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Is a National Board of Agriculture Possible?

ONE of the complaints made by the United States government is that there is no organized body to speak for agriculture. A delegation from this or that section, or representing this or that special line of agriculture, comes to Washington, and makes a fragmentary presentation in the sense of conflicting with other sections or lines of farm products. The impression left is conflicting and incoherent.

This condition often allows agriculture's case to be presented by the professional pleader, who has glibness of tongue and stock phrases to express an inexact knowledge of the subject in hand. Local minded men in national affairs of agriculture could be supplanted by a National Chamber of Agriculture with a national viewpoint. The National Chamber of Commerce represents varied industries, yet is able to do justice by a broad general policy. The same could be accomplished by an agricultural body, national in scope.

Agriculture at the present time is without the power or opportunity of expressing its economic relations, or to interpret supply and demand in terms of price, or to advise as to the cost of production. This condition permits a minimum crop to be more profitable than a maximum one, and in the face of increasing demand, farm production is not being relatively maintained.

Who Would Represent Agriculture in State Organization?

This is always a difficult question, but in the main it is best to use existing machinery, than to expend time and energy in creating a new one. In practically every county in the United States of agricultural importance, there is now a paid agent of agriculture who is joint employe of the national, state and county government.

The great majority of these county agents are efficient, but are handicapped by the common viewpoint that they are not to assist agriculture from the economic side, but wholly on its productive side. Whatever foundation there may exist for this impression, it might be answered that there is no economic organization of agriculture for them to work with or through. The complaint is rather an indictment of the complainant than otherwise.

The county agent could be made the working official of an organization, as does the local secretary of the city chamber of commerce. He would have the opportunity to perform economic service, and is already on the job awaiting this duty.

The farm bureau president who is the directing head of the county farm organization usually represents the foremost type of farm leadership. A

Michigan's Market Director James N. McBride Suggests the Organization of Existing Local Agricultural Agencies that America's Farmers May Speak Wisely and with Unity and Force.

State Chamber of Agriculture made up of the presidents of the county farm bureaus, would allow each county to have its representative. This body would represent all types of production and of farmers. The present farm bureau presidents of Michigan would make a state body of probably

tural formation is just as essential as is that of other industries who find their organizations, to be effective, must be of a national character. Each state organization would select a member of the national organization, a position of added responsibility. The membership of the national organiza-

What Should We Do?

There is no machinery to properly represent agriculture in national deliberative bodies. The farming industry is suffering great handicaps and financial loss because of this lack. What shall we do? Read this article.

seventy-five men. Their meetings would be to consider farm conditions and to express agriculture's needs. The position of farm bureau president would be one of increased importance. Crop estimates made by their respective county agents would be the last word in this respect. Crop costs and the world's needs as to agriculture

tion would maintain headquarters, not necessarily, however, in Washington, for Chicago is probably the agricultural metropolis of the United States. The program of the national body would be to collaborate with the state bodies, also to maintain a statistical staff. If present conditions were to prevail, it would be the national body

National Chamber of Agriculture would be the price consulted body in relation to farm products. The referendum to the respective farm bureaus would be to connect agriculture organically from the bottom to the top. A surplus portion of crops could be stored; or, for example, potatoes could be dried, and thus prevent the surplus from making the whole crop unprofitable. The national body being selective from the respective county units would be a deterrent to the ascendancy of exploiting organizations which come and go in cycles with great promise and no fulfillment.

How Prospective State and National Chambers Would be Financed.

State, county and national funds could not, nor would it be desired, to use these for the necessary expenses of the proposed organization. There should be a special fund made up from contributing memberships. This per capita would be very nominal for the total expense would be small. The state meetings should call for some per diem and expenses. The weakness of many agricultural gatherings is the limited time that it is possible for the delegates to give to discussion. Agricultural bodies have largely ceased to be deliberative, and for lack of time any plans proposed fail because there is no time for adequate deliberation.

Special committees of the respective lines of agriculture would be able to serve those producers better than a special organization of their own, the reason being that all of agriculture would be united on the program, and cooperate to make the plans effective. As it is now, each line has its own organization, and the farmer who is a dairyman must be a member of a dairy association, and if a potato grower, or a grain or bean grower, he still has multiple duties as to joining each respective organization, but no coordination of his own interests which unite in him and are dissipated in numerous divisions of power.

A special meeting of the State Chamber could be had in any emergency, and the state chairman could order the committee of the particular crop in question to report, and the whole force of the allied interests would be available to support their recommendations.

Proxy powers undoubtedly would be provided so that a county member of the state board could be represented, if for any reason the regular member was unable to attend.

It is unnecessary to go into details which must always be worked out by those who do the work. The question is: "Does agriculture need organic unity?" Is the proposed plan to sell (Continued on page 678).



The First Time Over

would be made their program. The weight of their conclusion would become the agricultural point of view, and accomplish just what is done by the National Chamber of Commerce. The dissemination of these reports would be by the county agent as the secretary of the farm bureau.

The industrial scope of any state in the Union is not limited by its borders. The cooperation of states in agricul-

which would advise the United States as to prices for farm products. And if these are fixed for the farmer's products, they must also be maintained in proportion as against what he buys.

The national representatives of copper producers are consulted when copper prices are fixed; and also when steel prices are to be determined, it is their representatives who participate so as to allow adequate prices. The

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DETROIT, JUNE 1, 1918



CURRENT COMMENT.

Through the action of the War Industries Board, the government has commandeered the 1918 wool clip. Under this action the government will have a prior right to acquire the entire clip or any portion of same which it may require at the prices fixed by the War Industries Board. The remainder will be allotted for civilian uses under the direction of this board. The price which will be paid for the clip will be based on the Atlantic seaboard price on July 30, 1917, less a profit to dealers on the total season as provided in the order, and freight to seaboard, moisture, shrinkage and interest.

The profit to dealers has been fixed in the order of the War Industries Board at not to exceed one and one-half cents per pound on the total season's business, this profit going to cover all expenses from grower to loading wool on board cars. Provision is made in the order that growers who desire to do so may pool their clips in quantities of not less than minimum carloads of 16,000 pounds, and consign the wool so pooled on account to any approved dealer in any approved distributing center. Growers are urged to adopt this latter course through the medium of county agents or others, where no cooperative organization exists, thus eliminating the profits of one middleman.

Under the order, approved dealers at designated distributing centers will be required to open and grade all purchases or consignments as rapidly as possible after the arrival of wool at the points of destination. As soon as the wool is graded, prices will be fixed by a government valuation committee appointed for that purpose in the different distributing centers. To insure the growers against profiteering, not only the books of approved dealers in distributing centers, but the books of the country dealers as well, are to be open to government inspection, and if the gross profit on the season's business amounts to more than one and one-half cents per pound for the country dealer, or more than five per cent for the season's business for the dealer in the distributing center, the excess

profits are to be disposed of as the government may determine.

The basis of values as fixed by the government on scoured wools and as figured out for ordinary grades of fleece wools in Michigan will be found on page 691 of this issue. When the machinery for handling wool as above outlined is well started, there will be no object in holding the season's wool clip for a better price, as the established prices will prevail throughout the year. The War Industries Board points out that the necessities of the government at this time are such as to require concentration of the season's clip at points near centers of consumption, hence the patriotic action on the part of growers will be to market their season's wool clip as soon as they are fully advised with regard to government values as established on the grade of wool which they produce.

In our daily business relations with people we hear much speculation and many prophecies with regard to the business conditions which will prevail after the war is finally over and a just and lasting peace has been established. The opinions thus expressed are as varied as are the persons expressing them. The naturally optimistic person is prone to see the bright side of the future outlook, while the pessimist can see only a dark and foreboding outlook. In no small measure, we believe, the future will reflect the present thought of the people of the United States. If this promise be true we should prepare for the future by guiding our present thoughts along right lines.

Those who are prone to feel that the enormous cost of the war will saddle a burden on future generations so oppressive in character as to hamper a normal industrial development and prove an insuperable handicap to an enjoyable plane of living, need but to consider the fact that before the advent of the world war even our "frenzied financiers" would have considered the financing of a war on such a stupendous scale an impossible undertaking to be convinced of their error. With all the demands which have been made upon us in increased taxes, in Liberty Loan drives and in popular subscriptions for war relief funds, our people have regularly gone "over the top" in record time. And, notwithstanding the greatly increased cost of living and the increasingly difficult business condition with which they have had to contend, they have done it cheerfully and with a fine patriotic spirit which augurs well for the future.

For the first time since pioneer days the American people have, as a people, acquired the saving and investing habit. The habit will survive the country's urgent war need, and will build a future prosperity greater than any which has gone before. In other words, if we take care of the present, the future will take care of itself.

The only way to take care of the present is to do everything in our power to aid in winning the war. We must win the war as the first requisite of a bright future. Let us then make the winning of the war our business to the extent of our opportunity. By so doing we will, individually and collectively, be making the best possible preparation for the future. And every one of us can do something to this end in our own sphere of action.

Under the established order of threshing as the practice has grown up in Michigan, threshers have provided help to operate their threshers, while the farmer has provided the help to handle the bundles to the thrasher, and the grain and straw as it was delivered from same. With the development of the wind stacker, a man was added to the threshing crew

to operate this device, thus eliminating a part of the crew which it was necessary for the farmer to provide.

During recent years a few threshers have adopted the plan which has long been in vogue in the grain-growing states of the west, of carrying a full crew and doing all of the labor incident to threshing, with the exception of caring for the grain as it comes from the machine. This plan has simplified the threshing proposition for farmers who were fortunate enough to live in a community where progressive threshers have adopted the full crew system. Under present difficult labor conditions it is impossible for any farmer to hire extra labor sufficient to make up a threshing crew, and it is often not only inconvenient but nearly impossible to change work with his neighbors to make up a threshing crew as has been the custom in most sections of the state for so many years.

The full crew plan of threshing would simplify the labor problem for very many farmers this year, and the farmers in any community where this system is not practiced by local threshers would do well to discuss the matter among themselves, and in case the full crew system with the higher price for threshing which is necessary to cover the labor cost is favored, take the matter up with the local threshers at once, in order that crews may be organized for the purpose. As a means of meeting the present labor emergency, full crew threshing will accomplish much in many communities. It is not too early to acquaint the local threshers with your desires in this connection, provided the full crew plan is favored by a majority of the farmers in the community.

To the pessimists who have contended that a democracy could not be cemented into a perfect union for the prosecution of a great war against an outside enemy, the repeated exhibitions of patriotic loyalty on the part of all classes of American citizens should be convincing proof of their error. During the recent patriotic drive to raise funds for the Red Cross and other associated war activities, the common people of both country and city responded liberally almost to a man. In some few cases self-appointed vigilance committees have taken it upon themselves to instill a wholesome degree of patriotism into the hearts of a few who were slow to respond to the country's call for contributions of war relief funds. While such action is to be deplored rather than commended, it emphasized the spirit of the people in the present emergency.

In the purchase of Liberty Bonds the farmers and wage earners of the country have been equally prompt to do their share, and this expression of patriotic loyalty is but the beginning of the full measure of support which the common people of America will give to the boys who are fighting their battles over the sea. The spirit of democracy is abroad in the land; that it is capable of any necessary sacrifice which will contribute to the winning of the war for human liberty and a just and lasting peace is absolutely certain.

A league of the nations of the world has been a subject for discussion among students of international relations and world politics for many years past, but little have these men thought of the possible realization of such a league. The entrance of Costa Rica into the great world war on the side of the Entente Allies makes twenty-one nations that are now opposed to the "junkerism" of Germany and her allies. We are confronted, therefore, with this fact, that here are twenty-one nations fighting shoulder to shoulder in perfect harmony for identical purposes. Although no written or unwritten constitution or

set of laws exists to hold these people together in the performance of their great mission, their amalgamation into one unified force could not be more real than it is, and may we not hope at least that as one of the results of this world conflict, there will be a league of nations so large and powerful as to oblige the remaining countries to join, to the end that future international irregularities may be settled in a similar manner to the adjusting of individual differences in the courts of one of our modern states?

HAPPENINGS OF THE WEEK.

Wednesday, May 22.

Michigan soldiers are reported in the first line trenches.—British aviators bombard the fortress of Metz and Colbentz.—One thousand German aeroplanes have been brought down since German offensive started in March.—Austria is rushing men to Italy.—The Turkish troops operating in Asia Minor have mutinied.—Allies thrusts on western front delays German offensive.—British casualties for the week ending May 21 total 36,677.

Thursday, May 23.

Sinn Fein leaders arrested in connection with the German-Irish plot will be executed.—Extraordinary activity by the aerial squadrons is noted between the armies in France.—French gain ground on the Somme front.—German troops are being redistributed along the entire front.—President Wilson proposes to Allies that tremendous resources of Siberia be conserved by cooperation with Russia and the use of American capital.

Friday, May 24.

The total Allied and neutral boats sunk by submarines during the month of April is announced as little more than one-third of the total sinkings for the same month of 1917.—British columns are reported to be marching to the Caspian Sea to establish contact with Russian forces that recently took Baku.—Berlin reports three American fliers have been brought down on the Lys battlefield.—French and American fliers put ninety-seven planes out of commission since May 15.—There has been some sharp fighting on the Italian front but without significant change in battle lines.—British are demanding that the trial of the Sinn Fein leaders of Ireland be hastened.—The United States War Department orders that all men within the draft age who are physically fit, must either work or fight.—Fuel Administrator Garfield announces that the prices on soft coal will be reduced.

Saturday, May 25.

British armed troop ship with American troops on board is sunk in the English channel. Only fifty-six of the Americans, however, are unaccounted for.—Costa Rica declares war on Germany, making the total number of the Entente Allies twenty-one.—Germans continue to invade Russia south of Moscow, ignoring the Brest-Litovsk treaty, while Russians are now arming to oppose further advance of the enemy.—Announcement is made that American troops will be sent to Italy.—That communication between the Sinn Fein leaders and Germany had been in existence for three and a half years, is announced in an official British communication.—The United States War Department lets orders for 8,000 trucks in addition to 10,000 being delivered.—Four persons were killed when an automobile was struck by an interurban car at Simpsonville, Ky.—Detroit Patriotic Fund exceeds \$5,000,000 at the end of the fifth day of the campaign.—Secretary Baker urges congress to raise age limit for enlisting men to fifty-five years.—Mexico suddenly breaks diplomatic relations with Cuba.

Sunday, May 26.

American aviators take an increased part in the aerial work on the western front.—Artillery activity is somewhat reduced.—Red Cross war fund campaign is announced as exceeding \$100,000,000.—More than 200,000 American troops will reach France during month of May.—King Albert of Belgium thanks United States for generous help to the army and civil population of Belgium.—Five men die in Windsor, Ont., from drinking wood alcohol.—Colonel Roosevelt is announced to be in Detroit on Memorial Day.—Food Administrator Hoover urges the canning of fruit throughout the nation.

Monday, May 27.

American troops are reported on the Amiens front, which position is likely to bear the brunt of the coming drive.—A renewal of the German campaign on the western front is believed to have started by the heavy attacks now

How Is John Going to Get His Farm?

By R. G. KIRBY

IN a recent issue of a farm journal, a well written article told of the experiences of John and Mary who had just completed their courses at an agricultural college and wished to begin farming for themselves. They had no capital and thus could not buy a farm although we are to assume that they were more or less skilled in the arts of agriculture and equipped to make the venture a success.

The author laments that John and Mary cannot go into the farming business and, of course, it is unfortunate. But, if farming is really a business, why lament? A business requires capital and John and Mary must acquire capital and they must expect to work for it. Then they can go into the farming business. Until they have some capital they must work for others regardless of their training. There seems no reason to believe that a graduate from a college of agriculture is exempt from the laws of finance any more than the engineering graduate.

A college education may fit a man for some kind of business. It does not present him with a deed to the business on commencement day. A graduate of an agricultural college cannot expect to own a farming business until he earns it. The graduate from the mechanical school cannot lament because he is not handed the deed to a foundry rolled up with his diploma. When it becomes too easy for a young man to engage in farming, a lot of them will try it and fail, even though they might have been successful in some other line of business. The fact that it is difficult to acquire a farm keeps a lot of prospective poor farmers from finding out how poor they really are.

The difficulty of obtaining a farming business in the future may help to weed out many of the men who would not use the soil to the best advantage.

The fact that a farm can be obtained by the man who honestly wants one is still true. If John is the kind of a man who will some day succeed as a farmer he will not lose his nerve because he lacks the price of a farm. A man with the type of training obtained at a modern agricultural college can find a position that will pay more than his actual expenses will be. That is, he can save money by careful management if he wishes to make a payment on a farm.

In every community there are farms for sale on easy terms and buying land on a contract is a safe venture if the contract price is not more than the value of the land. A college graduate is apt to be too anxious to get a quick start in his life work. He dislikes waiting until he is equipped with enough start, although the way is hard and the starting is slow. It seems as if the men who honestly wish to farm obtain a start in some way and make the best farmers after they are started. The

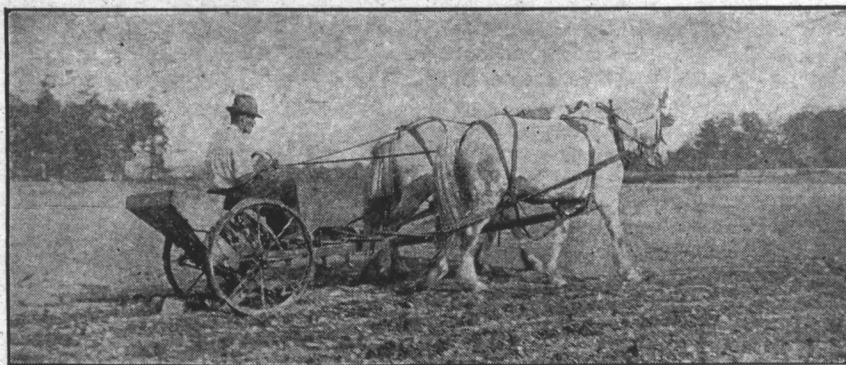
country needs the food and the farmers on the land today can produce it in sufficient quantities when the marketing end of the business is properly controlled so that the consumer can live well on a moderate income and the producer can earn a respectable income on his present investment.

Today there are men working in the Department of Agriculture who are earning good incomes, although they lack the capital to farm. There are teachers in the colleges who have a start in life but do not feel they can risk their money in farming. In the offices of the farm journals published in this country there are undoubtedly men who would make fine farmers if they wished to change their present vocation for farming. Many of these men are so conversant with the business of farming that they prefer not to farm.

Here is the point. There are plenty of men who have the brains to make good farmers if the farming business was so good that they felt anxious to invest their time and capital in such a business. It is not necessary to give John a free farm when he graduates from college in order to obtain men to produce food. There are men who have the capital and experience for farming who could engage in that work if they knew the returns would be adequate. If a man likes farming he will get an honest start in some way. If he had rather do something else he will not farm even if he has the capital with which to do it.

A man can run anything from a peanut stand to a dairy farm or a gas engine factory, but it will take capital. Neither one will be given free. John can get a farm today by planning right. He will have to save money by working on a farm or elsewhere. It takes capital to farm. That's why farming is not just a job but a business.

