convenience of furnace heat, freedom from annoyance and danger of stoves without tearing up your walls for pipes or flues or heating your cellar.

The only pipeless furnace which completely incorporates correct principles of pipeless heating. Greater warm air capacity and scientifically proportioned heating surface insure constant circulation of warm, moist air in sufficient volume to heat comfortably the entire house.

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Especially designed and built for pipeless heating. Exclusive features of construction found in no other pipeless furnace make it the ideal pipeless system and absolutely reliable. Burns hard or soft coal, coke or wood. Saves one-third or more on fuel. Quickly installed in old or new homes. Sold under binding guarantee. Write for free booklet "Heating Your Home" and name of nearest dealer.

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Grand Rapids, Mich.
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We believe in producing rather than promising. We know we can save you money. You will agree if you will let us show you

Our Big Bargain Bulletin is Free

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263 WOOD ST.
PITTSBURGH, PA.

UNION TIRE CO.

NEWS FOR MILK PRODUCERS.

(Continued from page 600).

blush with shame when you put oleo on your own table because it is two cents cheaper than butter, and then ask the city man to buy your butter and use it on his table and give you a fair price for your product.

Then we must enlarge and continue our advertising campaign. Every man who owns a cow is interested in this matter. He is benefited a hundred times as much as he will ever put into the campaign, by the great work that is being done by the local state and national associations. Let's be fair, have a heart and backbone to stand for the right in this matter.

We are told that it will require nine months of continued effort before we can secure that ruling which will be necessary before we can get cheese as a part of the soldier's ration. This is one of the most concentrated form of animal nutriment. The soldiers are hungering for it, we have millions of pounds piled up awaiting for them and it should be used in all of the cantonments in the United States, as a part of the soldier's ration, even though it can't be sent across the water just yet. We are making every effort to protect and encourage your industry and give to the American people these most needed food products at a fair price, and we want your help.

WATCH THE FARM SEPARATOR.

The separator should be watched. Be sure that the machine is level and securely fastened to a firm foundation. Remember that the speed of the separator is an important factor in its efficiency. If the crank is turned too slowly an excessive amount of fat will be left in the skim-milk. The milk should not be allowed to enter the machine until full speed is attained.

A temperature of ninety degrees F. is best for separation. If milk is cold when separated there is too much loss of fat. If the milk becomes cold it may be warmed by placing the can of milk in hot water. It is preferable, however, to separate the milk soon after it is drawn and before it becomes cold.

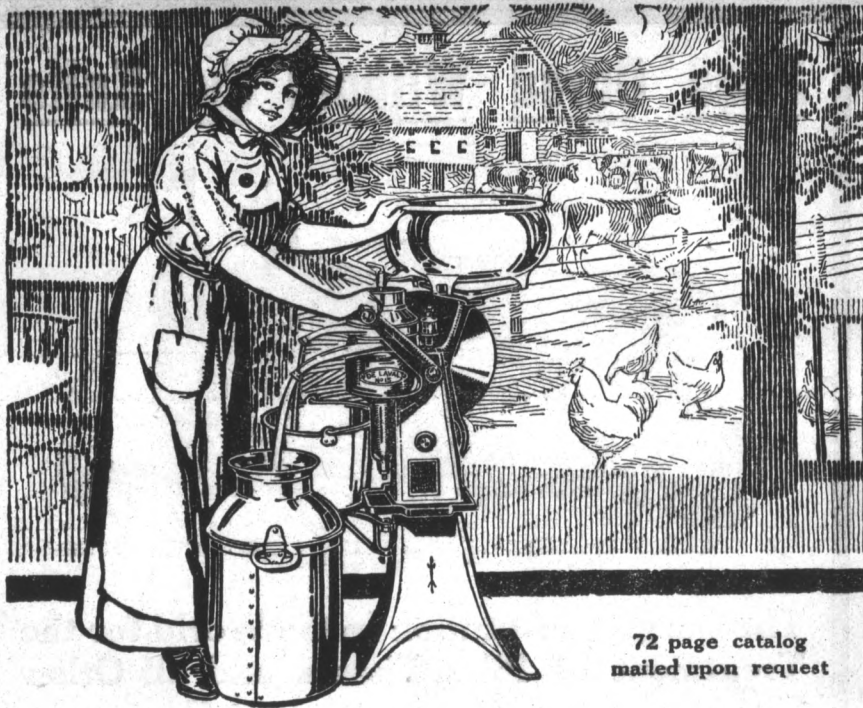
The separator should be kept clean if the highest efficiency of the machine, and the best product is to be obtained. At the end of each separation flush out the bowl by pouring into the supply can about two quarts of lukewarm water. The parts may then be washed with warm water and then rinsed in scalding water after which they should be allowed to dry.—L. W. Morley.

HOW TO CLARIFY FATS.

Here are three methods of clarifying fat. Method 1. Melt the fat with an equal portion of water in a double boiler. Strain through a cloth. When cold remove the layer of fat from the water. Method 2. Follow directions given under Method 1, using sour milk. Flavors and odors are modified. Method 3. Follow directions given in Method 1, adding several pieces of clean hardwood charcoal. If beef fat is being clarified, the yellow color is removed and a white odorless fat is secured.

Cultivation of vegetables should begin as soon as the plants are up. It should be repeated at frequent intervals. The crust should be broken after every rain, as soon as the ground is dry enough to work. It is poor economy to wait for weed growth to force cultivation. Once the soil is allowed to settle, become firm or to bake it can be worked only with difficulty.

The eyes of the world are looking toward American air men. Read "A Flying Fighter," first installment on page 602.



72 page catalog
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Eight Good Reasons Why You Should Buy a

DE LAVAL CREAM SEPARATOR

GREATER CAPACITY: New capacities have been increased 10%, without increase of speed or effort required in operation.

SKIMS CLOSER: The improved bowl design, together with the patented milk distributor, gives greater skimming efficiency.