Finds It a Labor Saver



I DO not know of any implement that has been appreciated more on our farm in past years than the potato planter. It not only hastens the work of planting and saves much wearying hand labor, but it puts the potatoes in the best possible manner. Two of its chief advantages are that it plants the potatoes in straight rows and plants them all at a uniform depth. When planting by hand a row must first be furrowed out, the potatoes dropped by hand, then another trip made with a hoe or shovel to cover them; in all this operation much time is consumed, and unless great care is

taken the rows will be crooked and more difficult to cultivate all through the season and the potatoes covered at varying depths.

With a planter the work is done at a single operation. The operator is able to see that a potato is dropped in every hill. The machine is adjustable so that the seed may be dropped at any desired depth, and this feature, together with the straight rows made makes it especially desirable when the potatoes are harvested with a potato digger. It will plant seed cut in different sizes and shapes as uniformly as seed of the same sizes.—J. L. J.

What are You Feeding Your Horses?

By W. F. TAYLOR

WITH all feed stuffs at very high prices, and with an increased demand for labor and its results on the farm, this question grows in importance. It is important, first because it is necessary this year that the largest possible amount of work should be performed by the farm team and second because feeds being so scarce and high there is a growing tendency on the part of many people to find some way in which a liberal ration may be avoided and substituted with a more moderate one, thereby cutting down the expense of maintenance. On many farms the hay is gone and practically no grain remains. In such cases there is a tendency to turn the horses on pasture before the grass is sufficiently grown to come anywhere near supplying the needs of the animal. Pasture grass is mostly water. The elements of food it contains are not balanced to meet the needs of a working horse, and even if they were the animal could not contain enough of it to enable him to work to the limit without drawing a part of the necessary energy from the flesh already stored up in his body.

I fancy someone may read this who has neither hay or grain, nor yet money to buy them, and feels that he can not borrow for this purpose. In such cases if the farm is a small one, if the amount of work to be done is not great, and if the man is careful with his team, and wise enough to distribute the work throughout the season, so ar-

ranging his program as to work the team but a part of each day, and watching them carefully to see that they are not overtaxed, they will per-

form in the aggregate a considerable amount of work even though they eat little aside from the grass.

The horse's stomach is small, there-

fore if it is to eat but three times daily, and has a large amount of labor to perform, his food should be concentrated. The amount of roughage the horse is able to take depends largely upon custom. However, better results will be secured and the animal will keep healthier and last longer if permitted to eat lightly of roughage and liberally of grain.

But what grain shall we feed? This is an important question, and the answer will depend upon circumstances. If we have oats we may as well feed them, if we are fortunate enough to possess corn and have no oats we need not buy them to mix with the corn in order to make a suitable ration. The old notion that a horse must have oats in order to do his best work must go, because there are a number of careful experiments which prove that if the horse is fed either ear corn or oats in equal quantities there will be practically no difference in results.

The ration adapted to the needs of the horse differs from that required by the cow. The cow must make milk from her ration and to do this requires a large amount of protein. Protein builds the body, and carbohydrates furnish heat and energy. The waste of the body of the horse must be repaired and some protein is needed, but the great demand is for food that will furnish energy. This is where corn excels. Barley will practically take the place of corn. Wheat bran may be given in

Proof of the Pudding

GENTLEMEN:

Last summer, seventy Chicago high-school boys of the United States Boys' Working Reserve were sent to the first camp at Thompsonville, Michigan. They were hired by nearby farmers for a period of five months. A number of them worked on the Betsy River orchards and the writer can truthfully say that from all appearances, none had ever handled a farm tool before. The old foot ball team spirit was in them, however, and in a few weeks they began to be an asset instead of a liability. They wanted to learn.

This spring ninety per cent of those boys are hired for the season about the country at wages from \$30 per month and board, upward.

I have hired ten of them (and trusting they will not see this account), would not lose them for considerably more than the above minimum.

One particular example of faithfulness: Last Fourth of July the Cadets had a base ball game in town and they all went but one crew of four who were spraying trees. The leader appreciated the necessity of finishing the spraying that day so he prevailed on the rest to stick and they finished the orchard but missed the game. They didn't have to write to me for an 1918 job—I wrote to them.

(Signed)

JOHN NEWHALL,
Manager of Betsy River Orchard.

(Continued on page 677).

Suggestions for Our Busy Farmers

HOME-MADE SELF-FEEDER FOR PIGS.

Our last fall pigs were late farrowed and they haven't matured sufficiently yet to be in market condition. In fact, they haven't done any too well this past winter. I am trying to get them into shape now as soon as possible and we have put in self-feeders. These self-feeders are home-made. We took oil barrels, took out the head and the bottom, drove the hoops down tight, and set them in a box three feet square with a two-by-six around the outside.



These barrels are set on blocks three inches thick so that they are up from the bottom of the box three inches and then are securely fastened in each case by wire running from the top of the barrel to the outside of the base. These self-feeders work just as well as a more expensive one.—C. C. LILLIE.

PUMPS WATER TO RESERVOIR.

In many farm homes running water is sadly lacking and during the day many pails of water must be pumped and emptied into the range reservoir. The hard work of lifting and carrying the water from the cistern pump to the reservoir may be avoided if a length of eave trough, the same length as the distance from pump to reservoir, be used. We fastened a wire bail onto the closed end and fitted it over the pump spout.—D. D. Woodin.

FRESHENING YOUR CAR.

If you do not use your automobile through the winter, buy a small can of automobile enamel and touch up rust spots on the buttons of the cushions or any other place which needs attention. Use very little of the enamel on the brush. When the floor rugs begin to fray, bind with a double carpet braid, carefully mitreing the corners.—E. G. Wallace.

STEEL WATERING TROUGHS.

We constructed a light watering trough holding about a barrel of water by using a piece of galvanized sheet iron three feet long and thirty inches wide and bending it into a U-shape, being about three inches narrower at the bottom than at the top. The ends are made of pieces cut fifteen and a half inches wide at the top and twelve and a half inches wide at the bottom and eleven and a half inches in height. This is enough to allow for the bending of the edges over to make a riveting seam. About three-quarters of an inch turned out is enough to rivet securely, placing them about an inch apart. The top edges are stiffened by riveting on L steel one-eighth of an inch in thickness and one inch wide. A light brace across center makes a handle besides stiffening the whole trough. All end corners should be soldered on the inside. The trough cost us \$4.50 about six years ago. It is still in good condition.

We used this trough by placing it against the pump house, setting it on wood blocks and holding it in place by a large hook stapled to the building so it would hook under the center brace.

In the open it can be conveniently held in place by using large blocks of wood with a U cut in several inches deep for the trough to set in.—R. L. Sunderland.

A NEW SPARROW TRAP.

Here is a cut and description of a sparrow trap designed by August Tschirky, of Napanoch, N. Y. He has one made square, instead of round, that he has used on his farm several months, and during all this time he has taken an average of sixty sparrows a day from it. This is at the rate of over 20,000 a year.

The materials required for a round trap consist of a piece of wire netting three or four feet in width and seven times as long as wide, and cut as shown in Fig. II. The netting should be of No. 2 wire, half-inch mesh, and galvanized, about ten yards of soft wire, No. 20, for seaming the edges together, three or four hardwood sticks about four feet long, and one inch thick, and a quarter pound of small wire staples.

The edges are wired together, A to A, B to B, etc., and the staples are used to attach the netting to the sticks.

The sticks H H, and one or two others not shown, are to project eight inches beyond the edge of the lower cone to form legs to hold the edge of

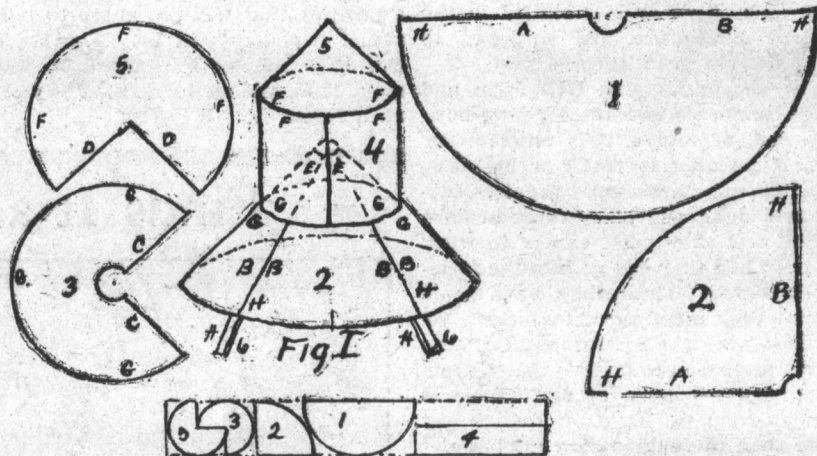
the cone about six inches above the ground.

The turret has a cone-shaped bottom with hole six inches in diameter corresponding with a similar hole in the apex of large cone for the birds to fly through, and this serves as a hand-hole for taking the birds out.

The turret is removable and may serve as a cage to keep birds in. An

used. A small quantity should be

Oats, wheat, rye, barley, cracked corn, kaffir corn or buckwheat may be



auxiliary turret may be provided to be exchanged while one is used in storing birds.

The bottom, or floor of the trap, is made in the form of an inverted funnel. The bait is placed under center of trap, and after the birds have eaten what they want and start to fly away

scattered near the trap first, and then a train of it leading from the outer to the central bait, where a liberal quantity should be placed.—Geo. O. Shields.

BEST FERTILIZER FOR BEANS.

Have eight acres of light sandy soil that has not been plowed for six years, that I would like to put to beans. I would like to fertilize it. Can you tell me the kind to use, also the amount and the best way to apply?
Barry Co. S. B.

Light, sandy soil is without doubt deficient in available phosphorus and it is quite apt to be deficient in potash and also in nitrogen, so the only recommendation to make is that you use a complete fertilizer, that is, one containing all three of the essential elements—nitrogen, phosphorus and potash. My opinion would be that a fertilizer containing 1.8.3 would be a good formula for beans; one per cent of ammonia, eight per cent of phosphoric acid and three per cent actual potash.

My judgment is that the best way to apply this fertilizer is with a grain fertilizer drill before the beans are planted, putting on from 200 to 300 pounds per acre, then harrow the ground before planting the beans. This distributes the fertilizer all through the soil and the bean roots get it as they develop.

If you planted the beans with a corn planter having a fertilizer attachment, you could apply the fertilizer at the same time, but in this case I would not use over seventy-five or 100 pounds of fertilizer per acre because this machine puts it right into the row with the bean seed and too much fertilizer may injure the germination of the seed if the weather is dry and hot.

The way many people plant beans is to drill three rows at a time with an ordinary grain drill. This is a good way and if the grain drill has a fertilizer attachment the fertilizer can be applied at the same time when the beans are planted. In this case I think it would be best to set the drill to sow about 200 pounds of fertilizer and let the fertilizer run through all the openings. This puts just a little bit of fertilizer in the row with the beans and distributes the rest between the rows. As the bean roots develop they will avail themselves of this available plant food. Some simply sow the fertilizer through only the openings on each side of the spouts being used to plant the beans. This puts the fertilizer close to the bean and only uses a little amount, say 100 pounds per acre. The only objection that I have to this way is that you sow such a small amount of the fertilizer.

An After-Corn-Planting Job

THE last few weeks we have driven over many roads in a number of counties and find that old orchards are gradually disappearing by means of the axe and saw.

There are still many other orchards filled with dead trees that make a poor showing for the farmer who owns them. As soon as an old apple tree has outlived its usefulness it should be cut down for fuel, especially during such times as these when even the farmer is in doubt where next winter's heat producer for the kitchen and living-room is coming from.

The farmer in this picture is solving the problem so far as possible by assassinating and cutting up into stove lengths the dying apple trees in his

farm worked his thinker hard to argue an excuse from school for that day. And somehow it most always worked.

Some of us can lean back in the old rocking chair right now and call to mind individual instances wherein staying at home on such a day did not pan out such a large percentage of fun as had been anticipated.

"I never saw a saw saw as this saw saws!" exclaimed Tommy to the hired man as, with his hands deep in his pockets, he watched the old steel buzzer wade into the big apple tree limbs on high gear.

"Here, Tommy, is something else you never saw," called his daddy. "You take hold and help pitch these little blocks up on the pile, and by the



Making Fuel of the Dead Fruit Trees.

large orchard. Trees that are useful will be allowed to remain.

The scene is an old-fashioned one, such as was quite common in the seventies and eighties. The steam engine followed close behind the old down-sweep horse power, tumbling rod and jack. The buzz saw was a wonder to the boys on the farms in those days. Its coming to a certain farm was announced at school days before its arrival, and the boy on that particular

time school is out you will see the biggest pile of apple wood blocks you ever saw in all your born days."

The next day Tom went to school again, tired and lame as the dickens. But he had a buzz saw story to tell and got the most of it out of his system during the noon hour. And the stunt he played therein was given a leading part in the description he put across the warm atmosphere of the old school room.—J. H. Brown.

Tomatoes for Market

ALTHOUGH many market gardeners do not train tomatoes that are grown in the open fields, it has been found in some sections that the staking of the early crop is highly profitable. There are sections of Ohio where four or five hundred acres are sometimes given over to staked plants, ten thousand or more being grown in a single field. All of these plants are trained to one stem, and grown on five-foot stakes split by hand from oak.

When one has only a limited area of ground, staking the tomatoes makes possible the production of a much larger crop, although, of course, it entails more work. There is another factor, however, which enters into the matter. If the soil has been fed heavily with barnyard manure for several years, staking and pruning becomes almost imperative, because otherwise the plants will run mostly to vines, owing to the excess of nitrogenous fertilizers. If five-foot stakes are used, and the plants stopped when they reach the top, the growth of fruit will be forced.



Use Stock of Well Branched Plants.

Of course, it is also necessary to take off the side buds, as they develop.

When a naturally early variety is trained to stakes, the crop is ready very early. The result is likely to more than compensate for the extra labor. Fruit on trained vines is much less likely to crack, and is much smoother than that grown on plants allowed to sprawl over the ground, thus coming into contact with the earth.

On the other hand, it is difficult to handle staked tomatoes in a dry season unless some method of irrigation can be adopted. When trained, the plants are much more likely to suffer from drought than when left on the ground, as the vines then shade the soil.

End rot, which was very prevalent last season both in commercial and in family gardens, is due probably to a period of dry weather just when the fruit is forming. If the ground can be kept soaked at that time, the disease will be headed off.

Experienced growers try to avoid planting tomatoes on land that has had this crop of potatoes or melons on it for several years. All these crops are subject to the same kind of blight.

It helps to get an early crop to plant on warm, sandy soil. Not only will the crop be earlier, but the fruit will be juicier. Canners rather prefer tomatoes grown on a heavy soil, because they are firmer. It's the sandy soil, though, that gives the best yield, and the fruit best adapted to market garden purposes.

By proper selection a strain of heavy bearing tomatoes can be developed from an early variety. In the eastern states the comparatively new tomato known as Bonny Best is high in favor. It is not very large, but is a nice round smooth tomato, which looks well in boxes. In Pennsylvania one of the biggest growers depends upon Earliana entirely for the first crop, and has

found it a big money maker. In the tomato growing section of Ohio, where staking is done to a large extent, June Pink, Beauty, and Acme seem to be among the most popular varieties. Livingston, Perfection, Matchless and Stone are good later sorts.

It is foolish to go to the trouble of growing early plants and staking them unless the crop can be marketed to advantage. Although bushel boxes are commonly used for late tomatoes, baskets and even cardboard cartons are found available for the early crop. If a high-class market is being served, wrapping each fruit in paper may pay. In any event, the tomatoes should be cleaned and graded before they are shipped.

E. I. FARRINGTON.

GETTING RID OF ROOT MAGGOTS.

The root maggot is a very troublesome pest on many farms and in many sections where cabbage, turnips, radishes, etc., are raised. I have noticed that during some years, the maggots work greater havoc among these vegetable crops, than others. The maggot has been more destructive in some localities than others and where they seem to get into the ground, regardless of the locality, the grower seems to have great difficulty in eradicating them or in keeping them in check sufficiently to grow crops that are profitable. I have in mind one locality where cabbage never has been a profitable crop on account of some sections where the maggot works havoc almost every season. There are a number of things that will help keep the maggots in check but they are by no means a permanent cure.

The use of tobacco dust, sulphur, lime, etc., all of these are of some practical value, but in the long run they have not proven a means of eradication. There is a remedy, however, that I have found to be excellent in every respect, and it is easily applied and inexpensive. The solution is made by mixing crude carbolic acid with water, using about seventy parts of water to one part of the acid. The liquid is

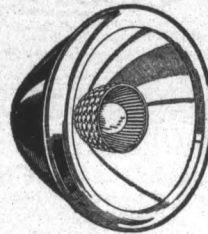
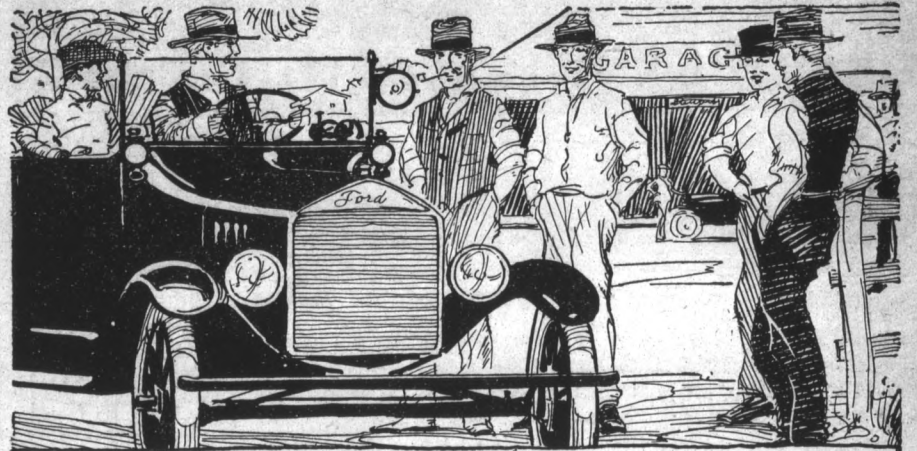


Intensive Gardening Pays.

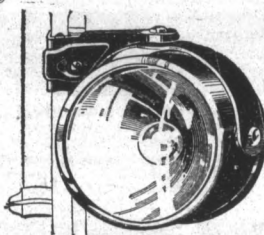
sprayed over the ground or about the plants that are set out. I am careful not to spray the plants too heavily, but aim to spray around the roots and all over the ground between the rows. If the solution is too strong, it may injure the plants somewhat if sprayed over them. These sprayings should be done at regular intervals of about ten days to two weeks and the second or third spraying will soon prove that this method is a good one. The fly that lays the eggs will not stay around plants or on ground that has been treated in the above manner and the result is that these crops will grow and are free from this troublesome pest.

While there seems to be many remedies offered for eradicating root maggots, I have never found anything that above solution. My experience as well as that of others who have tried this, seems to be that it does the work and with little or no labor involved except the time it takes to apply with the sprayer.