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SERVICE WHEN YOU NEED IT: The world-wide De Laval organization, with agents and representatives ready to serve users in almost every locality where cows are milked, insures the buyer of a De Laval quick and efficient service whenever he needs it.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

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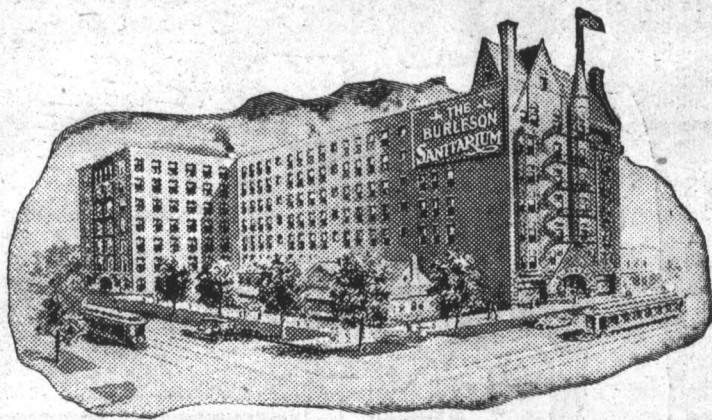
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WE CURE PILES, FISTULA and all other DISEASES of the RECTUM (except cancer) by an original PAINLESS DISSOLVENT METHOD of our own WITHOUT CHLOROFORM OR KNIFE and with NO DANGER WHATSOEVER TO THE PATIENT. Our treatment has been so successful that we have built up the LARGEST PRACTICE IN THE WORLD in this line. Our treatment is NO EXPERIMENT but is the MOST SUCCESSFUL METHOD EVER DISCOVERED FOR THE TREATMENT OF DISEASES OF THE RECTUM. We have cured many cases where the knife failed and many desperate cases that had been given up to die. WE GUARANTEE A CURE IN EVERY CASE WE ACCEPT OR MAKE NO CHARGE FOR OUR SERVICES. We have cured thousands and thousands from all parts of the United States and Canada. We are receiving letters every day from the grateful people whom we have cured telling us how thankful they are for the wonderful relief. We have printed a book explaining our treatment and containing several hundred of these letters to show what those who have been cured by us think of our treatment. We would like to have you write us for this book as we know it will interest you and may be the means of RELIEVING YOUR AFFLICTION also. You may find the names of many of your friends in this book.

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The Farmers of Michigan Lose Annually

More Than \$2,500,000.00 Worth of Live Stock

Horses, Cattle, Sheep and Hogs

FROM ACCIDENT AND DISEASE

The animals are destroyed and their cash value lost not only to the farmer but to the community, the State. This amazing sum of money can be saved to the farmers and the State if they (the farmers) will but avail themselves of

The Michigan Live Stock Insurance Company

organized expressly for the purpose of indemnifying owners of live stock against death from any cause. We want agents to carry this great message to every farmer.

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

We Offer a Few Special Bargains In S. C. White Leghorn cockerels, Rambouillet rams, Hampshire pigs (either sex) and Holstein bulls. A good chance for a small investment to reap the benefit of a large expenditure of capital and years of expert breeding.

Flanders Farm, Orchard Lake, Mich.

CATTLE.

ABERDEEN ANGUS

For Sale—Three high-class bulls of the "Blackbird Families" ages 17 to 23 months. All sons of Black Monarch 3rd three times Grand Champion Bull at Michigan State Fair. Write

SIDNEY SMITH, Supt.

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Wildwood Farms, Orion, Mich.

WOODCOTE ANGUS

Trojan-Ericas and Blackbirds only Breeders of the dam and former owners of the sire (our herd bull) of the Grand Champion Bull at the International Chicago for 1917.

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 5 splendid, registered Aberdeen Angus 2 yr. old heifers. Or would exchange for good registered females. Robert Smith, Caledonia, Mich.

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

Registered Guernseys

A fine 3 year old heifer and her heifer calf—right in every way \$350. F. O. B. your town. J. M. WILLIAMS, North Adams Mich.

Guernsey Heifers. Very choice grade Guernsey heifers and heifers calves, of good dairy type, thrifty, in good condition, and O. K. in every respect and out of high grade Guernsey cows and pure bred sires. Also grade Guernsey cows. Prices reasonable. The JENNINGS FARMS, Bailey, Mich.

Guernseys 45 Registered head, all tb. tested. Nora's heads our herd, 19 of his half sisters sold averaging \$1850 each. His bull calves are booked ahead at reasonable prices. Avondale Stock Farm, Wayne, Mich.

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

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

Guernseys—For sale, animals of both sex from A.R. cows. Prices reasonable. Geo. N. Crawford, Holton, Mich.

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100--REGISTERED HOLSTEINS--100 When you need a herd sire remember that we have one of the best herds in Michigan, kept under strict sanitary conditions. Every individual over 6 mos. old regularly tuberculin tested. We have size, quality, and production records backed by the best strains of breeding.

Write us your wants. R. BRUCE McPHERSON, Howell, Mich.

A Good Note accepted in payment of finely bred registered Holstein bull calves. Quality of the best, and at prices within reach of all. Write. GEO. D. CLARKE, Vassar, Mich.

I Always Have Holsteins To Sell

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

L. E. CONNELL, Fayette, Ohio

OAK Leaf Farm. Hard sire Lenawee Pontiac Calamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 796.3, butter 82.51—315 days milk 23782.3, butter 626.775. E. H. GEARHART & SON, R. 4, Marcellus, Mich.

Ideas for the Program Committee

By I. J. MATHEWS

PROGRAM committees of rural organizations should take advantage of present conditions to further the cooperative spirit. Despite the fact that much business comes before a society, the program committee is the key to success of the organization and the members should feel their responsibility. Programs prepared "on the spur of the moment" are often spurious, in other words, they do not do what any program should do, namely, to interest the people.

Have All Participate.

Every program should be made up with the idea in mind of getting the greatest number of people onto their feet. The maximum benefit comes from getting all members into active participation. Most folks are good listeners for a short time only and after that they wish to be doers. It is impossible to have three or four meetings where staid and set speeches are given without losing some of the local interest. The thing that is enjoyable is the thing that is self-educating and while we do get some instruction from others speaking, much more pleasure is derived from our having taken part in the program individually. Some points as roll call to be answered by quotations from farm poetry, favorite animal and why, favorite work and why, as well as, the funniest thing I ever saw, are all good for the purpose of arousing interest and getting everyone into the program. The mock trial brings out all of the latent talent in the community for with the large number of witnesses that may be called, many people can participate and they are all given something to do.

The program committee is the one responsible for the social life of the club or association. Business alone will not keep any organization alive any more than will the social side alone. The meetings, in order to be interesting, must contain an admixture of both business and social elements.

Points of Etiquette.

In our township clubs there are a few points of etiquette that are often overlooked. In a township, many people come to the club who are strangers. In some cases, folks who have lived in the township all their lives do not know each other. These people who come in as strangers should be met by some committee, or individual, and introduced to all those present whom they do not know. In this way, the community comes to know itself, which is indeed a great accomplishment.

Where clubs are held at private homes, it is customary and proper for the guests to tell the host or hostess as they pass out and go home that the evening has been an enjoyable one. It means much to entertain a group of people in one's home and this courtesy shows that the guests appreciate the plans which have been made for their entertainment.

Especially in newly formed clubs, the members are often a little stiff in their anticipation of the remarks which are to be made by a foreign speaker. After anyone has had a round of speaking before a strange audience, he will know that the reception which is given the speaker has much to do with the message which the speaker will bring. I have taught school, led young people's meetings and spoken some before strange audiences, and I know that the crowd secures my best only when I feel that they are interested in what I shall say.