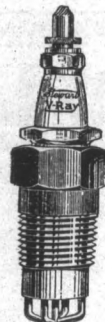
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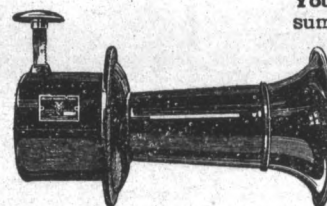
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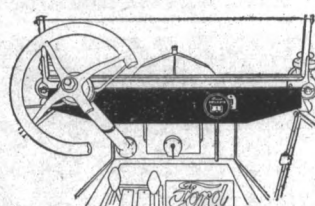
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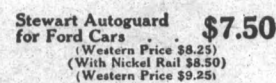
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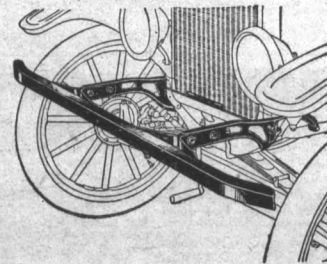
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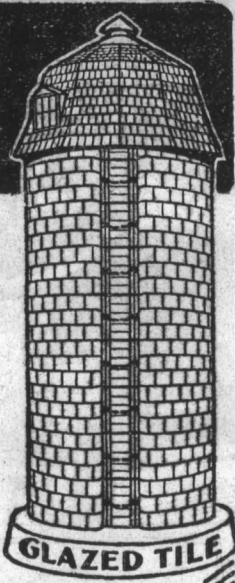


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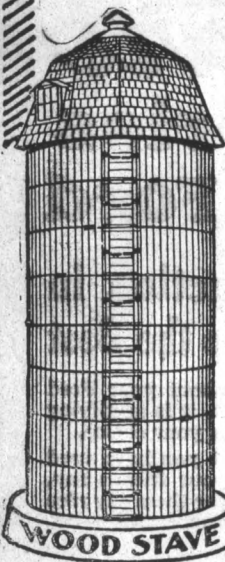
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"Blue Lights" in Dairying

By I. J. MATHEWS

WE have been accustomed to speak of the "blue lights" in stock breeding, meaning thereby how to attain the highest merit in the individual's career. In dairying there are two ways of obtaining high potential value in the young breeding herd. Of course, there are really three ways, but only two are practical for the breeder of small means. The breeder who has considerable money to start with often goes into the dairy cattle business, not because he needs the money, but because he either wants a pastime or wants to leave some monument for himself which is very enduring and it is true that there is no more enduring monument than to establish a superb herd of dairy animals because with such an establishment it is a fact that many of these animals will become a matter of history and their offspring will march down through the ages as long as dairy cattle are kept, which will be as long as the civilization of man is in the progressive phase. One of the quickest ways to attain the blue with the breeding herd is to buy a bull with individuality and excellent breeding that may be placed at the head of the herd. It has been said by old breeders who realize the value of quality in the products they have to sell, that a man can put as much into a herd header as the combined value of all his cows. This advice is given out by so many good breeders of proven ability that the young breeder can do nothing better than to take the advice at its face value and invest in a bull whose quality cannot be questioned.

Another way which is some slower but just as effective, however, is for two or three breeders to combine and take the very best cows or heifers they have, at least two, and send them to a bull of unquestioned superiority for breeding. It is true that the service fees are sometimes very high, but this way of getting extra fine individuals is much less expensive than to try to buy males with the breeding and individuality that the young stock will have. Of course, the idea in sending these cows away is to secure, if possible, a male that can be placed at the head of both herds and the sending of two cows will in three times out of every four make it possible to secure the male. These two methods of securing extra good stock to continue operations with are both of them practical and have received the sanction of a number of practical breeders.

Taboo Registered Scrubs.

There are a good many registered scrubs in breeding herds all over the country and I have observed that the man who keeps only registered stuff is not likely to show progress materially better than the man who keeps only good grade stuff. It is not enough to keep stuff that is registered, it is imperative to keep the best of registered stuff. The surplus animals produced from a herd kept on this basis are always in demand while the surplus animals from a herd kept on the basis of registry alone very often drug and even opiate the market. Many people say, "If your registered stuff is all like that, quality grade stuff is plenty good enough for me and I would much rather have it." In this way the market for pedigreed animals is usually discounted for the poor registered breeders by the good grade breeders.

It is necessary sooner or later in order to have one's efforts crowned with success to get into the blue by securing a fine individual to place at the head of the breeding establishment. Progress secured through introduction of high-class females is pretty likely to be slow, especially if the herd header is not in the same class with the females that are brought in. Nothing is truer

than that the herd header is the index to the value of the herd and this being true, one of superior quality must be secured either by outright purchase or indirectly by sending the cream of the females to a superior bull and depending upon getting a son of this bull as a herd header. Either one of the last two schemes are practical but the last one is the least expensive of the two and is probably best fitted for use among small breeders of small finances, especially if there are two or more living in close proximity to each other.

The Cow You Want

BY J. T. BARTLETT.

I VISITED the leading breeders in my district," said a Holstein man who, though he started only three years ago, has been very successful. "I ascertained just what cows they didn't care to sell, and then I proceeded to buy them."

The owner knows much more about his stock than the customer, and naturally it is the poorer animals he endeavors to sell. This condition is the great difficulty which any man starting out to buy a herd is sure to find. The inexperienced, even though they buy pure-breds at good prices, often discover at the milk pail that they have acquired a rather nondescript lot. One shrewd way is to do as the Holstein man did. It is rather expensive. Another method is to buy good-looking, well-bred heifers and raise them. Some chances have to be taken inevitably, but they are small beside those in buying what the owner shoves forward priced to sell. The enthusiasm of many a beginner with pure-bred stock is destroyed by the discovery that his purchases are young culls, which should go to the butcher, or elderly matrons ready for the Old Folks' home.

The businesslike practice of a large-scale milk producer commends itself to consideration. He delegates his buying to a live stock man who covers his county. He tells him he wants good, large, grade cows, ready to freshen, and that for them he is prepared to pay the top of the market. If a cow turns out to be an extra good producer, giving seventeen quarts or more a day when first in, he keeps her as a permanent member of his herd. If she gives less, he ships her to market for what he can get, as soon as her production drops to eight quarts a day. Then he tries out a new cow.

"I lose something," this man says, "when I sell at \$60 a cow I paid \$100 for three months before, but that loss is nothing to what I would lose if I kept the critter in my herd indefinitely. It is funny that a lot of farmers can't see that side of it when they get stuck in a cow trade. It is better to sell the inferior animal at once and accept the loss than to keep her three years, hoping to sell her to somebody sometime for \$10 more than she is worth."

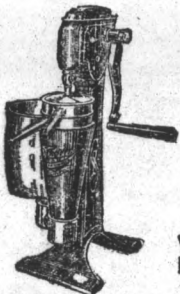
"I have followed my system for six years now, and I find I have to try out fewer cows every year. And the principle works both ways. I have cows that are worth three times what I paid for them."

"I sell my calves, because I aim to concentrate on milk and obtain the greatest possible production. Farmers in the towns around about know I keep and breed only top-notch producers, and there is a surprising demand for my heifer calves at good prices. I use a pure-bred bull."

Through practical experience this farmer is an excellent cattle judge, but the method he follows in buying new cows for his herd is such that he would stand little chance to lose in the end. Some of the most successful dairymen have adopted the system.

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What a Dairyman Can Do

CAN the dairyman produce milk cheaper than they are now doing? Are there any wastes that can be cut out on the farm where cows are kept? Are there any leaks to stop, any methods of feeding that will help, or what can be done to enable the average dairyman to cut down production costs?

In our judgment there are but few things that may be done. In the first place, no man can afford today to feed a poor cow. Never before has there been such a demand for some method of determining the value of the individual cow in the herd. The "star stable boarder" should be sent to the block.

The Cooperative Cow-testing Association furnishes the best means of finding her out. It is entirely possible for the individual dairyman to test his own cows if he will, but not one in a hundred will do so regularly. Yet the testing of all the cows of the herd until the poor ones are discovered is a matter that should not be neglected now.

Another important item is the feed. The acreage of hay is hardly as great as last year. The yield per acre will probably be less and hay is not going to be very much cheaper. A large acreage of spring grains is being put

condition, and liberally supplied with plant food.

No man who expects to keep cows through the coming winter should be found without a silo. It is not likely that the summer will be as cold as the last one. It is probable that corn will mature next autumn as in other normal years, still it may not. The keeper of cows should take no chances. If he has no silo, he should build one, for whether the corn ripens or not it is very important that he should have a silo.

I have often written of the value of cooperative effort in the purchasing of dairy feeds. This form of cooperation is more important now than ever before. We must eliminate every possible waste if we are to continue to milk cows in these days of high prices of feeds. We can save money by buying our feeds together and we should very promptly arrange to do so.

W. F. TAYLOR.

SELF-SUCKING COW.

I have a cow that sucks herself. Is there any cure for it?
Presque Isle Co.

T. H. B.

In the stable, the best way to break



Now is the Time to Increase the Percentage of High-producing Cows.

in and with good weather a liberal quantity may be expected at the harvest time, but the wheat crop seems practically certain to be short, while the demand will be very great and the necessity for using substitutes for wheat in large quantities will greatly increase the consumption of these grains as human food.

In the face of these facts we can hardly expect that dairy feeds will be much cheaper next year than they are now. It is easy to say that we should grow our own feed but again our patriotism inspires us to grow grains for human food and we need not look for the average farmer who keeps cows to disregard this obligation and devote an extensive area to the growing of feed for the dairy.

We fancy that the problem of pasture for the herds is going to be more difficult this year than in some time. Rough lands that cannot be tilled, fields that are very hilly and difficult to work will be pastured to a great extent, but when all grains are bringing the price that is paid in our markets today, we can hardly expect the dairyman to pasture lands adapted to their production. However, the dairyman should grow his own feed insofar as possible. He is fortunate indeed if he has a summer silo, and if he filled it last fall and has it awaiting the needs of the herds through the coming summer he is still more fortunate.

If he has no silo, he may sow some oats, or oats and peas, if he has the peas. Oats and peas will furnish large quantities of splendid roughage if the ground where they are sown is rich enough. If one sows a small area near the barn to a soiling crop for the cows, he should see that the land is in good

a self-sucking cow is to tie her both ways in the stall so that she cannot get her head back to her udder. If you are persistent in this, after a while she forgets the habit.

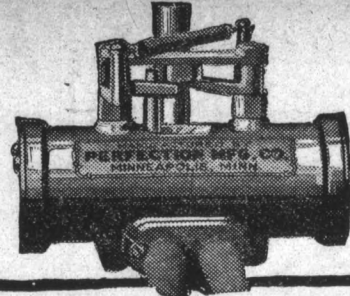
But in the pasture lot a different plan must be used. The cow can be tied then by having a surcingle around her body and a rope extending from the surcingle to either side of the head so that she cannot get her head to her udder. This, however, prevents her from fighting flies and is really quite a punishment.

I think the best way probably is to get at almost any hardware store what is known as a calf-weaner. This is an arrangement that is fastened in the nose like a bull ring and extending all around on this ring are long, sharp spikes so that when she goes to suck herself these spikes are prodded into the udder and flank and she soon gives it up. Cows can eat fairly well out of a manger with an arrangement of this kind in the nose. They seem to get along on pasture all right. After a reasonable length of time if this don't break the cow of the habit, I would dispose of her for beef because it is a nuisance to have to keep this thing up every year.

COLON C. LILLIE.

WATCH THE MILK COST.

Notwithstanding the protracted investigations conducted by city commissions to determine this question, and in some instances a large amount of camouflage seems to be thrown over it, any dairyman who keeps books ought to be able to answer it approximately. Of course, the cost varies, as it does with everything else, but we are now at a crisis when the figures should be generally and fairly definitely known.—E. H.



The Heart of The Milking Machine

THE pulsator is the heart of any milking machine. It controls and regulates the action of the teat cups on the cow's teats.

A man with a weak heart would not be accepted for military service. You should not accept any milking machine with a weak heart. The Perfection has the heart of an athlete. His heart beats are strong and steady. He can stand lots of work and thrives on it. The Perfection pulsator is simply a piston working back and forth in a brass cylinder, no cog wheels, weights, levers or "clock work." It does not easily get out of order, and with ordinary care it should outlive any other piece of machinery on the farm. The Perfection milks as the calf does, with a gentle suction, a downward squeeze, followed by a period of complete release. The pulsator can be instantly adjusted to suit either a hard or easy milking cow. This point is a very

important one. Not all cows milk alike and the Perfection recognizes this fact.

The action of the Perfection on the cow's teats, which is nature's way, and the possibility of adjusting the machine to suit different cows are two of the many points in which the Perfection excels all other milking machines.

Newman Bros., Elk Grove, Cal., write:

"As you know we produce certified milk and would not be allowed to use any machine that would injure a cow's teats or udder or adversely effect the bacteria count. We have milked entirely by machine for about two years with perfect satisfaction to all concerned, including the cows. One man with ordinary intelligence is doing with the machine what it required three men to do in the old way. We would convict ourselves of being either philanthropists or fools were we to go back to the old way. We are familiar with most makes of milking machines and have tried out several of them. The Perfection is superior in several respects. First: Both suction and squeeze can be changed instantly and adjusted to the individual cow. This is a mighty good thing, as any milker ought to know. Second: The Perfection will milk more cows in a given length of time. Third: The Perfection pulsator is more simple; has fewer wearing parts and is easier to adjust. Fourth: The teat cup rubbers last much longer than on one other machine which we tried. I cannot understand the dairyman, who modern in every respect, will go on milking by hand when he could cut expenses and make dairying more attractive, to say nothing of sanitation, by using a Perfection Milking Machine. When we need more milking machines, the order is yours."

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[7]



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Time Now to Hit the House Fly

By DON B. WHELAN

TO be sure, the house-fly is a nuisance every summer and to "swat the fly" after he has laid his eggs is practically useless. To get the greatest benefit it should be killed in its breeding places or caught before it can lay its eggs. "For every fly you kill early in the season you kill a million," has often been said and there is much truth to it. Proper control measures taken early in the season will do much to eliminate this annual menace to the public health.

Methods of combatting the house-fly may be summed up as follows:

1. Protect the breeding places from the fly. This can be accomplished by keeping the garbage in enclosed containers where the flies will not have access to it. In the country care should be taken in the disposal of manure. If the manure pile is allowed to sprawl over a large portion of the barn yard the conditions are ideal for the breeding of flies.

3. Kill them in their breeding places by means of some chemical. Government experts report good results from the use of borax which is applied at the rate of 0.62 pounds of borax to eight bushels of manure immediately on its removal from the barn. "Apply the borax particularly around the outer edges of the pile with a flour sifter or any fine sieve, and sprinkle two or

three gallons of water over the borax-treated manure."

3. Place traps near their breeding places to catch them before they lay their eggs. Traps are made of wire screen that fit into the barn window or on top of the garbage pail. Common wire screen traps, with bait in the bottom, placed near the manure piles will catch many of the adults.

4. Shelter food and dwellings from them. The use of screens on doors and windows of dwellings is quite general now and should be even more so. Food such as milk, butter, etc., should be covered or placed in a fly-proof place.

5. Poison their food. Many flies will enter the house in spite of our eternal vigilance and will have to be dealt with there. The fly-swatter should be kept busy but alone it can not cope with the invaders that are constantly coming into the house. They need water to drink and by giving it to them with a little poison in it it will aid in their destruction. One poison of this nature is to fill a shallow dish about half full of water and add to a tablespoonful of formalin. Milk may be used instead of water. Place a couple of bread crusts in the fluid for the flies to stand on. In order to be more effective other fluids in the room should be covered up. Dr. George D. Shafer, of the Michigan Ex-

periment Station, has devised a way of killing flies around the cow-barn. Take eight ounces of arsenite of soda and dissolve it in a barrel of water, adding to it a gallon of molasses. Fill a common sprinkling can with the fluid and sprinkle floors and sides of the barn near the manure piles. Care must be taken that cattle cannot get where they can lick it. The barrel of poison when not in use should be covered and put in a place inaccessible to any animals. This poison proved to be very effective on the college farm last summer when other slower acting poisons, failed to keep these pests under control.

GIVE CALF A GOOD START DURING SUMMER.

The calf shows very quickly the effects of poor care, and this often occurs during the summer months because of the pressure of other work, although it is really much easier to keep a calf thrifty in summer than in winter. Calves grown on farms should have grass pasture provided for them and should be fed some grain, preferably oats, during the first five months of their life. In taking them from the cow and raising them by hand on skim-milk, you are preventing them obtaining butter-fat, which is a natural part of the food of a young animal. You must replace this, insofar as it can be replaced, by the use of a grain rich in oil, fed to the young animal on grass, the grass itself, taking the place of the butter-fat in milk to a small extent. A calf grown upon skim-milk, grass, and a small amount of oats, will be a profitable, healthy, strong and rapidly growing animal, while a stunted calf will require much more feed next winter to get him started towards making good gains.—G. E. M.

WHY SOME HORSES DO NOT THRIVE.

Many horses lose condition, or fail to make gains because they are infected with worms. This is especially true of colts. Horses suffering from worms generally have a good appetite, but apparently benefit little from the food eaten.

There may be no symptoms which point conclusively to worms, but this trouble is so common that if the colts and horses are not doing as well as they should for the feed given, a worm remedy may prove of decided value. In treating horses for worms, Dr. L. S. Ackus, of the University of Missouri College of Agriculture, suggests it is well to keep in mind that the drug is meant for the worm rather than the horse and should therefore be given in as concentrated form as possible. To insure this, little or no bulky food should be fed during the course of treatment, and as the parasites are stupefied by worm remedies rather than killed, the animal's bowels should be kept in an active condition so that the stupefied worms may be passed out before they regain their vitality. A well-salted bran mash once a day will generally insure such an action.

The following formula is a worm remedy which is also of value as a tonic: Powdered nux vomica, two ounces; powdered gentian root, four ounces; powdered areca nut, six ounces; sodium chloride, four ounces; arsenious acid, two drams. Mix.

Give one heaping teaspoonful to every 250 pounds of weight, every morning and evening for about ten days. The medicine may be mixed with ground feed or sprinkled over oats or corn which has been dampened.

Lillie Farmstead Notes

The present spring has been one of oats and ten acres of barley, and forty the most favorable for doing farm work acres of peas. We have yet, May 7, of any within my remembrance. In to plow forty acres for corn and we are our particular locality we do not dread still going to try lima beans on twenty dry weather, it is wet weather we dread, and this spring the latter part acres for the canning factory. I have not given up the idea of planting early sweet corn with the lima beans so that of March and up to about the twentieth of April, we had dry weather. Our this will be a succotash crop. We have placed partitions in the seed box land worked in splendid shape and we succeeded in getting more crops in than we really expected.

Our Wheat Fields.

I wanted to get in one hundred acres of wheat last fall. We only succeeded in getting in eighty-five acres, though, had the weather held off we might have put in the one hundred acres. It is a good thing, however, that we got in no more than we did, because all the late-sown wheat in this territory is nearly a failure. Twenty-five acres of what we sowed last we had to put into spring crops. It was an absolute failure. There is fifty bushels of good seed wheat worth \$2.50 per bushel besides the labor wasted. Of the wheat that remains, sixty acres, will average just fair. It looks as if it might yield fifteen bushels to the acre and it is interesting to note the condition of this wheat. The field is one-half mile long and forty rods wide. We began on the farther side of the field to sow. After about a day's drilling we had a rain which prevented us from getting on the land for several days, then, after fitting the land over we got in about another day's drilling and it worked this way to the last, so that this sixty acres is put in on the installment plan as it were. A small area of about four or five acres was put in real late; that is very poor. The poorest portion of this field ought to have been sown to spring crops but we seeded it to clover so that we will take what we can get. The remaining twenty acres of wheat which was sown first we seeded about the fifteenth of September. This is a good field of wheat and bids fair now to go at least thirty bushels to the acre.

A Crop of Succotash.

We didn't get as much fall plowing done as we ought to, but the favorable spring, is helping us out and we have succeeded in getting in fifty acres of

acres of peas. We have yet, May 7, to plow forty acres for corn and we are still going to try lima beans on twenty acres for the canning factory. I have not given up the idea of planting early sweet corn with the lima beans so that this will be a succotash crop. We have placed partitions in the seed box of the grain drill so that we can plant the lima beans and the sweet corn at the same time, having them go through different feed openings of the drill and then by tying the distributing hose together, have both kinds of seed deposited in the same row. In this way we hope to get an even distribution of both kinds of seed.

May Have Trouble Harvesting.

I am basing my faith in this succotash crop on the same basis that I based my faith in growing soy beans and corn for ensilage. Since the plants are entirely of a different nature I reason that I can get a fairly good growth of both the early sweet corn and lima beans. I expect there will be some little trouble in harvesting the sweet corn because it will be ready to can before the beans are ready and we have got to go through the field and pick the sweet corn, if we have any, and then later on harvest the beans. The stalks of this corn are quite small and I don't anticipate any trouble in putting them in connection with the beans through the viner when we want to thresh the beans. These stalks will be dry but there is much sap in the beans so that there will be plenty of moisture in the silo for the sweet corn-stalks in the ensilage. Last year I tried this same thing but owing to the cold, wet weather I didn't succeed in getting a stand of either plant.

While the season has been dry and favorable for spring work it has not been favorable for the growth of pasture and there is very little pasture in this vicinity so that young cattle and cows can get sufficient nourishment from it. The last few days, however, of warm weather and a good rain has started the pasture wonderfully and if the warm weather continues there will be an abundance of pasture in a very short time.

COLON C. LILLIE.

WHAT ARE YOU FEEDING YOUR HORSES?

(Continued from page 671).

small quantities with either of these grains, with good results. Bran is hard to get just now, however, a little can be obtained now and then, and it can be put to no better use than to be given sparingly to the horses.

I am convinced that we farmers might have been much better off in the matter of grain for both cattle and horses if we had availed ourselves of opportunities at hand. In the states to the south of us, here and there were localities in which corn ripened fairly well. The people in the great corn belt are apt to store their grain in cribs that are much wider than ours, and I imagine that much corn which was only partially ripened has spoiled since the warm weather came on. Had the farmers of Michigan been more thoroughly organized, and more alive to their opportunity they might have bought many more cars of this corn, and distributed it where it could have been stored in narrow cribs in which it would have kept perfectly. This corn could have been obtained through efficient methods at a much lower



Helps to Win the War Although Not on the Western Front.

price than has been paid in the general market. This fact has been very clear to the writer for months but he has been far too busy with other matters to take up the work himself. There are at present some other opportunities for communities that buy their feeds in carlots. There is a considerable quantity of by-products from the manufacture of breakfast foods that is available just now. There is nothing better among these than corn flake feed. Horses will not eat it well alone, but if mixed with bran or a very little cornmeal, or both, they will eat it with a relish and it will be found an excellent ration.

Within the past few weeks I have received several inviting offers of salvage barley. There can be no objection to the feeding of good salvage barley to horses. I should not want to feed marine salvage to either horses or sheep, though hogs will eat it and do well on it. But good elevator salvage is all right for any animal on the farm.

The writer realizes that these are days in which those of us who cannot do as we would must simply do the best we can. But in these times of stress we ought to learn the importance of acting together. In such neighborhoods there will be no scarcity of grain for the horses or for the other farm animals, for it will be bought in carlots and distributed at the lowest possible cost. At the present time it should be possible to compound a grain ration for a horse that would not cost much over two and one-half cents per pound. This would be a great saving over any possible combinations of grains purchased in small quantities in the retail market.

But you say fifty dollars per ton is a high price for feed, and you are

right. But feed is worth more in these days because the time and energy of the horse has increased in value in proportion to the prices of farm products. These are days in which we need and must have the maximum amount of labor from the farm team. Man power is too scarce, and time is too precious to allow the hired man or the proprietor of the farm for that matter, to waste his time behind a team that is half-fed and for that reason unable to do more than half a day's work. I was not there, but I believe it was Moses who said: "Thou shalt not muzzle the ox that treadeth out the corn." We must apply the sense of the old commandment in the care of our horses in these days. It is important to provide the grain just as cheap as we can, but grain in liberal quantities our horses must have.

The horses that are helping to win the war are not all on the western front. In the fields of Michigan farms horses today are performing an equally important part of this great task. As good soldiers of agriculture, we should feed and care for them more liberally and more intelligently than we have ever done before, if possible.

DOIN GWITHOUT HAY.

We did something this year that we never did before in the care of dairy cows and all the rest of the stock except the horses. We ran short on hay but we had quite a good amount of pea vine silage and good straw. I was disappointed in not having a sufficient amount of hay and I conceived the idea of getting through to grass without buying any more and so we increased the ration of pea vine silage, substituted straw for hay as a dry roughage, and increased the grain somewhat for the cows and for all the young cattle. There was a very slight falling off in the flow of milk but not very much, and I am inclined to believe that I exercised economy in not buying hay. The trouble of it is in going outside and buying the kind of hay you want. If the hay was too ripe when it was cut it isn't much better than straw anyway, but you have to pay just as much for it as you would for hay cut at the proper time and cured in prime shape. If a man knew the history of the hay, knew it was cut on time and properly cured, he could be more certain of making a good investment, but where you have to pay a big price for hay that is not palatable and not very digestible, it is expensive food. I was afraid the cows might fall off considerable in the flow of milk without hay, but the pea vine silage was of splendid quality. One curious thing that I noticed was that the cows consumed quite a large quantity of straw which ordinarily they would have refused.

COLON C. LILLIE.

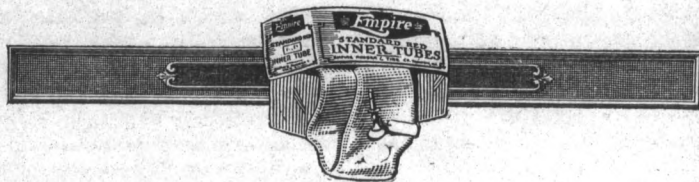
WILL HOGS PAY FOR THE FEED.

Whether I am going to get pay for corn that cost me \$3.00 per hundred in finishing hogs is a question. Hogs ought to sell for about twenty cents to make anything. Will they do it? I had hopes that by June the market would work up to at least close to twenty cents. If it doesn't, I cannot see how I am going to get pay for the corn which I am feeding them at the present time. Of course, we have fed them during the winter some cheap salvage grain and also skim-milk and the growth we get from this sort of feed probably will pay it, but they must have a considerable quantity of corn to finish them for market. Had I raised my own corn last year it would have been a different proposition because there is a good profit in raising corn at \$3.00 per hundred pounds.—C. C. L.

"I'm lost when I miss a paper. I have taken it for over 24 years and my father has taken it since I have been big enough to remember.—M. D. R., McMillan, Mich.

Empire Red Tubes

Last as long as the average car itself



C. H. Johnston, of Johnston Vulcanizing Co., Oskaloosa, Iowa, writes:

"We have sold Empire tubes for the past five years, and know from experience that your page in *The Saturday Evening Post* certainly tells the truth. We sold quite a few Empire Red Tubes five years ago that are still in use, although the cars that they originally supported have been junked."

THE advertisement which Mr. Johnston, and scores of other veteran dealers, back up with their experience, was in part as follows:

The average car owner should not have to replace an inner tube any more than he has to replace his rims. Rims get broken occasionally. But usually they last as long as the car itself. And so should tubes.

The trouble is, that if a tube lasts as long as the casing, the car owner is satisfied. He unconsciously judges both by the same standard—the mileage.

But the true measure of tube service is not the speedometer. It's the calendar.

A tube gets very little wear. The casing takes care of that.

What usually puts a tube out of business is premature old age.

In the ordinary tube, as time goes on, the rubber gets brittle and "checky." Then small cracks appear and leaks develop and

finally the tube will not hold air. In the same way, rubber bands lose their snap, and rubber hose breaks open.

The truth is that rubber deteriorates with time.

To build an inner tube that will last, you must do something that gives to the rubber longer life than it naturally has.

This is just what is accomplished by the secret chemical process used exclusively by the Empire Rubber and Tire Company of Trenton, N. J.

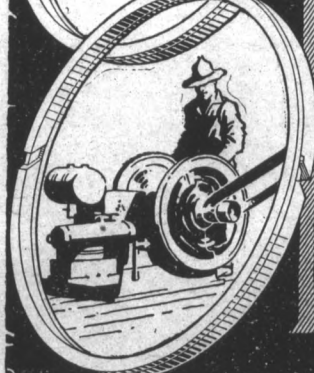
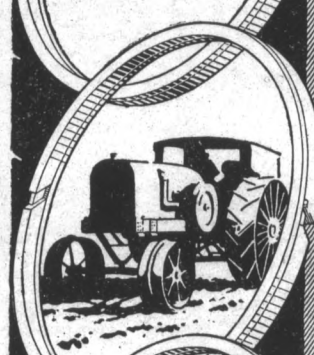
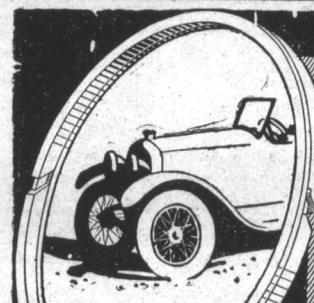
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The Empire Tire Dealer



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Piston rings prevent escape of gas and power. They must fit exactly or there is compression leakage, excessive carbon, and power loss. The scientific construction of

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assures equal pressure all around the cylinder walls. They are made in all sizes to fit every model and type of engine, automobile, tractor, etc.—every size accurately gauged to fit the particular model of motor.

Your local dealer or garage has—or can get—our data book of piston ring sizes of practically every engine and motor made. This will tell exactly what rings you need. Complete size assortments are carried by more than 300 jobbing and supply houses all over the country from which you can be quickly supplied. Over 2,000 unusual sizes and over-sizes—all widths and diameters—are kept constantly on hand at the factory ready for prompt shipment anywhere.

McQUAY-NORRIS Superoyl RINGS

A special ring for engines that pump oil. Used in top groove only of pistons to control excess oil, with McQuay-Norris LEAK-PROOF Rings in lower grooves to insure maximum compression and fuel economy.

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"To Have and to Hold Power"—a simple, clear explanation of piston rings, their construction and operation.

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Mention The Michigan Farmer When Writing Advertisers

A National Board of Agriculture

(Continued from page one).

existing units of organization into state and national bodies to express agricultural needs, and to place the American farmer on the same business basis as the industries to whom he sells and from whom he buys, a workable plan? The purchasing power of agriculture working ten hours per day at a wage schedule of thirty cents per hour is being measured against the products he buys, produced in an eight-hour day at fifty cents per hour.

How Industrial Men Do It.

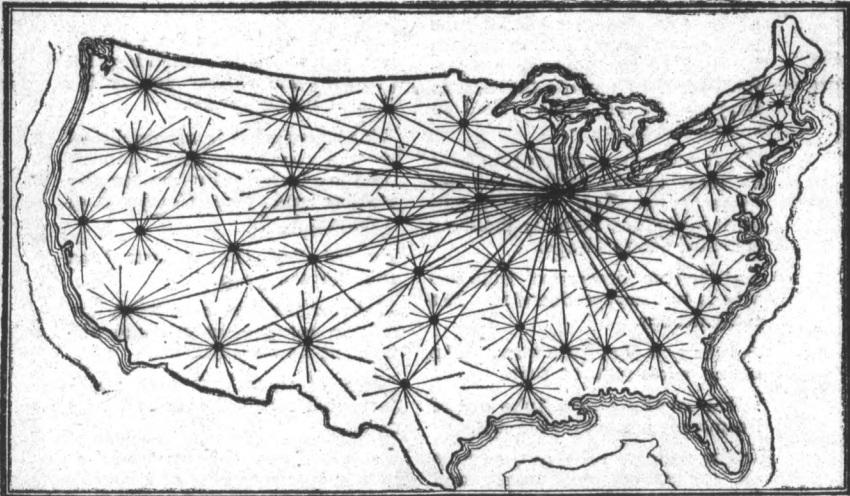
The Chamber of Commerce of the United States consists of approximately 1,500 local chambers in all the states of the Union, organized and employing paid secretaries, also contributing to the maintenance of the national organization with headquarters at Washington, D. C.

Annual meetings are held, and the attention of organized business is fo-

correct financial legislation and credit laws. The special service called upon in connection with the war, has been rendered most effective by this body, and it would be hard to find a more potent force in nationalizing public opinion.

It is non-political, and with headquarters at the national capital, it is the industrial approach of democracy to government maintaining the best traditions of public service. The reports of conditions acquainting its members with business needs and commercial probity, has been one of the strong features. When business speaks through the National Chamber of Commerce, it is an authorized and well considered expression.

The financial support given by business men to the local and national bodies is not looked upon as philanthropy, but as a paying and essential part of



How National Board of Agriculture with Headquarters at Chicago, would Represent All Sections of the Country.

cussed on the program that will best aid commerce. The foremost talent of the country appears before these assemblies, from whence opinions crystallize in public policy associated with the advancement of their interests. The national headquarters is in touch with every local body, and is contributing information direct.

On questions of public policy, the respective viewpoints are presented, and then a referendum is taken of the local chambers of commerce in the United States. The service of the National Chamber of Commerce has been along

the business enterprise. The membership fees and annual dues are paid, because a service is rendered. The exploitation of one industry as against the general good is not countenanced, and it would be well nigh impossible of accomplishment if attempted. The Golden Rule is good economics, and also business practice, and must be fundamental to any long continued national organization. The outline here of business men's methods is to briefly explain how organized commerce which is largely dependent upon agriculture, is conducted.

Handling Hogs In Transit

Every hog that is killed in transit, due to overcrowding or mishandling, means a loss, at present prices, of probably more than \$30 to the shipper as well as a waste of meat needed by the nation. Mortality in transit or after arrival at the central market can be lessened greatly in hot weather by the practice of the following simple precautions on the part of shippers and dealers:

1. When hogs are very hot, during or after a drive, never pour cold water over their backs.

2. Before loading, clean out each car and bed it with sand which, during dry, hot weather, should be wetted down thoroughly. Hogs in transit during the night only are not so likely to be lost from overheating as are the animals shipped in the daytime. With day shipments in hot weather it is highly advisable to suspend burlap sacks of ice from the ceiling in various parts of the car in order to reduce the temperature, and incidentally, to sprinkle the animals with cool water. The ice sometimes is placed in sacks on the floor, but the animals are likely to pile and crowd around the cakes so that only those close to the ice are benefited. The ice should be sufficient to last to the destination.

3. Do not overload. Crowding hogs

in a car during warm weather is a prolific source of mortality.

4. The feeding of corn, because of its heating effect, before and during shipment in hot weather should be reduced to a minimum. Oats are preferable where a grain feed is necessary. The maximum maintenance requirement of hogs in transit for twenty-four hours is one pound of grain a hundred-weight, or approximately three bushels of corn to a car.

SELECTING A FARM MULE.

In choosing a mule for farm work one should pick an animal of plain but rugged frame—one that carries plenty of bone. Particular attention should be given always to the animal's feet and shoulders. A mule should stand squarely on his feet and carry a collar well. The mule's foot is narrower than that of a horse and because of lack of bearing surface it gets out of shape more quickly. Hence care should be exercised to select an animal whose feet have not been neglected. As for age, the mule is at its best when about eight years old. From then until it is twelve there is little deterioration. After this its powers wane rapidly and the animal brings much less on the market.

A Message From The President

By adding this new 75c. "High Grade" President to the regular President line the 150,000 "President" Representatives in the United States have at last a choice of suspenders that will appeal to every man who demands quality and comfort in wearing apparel at a thrifty-wise expenditure.

The man who buys the 75c. "High Grade" President, or the regular 65c. President, receives the utmost in value and service for the money. And the man who sells the line receives a return on his investment that makes his suspender business exceedingly worth-while.

We guarantee to repair, replace or (if requested) to refund the wearer's money if any President he buys is not absolutely satisfactory. We guarantee sales to the dealer.

Representatives everywhere sell Presidents. They should keep in advance of the demand by ordering the new "High-Grade" now from their jobbers. The purchaser will profit in its splendid value. The dealer will profit not only in the customer's appreciation and good-will, but also in dollars and cents.

"High Grade"—a new one—

President Suspenders
for comfort



Easy to figure the Profits

Where in Western Canada you can buy at from \$15. to \$30. per acre good farm land that will raise 20 to 45 bushels to the acre of \$2. wheat—it's easy to figure the profits. Many Western Canadian farmers (scores of them from the U. S.) have paid for their land from a single crop. Canada extends to you a hearty invitation to settle on her

FREE Homestead Lands of 160 Acres Each

or secure some of the low priced lands in Manitoba, Saskatchewan or Alberta. Think what you can make with wheat at \$2. a bushel and land so easy to get. Wonderful yields also of Oats, Barley and Flax. Mixed Farming and cattle raising. The climate is healthful and agreeable, railway facilities excellent, good schools and churches convenient. Write for literature and particulars as to reduced railway rates to Supt. Immigration, Ottawa, Canada, or to

M. V. McINNES,
178 Jefferson Ave., Detroit, Mich.
Canadian Government Agent.

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and

CAL-ARSENATE

—a new combination which bids fair to replace the old Lime Sulphur-Arsenate of Lead and Bordeaux-Lead mixtures, in both orchard and garden. It is more powerful and much less expensive. 1 gallon and 4 1/2 lbs. makes 150 gallons of spray.

Send for circular

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PAPEY MACHINE CO.

150 Main Street,
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25 Convenient Distributing Points



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comb foundation, smokers, etc. Everything for the bees. Send for our catalog.

BERRY BASKETS
AND 16 QT. CRATES

200 Standard quart baskets (wood) postpaid, \$1.60.
200 Wax Lined Paper baskets postpaid, \$1.40.
Above prices apply to points within 150 miles of Lansing.

Special prices on baskets and crates in larger quantities.

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Per 100 pounds. Bags extra at 35c.
Young-Randolph Seed Co., Owosso, Mich.

Dry Cedar Fence Posts by Car Lot furnished farmers at wholesale rates.
O. W. OSMUN, Tower, Michigan.