It is only a small thing, yet it means much, so when a speaker is going forward, he should be given a hearty welcome as evidenced by hand clapping. Stamping on the floor with one's feet

is a mark of ill-breeding and is not considered by speakers as a welcome.

Talent on all Sides.

Regarding talent that may be called upon, the average community is filled with men and women, who know things that are not so well known by the remainder of the community. These people will usually not take a very long time to tell what they know on any particular subject and this makes it possible for many of them to participate in a single program. Moreover, if we could get into operation only the best practices of each farmer in the community, great progress would follow. The best practices of every housewife put into use in each kitchen would lighten the work one hundred per cent and eliminate much drudgery.

Foreign talent is lurking everywhere. The county agent is always willing to come out, but should be used as a guide more than an entertainer. Too much county agent or any other person on the program will kill any organization. It is in line neither with democracy nor the American spirit. Remember that the club fulfills its highest purpose when it educates, elevates and entertains all its members. Education is the keynote of all progress. "How the banker and farmer can co-operate," is a subject that can be made very interesting by any intelligent banker, and can usually be secured for the asking. "The future of the country church," is helpful when handled by a wideawake minister. The local teacher can often do so much good through thoughtful remarks on "How parents and teachers cooperate." Even a politician can be called upon to tell some things about political management. Physicians can say much that is helpful concerning "The first signs of sickness," and even the baker will contribute some very interesting points about how his business is run. The community that would be one hundred per cent efficient must make use of all these experts that are available, since efficiency may be defined as "The greatest possible use of all available resources."

Well-planned Programs Best.

The wise program committee will keep the members constantly in anticipation of what comes next. Don't let any one kind of program get stale. Use mock trials, new songs, roll calls, debates, etc., and keep the interest at high pitch. It helps greatly to have the programs made out three months in advance. This gives all participants a chance to prepare and brooks no apologies when an assignment is lacking. No program should be allowed to take more than one and a half hours where the people sit still and not more than two hours where there is a recess in it. A ten-minute recess often promotes greater sociability. However, see to it that the ten minutes does not lengthen into fifteen, then twenty, and so on, for this one feature will in time break up the organization.

Interesting programs are available on all sides. Talent, both local and foreign, is in abundance. In these serious times, sociability is the panacea for the sorrows and foreboding thoughts that prevail in war times and there never was a time when it was easier to assemble a crowd for any purpose whatsoever. In view of these facts, there is but little excuse for a dead program committee except inertia. In such a case, impeach the committee and put on a live one, as the organization should not be hampered by a barnacle.

Never leave that till tomorrow which you can do today.—Benjamin Franklin.

Every man is the architect of his own fortune.—Sallust.

CATTLE

HOMESTEAD FARMS

A Federation of Interests

Holsteins

A herd of 50 Holsteins headed by the bull, King Zerma Alcartra Pontiac, son of King Segis Pontiac Alcartra the \$50,000 Holstein Bull and full brother to Mable Segis Korndyke; 40.32 lbs. of butter in 7 days at four years old.

This herd is of the very highest class of Holsteins and are the kind that the practical farmer should have who wants stock that is sure to pay out.

The following family is offered as a foundation for a high class practical herd: Dam, Tatty Topsy Dawn, 4 yrs old just freshened; 1st daughter Pauline Sadie Dawn, 2 yrs old, bred Nov. 7, 1917, to bull with 29 lb. dam; 2nd daughter, 1 yr. old and full sister of 1st daughter; 3rd daughter, born April 15. Let us send you photographs and full description of this family.

Heifer calves, bred heifers and cows. Please tell what you want and let us describe and send photograph of the individual such as we think you would like.

Young Bull, sired by King Zerma Alcartra Pontiac; Grand sire King Segis Pontiac Alcartra, the \$50,000 bull. Dam is Genesee Wonder, direct descendant on both sides from De Kol 2nd Butter Boy 3rd.

This young bull was born Jan. 30, 1918; is 95 per cent white, a straight, upright animal. We will send you description and photograph. Other young and older bulls of high class.

A fine Holstein herd; animals of all ages to select from. Please let us hear from you.

HOMESTEAD FARMS, Bloomingdale, 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.

60 Head Registered Holstein Cattle

The Tuscola County Holstein Friesian Sale Co., will hold their first annual sale at Caro, Michigan, May 31, 1918. These cattle are from the best herds of the county and represent the blood of some of the greatest sires and dams of the breed. Some sired by and others bred to 30 lb. bulls. Holsteins the greatest dairy cattle in the world, Caro the place to buy them. For catalog or other information address

B. B. Reavy, Akron, Mich., or
Geo. A. Proctor, Vassar, Mich.

The Traverse Herd Great Values In Bulls

from A. R. O. Cows with records up to 20 lbs. Let us know your wants. We will send extended pedigrees and prices.

TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

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.

A Few Fine Bulls For Sale

Bigelows Holstein Farms, Brodsville, Mich.

\$50 gets 1 mo. old son Pontiac Hesperia 2d. 14 lb. granddam 30.21 lb. Herd free of tuber. Terms: See April adv. for females. M. L. McLAULIN, Redford, Mich.

Winona Pet No. 214312 3 mos. 27.4; milk 545.30. She is the dam of a bull calf born Sept. 17th we are offering for sale. His sire is from a 24 lb. four year old and 30 lb. sire. Calf is straight as a string and all right in every way. Price \$125. Also one yr. heifer. Jay B. Tooley, Howell, Mich.

Stonyhurst Stock Farm

Has a few fine bulls for sale. Are offering one this week from a 21.79 lb. Jr. 4 and sired by Pet Johanna Sir Hartog whose daughters are just coming fresh, one at 2 1/2 years has a 25 lbs. record.

This youngster is 3 mos. old, finely marked, straight and weighs 350 lbs. his full sister has just made at 1 year 11 mos. 17.64 of butter, 456.5 milk 7 day. Priced Cheap. F. A. BARNETT & SONS, Rochester, 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 Pietertje.

Do you want a Pontiac in your herd?
Pontiac State Hospital, Pontiac, Mich.

245% INCREASE IN MILK IN TWO GENERATIONS

with a **HOLSTEIN BULL**
Let us tell you about this. Let us show you why a Purebred Holstein bull is the short cut to greater dairy profits. Booklets free.

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

Holstein bull, nearly ready for service, large straight deep bodied, handsomely marked 3/4 white. His six nearest dams have A. R. O. records that average butter 7 days 24.13 milk 534 lbs. W. B. Reader, Howell, Mich.

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

DISPERSION SALE

60 REGISTERED HOLSTEINS

LONG BEACH FARM HERD

A herd with a State Wide Reputation.

Tuesday, May 28th, at 11:00 A. M.

30 cows of milking age. 18 A. R. O.

Long Beach De Kol Korndyke, will be sold with 30 of his lovely daughters, A. R. O. Our "Baby Sire" a son of Colantha Johanna Lad will be sold. Daughters & Granddaughter of King Segis, Pontiac Aaggie Korndyke, Johanna Rue 3rd Lad.

Friend Hengerveld De Kol Butter Boy, Spring Farm King Pontiac 6th, King Korndyke Sadie Vale & King of the Pontiacs.

Herd Under Feeder Supervision. Sale will be held at Long Beach Holstein Farm, Gull Lake. Trolley cars from Kalamazoo, Battle Creek and Grand Rapids take you to Gull Lake Station, there launches will take you within ten rods of the barn. Send for catalog.

F. S. KENFIELD, Prop.

Col. D. L. PERRY, Auctioneer, W. R. HARPER, Salesmanager
All other stock including 50 Registered Hampshire Hogs will be sold May 21st.

Extraordinary Opportunity

The Livingston County Holstein Breeders Sale Co., will Hold Its

Fourth Annual Public Sale, Thurs., May 16, '18

At 10:30 A. M. at Howell, Mich., at the Sale Pavilion on the Fair Grounds

100 Head of Registered Holsteins

This sale will be the Dispersion of the entire herd of S. B. Rubert, Howell, Mich., who contributes 40 head.

Among the bulls will be a herd bull by the Mighty Rag Apple Korndyke 8th and out of a daughter of Pontiac Korndyke. Several of the bull calves are of choice breeding and are fit to head herds. Their dams have records from 22 lbs. as Junior two-year-olds, to 29 lbs.

Among the females will be found: A 28-lb. daughter of King of the Pontiacs and two of her daughters by an extra good sire.

Two daughters of Pontiac Korndyke and some stock from each.

A 26-lb. Junior three-year-old; a 26-lb. Senior three-year-old; a 26-lb. Junior four-year-old; a 25-lb. cow and her daughter by a 30-lb. sire; two 22-lb. Junior two-year-olds; two granddaughters of Colantha Johanna Lad, both with records; 20 daughters of Smithdale Alcartra Pontiac who has six two-year-old daughters that average 19.7 lbs. butter each in seven days and two three-year-olds with 25 and 26 lbs. He is a son of that famous cow, Alcartra Polkadot, who has three daughters with records above 31 lbs., and is a brother to the sire of Tilly Alcartra, the World's Champion Long Distance Cow.

A large percentage either have records themselves or are from record dams.

Many of the females are bred to bulls whose dams have records from 30 to 35 lbs. and nine are bred to King Segis Champion Model whose dam has a 40-lb. record at four years old, and who is a full brother to King Model who sold in the Steven's Sale in 1917 for \$10,000.

We believe they are the best bred lot of cattle ever offered at Public Sale in Michigan, with the single exception of the National Sale at Detroit in 1916. Remember the Date and Place and plan to be present.

Catalogs May 1st.

Auctioneers: Perry and Mack. F. J. FISHBECK, Secretary, Howell, Mich.

Registered Holstein bull calf, born Sept. 1917, dam daughter of 24 lb. cow, write for pedigree and price. F.O.B. your station. E. E. STURGIS, R. 3, St. Johns, Mich.

Holstein calves, 25 heifers, & 2 bulls 15-16ths pure, 5 weeks old, beautifully marked, \$25 each, crated for shipment anywhere. Buy only the best. EDGEWOOD FARMS, Whitewater, Wis.

Parkside Holstein bull. Sired by son of Maplecrest Pontiac Application. Yearly record 134 lb. butter. Also Percheron Stallion. J. E. Tirrell & Son, Charlotte, Mich.

HEREFORDS

6 bull calves for sale, Perfection Fairfax and Prince Donald breeding.
ALLEN BROS.,
PAW PAW, MICH.

Herefords Bob Fairfax 49427 at head all ages either polled or horned. EARL O. MCARTY, Sec'y Mich. H. B. Ass'n, Bad Axe, Mich.

Jerseys for sale Ready for service bulls Majesty, breeding. WATERMAN & WATERMAN Meadowland Farm, Ann Arbor, Mich.

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

For Sale A fine, dark, solid color Jersey bull Royal Majesty and out of R. of M. cow. Ypsilanti, Mich. O. & O. DEAKE.

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.

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

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

Richland Farm

Shorthorns.

IMP. Lorne in Service, Grand Champion Bull of Mich. Special offer on 14 head of Shorthorns. Cows with calves at foot, heifers two years old and heifers one year old. Also a number of bull calves. We invite correspondence and inspection.

O. H. PRESCOTT & SONS,
Farms at Prescott, Mich. Office at Tawas, City, Mich.

Francisco Farm Shorthorns

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

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

Fair Lawns Shorthorns

Yearling bulls by Canada's best sires: Missie Augusta 606778 and Imp. Newton Frier 528120.

LAURENCE F. OTTO, Charlotte, Mich.

Shorthorns. Three scotch bulls ready for service. Price reasonable.
W. B. McQUILLAN, R. 7, Howell, Mich.

Shorthorns Maxwalton Monarch 2nd, 387322 half brother to 5 Grand Champions in service. JOHN SCHMIDT, R. 5, Reed City, Mich.

SON of Harthorh Welfare heads our herd of milking Shorthorns comprising Chiffley of Olaf bred cows, young bulls ready for sale and service, write us Liddel Bros., R. 2, Clinton, Mich., Macon Phone.

1867-1918 Maple Ridge Herd of Shorthorns Yearling heifers and bull calves for sale. J. E. TANSWELL, Mason, Mich.

Shorthorns Four very desirable heifers 17 to 21 months old, and bull 8 mo. All roans. Price \$1000. S. E. BOOTH, Morrice, Mich.

Shorthorns--Sired by a grandson of Cyrus Olaf. No stock for sale.
COLLAR BROS., R. 2, Conklin, Mich.

SHORTHORNS--20 bulls 2 to 18 mos., mostly from S Dorthy's Sultan 463045, a grandson of Whitehall Sultan, also a few cows. O. Carlson, LeRoy, Mich.

Dairybred Shorthorns of best Bates Strains, young stock of both sexes for sale.
J. B. HUMMEL, Mason, Mich.

Scotch Shorthorns for sale, 5 bulls ready for service.
John Lessiter's Sons, Orion, Mich., B. F. D.

Registered Shorthorn bull for sale 7 mos. old, also bull calf; roans.
WATERSTADT BROS., Marcellus, Mich.

SHORTHORNS

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

Scotch Shorthorns: 1 Red Bull 14 months old; 1 red bull calf 8 months old.
W. C. OSIUS, Hillsdale, Michigan.