WANTED First class shelled and fanned Popcorn, forward sample. **Murphy & Morrison, 102 No. Michigan St., South Bend, Ind.**

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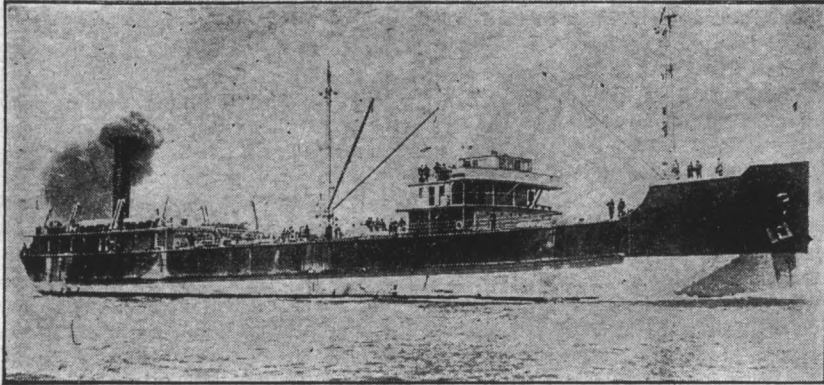
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LITERATURE
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The FARM BOY
and GIRL
SCIENTIFIC and
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WORLD EVENTS IN PICTURES



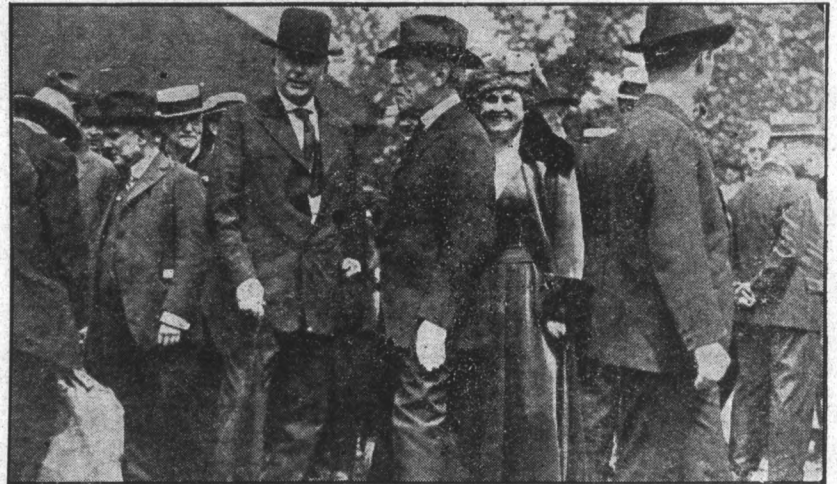
Concrete ship "Faith," first of kind built at San Francisco, exceeds all expectations on trial trip, averaging more than ten knots an hour.



Scene on mud flats at Newburyport, Mass., where men with cultivator and hoe are busy planting—not a garden crop, but clams.



Aviator making ready for the first official mail carrying flight recently inaugurated between New York City and Washington.



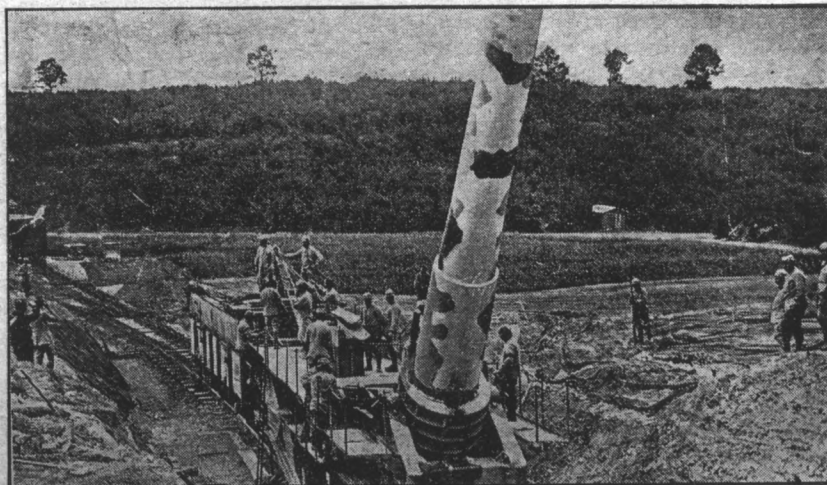
Postmaster General Burleson, President Wilson and Mrs. Wilson watching start of first mail aeroplane from Washington to New York.



This company of American soldiers marching up to take its place in the trenches is resting while enroute to the front lines.



French and American soldiers advancing cautiously across No Man's Land, carrying grenades in sacks slung over their shoulders.



Mounted on a specially constructed railroad track, this big French gun is ready to pound away at the German lines. It is well camouflaged to prevent detection by enemy aerial observers.



Wounded Scottish troopers, undaunted by recent strenuous fighting, smile as they make their way to the nearest dressing station behind the lines.—(British Official Photo).

A FLYING FIGHTER

by L.T. EMROBERTS, R.F.C.

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Synopsis of Preceding Chapters.

F. M. Roberts, an American, born in Duluth, Minn., with an inherited love of adventure, was up in the foothills of the Rockies, drilling for oil, when the war broke out. In October, 1914, he started on a trip to Calgary, and on the way learned of the great conflict taking place in Europe. Reaching Calgary, he enlisted in the Tenth Canadian Infantry Battalion. On account of his knowledge of mechanics he was given a position as driver of a heavy motor truck or "lorry," and later was made sergeant of a mechanical transport section. After months of training they were sent to England and Roberts was later selected by draft for the mechanical service in France. At the second battle of Ypres he suffered severely from a gas attack and was sent to an English hospital to recover. In August he returned to France where he was placed in charge of a motor transport division, carrying supplies from the railheads to the front lines. One night he received orders to take two lorries loaded with barbed wire and steel pickets up to the lines. On the way they were obliged to pass along an open road in full view of the Huns. Roberts speeded up his motor by crawling out onto the hood and holding up the governor of the engine. In this manner they sped down the road, with shells falling all about.

We had gone another mile and a half towards the dump, when a small shell hit one of the armored front wheels of my lorry and blew it off. The lorry fell on its axle, but aside from being strained a little and having lost a wheel it suffered no damage. We managed to get a spare wheel and by midnight were on our way back to the camp.

CHAPTER VI. Wounded Again.

FIVE days later I had a like experience while carrying lumber to the front for the repair of a field dressing station about two hundred yards behind our lines. To get there exposed ground had to be traversed. There was a similar screen of sacking at that point, and the sentry who directed the traffic on the road did not want to let me pass. To lend force to his arguments he drew my attention to a nearby field, in which, though only about three hundred yards square, there were as many as one hundred and fifty shell holes. As I was counting the holes, a heavy bang nearby showed me that some of our forces were stationed there, and then I knew why the Germans had dug up the field so well. They had been looking for this battery for some time and that accounted for the many shell craters.

I waited at the screen until it was nearly dark and then continued. My lorry had been seen, however. As I was taking it around a corner the Huns cut loose and caused me to go down that road as fast as the motor would take me. I had climbed through the head of the lorry and was lifting up the hood to release the governor when I received so forceful a punch in the hips that I was almost knocked off. We did not stop but went right on and upon arrival at the dressing station, about two miles from the point where I had been hit, the doctor picked a bullet out of my side. Fortunately, it was a spent bullet and aside from having the wound sterilized I needed little attention. In a few days I was back at work.

On that trip also I saw a mule hit on the head by a shell, which showed me what annihilation really meant, as it blew its head off.

Shortly after my return from the hospital Sergeant Arthur Montgomery Dyas and I started for the ruins of Ypres in the Canadian salient to get some furniture for a sergeant's mess. We got to the place without any trou-

ble and found cover for the lorry in the lee of a blown-up building. It was a fine day and a Hun Taube was sailing overhead. The British anti-aircraft batteries were concentrating upon the airplane, with the result that a great deal of shrapnel began to fall around us. We had to get under a cover, but anxious to see what would happen to Heinie aloft, we ventured out again. The British batteries were getting the bead on the Taube. In the blue sky around the aircraft shrapnel clouds were visible and gradually came closer to the machine. Of a sudden the flash of a shrapnel appeared directly under the machine, which seemed to come to a stop immediately, then broke in two and came hurtling to the ground. It hit the earth with a crashing sound.

I was still very much interested in military aviation, but for a moment I wondered whether, after all, that game was worth while.

The German batteries began to look for revenge and very soon the battery that had brought down the Hun bird-



Lieut. Roberts While Dispatch Bearer.

man received their close attention. The ruins of the town were not overlooked. Masonry, bricks and the fragments of shells filled the air, but the only casualty I noticed was a large rat that had made up its mind to cross the road. A piece of shell hit the rat. It died then and there. Montgomery looked at me and I looked at him, and I guess both of us had the same thought: even a rat hadn't a chance in those parts.

After a while the bombardment ended, and then we started to hunt for furniture in the ruined houses. We found half a dozen chairs and a table with a leg blown off, a stove punctured by shrapnel, and some crockery, which we picked up in a cellar of a building that must have been a happy home when it still had all of its three stories and the winding stairway, of which only parts were in place.

I climbed to the top of the structure and looked into the rooms, from which the roof and ceiling had been blown off by shells. The furniture was still in the rooms, and clothing was strewn all over the floor. Everything had been spoiled by rain and the shells and was on the verge of falling apart, but for all that it was still evident that it had been occupied by people of wealth.

One of the rooms must have been that of a young lady. In a dresser I found a pink evening gown and other articles of feminine apparel. I took it for granted that the owner of the dress was some beautiful girl, and I was still wondering what she might look like when Montgomery sneaked up the stairs and shouted for me to come down. I took the gown along and it was one of the treasures of the mess until I gave it to a peasant girl.

On the next floor must have been the

room of the old man. We found several pipes and a pair of slippers, and a torn night robe. Back of this room was a sort of conservatory; it had been a pretty place once, but was that no longer. All the glass was broken and the flower pots and boxes lay pell-mell on the floor, with every plant in them dead. We examined the rooms on the ground floor and found that Tommie had been there before us. In the kitchen we made a haul, however. We found there a lot of dishes, three cut glass fruit platters, two soup tureens, some silver knives and forks, and two kitchen chairs. Then we went to the wine cellar but not a drop did we find. A lot of empties gave evidence that somebody had had a good time in that cellar. On leaving the house I spied a book. It turned out to be the Old and New Testament in Dutch, and in it was a card which I took to be that of the young lady. The Bible I sent to an old church-going friend and the card I kept myself.

We were about to drive off when we heard a dull boom in the distance, and a few seconds later a big shell screeched over us and exploded a block away. There was no time to lose, but as we made off Montgomery and the boys sang a little song from the west:

"He's a bold bad man and a desperado,
Blows into town like a big tornado;
Steals all the money from the people
in the land,
He's a curly wolf at shooting with a
gun in either hand."

The ruins of Ypres were a striking sight. It rather broke us up to see that beautiful and thrifty little town being flattened to the ground. There was an oppressive silence in the streets during the few moments when the detonation of guns and shells was not heard.

I looked at what had once been the famous Cloth Hall. I had been told by some French people that it was one of the finest buildings in France and Belgium, but now all its walls were hopelessly wrecked. The parts of the building that had not been blown up were so shaky that the concussion of nearby exploding shells would topple them over. There was no life in Ypres—nothing but rats, rats, and millions of them. I went into several houses which had been inhabited by people of wealth and everywhere met traces of the things which make for refinement—paintings, good furniture, and beautiful candelabras. Everything had been wrecked by the Hun. Before long the big guns of the German batteries started and their shells again began to level Ypres, for which they seemed to hold hatred.

Shortly after that I had some trouble with the commanding officer, with the result that I was transferred to headquarters as a motorcycle dispatch bearer. Motor cycling on a good road is a pleasure, but on wet cobblestones and in the mud it is anything but that. It is impossible to go fast because that shakes the wheel all to pieces and is likely to break your neck, and when you go slow everybody grumbles. In a country such as Flanders, especially when the rainy spell is on, motor cycling keeps you covered with mud from head to foot, and dispatch riding is the very thing to keep you going day and night. Occasionally you run into a shell-hole in the dark and that means that your shins are always minus much of their bark. Another feature of dispatch riding is that you move constantly in zones where a shell may call you in at any moment.

But you aren't supposed to think in the army as I discovered again, when I had used my own judgment on one little trip I made. I delivered my message, but on my way back I had gone out of my way to see a pal who was at a wireless station further up the line.

I was having a chat with my friend when the signal officer came up in his car and saw me. That was enough. On my return to the base I was placed under arrest. In the morning a sergeant escorted me to the C. O.

That personage wanted to know what I had been doing ten miles out of my route. I told him that I had seen no harm in going to see my friend. The commanding officer could not see it that way. He led me to understand that he was the brains of the company and that I had no right to think at all—that I was there to ride. But I got even with him after I was made a commissioned officer.

A severe reprimand was all the punishment meted out to me. That same night I made a trip up the lines and was going along at a fairly good speed when a scream and a crash about twenty-five yards ahead of me suddenly halted my progress. The next thing I knew was that I was lying against the bank on the side of the road some fifteen feet away from the motorcycle. A pain in my left shoulder told me what part of my body had struck the earth first, and when I tried to move my neck that pain grew more intense. I began to spit blood. My head started to buzz.

I noticed that my goggles were missing and since I had to send to England for them, I was not anxious to lose them. I saw them about twenty feet ahead of me and, finding my legs unsteady, I rolled towards them. Before I reached them I fell flat twice. Shortly afterwards I was picked up and sent to the base hospital and from there to England.

Two months later I was back in France and attached to my old transport section. I found that there was considerable unrest among the boys for the reason that all of them were trying to get commissions. By this time also I had made up my mind to get into the Flying Corps. Scott and Beatty, good friends of mine, had the same ambition while others of the section were trying for other branches of the service—Jimmie Brown and Bud Shore for the artillery, Alexander McCollough for the machine gun section, and Dyas and Copman for the infantry.

We secured the necessary transfer forms, filled them up and sent them in. Meanwhile we were trying to get information on the nature of an officer's work in the different units. We had made up our minds to take a more serious view of army life, but before I heard anything from my application I was back on the job hauling coal and ammunition. The chances of getting into the Flying Corps seemed very remote. They seemed even remoter when on the first morning at the dumps behind the line a shell carried off poor old McConnell. A steel fragment went through his head. Poor Montgomery was severely wounded in the side and though he recovered he was never fit for service after that.

Three days later a Hun plane bombed the railhead. It dropped six bombs, but only two of them exploded. But the two did their work, killing five women and two children and a police sergeant and his horse. I looked up at the plane and wished that I could get at it for a few minutes. The anti-aircraft guns were working hard to down the machine, but did not touch it at all.

While in this sector, I saw lots of atrocities committed by the Germans. Although I could hardly believe all the stories I heard about them, there was no vestige of doubt left in my mind after seeing with my own eyes what the Huns were capable of doing.

I was driving up the road one afternoon about four o'clock. The sky was clouded and made the devastated country look all the more lonesome. Although ten miles behind the lines, the guns could be heard plainly and I felt lonely and homesick.

Beyond the little hill I spied a low red building with a cross in front of it, which I took to be a convent. Not being in a hurry, I thought that I would call on the French Sisters. They are always very interesting and knowing their language and customs I felt quite at ease with them.

In response to my knock at the door,

a sister appeared. She asked me to come in and sent for one of the fathers. He was a white-haired old man and dressed in a long black robe with a heavy leather belt around his waist. A large crucifix was suspended from his neck.

We began to talk of the war and he told me of a lot of horrors he had seen -- of children murdered by the Germans when they came to Belgium, of women outraged, and priests tortured for helping the Belgian soldiers. Then he took me to see the little convent and there I saw sights which still haunt me.

We came to a little chapel where nine little boys were kneeling. Looking at them I found that not one of them had his right hand. All were under twelve years old and the youngest was four. The little chap kept his right arm behind his back. It made the blood run cold in my veins and I thought of the children at home. I wanted some sort of revenge on the Huns.

One of the women in the chapel, the father told me, spent most of her time praying. Her little son had been killed and her daughter, a girl of seventeen years of age, had been taken away by the Huns.

Later I met many mothers to whom the same thing had happened. I also saw some women whose breasts and ears had been cut off. They had been tortured in the most cruel ways imaginable. When taking leave of the old father, I gave him all the money I had on me, forty francs, for which he thanked me. He also presented me with a little medal of the Virgin Mary and blessed me.

I came away with a heavy heart. The father added to my collection. My mother had given me a similar medal and so also my sister. An old priest who used to labor in the little Indian mission on the Sarcee Reservation, back of us in Canada, had also given me one. I had four of them, now, and carried them strung together with a safety pin, safely stowed away in my pocket.

On arriving in camp I was greeted by the sergeant-major with a torrent of bad language, and the order that I proceed immediately with my convoy to S., with the seven loads of ammunition that I was to unload and then return to the railhead. S. was a little place about a mile behind our first line and known for the big shells the Huns used to put into it in their effort to blow up the ammunition dump.

I had been shelled there on a previous occasion and had just turned into the dump, where the mud was hub deep, when the shells started to fall. On one side of the road was a shed where the working parties detailed to help unload ammunition were sheltered from the weather. The first shell to day fell into this shed, killing fourteen of the men. I blew my whistle as a signal for my men to take to cover. This they did by leaving their seats and getting under the lorries. We stayed there for two hours, with a shell coming every five minutes, which gave us ample time to work our way into the ditch along the main road. While the body of the lorries gave us some protection, there is no telling what would have happened had one of the German shells hit a lorry loaded with ammunition or the depot itself. As luck would have it, however, the shells fell everywhere but in the dump, so we thanked our stars, and when the bombardment was over unloaded the vehicles in record time. We had lost some time and went to the railhead at good speed, where I was informed that the commanding officer wanted me.

(Continued next week).

"Farmers are sometimes the last to heat up; but they stay hot; and in a long fight they are always found sturdily carrying the battle across No Man's Land to the foe, in the last grim struggle."—Herbert Quick.

"By the Way"

LONG ABOUT THE FIRST O' JUNE.

When the days get kinder lazy
'Long about the first o' June,
An' the sky an' earth an' flowers
An' the birds all get in tune.

Then to stretch me where the sunshine
Sort o' sprinkles thru the leaves,
An' the grass is soft an' fragrant
'Neath the gnarled old apple trees.

Lying there an' just a dreaming
An' forgetting pain an' care,
Mindful only of the sweetness
That's about me everywhere.

Just a lazying with nature
'Till with her I feel in tune,
Seems to me almost like Heaven
'Long about the first o' June.

L.W.S.

NOT HIS FAULT.



The man who drops into the ruck
And makes a sorry mess of life,
If he's unmarried blames his luck,
And if he's married blames his wife.

HAD HIS LESSON.

Jim had been taking a correspondence course in "How to Appear in Society," calling upon a young lady for the first time he amazed her by asking carelessly as he shook her hand: "How's your mother and things like that?"

BETTER GET THEM OUT AGAIN.

The cold, cold days of winter have passed, and in their stead we have the fragrant breath of spring; not far away we scent the full-blown beauty of the summer; after that the autumn, with its gifts of grain and fruits; and then -- well, what do you know about that? Here's winter again.

HORRORS OF WAR.

Two thousand half women, in Sunday patriotic parade. From a headline in a Detroit paper.

A NEW DEFINITION.

"What's an optimist?"