Wanted: Dairy Shorthorns, 3 young cows or 3 heifers that will freshen soon. Write me giving age, weight, and price. Le Roy Emmons, R. 4, Hastings, Mich.

Grand Traverse Shorthorn Asso. Reg. stock for sale.
M. E. DUCKLES, Sec., Traverse City, Mich.

Red Polls One yearling bull. Also bull calves by Lincoln Lad 2nd. For prices and description, write Wells Parish & Sons, R. 3, West Olive, Mich.

Cattle For Sale

2 Loads feeders and two loads yearling steers. Also 2 can show you any number 1, 2 and 3 year old from 600 to 1200 lbs. Isaac Shantum, Fairfield, Iowa, R-8

Two Registered Aberdeen Angus Bulls for sale, 12 and 15 months old. Longwood Farm, Charlotte, Mich. Marshall Kelly, Prop.

HOGS

GREY TOWER FARM

Now offers for sale a few choice Holstein bull calves, from high testing dams, with good A. R. O. records, at farmers' prices, write us about them and our

Durocs & Berkshires

M. D. KITCHEN Mgr., Grass Lake, Mich.

DUROCS

You want more size, feeding qualities. Fall boars ready for service. A few sows bred for June farrowing. NEWTON BARNHART, St. Johns, Mich.

DUROC JERSEYS

R. D. HEYDENBERG, Wayland, Mich.

Duroc fall boars sired by Crimmon Critic T. Satisfaction and Brookwater Principal, priced right. Bred sows all sold. M. O. TAYLOR, Milan, Mich.

Durocs Can spare two or three bred daughters of A. FLEMING, Joe Orion 2nd the \$5000 boar. Lake, Mich.

Choice Duroc Jersey Gilts For Sale.

CAREY U. EDMONDS, Hastings, Mich.

DUROCS service boars, bred sows, fall pigs. Express paid. J. H. BANGHART, E. Lansing, Mich.

Duroc Jerseys for sale. Service boars & spring pigs also Shorthorn bulls, calves, milking strain. CHAS. BRAY, Okemos, Mich.

Durocs, big, thrifty pigs, registered and transferred, \$15.2 for \$27, either sex, f.o.b. Hillsdale. Satisfaction guaranteed, will sell quick. B. E. Kies, Hillsdale, Mich.

Spring Pigs for sale. Pairs and trios not akin. Breeding and prices on request. J. D. CRANE & SON, Plainwell, 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 can not already represented by these fine early developers--ready for market at six months old. Write for my plan--More Money from Hogs. G. S. BENJAMIN, R. F. D. 10, Portland, Michigan

Additional Stock Ads. on Page 615

Markets.

May 9, 1918.

WHEAT.

Receipts of wheat at primary markets and country elevators are exceedingly small, being entirely out of proportion to the receipts for corresponding periods in former years. The growing crop is showing wonderful improvement due to the excellent spring weather. This latter influence is not having its normal effect upon the market, due to the fixed prices and also to the lack of stores, both in America and abroad. The grain is being exported as rapidly as bottoms can be found to carry it to Europe. One year ago No. 2 red wheat sold on the local market at \$3.36 per bushel. Present prices are:

No. 2 red wheat.....	\$2.17
No. 2 white.....	2.15
No. 2 mixed.....	2.15

CORN.

Our special reports show primary receipts to be unusually large the past week. Notwithstanding this, the U. S. visible supply decreased 789,000 bushels last week to a total of 16,469,000 bushels, compared with a visible supply of 7,173,000 bushels a year ago. The Argentine crop is maturing under favorable weather conditions and promises to be of high grade; however, the visible supply there is only one-third what it was a year ago. American farmers are keeping their work well up to date and with normal weather prevailing the crop will go in perhaps earlier than usual. Seed beds are being well prepared, and the high price of seed corn is probably influencing farmers to pay more attention to the quality of the seed as well as to the condition of their soil than would ordinarily be the case. One year ago local trade quoted No. 3 corn at \$1.66 per bushel. Present Detroit prices for cash corn are as follows:

No. 3 corn.....	\$1.40
No. 3 yellow.....	1.55
No. 4 yellow.....	1.40
No. 5 yellow.....	1.20
No. 6 yellow.....	1.10

In Chicago the poorer grades show a wide decline from last week, while the best corn is about steady. The latest Chicago prices for cash corn are:

No. 2 yellow.....	\$ 1.68
No. 3 yellow.....	1.50@1.65
No. 4 yellow.....	1.40@1.54

OATS.

Oat values have suffered a heavy decline during the week. Fine growing weather, promising crop prospects, the piling up of stores on the Atlantic coast, and the inability to secure bottoms for exporting are important features in influencing this decline. Domestic consumption is unusually large. One year ago standard oats were quoted on the local market at 74c per bu. Present Detroit prices are:

Standard oats.....	76½
No. 3 white.....	76
No. 4 white.....	75

RYE.

This market is almost normal with cash No. 2 unchanged at \$2.45 per bu.

BEANS.

Following the announcement by the federal government that stocks of pin-to beans would be held from the regular market, the demand for navy beans has lived up considerably, although prices show some decline this week. At Detroit the quotation for navies is now \$11.25 per hundred. The Chicago trade is rather slow at steady prices. Our reports from that point tell of a considerable proportion of soft beans which dealers are obliged to move quickly, resulting naturally in a weakening of values for those grades. Prices there are, per cwt:

Michigan navies, H. P....\$12.00@12.50

Red kidneys, fancy..... 13.00@13.50

Red kidneys fair to choice 10.00@11.00

FEEDS.

The trade in Detroit quotes feeds per ton in 100-lb. sacks as follows:

Bran.....	\$36.00
Middlings, standard....	33.00
Middlings, fine.....	45.00
Cracked corn.....	65.00
Coarse corn meal.....	63.00
Chopped feed.....	53.00

HAY.

The hay market is lower and supply is ample. Detroit prices are:

No. 1 timothy.....	\$20.00@20.50
Standard.....	19.00@29.50
Light mixed.....	19.00@19.50
No. 2 timothy.....	18.00@18.50
No. 1 clover.....	16.00@16.50

Pittsburgh.—Receipts have fallen off

and demand is slowly improving.
No. 1 timothy....\$26.00@26.50
No. 1 light mixed 20.50@21.50
No. 1 clover mxd 15.50@17.00
No. 1 clover..... 14.50@16.50

POTATOES.

The market for old potatoes is somewhat unsettled, due in part to the handling of the new crop from Florida. Prices are averaging somewhat lower than they were a week ago. The movement is in moderate volume, taking the country as a whole, although Michigan's shipments show a material increase of late. Producers will be interested in the publicity campaign started in Detroit on Tuesday of this week, an account of which appears in another column of this issue. The general campaign can be made a success only as the growers cooperate by delivering their surplus at country points. Prices may not cover production cost but they are not likely to go higher so the prudent grower sees advantage in an early sale.

Jobbing prices as gathered over the special wires of the Bureau of Markets and reported to the Detroit office from various important centers, for Michigan U. S. Grade No. 1, and the condition of the respective markets are as follows:

Detroit (slow).....	\$1.16@1.26
Cleveland (steady)....	1.30@1.35
Cincinnati (fair).....	1.40
Columbus (steady)....	1.40
Indianapolis (steady) ..	1.30@1.35
Pittsburgh (weak)....	1.30@1.35

Our special reports show that Michigan farmers are receiving 60¢@80¢ per cwt. at sidetrack. Wisconsin growers are getting 70¢@75¢, and Idaho farmers 60¢ for the same grade.

BUTTER.

Market conditions vary considerably over the country, due to transportation difficulties. Where shipments can be made readily, markets are oversupplied, while others lacking this advantage are short on the product. At Detroit the offerings are made a little more freely. Fresh creamery ranges here from 43½¢@45¢, the jobbers in some instances paying premiums 1¢@2¢; firsts rule about 1¢@1½¢ below extras. At Chicago creamery extras are saleable at 42½¢ with high-scoring lots occasionally a shade higher; renovated is quoted at 36¢ and fresh packing stock at 30¢@30½¢. The New York market is easier with best creameries quoted at 46½¢@47¢; extras do 46¢; firsts do 43¢@45½¢.

CHEESE.

The consumption of this product shows a very healthy condition. Increased production is meeting with this larger consuming capacity which keeps the markets firm at steady to higher values. In Philadelphia the market is strong with full creams quoted at 23¢@25½¢. The New York trade quotes specials at 24½¢@26¢ and average run at 24¢@25¢. On the Detroit market flats range from 21¢@26¢, the latter price being paid for old stock; Michigan dairies are quoted here at 22¢@23¢ and domestic Swiss at 35¢@44¢. The Chicago market is easier with Young Americas quoted at 22½¢@22¾¢; Daisies, double 21¼¢@22¢; do single 22¢@22¼¢.

EGGS.

Our reports show that consumption all over the country is very large and more eggs are being consumed than in other years, due no doubt to the high prices of other food products. Storage men are not laying in their usual supplies because of these high quotations. Fresh firsts are quoted at Detroit around 34½¢@35¢; special stock reaching 40¢ and higher. Storage men are paying around 36¢. In Chicago receipts are scarcely more than half what they were one year ago. The feeling continues firm and prices are steady to higher. Fresh firsts are now quoted at 33¢@34¢; ordinary firsts at 31¢@32¢; storage packed 35¢@36¢. New York trade is steady with fresh gathered extras quoted at 38¢@38½¢; firsts 35¢@36¢.

POULTRY.

The present demand for poultry is light, which, with fair supplies on hand has weakened prices. The Detroit market is easy. Quotations here for live are: Hens 30¢; spring chickens 28¢; old roosters 18¢@20¢; ducks 28¢@30¢. The New York trade was some easier by Wednesday, with old roosters quoted at 26¢; young do 35¢; turkeys 20¢@25¢; fowls 36¢. The Chicago market is doing a fair trade.

WOOL.

As will be noted from another page of this issue, the federal government is fixing prices for the 1918 American wool crop. The prices agreed upon by growers, dealers, manufacturers, and representatives of the government are

those prevailing on July 30, 1917. Details for handling the fleece wools have not been worked out yet, but soon will be, an announcement of which will be made through these columns.

GRAND RAPIDS

The potato market continues very slow, with 65¢@85¢ per cwt. perhaps covering the entire range of prices at the country loading stations. The "eat potatoes" campaign does not appear to have increased consumption to any great extent so far. The bean market is also quiet, with \$10 quoted for white pea and \$11 for red kidneys. Buying prices for grain are quoted by the mills as follows: Red wheat \$2.12; white wheat \$2.09; No. 3 yellow corn \$1.70; rye \$2; oats 90¢; barley \$2.

DETROIT CITY MARKET

There was a rather brisk market on farm produce at the city markets this week. Farmers are selling readily prices ruling about as follows: Parsnips 75¢ per bushel; cabbage \$1.25; carrots \$1.25; apples, fair grade \$1.75; potatoes 85¢; eggs 42¢; hay \$24@26 per ton.

LIVE STOCK

DETROIT

Thursday's Market.

May 9, 1918.

Cattle.

Receipts 1764. Market heavy; cattle strong; canners steady; bulls and light butchers 15¢@25¢ lower.

Best heavy steers.....	\$16.00@17.00
Best handy wt. butch. strs	13.50@14.50
Mixed steers and heifers	12.00@13.25
Handy light butchers....	10.00@11.25
Light butchers.....	8.50@ 9.75
Best cows.....	9.50@10.50
Butcher cows.....	8.50@ 9.25
Cutters.....	7.00@ 7.50
Canners.....	7.00@ 7.50
Best heavy bulls.....	9.50@10.00
Bologna bulls.....	9.00@9.25
Stock bulls.....	8.00@ 8.75
Milkers and springers...	55@ 115

Veal Calves.

Receipts 1088. Market steady.
Best.....\$14.00@14.75
Others..... 10.00@12.00

Sheep and Lambs

Receipts 921. Market dull.
Best lambs.....\$ 1675
Fair lambs..... 15.00@15.50
Light to common lambs.. 10.00@12.00
Fair to good sheep..... 11.00@13.00
Culls and common..... 7.00@ 8.00

Hogs.

Receipts 3650. Market strong and 15¢ higher.
Pigs.....\$18.00@18.10
Mixed grades..... 18.00@18.15

BUFFALO.

May 8, 1918.

Cattle.

Receipts today three cars; market continues steady at following prices:

Prime heavy steers.....	\$16.75@17.35
Best shipping steers....	16.00@16.75
Fair to good.....	15.00@15.75
Plain and coarse.....	13.00@14.00
Native yearlings.....	15.00@16.00
Best handy steers.....	13.00@14.00
Fair to good kinds.....	12.50@13.50
Handy strs and hfrs, mxd	11.75@12.25
Western heifers.....	12.25@13.25
Best fat cows.....	11.50@12.00
Butcher cows.....	8.50@ 9.50
Cutters.....	7.50@ 8.50
Canners.....	6.50@ 7.00
Grazing cows.....	7.50@ 8.00
Fancy bulls.....	11.00@12.00
Butcher bulls.....	10.00@11.00
Common bulls.....	8.50@ 9.50
Best fdg. strs, 800-1000 lbs	10.50@11.50
Medium feeders.....	9.50@10.50
Light common.....	8.00@ 9.00
Stockers.....	8.50@ 9.50
Best mlks and springers.	100@ 150
Mediums.....	75@ 100
Common.....	50@ 60

Hogs.