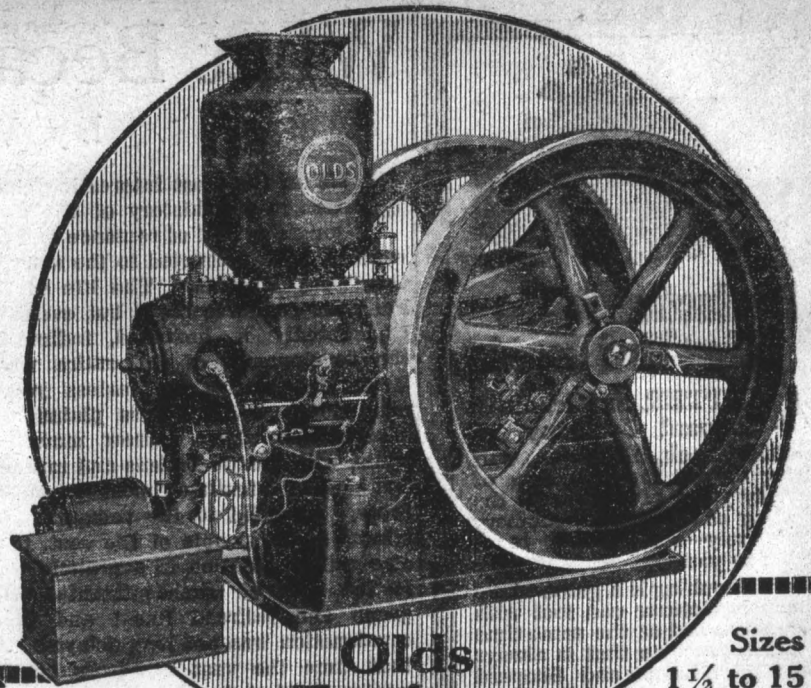
"An optimist is a person who'll go into a restaurant without a cent in his pocket and figure on paying for the meal with the pearl he hopes to find in the oyster."—Illinois Siren.

When a girl gets a job in a telephone exchange, she must expect to be treated as one of the family by everybody who has a phone.

Russia acts a good deal like a ladies' aid society in which the minority has been in power for about two weeks.

ALL ABOUT GUEST TOWELS.

The guest towel is a wash rag with nineteen cents' worth of embroidery on each end of it. There are between two and three billion guest towels in the United States. Practically all of them will be found in the bottom drawer of the old oak dresser in the spare room until your wife cleans house. After that they will be found some place else. Next Christmas they will be distributed by parcel post and other guest towels will come in to take their place. Guest towels should be used with as much discretion and as little friction as it humanly possible. They mean well, but they should not be taken seriously, if at all.—H. W. D.



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Has ball-bearing turntable; always stands squarely into the wind. Self-governing—will not run faster in a 40-mile gale than in a 12-mile wind. Spider pressed onto the main shaft—perfect oiling system—all working parts enclosed. Galvanized channel steel rim is used for holding sails—no bolts, rivets or pins used. Sails are driven into the channel frame, making a wheel that is stiff and strong, yet light in weight. Made in 10 and 12 ft. sizes. We also make Kalamazoo buck-gear mill (8 ft.) with either galvanized steel or wood wheel.

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80 acres in Gladwin Co., 55 acres cleared, 25 acres of timber, has good buildings, and is all fenced, 6 miles north and 4 miles west of Gladwin. Andrew Hock, R. 1, Middleton, Mich., Care of T. Herald.

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We pay salary to good subscription getters, who can devote their entire time to our work. The offer our salaried men handle is especially attractive to farmers. Address

The Michigan Farmer, Detroit



Grain Production is the Thing That Counts

A LETTER to Nichols & Shepard Company, of Battle Creek, Michigan, will bring to you the experience of seventy years of success in the making of threshing machinery exclusively—success that is of value to you.

Grain threshing is a game where no manufacturer can fool with side lines, and at the same time build a machine that is always on top. Nichols and Shepard Company has confined its efforts and resources to threshing machinery alone, longer than any other manufacturer in the world. The result is that the Red River Special, with its "Man Behind the Gun," the Beating Shakers and the Big Cylinder, stands at the very top of the list as a grain thresher.

It Saves the Farmers' Thresh Bill

Write us for information about the "Junior" if you want a machine for your own use. Write for circulars.

Nichols & Shepard Co.
In Continuous Business Since 1848
Builders exclusively of Red River Special Threshers, Wind Stackers, Feeders, Steam and Oil-Gas Traction Engines
Battle Creek Michigan

THE BEST LINIMENT

OR PAIN KILLER FOR THE HUMAN BODY

Gombault's

Caustic Balsam

IT HAS NO EQUAL

For the Human Body
—It is penetrating, soothing and healing, and for all Old Sores, Bruises, or Wounds, Felons, Exterior Cancers, Boils, Corns and Bunions. CAUSTIC BALSAM has no equal as a Liniment.

We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, thorough use will cure many old or chronic ailments and it can be used on any case that requires an outward application with perfect safety.

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and
all Stiff Joints**

REMOVES THE SORENESS—STRENGTHENS MUSCLES
Cornhill, Tex.—"One bottle Caustic Balsam did my rheumatism more good than \$120.00 paid in doctor bills." Now is the time to buy a bottle. Price \$1.50 per bottle. Sold by druggists, or sent by express prepaid. Write for Booklet R. The LAWRENCE-WILLIAMS COMPANY, Cleveland, O.

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When a new 1918 Galloway Sanitary Separator harvests the cream! Now when milk flow is greatest, get every ounce of butter fat. Now is the time to buy a down-to-the-minute, scientifically built sanitary cream separator. Throw away that old machine and get all the cow profits. My new 30-day food-conservation selling plan will save you even more than my usual low price saving. Ask now for this June Special. **GALLOWAY'S Sanitary Separator 1918**
It's the sensation of all separators. Sensational in construction, clean skimming, sanitation, easy cleaning and durability. The features of the Galloway Sanitary Separator combine the new and best advantages of all high grade separators. Buy a Galloway and you get the best of all embodied in one perfect machine. Four big sizes at four low prices. Every size guaranteed to skim to rated capacity. Sold on 180 milking test in your own dairy before you decide to keep it.

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TO THE MEN AT HOME.

No war is won by cannon fire alone;
The soldier bears the grim and dreary role;
He dies to serve the Flag that he has known;
His duty is to gain the distant goal,
But if the toiler in his homeland fair
Falter in faith and shrink from every test
If he be not on duty ever, there,
Lost to the cause is every soldier's best.

The men at home, the toiler in the shop,
The keen-eyed watcher on the spinning drill
Hear no command to vault the trench's top;
They know not what it is to die or kill,
And yet they must be brave and constant, too,
Upon them lies their precious country's fate;
They also serve the Flag as soldiers do,
'Tis theirs to make a nation's army great.

You hold your country's honor in your care,
Her glory you shall help to make or mar;
For they, who now her uniform must wear
Can be no braver soldiers than you are.
From day to day, in big and little deeds,
At bench, or lathe or desk or stretch of soil,
You are the man your country sorely needs!
Will you not give to her your finest toil?

No war is won by cannon fire alone.
The men at home must also share the fight,
By what they are a nation's strength is shown,
The army but reflects their love of right.
Will you not help to hold our battle line,
Will you not give the fullest of your powers,
In sacrifice and service that is fine,
That victory shall speedily be ours?

miles. An average speed of eighteen miles an hour for the ten miles was exacted from the horses. No time was lost at the relay stations. When a rider drew up at a station a fresh horse, saddled and bridled, was waiting. He lifted his mail saddlebags to the second horse, mounted and started off, not more than a minute being lost in the transfer. And so it went across the continent, east and west.

The mail was carried in a peculiar leather pouch which fitted closely down on the saddle, with slits made to fit over the horn and tree of the saddles, which were all alike. The pouch contained four pockets, two on each side, one in front and one behind the rider's legs. The letters were wrapped in silk water-proof material to protect them in fording streams, but often they badly damaged.

The mail carried was limited to twenty pounds; but that weight was rarely reached. Instead of the present letter postage rate of three cents for each ounce, or fraction thereof, the rate at first by the Pony Express was five dollars per half ounce. As a consequence, letters were written on thin, tough paper, so as not to exceed the half-ounce limit. Large sums of money were carried, but always in the form of drafts or bank notes. Certain eastern newspapers got out special issues on tissue paper—but these were more to show enterprise than anything else, for few people were able to pay from ten to twenty dollars postage on a single newspaper. After a few months the rate of postage was reduced to one dollar per half ounce.

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Spies and Lies

German agents are everywhere, eager to gather scraps of news about our men, our ships, our munitions. It is still possible to get such information through to Germany, where thousands of these fragments—often individually harmless—are patiently pieced together into a whole which spells death to American soldiers and danger to American homes.

But while the enemy is most industrious in trying to collect information, and his systems elaborate, he is *not* superhuman—indeed he is often very stupid, and would fail to get what he wants were it not deliberately handed to him by the carelessness of loyal Americans.

Do not discuss in public, or with strangers, any news of troop and transport movements, or bits of gossip as to our military preparations, which come into your possession.

Do not permit your friends in service to tell you—or write you—"inside" facts about where they are, what they are doing and seeing.

Do not become a tool of the Hun by passing on the malicious, disheartening rumors which he so eagerly sows. Remember he asks no better service than to have you spread his lies of disasters to our soldiers and sailors, gross scandals in the Red Cross, cruelties, neglect and wholesale executions in our camps, drunkenness and vice in the Expeditionary Force, and other tales certain to disturb American patriots and to bring anxiety and grief to American parents.

And do not wait until you catch someone putting a bomb under a factory. Report the man who spreads pessimistic stories, divulges—or seeks—confidential military information, cries for peace, or belittles our efforts to win the war.

Send the names of such persons, even if they are in uniform, to the Department of Justice, Washington. Give all the details you can, with names of witnesses if possible—show the Hun that we can beat him at his own game of collecting scattered information and putting it to work. The fact that you made the report will not become public.

You are in contact with the enemy *today*, just as truly as if you faced him across No Man's Land. In your hands are two powerful weapons with which to meet him—discretion and vigilance. *Use them.*

COMMITTEE ON PUBLIC INFORMATION

8 JACKSON PLACE, WASHINGTON, D. C.

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We would say to all who buy it that it does not contain a particle of poisonous substance and therefore no harm can result from its external use. Persistent, thorough use will cure many old or chronic ailments and it can be used on any case that requires an outward application with perfect safety.

A Perfectly Safe and Reliable Remedy for
**Sore Throat
Chest Cold
Backache
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REMOVES THE SORENESS—STRENGTHENS MUSCLES
Cornhill, Tex.—One bottle Gombault's Caustic Balsam did my rheumatism more good than \$100.00 paid in doctor's bills. O. A. BRYAN.
Price \$1.50 per bottle. Sold by druggists, or sent by express prepaid. Write for Booklet R.
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Get this money-saving buying guide in your hands before you buy. It points the way to immense savings that will amount to hundreds of dollars on your season's supplies. Close shipping points save you freight. Write today for book.
**WM. GALLOWAY CO., Box 183
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Upon them lies their precious country's fate;
They also serve the Flag as soldiers do,
'Tis theirs to make a nation's army great.

You hold your country's honor in your care,
Her glory you shall help to make or mar;
For they, who now her uniform must wear
Can be no braver soldiers than you are,
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At bench, or lathe or desk or stretch of soil,
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This space contributed for the Winning of the War by
THE PUBLISHERS OF "THE MICHIGAN FARMER"

Give full consideration to the quality of your tea—not only on account of flavour but also because good tea is so much more economical. Ask your grocer for

"SALADA" TEA

and secure the finest freshest young tea that is packed. It takes less than half the quantity to make an infusion than does ordinary low-priced tea.

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IRONCLAD KHAKI

(Twill Cloth)

Uncle Sam's Boys and Girls both wear garments of

IRONCLAD KHAKI

the patriotic economy cloth. It's fast color—can't fade and wears like leather. Be sure the Ironclad "army" label is sewed in every khaki workshirt, pants and overalls you buy.

Garments sold by dealers—everywhere. Write for free samples of Ironclad Khaki Cloth and Miss Ironclad Khaki Cloth to FRANKLIN MANUFACTURING CO. Mfrs. of Cloth Only. 123 Market Place, Baltimore, Md.

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Help win the war. Produce, conserve and sell more food. Can fruits and vegetables with a

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Write for illustrated folder.

ROYAL SUPPLY COMPANY

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Everywhere to ride and exhibit the new "Ranger" Motorbike—completely equipped with electric light and horn, carrier, stand, tool tank, coaster-brake, mud guards and anti-skid tires. Choice of 44 other styles, colors and sizes in the famous "Ranger" line of bicycles.

DELIVERED FREE on approval and 30 DAYS TRIAL. Send for big free catalog and particulars of our Factory-direct-to-Rider marvelous offers and terms.

Tires, Lamps, Horns, Wheels, Sundries, and parts for all bicycles—at half usual prices. SEND NO MONEY but tell us exactly what you need. Do not buy until you get our prices, terms and the big FREE catalog.

MEAD CYCLE COMPANY Dept. A-77, CHICAGO



Woman and Her Needs

At Home and Elsewhere

A New Meaning to Life

LIFE can never be the same after the war," has been said so often by so many people in so many languages that it has become almost trite. But it is said with such a variety of meanings that it still has much interest. To the mother who has lost a son, the woman who has lost a husband, it means but one thing, that life without the loved one will never be the same. That the sorrow and grief they have borne will leave them incapable of looking at life in the old light-hearted way.

Those of us who have no one to give are thinking, too, that life can never be the same. And many of us are hoping quite sincerely that it can't. We are hoping that never again can we go back to the old way of living for ourselves alone.

Just what did life mean to us a year ago? Or, for the matter of that, what does it mean to some of us still? A chance to do for our brother, or a chance to grasp for ourselves? Most of us were concerned solely with the one thought, to possess material things. To own property, to have a finely furnished house, to wear expensive clothes and jewelry, to have our children just a bit more finely clad than our neighbors, to have a well-spread table, to see the latest shows and movies, to own an automobile, in short to satisfy the purely animal side of our natures—this was life to the average American until we found ourselves plunged into the world struggle.

Then very slowly we began to awaken. There were calls for our money for the Red Cross, for Liberty Bonds, for starving allies, for the Y. M. C. A. We gave, some freely, some grudgingly, some because it "was the thing to do," but we gave. Then we began to be asked very politely by a man named Hoover to abstain from certain foods. Some of us did this because we were beginning to see that the fuss in Europe really concerned us quite deeply, others fell in line because everyone was taking it up, and a few absolutely refused to go without anything they could buy and pay for. They maintained stoutly that all they got in this world was what they ate, and they intended to have their three square meals a day.

A little later the man named Hoover, backed up by Uncle Sam, ceased to ask politely. He issued a set of "Thou Shalts" and "Thou Shalt Nots," and those who had early fallen in step and found that they were still enjoying good health, smiled to see the laggards floundering about. Calls for money, too, became more insistent and frequent. Casualty lists from "over there" began to mean more to American homes than just a set of names. Our boys were among the dead, wounded and missing, and comfortable homes and pleasure seeking all at once seemed of secondary importance to us.

Life became real to us. Something more than days to be put through in seeking our own ease and pleasure. We suddenly awoke to the fact that the really vital things are now, as they have always been, the things of the spirit. That to go without luxuries in food and clothing so that we might give to the great cause of freedom was the thing of greatest importance. To do something for someone else, for humanity, instead of to live with the sole thought of gratifying ourselves,

that became the compelling motive with thousands who before had lived solely for self. "What can I do to help?" became the thought instead of "What can I get for myself?"

In that sense let us hope that life never again can be the same—that never again can we go back to the old idea that material things are of supreme importance. Let us hope that never again will daughters be taught that the supreme thing is to have a

home where children are few and money is plentiful, regardless of the presence or absence of love. May girls be taught instead that service is more to be desired than ease and physical labor is more ennobling than gossip and idling.

We are learning many lessons from the war. But the greatest of all is that "life is more than meat and the body than raiment."

DEBORAH.

Unusual Pies Unusually Good

War long ago uncovered the sacred American pie, now the bottom crust as known to our mothers has disappeared, and the latest offering of "Yankee ingenuity" is rice pie crust. Rice has a natural affinity for the things that usually constitute pie fillings, and this new camouflage from the

first camoufleur—woman, is good for the duration of the war.

Rice Pie Crust.

Line a greased pie pan with cold boiled rice, bringing the rice well over the edge of the pan and shaping it with a spoon dipped in milk. Bake the crust in a moderate oven until it is slightly brown. Use the crust like any pastry for a one-crust pie.

Buttermilk Pie.

- 1 cup buttermilk,
- 2 tablespoons corn starch, mixed with
- 4 tablespoons cold water,
- $\frac{3}{4}$ cup maple syrup,
- 2 egg yolks, beaten,
- 1 lemon, juice and grated rind,
- 1 tablespoon melted butter.

Heat the milk in a double boiler. When it is warm, add the corn starch mixed with cold water. Cook mixture until it is thick, and add the other ingredients. Cook the mixture until it is clear. Turn it into a baked crust made with rice, cover it with meringue, and bake it in a slow oven for twenty-five minutes.

Meringue.

- Whites of two eggs,
- $\frac{1}{4}$ teaspoonful vanilla,
- 4 tablespoons maple syrup,

Beat the egg whites until they are stiff, add the syrup gradually, and then the vanilla.

Cottage Cheese Pie.

- 1 cup cottage cheese,
- $\frac{1}{2}$ cup maple syrup,
- $\frac{3}{4}$ cup milk,
- Yolks of two eggs, beaten,
- 2 tablespoons melted butter,
- Salt,
- $\frac{1}{2}$ teaspoon vanilla.

Mix the ingredients in the order given. Bake the pie in one crust made of rice. Cool it slightly, cover it with meringue, and brown it in a slow oven.

Lemon Cheese Pie.

- 1 cup cottage cheese,
- $\frac{3}{4}$ cup honey or $\frac{3}{4}$ cup corn syrup,
- Yolk of 1 egg, beaten,
- $\frac{3}{4}$ cup milk,
- 2 tablespoons butter,
- 2 tablespoons corn starch,
- Juice and grated rind of one lemon.

Heat the milk, add the sweetening and the corn starch, and cook mixture until it is thick, stirring it constantly. Then add the egg, and cook the mixture until the egg thickens. Add the cheese, the butter, the juice and the rind of the lemon. Pour the mixture into a well-baked crust made with rice. Cover it with meringue, and brown it in a slow oven.

Sal soda softens hard water and when used in soft water helps remove dirt so that less soap is needed.—Mrs. E. S. T.



Wool must be conserved for our soldiers and sailors, who must be provided for before the needs of stay-at-homes can be considered. To save wool and at the same time permit our women to be well dressed, this frock has been designed.

It is of Japanese cotton crepe, cut in a comfortable one-piece style. The front is finished in a jaunty blouse effect, with pointed lapels and four large pearl buttons. A military collar of white cotton crepe drapes gracefully over the shoulders and extends down the front, forming a smart vestee effect which closes with small pearl buttons. The girdle crosses in the back, and the long ties are brought around and tied in a loose knot at the front. Close fitting one-seam sleeves are finished with a row of white pearl buttons.

SUGAR SUPPLIES FOR HOME CAN-
NERS.