Receipts 10 cars, with the market ruling higher as follows:
Medium to heavy.....\$18.40@18.60
Yorkers..... 19.00@19.10
Pigs..... 19.00@19.10

Sheep and Lambs.

Receipts five cars; the market rules steady to lower as follows:
Top lambs.....\$17.50@17.75
Yearlings..... 14.50@15.50
Wethers..... 13.75@14.50
Ewes..... 12.50@13.50

Calves.

Market is strong at following prices:
Tops.....\$ 15.00
Fed calves..... 7.00@ 9.00

CHICAGO.

May 8, 1918.

Cattle.

Today's estimated receipts are 7,000 head; market somewhat unsettled at the following prices:
Steers choice to prime...\$16.00@17.50

Steers, good to choice....	15.00@16.00
Steers, fair to good.....	14.00@15.00
Steers, inferior to rough..	10.50@11.50
Yearlings.....	11.00@16.40
Cows, fair to ood.....	7.10@11.00
Heifers, fair to select....	7.50@14.00
Canners and cutters.....	7.50@ 8.10
Good to choice vealers...	11.50@14.25

Hogs.

Today's estimated receipts are 23,000 and market is fairly active and feeling firmer, with prices 10¢ higher as follows:

Pigs.....	\$14.00@17.40
Rough heavy.....	16.55@16.85
Heavy pack'g and shipp'g	17.40@17.75
Mixed packing.....	17.35@17.75
Heavy butchers.....	17.80@17.90
Light butchers.....	18.00@18.10
Light mixed.....	17.75@18.00
Bulk of sales.....	17.60@18.00

Sheep and Lambs.

Estimated receipts for today 9,000; a steady tone prevails in this market with the quality of the offerings fair; prices are little changed as follows:

Shorn wethers.....	\$13.00@14.85
Yearlings.....	16.00@18.50
Shorn yearlings.....	13.50@15.75
Shorn ewes.....	7.00@14.75
Ewe lambs.....	20.00@21.00
Colorado lambs.....	19.50@21.00
Shorn lambs.....	15.50@17.00

HAPPENINGS OF THE WEEK.

(Continued from page 594).

ish capture Turks and Germans in Palestine operations.—Berlin states that Roumania is ready to comply with Germany's peace terms.—Chinese government troops are moving south against rebel forces in Tung Shan and Chaonan.—The Supreme Allied War Council meets at Abbeville, France.

Saturday, May 4

Germans call on Field Marshal Von Mackensen to lead a new drive on the west front; additional troops from Russia are being called west. Enemy's guns are active in the vicinity of Gi-venchy in the Ypres region.—Rumors are that the German imperial chancellor will be relieved by Von Buelow.—The United States government takes absolute control of the country's steel industry.—The May draft call is for 233,742 men, of which Michigan's quota is 10,149.

Sunday, May 5

Since the German offensive began, the British losses in men have aggregated 250,000.—Enemy attacks on the western front and in Italy are completely repulsed by the Allies.—The French destroy one of the seventy-mile guns that has been bombarding Paris.

Monday, May 6

Austrian troops are massed for an assault on the Italian front; Emperor Charles of Austria is reported on his way to the scene of action; artillery fire increases.—On the western front British troops defend newly gained positions on the Flanders front north-west of Bethune against German attacks.—Turks yield ground in Mesopotamia and Palestine.—Austrian ministers resign from Cabinet.

Tuesday, May 7

Enemy movements to attack the Allied lines have been smothered under extremely heavy artillery fire of the latter's big guns.—Pershing's men are showered with 15,000 German shells.—British troops make an advance east of Amiens, where the enemy is on the defensive.—The American War Department has plans for placing an army of 1,000,000 men in France by July 4.

Wednesday, May 8

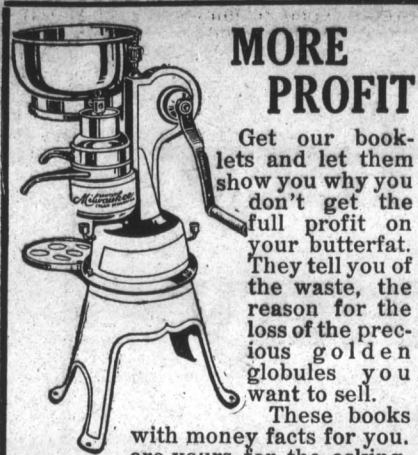
Russian war fleet shells the German forces in harbor of Mariupol on sea of Azov.—Germans mass guns for offensive on Amiens.—Italians defeat enemy patrols and three aeroplanes are brought down on that front.—President Wilson encourages investigations of airplane failure.—458 Camp Custer boys are selected as war leaders.

Thursday, May 9

Official announcement is made that over 500,000 American troops are in France, and 1,900,000 U. S. soldiers are now under arms.—Pershing's heavy artillery engages the foe near Montsec.—Anglo-French line is bent north of Mont Kemmel; enemy is repulsed at all other points and in Haig's counter-attack the British take lost ground in Flanders.—Railroad men are granted an increased wage aggregating \$300,000,000 a year.

For two years not a single new pleasure motor car has been made in England. Luxury business has ceased. The English are leading strenuous lives, but are prospering.

The continued high prices of mutton and lamb have made it desirable that more sheep be kept on the farms of the United States. In many parts of the country there are large areas of rough land, weedy lots, and grown-up fence rows which afford an excellent opportunity for feeding sheep.



MORE PROFIT

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Galloway also makes Engines, Spreaders, Tractors and sells them direct, too, at lowest factory prices. Don't order any implements until you get Galloway's factory price.

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FREIGHT PREPAID. Stronger, safer, better than Silos costing three times our price. 25, 50, 60, 75 and 95 ton sizes at the lowest prices ever made on reliable silos. Our patented construction makes expensive foundations unnecessary. Makes perfect ensilage. Storm Proof. Easily, quickly erected. Strongly endorsed by thousands of users. Shipped from Kansas City. Write for free illustrated catalog.
JONES SILO CO., 147 First St., Kansas City, Mo.

HEN REPRIEVE ENDED.

(Continued from page 607).

live or freshly killed hens. The original date at which the restriction was to have expired was April 30.

Twenty-three states which produce about eighty per cent of the chickens in the country report that the regulation had beneficial effects. Ten states where poultry is kept to a limited extent report either no benefit or opposition by producers. The Food Administration expresses appreciation for the patriotic manner in which the industry observed the regulations, and now asks farmers not to rush their hens to market. A glut in the markets would result in a heavy loss from spoilage.

Veterinary.

CONDUCTED BY W. C. FAIR, V. S.