The Food Administration has adopted a certificate system to meet the household needs for sugar during the coming fruit season, and to guard against temporary shortages that may occur if more vessels are diverted from the Cuban trade. The consumer is asked to estimate his needs and fill out a certificate which will be furnished him by his grocer. The dealer is required to forward this certificate to the Federal Food Administrator within one week after it is turned in to him.

CLEANING FLOOR COVERINGS.

BY MRS. C. GALLIHER.

The housewife does not always feel financially able to replace the old rug or carpet with a new one, and yet there is nothing that mars the appearance of a room more than a soiled or faded floor covering. So in order that housecleaning may be complete, quite a little thought and time must be given to this one thing.

For those who have vacuum cleaners the removing of the dust from carpets, rugs, etc., is a very small job, but not every one has vacuum cleaners. So other methods must be relied on, for it is important that all dust be removed before any cleaning agent is used. A very satisfactory method of dusting small rugs, is to lay them right side down on the bed springs, and when they are beaten the dirt will fall out upon the ground.

For cleaning soiled carpets or rugs a good solution is made the following way: Shave one-half pound of soap in one quart of water and boil until dissolved. Add one ounce of salts of tartar and one gallon of hot water and mix thoroughly. If there is much green in the carpet add one cup of vinegar, to preserve the color. To apply, use a stiff brush, scrubbing the carpet briskly, doing a small portion and then wiping with a woolen cloth wrung out of cold water. The easiest and best way to clean a carpet by this method, is to use the solution after the carpet has been again placed on the floor. However, it should be done on a warm, sunny day, when doors and windows can remain open that the carpet may quickly dry. All soiled rugs are very effectively cleaned by this method.

To freshen rugs or carpets, wipe them with a cloth wrung out of warm water, ammonia and kerosene. Use one tablespoon of kerosene, one teaspoon of ammonia to one gallon of warm water.

The most satisfactory method of cleaning matting is to cover the broom with a soft cloth and dip it into a saline solution before sweeping. A good proportion to use is one-half cup of salt to a medium-sized pail of water. Matting should never be swept with an uncovered broom, because its fibre is apt to be cut by the stronger splints.

FOR THE HOME SEAMSTRESS.

A bulletin which every woman who does any sewing should possess is issued by the Missouri College of Agriculture, located at Columbia, Missouri. "Principles of Sewing," by Mary E. Robinson contains practical advice on all the problems which confront the home dressmaker. There are directions for making a dress-form at home at a cost of less than four dollars, instructions for using commercial patterns, methods of measuring, cutting, the various sorts of stitches and when they should be used, plackets, patches, darts, and decorations. If sewing is your greatest bugbear write the Agricultural Extension Service Department, College of Agriculture, Columbia, Mo., for this helpful bulletin.

Week by week, because of various hindrances, we have sent overseas less than the needed quotas of wheat, and have eaten into our reserve stock at home. There is no leeway now.

Where
Will I Get
Enough Help
This Summer?

The scarcest thing on the farm this year is help—good, dependable help that knows what's what. City boys and girls, who are offering to work in some sections, can do the light chores, but can't take the place of trained workers who have left the farm.

Uncle Sam knows this and has planned furloughs for farm-trained soldiers in camp. Full details of how you go about getting such helpers are in June Farm Journal.

No bigger service is being given American farmers today than The Farm Journal's articles on farm labor, the draft regulations and the furlough possibilities. Every farmer needs just what The Farm Journal is printing every month.

Tractors—
the Farm
Artillery

How one group of farmers financed and handled tractor operation.

How To Sell Farm Products
City Gas For Farm Houses
How Much Fat In the Cream?
A Fence 1,000 Miles Long
Stretch the House To Fit the Family

Easy Summer Cooking

Dead Pigs
Pay No
Bills

Facts that mean dollars now, when pork is bringing premium prices.



Every issue of The Farm Journal is a feast of good things—arranged so you can get the meat without the gristle. Over a million farmers say it's "unlike any other paper." Farm Journal hits the nail on the head, and not on the thumb.

You can have April, May and June FREE—complete information on the Farm Labor, Draft and Furlough situation to date. See Special Offer!

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Send 50c for from now until Dec. 1920, and we will send you APRIL, MAY and JUNE NUMBERS FREE—money back any time you ask.

(3422)

MICHIGAN FARMER PATTERNS.

Any of the patterns illustrated may be secured by sending order to Pattern Department, Michigan Farmer, Detroit, enclosing the amount set opposite the patterns wanted.



No. 2464—Ladies' Skirt. Cut in seven sizes, 22, 24, 26, 28, 30, 32 and 34 inches waist measure. Size 24 will require 3 1/4 yards of 36-inch material. The skirt measures two yards at the foot. Price 10c.

No. 2482—Ladies' Shirt Waist. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 2 1/4 yards of 36-inch material.



No. 2140—Ladies' Dress. Cut in six sizes, 34, 36, 38, 40, 42 and 44 inches bust measure. Size 36 requires seven yards of 36-inch material. The skirt measures about 2 1/2 yards at the foot. Price 10c.

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W. S. S. WORTH \$5.00 JANUARY 1, 1923					

No. 2477—Ladies' Work Dress. Cut in seven sizes, 34, 36, 38, 40, 42, 44 and 46 inches bust measure. Size 38 requires 4 1/4 yards of 36-inch material. The dress measures about 2 1/2 yards at the foot. Price, 10c.



No. 2467—Girls' Dress. Cut in four sizes, 6, 8, 10 and 12 years. Size eight requires 3 1/4 yards of 44-inch material. Price, 10c.

No. 1795—Child's Outfit. The pattern includes all three garments and is cut in five sizes, 2, 3, 4, 5 and 6 years. It requires 7/8 yard for the drawers, 1 1/2

yards for the underskirt, and 2 1/2 yards for the dress, of 36-inch material, for a four-year size. Price 10c.

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Our Boys and Girls

At Work and play

A Leading Guernsey Community

By G. O. STEWART

County Club Leader of Kent County

HUNDREDS of rural communities throughout the United States which have tried to organize their activities for war work and the betterment of the nation after the war, have failed for want of a practicable way to do it. What they needed was an authentic receipt, proved by use, to take the place of paper theories, something that could be put into operation with reasonable certainty of success. However, we people here in Michigan do hear of many successful organized units or communities.

Here is the story of one of our Kent county communities which has started and carried out a plan that works. It can be applied, if properly adapted to local conditions, and local needs, with every assurance that it will succeed. There is no magic about it; it won't manufacture energy and enterprise and

Caledonia carried off their usual number of prizes, taking first in potatoes and first in corn.

Even with all the success their club had attained, the boys were not satisfied with what had been accomplished. They were a little older now, had had a few years of valuable experience, and had caught the vision of genuine organized effort. They realized that if farming was to be their life's work, they would have to familiarize themselves with live stock. So they called a special meeting early in December and organized what is now called the "Caledonia Junior Guernsey Breeders' Association." At first half of the boys wanted Jerseys and the others were partial to Holsteins. Finally they compromised and decided that the Guernsey breed would be a good one to introduce. With the assistance of the local bank, the county agricultural agent, and several of the boys' fathers, eleven boys became the owners of good registered Guernsey calves. These were purchased at Waukesha, Wisconsin, the leading Guernsey center in the United States. The Caledonia Bank advanced the money for the entire number and each boy signed a note for the payment of his calf.

The calves were shipped to Caledonia late in January just before the heavy snow. The boys drew numbers to see which calf they were to have. The calves averaged three to five months of age. Each boy saw to it that his calf had a good home and was given the best of food and care. The young stockmen think they each have the best calf and would not trade with any other member.

The Community Vision.

The Caledonia Junior Guernsey Breeders' Association has a vision. It stands for big things, as one of the boys said, "We want a name that means something that will take us somewhere." These boys have grown up in a community where live stock



President Hoyt Shisler.

has been grown for years, has been an important part of the farming business and yet during all this time has not been standardized or been developed along the lines of live stock production.

These boys do not wish to live in a community in which there is no progress. They want to see the live stock industry grow big, standardized, and mean something in the efficiency of farming. They have a community vision, a part of which is to standardize the dairy business for Caledonia.

They said, "Is there a Guernsey center in Michigan?" To this there was no reply. Then they further said, "Can we not start out with such a vision and

make Caledonia a Guernsey center?" It is now the plan of these Junior Breeders to make Caledonia a little Guernsey center.

Already the fathers and mothers of these boys are interesting themselves in the standardization of the dairy business. They, too, are buying pure-bred Guernseys. The fathers and mothers in this community are catching the vision of what their sons are aiming towards. They are now giving them encouragement in every way, hoping that when they become men they will have built a rural community in which is



Floyd Bergy, on the Right, was State Corn Champion in 1916.

found standard live stock, standard crops, cooperative marketing, and thus a community which has solved the problems that are ever before the farmer, those of business, educational and social life.

EIGHTY COMMUNITIES HELP IN GARDEN WORK.

Some conception of the way in which the cities of the state have taken to the gardening idea can be gained from the report of the boys' and girls' club department of M. A. C. on developments in this field. At the present time the report brings out, there are eighty Michigan cities, towns and villages in which organized garden work is in progress, while the number of boys and girls who are assisting is now close to the 50,000 mark. The report tells only of the work in communities cooperating with the college and the United States Department of Agriculture and does not take into account a considerable number that are going ahead with gardening on their "own hook."

GUESTS.

BY L. M. THORNTON.

If Three Bears came to my house to-night

I'd say Good Evening, and be polite
Or wee Miss Muffit or Marjorie Daw
Or little Bo-Peep whom I never saw
Or Humpty Dumpty or Jack and Jill—
They could rest awhile ere they climbed the hill.

I'd like to open the door and see
Nice Old King Cole and his fiddlers three;

Or Jack who climbed on a bean-stalk high
And tumbled the giant out of the sky
Or good Jack Spratt and his hungry wife
Or the three mice safe from the butcher knife.

But if, though I offered my very best,
Not a one of these will come out and rest.

I think I'll see that they take no flight

With Mother Goose on her broom tonight.

With horn and mittens and rope and crook

I'll shut them all in the picture book.

My Grey Squirrel

By G. W. TUTTLE

MY! how fingers ached, and how I shivered with the cold that morning! I had bagged red squirrels, but no grey thus far. I had spent just one morning hunting for greys, and obtained one shot, which I missed. Upon returning, my grandfather, who dearly loved to tease me, said that I could not possibly shoot a grey squirrel, and I might as well give it up.

That settled it with me, for the things that my grandfather said I could not do, I invariably did. So here I was on a frosty morning of late October, sitting quietly in the woods, waiting for squirrels to stir. The morning was at hand; the shadows were disappearing; the sun would soon floor with its light, first the mountain peaks, and then the beautiful valley, causing the hoar frost to disappear. Up from the valley below me floated a robin's call as cock robin awoke, and loud and shrill the call of the yellow-shafted flicker echoed and reechoed through the stillness of the woods and valley. Ordinarily no yellow-shafted flicker could throw down the gauntlet to me in that fashion, but on this particular morning I was hunting larger game.

Ah! the sun was peeping over the hills and Jack Frost would soon "fold his tents like the Arabs, and quietly steal away."

But where were the grey squirrels? Not a sound in the tree-tops, not a dropping nut, not a bending bough was to be seen or heard, not even a defiant bark awoke the slumbering echoes of the woods. I grew colder and colder for I had been sitting perfectly still that I might not alarm the squirrels. I was almost discouraged, when, looking up, I saw a squirrel flattened down upon a high limb of a chestnut tree. He looked small to me, so I concluded that it was only a red squirrel, and I waited a little, but I was so cold and desperate that I concluded that even a red squirrel was game for me that morning. So I took aim and pulled the trigger. "Snap," went the cap; then after an interval, "Bang," went the gun. The old gun had hung fire.

In a moment the squirrel was running rapidly down the tree, looming up larger to my astonished eyes every moment for I saw that he was a large grey squirrel. I naturally inferred that I had missed him entirely on account of the gun hanging fire. But the surprise of my life awaited me, for when about three feet from the ground he suddenly dropped, perfectly dead. How astonished I was! How beautiful he looked! How magnificent his large, bushy tail! I have shot grey squirrels in California that weighed two pounds—enormous fellows—but they did not look as large to me as did this, my first grey squirrel.

I hastened home and proudly displayed the trophy to grandfather. "Now can I kill a grey squirrel?" was my triumphant interrogation.

Uncle Sam is today the quartermaster of a hungry world. He is playing the game squarely and counts on every American to do the same.



Allen Stauffer & Sons.

patriotism—but it is capable of educating a community to the point where it will act, and act effectively. This seems to be the one urgent need of scores of communities today.

A Boys' Club at Work.

Several years ago there was a group of eight or ten boys at Caledonia who were anxious to try out some form of organized effort or group activity and start something new in their community. They had heard of boys' and girls' club work, so they set out to see what could be done. At first they were like all beginners, not very successful. But they went ahead and secured assistance from the county agricultural agent, and a club leader from the M. A. C. The first year they grew corn. They continued this for several years, using the best methods possible in caring for their crop and in the selection of seed. The people of the community began to realize shortly that these boys, only amateurs, meant business. But not until the fall of 1916 did they discover what this club was going to mean to their community. At the county round-up that fall one of the boys received first prize in the corn project. He sent his exhibit to the Michigan Agricultural College for the State Round-up that winter, and it was from then on that we heard of the Kent county state corn champion, Floyd Bergy. He was awarded first place in the state and won the cup for the best ear of corn in the Pickett class.

This gave the Caledonia Boys' Club new life. Last year the boys wanted to do more farming and some grew corn, some beans and some potatoes. Although the weather conditions were anything but favorable, the boys stuck to their projects and finished in fine shape. At the county round-up last fall

Caponize the Roooster

By FLORA DEAN

AN easy way to insure a reliable winter meat supply is to caponize enough cockerels to furnish it. Take April or May hatched cockerels and caponize them when they reach two and a half or three pounds weight and they will continue to grow in weight until they are ten months old. The meat of fat fries is no better than the meat of capons.

To sell cockerels as broilers or to use them as broilers or fries gives us but small returns comparatively, for there is so little of them, but when we take a moderate sized flock, caponize them and grow them until they weigh ten or twelve pounds each we have a pretty good meat supply. If we want to sell them they will bring as much per pound as the ordinary broiler price, and more than we often get for summer fries.

One of the best things about the capon meat supply is that it is stored on foot, and is fresh meat of the best grade whenever we want it. There is no loss in the keeping, for the weight is constantly on the increase. We have been urged and all but forced to rear a large poultry supply to enable us to release the pork and beef supply for the use of the armies in the field. This can be done to the best advantage so far as the winter supply is concerned, by caponizing, for cockerels will not remain good eating until they are so large, and hens are not liked so well even if we wanted to sacrifice them.

The modern caponizing tools are so well made and the methods of doing the work so well developed that it has become an easy matter for anyone to get a set of tools and do their own caponizing. Full instructions come with the instruments, and as the operation is not a very painful one for the cockerel, there should be no hesitation in attempting it if you are at all nimble of finger and have the ordinary set of nerves.

Any of the meat producing breeds will make good capons. They soon show a marked difference in their growth, and grow larger than cockerels of the same age, weighing several pounds more when fully grown. The meat is always tender and sweet, and preferred by many to turkey or goose. As the capons never are quarrelsome, flocks of them can be grown together, nor will cockerels or cocks bother them. Any left over winter can be used for mothering flocks of chicks, for which they have excellent reputations, though I have never seen one serving in that capacity.

POULTRY QUERY DEPARTMENT

Lameness and Difficult Breathing.

I have a pullet that is lame in one leg and when made to move she will use her wings for the first yard. This fowl opens and shuts her moth when she breathes. Her comb is red and her appetite good. She has also been an excellent layer. I have a couple more that are also lame. Have been feeding boiled oats in the morning and wheat and oats at night. What is the trouble, and what is the cure?

Washtenaw Co.

H. F.

It is very difficult to tell what is the trouble with your fowls, as you did not give enough symptoms for one to make a diagnosis. Lameness and difficulty in breathing are more often found in a disease called aspergillosis, but with this disease there is usually lack of appetite and some evidence of fever, also diseased patches will be found on the mouth and throat passages. Other common causes of lameness are bumblefoot, which is usually brought about by having the roosts too high from the floor or having the hens walk on hard floors all the time; and rheumatism which is caused by damp and unsanitary surroundings.

The cause of aspergillosis is the eating of musty grain or the scratching

about in musty straw or litter. The disease is carried from one bird to another and, therefore, in treatment one should isolate all affected birds, the surroundings should be cleaned up and special care should be taken to provide nothing but clean litter and grain. It may be that the wheat or oats you are feeding are slightly moldy.

Affected birds can be treated by applying tincture of iodine or flowers of sulphur to the diseased patches of the mouth, or by causing the birds to inhale the vapor of tar water. The tar water can be obtained by stirring two tablespoons of wood tar in a quart of warm water and allowing the mixture to stand for several hours; and then with the birds in a closed room the tar water should be poured a small amount at a time, on a hot brick or stone until the atmosphere is well filled with the odor of the tar.

A CHICKEN PALACE.

The importance of the hen has become so great that she has forced the Michigan State Fair, not only to consider her more seriously, but to open its coffers to the extent of \$25,000 with which to construct a building to house her at the fair.

Under the direction of G. W. Dickinson, secretary-manager of the fair association, building operations have commenced upon a beautiful brick and stone chicken "palace" at the state fair grounds.

The structure will be 180x200 feet and two stories in height. Instead of resembling a chicken repository the building will remind the visitors at the fair, more of a Moorish palace.

In a large open air court, around which the building will be constructed, a sunken garden with all its accessories will be laid out. A wide, concrete walk, with settees placed every few feet, will encompass the entire enclosure. The interior of the building is to be devoted exclusively to the comforts of the "lofty" hen.

The building besides being an ideal display house, will be a model from which poultry raisers may obtain valuable suggestions for the care of their own fowls. Never before has so much attention been given to the chicken, by the fair association, as will be displayed at the 1918 exhibition.

"One of the greatest agencies for food conservation and production is the raising of chickens," Mr. Dickinson asserted. "The Michigan State Fair is making every effort to bring this forcibly before the people of the state.

"We are endeavoring to assist in the movement to interest the boys and girls of the state, in raising chickens in the yards of their homes. It has been said that more mortgages have been scratched from the records by chickens, than through any other agency.

"The exhibit at the coming fair will be under the direction of Prof. C. H. Burgess, head of the Department of Poultry Husbandry, at Michigan Agricultural College. He will lecture each day, on raising chickens for the greatest results, and will spend his entire time in assisting the chicken movement."

Mr. Dickinson is making arrangements to provide extra prizes for the boys and girls of the state, who exhibit their fowls at the Michigan State Fair in Detroit, August 30 to September 8.

Young chicks pestered with lice will never amount to much. Watch the youngsters closely, and if there is any sign of vermin apply grease to the head and under the wings.

43½ Bu Wheat Per Acre

Mr. W. Loat Writes:

"I had 203 acres of wheat that averaged 43.5 bushels an acre, 13 acres of oats that averaged 65 bushels, 25 acres of barley that averaged 50.5 bushels per acre."

Such remarkable reports are coming in every day from Western Canada. Farm crops in Manitoba, Alberta and Saskatchewan are making records never before equaled.