Spinal Paralysis.—Mare twenty-two years old seems to wobble, has poor use of hind quarters. She has been idle most of the winter and is in good flesh. Her appetite is good. Subscriber, Wayne Co.—Give her 1 dr. ground nux vomica at a dose in feed three times a day for several weeks.

Abnormal Appetite.—My cows are inclined to eat wood, or rubbish and refuse good food. W. H. M., Charlevoix, Mich.—Give each cow 1 oz. of ground gentian and a teaspoonful of air-slaked lime in feed two or three times a day. Change their feed.

Nasal Catarrh—Sore Throat—Nodular Disease.—My sheep have nasal discharge, sore mouth, swollen throat and three have died. When opened I find the bowels covered with bluish little bunches. A. R., Lake Odessa, Mich.—Rub throat with camphorated oil daily. Give each sick sheep a teaspoonful of tincture gentian three times a day. Feed them well.

Mammitis.—I have a ewe six years old that gave birth to twin lambs last night. I find that one-half of her udder is caked and it is impossible to get milk from this one-half of bag. The udder seems to be full of milk, but the teat opening is entirely closed. She is a large Shropshire ewe and has raised twin lambs before, but of course, both of her teats were open. What had I better do for her? A. B., Charlevoix, Mich.—Perhaps by the use of a milking tube, the teat canal could be opened; however, if the udder is in a badly caked condition, this one-half of bag will be destroyed. You had better select another ewe with a perfect udder that has either lost a lamb or has but one to raise, and let her raise one of these twins. Foment udder with warm water and apply one part fluid extract of phytolacca and nine parts of lanolin (wool fat) twice a day.

Chronic Garget.—I have a cow due to freshen about May 15. When I started to dry her up, the milk became gargety, that was about three weeks ago. Since that time the garget has persisted. She does not give more than a quarter cupful of milk. If not milked night and morning the garget is much more pronounced. Our local Vet. says that hand-rubbing of udder will not benefit her. I dislike very much to be obliged to beef this cow. M. N., Kingsley, Mich.—Doubtless your cow's udder is infected, a recovery in her case is very doubtful as it is almost impossible to reach the seat of ailment. Give her a tablespoonful of fluid extract of phytolacca and a teaspoonful of powdered nitrate of potash at a dose in feed twice a day for ten days. Wet the diseased portion of the udder with one part bichloride of mercury and 1000 parts of water two or three times a day. Milk her out cautiously three times a day.

Ringworm.—I have a four months' old calf which has white, scabby spots on different parts of body, but mostly at or near the head. The hair does not grow on these patches; however, whatever the ailment is, it does not seem to affect the calf's general health. The skin appears to be thickened, rough and rather scaly. The outer parts of hide can be rubbed off. P. E. G., Battle Creek, Mich.—Apply one part iodine and 15 parts fresh lard to scabby patches three times a week. It is considered good practice to wash the diseased portion of skin with soap and water, then paint the scaly parts with tincture of iodine daily for two or three days before applying the ointment. The writer believes that it will not be necessary to give any internal treatment.

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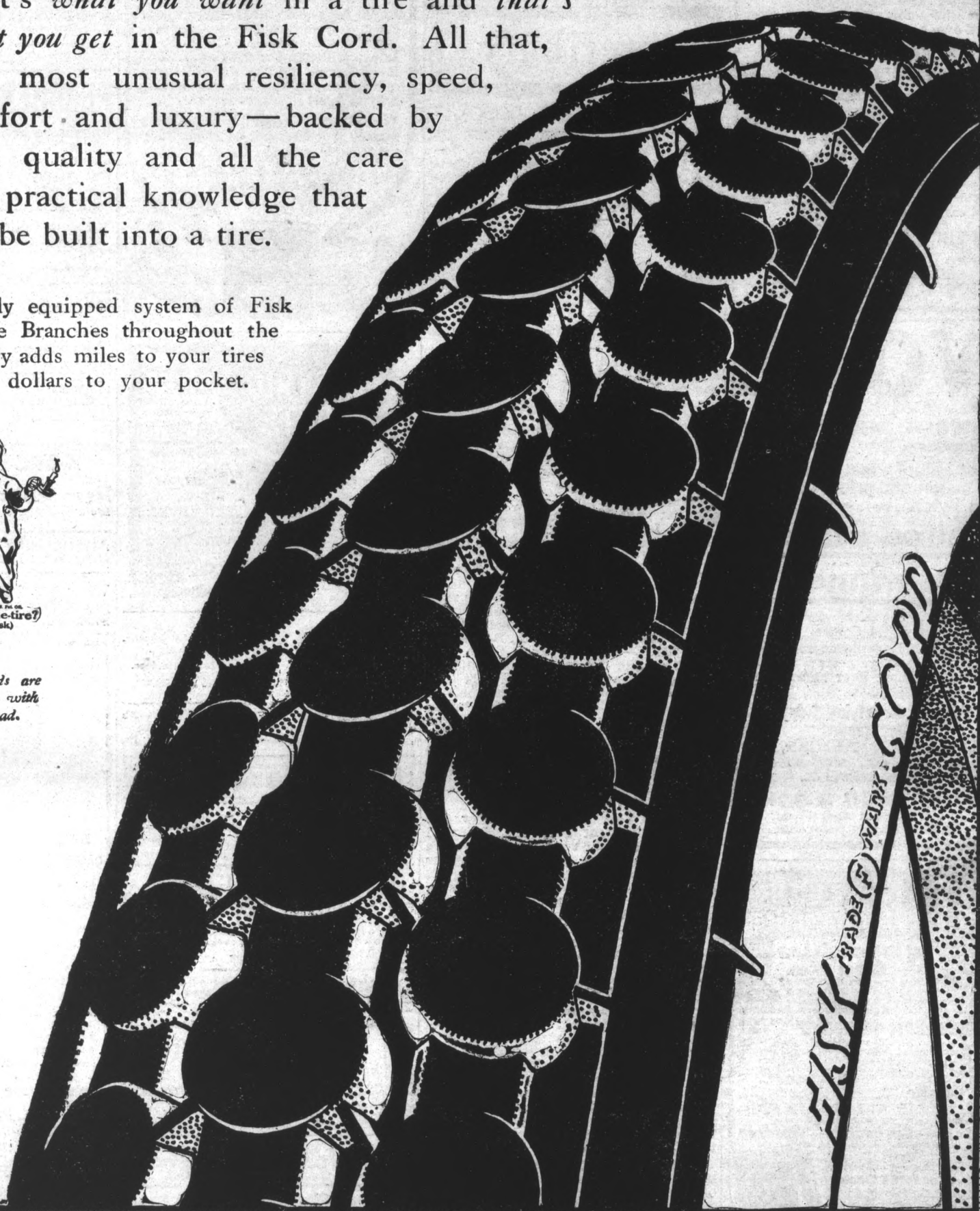
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