Bushels
Wheat -- 30
Oats ---- 53½
Potatoes 148
Barley -- 37
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This is the 1915 average per acre from Government statistics.

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\$5.50 per 50; \$11 per 100. S. O. White and Brown Leghorns. Bred for egg production. Safe arrival guaranteed. Express or parcel post. Catalogue free. Wolverine Hatchery, Box 272, Zeeland, Mich.

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Barred Plymouth Rock Chicks \$15 per 100, prepaid by parcel post. Pure Bred Poultry Farms, Lawrence, Mich.

Choice Chicks Season of 1918 heavy breeds and Leghorns \$2 for 8, \$3 for 10, \$4 for 12.50. Eggs per setting of 15, \$1.50; per 100, \$7.50. Orescent Egg Company, Allegan, Mich.

Chicks from our Bred-to-Lay White Leghorns, Ferris and Young strains \$12 per 100; from our Barred Rocks, Thompson strain, \$18 per 100. RUSSELL POULTRY RANCH, Petersburg, Mich.

Chicks, We ship thousands, looking orders now FREEPORT HATCHERY, Box 12, Freeport, Mich.

Chicks and eggs, standard bred stock, Leghorns, Minorcas, Spanish, Rocks, Reds, Orpingtons, Wyandottes, Campines, Houdans, Polish, Scotch Greys, Tysons Poultry Farm, Fenton, Mich.

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250,000 for 1918. \$10 per 100 and up. Purebred. Hatched right. Strong guarantee. 10 leading varieties. Hatching eggs. Big brooder offer. Western Branch, Augusta, Kansas. Free catalog. Stamps appreciated. Hubers Reliable Hatchery, 333 W. Fremont St., Fostoria, O.

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A real heavy laying strain, traced to 17 years, records from 200 to 264 eggs. Get our special summer prices on yearling hens, breeding males, eggs for hatching, 8-week-old pullets and day old chicks. We ship C. O. D. and guarantee results. Catalog gives prices; describes stock; tells all about our farm and methods; results you can get by breeding the strain. Send for your copy now—it is free. GEORGE B. FERRIS, 524 Union, Grand Rapids, Mich.

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Hatching Eggs—Plymouth Rocks (all varieties) Anconas, Pekin and Bone Dicks, Dicks, Sheridan Poultry Yards, Sheridan, Mich.

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My Bred-to-lay Young's Strain S. O. White Leghorn and Ancona chicks are great money-makers. 100,000 strong, husky chicks @ \$11 up per 100. Chicks sent by mail. Arrival and satisfaction guaranteed. Prompt shipment. Get my catalogue at once. W. VAN APPELDORN, R. 7, Holland, Mich.

John's Big beautiful hen hatched Barred Rocks, good layers 30 eggs \$3, 100 \$8, hatch guaranteed. Prepaid by mail. Photos circulars, John Northon, Clare, Mich.

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Large, great layers, pure white. Proved egg types from like ancestry. Not the "Best in the World" but none better for beauty and laying ability—Laybilt Leghorns mean either better quality the same price, or the same quality at a less price.

Day Old Chicks. Prepaid Delivery Parcel post or express. Will hatch every week. \$12 per 100. Guaranteed delivery. Prices prepaid.

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

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R. I. REDS, both combs. Chicks & eggs. Most popular strain in Michigan. Write for catalog. INTERLAKES FARM, Box 39, Lawrence, Mich.

SILVER Spangled Hamburg eggs \$7 per hundred; \$1.75 per setting balance of season. White Holland Turkey eggs \$4 per 12. RIVERVIEW FARM, Vassar, Mich.

Single Comb Black Minorca cockerels, sired by a 10lb cockbird. A few more P.O. fall pigs. R. W. MILLS, Saline, Mich.

SILVER Golden & White Wyandottes. Four Golden Cockerels \$2.50 each. Eggs \$15, \$25, 30, \$5 by P. Post prepaid. C. W. Browning, R. 2, Portland, Mich.

S. C. Brown Leghorns. Heavy layers. Eggs 15-\$1.10, 30-\$2.00, 45-\$3.00, 100-\$5.50 prepaid by mail. FLOYD ROBERTSON, R. 1, Lexington, Indiana

SPECIAL 30 eggs \$2.25 R. I. Reds, Rose or Single Comb. LAWRENCE, Mich.

Snowy White Rocks Fishel Strain, dandy layers Eggs \$1.50-15, \$4-50, \$7-100 All prepaid. Mrs. Earl Dehnhoff, Vanburen, Ohio

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

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

SIDNEY SMITH, Supt.

Wildwood Farms, Orion, Michigan
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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—Three Aberdeen Angus Bulls ready for service, prices reasonable. LANG BROS., Davison, Michigan

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

Registered Guernseys

A fine 3 year old heifer and her heifer calf—right in every way \$350. F. O. B. your town.
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Guernseys 45 Registered head, all tb. tested. Nora's heads on herd, 19 of his half sisters sold averaging \$1850 each. His bull calves are booked ahead at reasonable prices.
Avondale Stock Farm, Wayne, Mich.

2 Registered bull calves. Good breeding. **Guernseys** cheap for quick sale, note accepted in payment. Hicks' Guernsey Farm, Saginaw, W.S. Mich.

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

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

For Sale 5 Imported in dam Registered Guernsey heifers, 8 months old, also bull calves. E. A. Black, R. 3, Howard City, 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. Herd sire Lenawee Pontiac Calamity King offer Registered Holstein bull calves from A. R. O. cows and the above sire whose dam holds the milk and butter record in the state of Ind. 7 days milk 796.3, butter \$2.51—315 days milk 23782.3, butter 926.775.
E. H. GEARHART & SON, R. 4, Marcellus, Mich.

"Top-Notch" HOLSTEINS

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

McPherson Farms Co., Howell, Mich.

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, Breedsville, Mich.

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

Letters from Our Readers

KIND READER:—

We would like a word from you regarding any of the important issues that confront Michigan farmers. Whether you think as we do or not, we would be glad to know your opinion. In writing make your letters brief—short ones are more interesting.

Sincerely yours,

THE EDITORS.

Responsibility In the Farming Business

THE responsibility of farm management is more than the average person seems to realize. Many people have an idea that there is no business element that enters into successful farm operation; it is more of a labor proposition than a business proposition. But the practical farmer knows that he must do some figuring in a business way as well as the manual labor on a farm if he makes both ends meet financially year after year. In other words, makes a success out of the business of farming.

Some people argue that farming is a vocation or that it is an art or science, but all of them are in a sense wrong. Farming is simply a plain, old-fashioned business pursued for the legitimate purpose of making a living, and it requires business management and the assuming of business responsibilities in order to make it a success. I have personally known several men who were intelligent, willing workers and understood farm work in all of its details and could work for someone else and give a good account of themselves, but who, when they assumed the responsibility of managing a farm were failures. This business responsibility was more than they could master successfully and they have given up farming and gone into other kinds of work where the responsibility is very much less.

Years ago the responsibility of farm management was much less than it is today. Physical energy was the big asset then. Now farming has become a complicated business and it is getting more so each year. Our forefathers practically produced all their own food and their own clothing on their own farms. They were almost entirely independent of outside conditions. But nowadays farming is more highly organized. Everything, practically on the farm is sold off and exchanged for money, and this money is used to buy the things which the farmer and his family need in their living and for the production of farm products. Exchanging them for money and again exchanging this money for the things which the farmer and the farmer's family must have is a much more complicated business proposition than some very good men care to assume.

To illustrate: Only a few years ago, I knew of a farmer of middle age who lived on a good, productive, well-located farm, stocked with a good herd of dairy cows. He was progressive enough to belong to a cow-testing association; he understood business fairly well and could discuss farm topics more intelligently than the average farmer; yet this man sold his farm, invested his money where it would be the least bother to him, and is now operating a passenger elevator in a business building in the city. I met him the other day and asked him why it was that he gave up farming for a position like that. I could not understand. His reply was that a man had to assume too much responsibility in operating a farm.—C. L., Kent County.

A CONUNDRUM TO HIM.

Here is a matter that I do not seem to understand. The price on our wheat is fixed. We are prohibited from feeding it and are only allowed a limited

amount for home consumption. The wheat we have to haul to the market and the by-products we deliver ourselves back to the farm. The price we receive for the wheat is less than what we pay the dealers for the by-products and we feed these by-products to our cows to produce butter at forty-two cents per pound, another loss.—L. L., Benzonía, Mich.

WHY NOT BOOST?

Gentlemen:

I am very glad to see you provide a place for we common folks to express ourselves. It shows a democratic spirit on your part and gives us a chance to work off our differences of opinion.

It is interesting to note in the reading of several farm papers the attitude people take on various questions. I was interested in the attitude taken on the potato and bean situation. Some liked to wave the red flag and call those in power robbers and crooks, and wanted the whole system changed. Others realized the situation was bad and had a firm desire to have it alleviated as much as possible.

To my mind the potato situation was brought about by various things. There was what Mr. Miller was supposed to do, the car shortage, the pro-German winter and the selfish desire of the farmer last fall to get just a little more out of his potatoes. Right now the government authorities and public spirited people are doing their best to get the large crop to consumers and useful purposes and thus save the farmers from loss, and I believe they are succeeding. Let's give them credit.

With the beans it looked as if the government was in conspiracy with Mr. Pinto when, in fact, they wanted to conserve to this country in this time of food shortage a new economical food product. It cut the possibility of higher profits for Michigan growers but it did save the food and when the matter was brought to the attention of the proper authorities something was done to relieve the Michigan situation.

These things, of course, hit our pocket-book and when a man's pocket-book is hit he yells, and he has a right to. But I decry the attitude taken by some of calling everybody but themselves thieves and liars.

Before we are farmers, middlemen and consumers, we are human beings and as such are susceptible of error and blunder. Governments and public institutions being run by humans are also susceptible to error.

I'll admit that there are crooks and liars in this world, but they are so uncommon that when they are found we hear about them. On the other hand, honesty and confidence in each other are so common that no noise is made of them. Business is built upon faith in the common honesty of man.

So why not quite calamity howling and boost instead. Right now more than ever there is need of courage and encouragement. Boosting builds, knocking kills. Let each one of us do our best and take our share of the result of public error. We can do useful things in the time wasted waving red flags.—W. F., Wayne County.

Mecosta county farmers have formed the Rodney Cooperative Association, with \$7,500 signed up in stock subscriptions.

CATTLE

The Pontiac Herd**"Where the Champions come from"**

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

Do you want a Pontiac in your herd?
Pontiac State Hospital, Pontiac, Mich.**HOMESTEAD FARMS****A Federation of Interests**

Holsteins—A herd of high class Holsteins; Young Bulls, Calves, Bred Heifers and cows.

Will you write to us for full description and photographs?

HOMESTEAD FARMS, Bloomingdale, Mich.**The Traverse Herd**
Great Values In Bulls

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

TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

HOLSTEINS

The most profitable cows are

Let us show you.
—Booklets free.

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

Holstein bull, nearly ready for service, large straight deep-bodied, handsomely marked & 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.**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.****HOLSTEINS**—16 grade, all 3 years old, fresh, also 4 to freshen soon. Apply W. L. KLEIN, Farmington, Mich., 1 mile west of electric car at North Farmington.**HEREFORDS**

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

ALLEN BROS., PAW PAW, MICH.**Herefords** Bob Fairfax 49427 at head of herd. 14 bulls for sale all ages either polled or horned. EARL C. MCARTY, Sec'y Mich. H. B. Ass'n, Bad Axe, Mich.**Choice Bulls** ready for service. Also heifers for sale. Strong in the blood of Royal Majesty. Come and see them or write for particulars. **THE WILLOW HERD, Alvin Balden, Capac, Mich., Phone 143-5.****Maple Lane R. of M. Jersey Herd.** For sale one four-year-old cow, also bull calves and heifer calves sired by a grandson of the Pogue 99th of Hood Farm. **IRVIN FOX, R. 3, Allegan, Mich.****For Sale Jersey Bull**Goldie's Foxhall No. 161965. Dropped March 22, 1917. Solid color, black tongue & switch. A fine individual large of his age, will sell cheap. Also a young cow & several bred heifers, all of solid color. **NEWMAN'S STOCK FARM, R. 1, Marietta, Mich.**

2 Bulls

Ready for Service

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

The Producing Kind

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

Brookwater Farm,

Herbert W. Mumford, Owner,

J. Bruce Henderson, Mgr.

Ann Arbor, Mich.,

R. 7,

REGISTER OF MERIT JERSEYS

Choice Reg. Jersey Bull Calves, 2 bulls 3 mos. old from dams that are doing better than 40 lbs. monthly grandsons of Majesty's Western King. Price \$50 reg. & transferred. **FRED A. BRENNAN, Capac, Mich.****JERSEY** bull and bull calves for sale from R. of M. cows, also heifers and cows of all ages. **O. B. WEHNER, R. 6, Allegan, Mich.****Jerseys for sale** Ready for service bulls St. Lambert, Raleigh, Majesty, breeding. **WATERMAN & WATERMAN, Meadowland Farm, Ann Arbor, Mich.****Illie Farmstead Jersey Cattle.** Several heifers bred to 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 16 mos. old. Double grandson of Royal Majesty and out of R. of M. cow. **O. & O. DEAKE, Ypsilanti, Mich.****Choice** Jersey bull calves sired by Oxford's Flying Fox 137349. Champion at Kalamazoo Fair. Register of Merit record of dam 788 lbs. butter, 13792 lbs milk in one year. Dams of these calves are high producing prize winners. Prices reasonable. **O. S. Bassett, Kalamazoo, Michigan.****Michigan Shorthorn Show and Sale****To be Held in the City of Flint on Monday, June 3rd****75 HEAD****35 Bulls and 40 Cows****A great many cows with calves by their side and safely in calf again.]****All those in the market for good general purpose cattle that are right, are invited to attend.****Catalogues on Application****W. W. Knapp, Mgr., Howell, Mich.****Andy Adams, Auctioneer****AUCTION SALE****Shorthorns and Holsteins**

By Carson City Calf Club, Carson City, June 8, 1918. 2 P. M.

7 Registered Scotch, Scotch Topped and English year old Shorthorn Heifers.
4 Registered year old Holstein Heifers.
1 Registered year old Holstein Bull.
For particulars write E. B. Stebbins, Carson City, Mich.**BIDWELL SHORTHORNS****For Beef and Milk.**

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

BIDWELL STOCK FARM,

Box B, Tecumseh, Mich.

Richland Farms
Shorthorns

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

O. H. PRESCOTT & SONS,

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

For Sale Registered Jersey Cattle

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

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

Shorthorns—Scotch and Scotch Topped animals of both sex for sale. Prices reasonable. **GEO. D. DOSTER, Doster, Mich.****Shorthorns.** Three scotch bulls ready for service. Price reasonable. **W. B. McQUILLAN, R. 7, Howell, Mich.****Shorthorns** Maxwilton Monarch 2nd, 387322 half brother to 5 Grand Champions in service. **JOHN SCHMIDT, R. 5, Reed City, Mich.****SON** of Harthorth Welfare heads our herd of milk-Sing Shorthorns. Comprising Chiefly of Clay bred cows, young bulls ready for sale and service, write us Liddel Bros., R. 2, Clinton, Mich., Macon Phone.**Shorthorns** Four very desirable heifers 17 to 21 months old, and bull 8 mo. All roans. Price \$1000. **E. E. BOOTH, Morris, Mich.****Shorthorns**—Sired by a grandson of Cyrus OLLAR BROS., R. 2, Conklin, Mich.**SHORTHORNS**—20 bulls 2 to 18 mos., mostly from Dorthy's Sultan 489045, 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 Lesiter's Sons, Orion, Mich., R. F. D.****SHORTHORNS**Cows, heifers & young bulls for sale at farmers prices; herd catalog mailed free. **Horrieton Farms, Hart, Mich.****Shorthorn Cattle of both Sex for Sale****W. W. KNAPP, Howell, Michigan.****Grand Traverse Shorthorn Asso.**Reg. stock for sale. **M. E. DUCKLES, Sec., Traverse City, 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 Shanstun, Fairfield, Iowa, R-8****HOGS****FAIRMAN FARMS**
PLYMOUTH, MICH.
BERKSHIRES**SPRING PIGS****Gladstone—Majestic—Dukes****Successor breeding****Only a Few Left For Sale****THOROUGHbred** Berkshire Pigs, 6 weeks old, a limited number \$29 each, registered and transferred, either sex. **Riverview Farm, Vassar, Mich.****DUROCS** Orion Chief Perfection No. 6945, and Jennings Pilot Wonder No. 73373. Two outstanding boars of big type and excellent quality. All selected large type smoothsows. Thrifty, smooth, large boned spring gilts from these herd boars and choice sows at very reasonable prices. **The Jennings Farms, Bailey, Mich.****50 Duroc Sows and Gilts**for fall farrowing, bred to Orion's Fancy King 8357 the biggest pig of his age ever shown at International. 1 mile N. E. of town. Visitors welcome 7 days in week. **Newton Barnhart, St. Johns, Mich.****DUROC JERSEYS****E. D. HEYDENBERG, Wayland, Mich.****Duroc** fall boars sired by Crimmon Ortic T., Satisfaction and Brookwater Principal, priced right. Bred sows all sold. **M. O. TAYLOR, Milan, Mich.****Choice Duroc Jersey Gilts For Sale.****CAREY U. EDMONDS, Hastings, Mich.****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 strains. **CHAS. BRAY, Okemos, Mich.****Raise Chester Whites****Like This**

the original big producers

I HAVE started thousands of breeders on the road to success. I can help you. I want to place one hog from my great herd in every community where I am not already represented by these fine early developers—ready for market at six months old. Write for my plan—More Money from Hogs. **G. S. BENJAMIN, R. F. D. 10, Portland, Michigan****Spring Pigs** for sale. Pairs and trios not akin. Breeding and prices on request. **J. D. ORANE & SON, Plainwell, Mich.****Crandell's Big Type O. I. C's** Champion herd everywhere shown in 1917. Herd headed by five champion boars. Our sows won Senior, Junior and Grand Champion prizes at Illinois, Missouri, Ohio and Michigan 1917. Special prices on all spring pigs. Get our catalog it is free. **Crandell's Prize Hogs, Cass City, Mich.****BRED GILTS and SERVICEABLE BOARS**
J. CARL JEWETT, Mason, Mich.**O. I. C's** all sold except some fall gilts. Order your spring pigs now. **O. J. THOMPSON, Rockford, Mich.****O. I. C's** Last spring gilts bred for next spring farrow also last fall pigs either sex and not akin. Good growthy stock 1/2 mile west of Depot, Okemos phone 124. **Otto B. Schulze, Nashville, Mich.****O. I. C's** Big type serviceable boars. Spring farrowed boar pigs. Bred gilts farrow July and Aug. **G. F. ANDREWS, Danaville, Mich.****O. I. C.** gilts bred for Aug. and Sept. farrow. Spring pigs will soon be ready to ship. **F. O. BURGESS, Mason, Mich. R. F. D. 3****O. I. C's** Large type, spring pigs bred from State Olover Leaf Stock Farm, R. 1, Monroe, Mich.**A Great Opportunity**
We are offering one of our herd sires, Big Type Poland China Yearling Boar. His sire a prize winner at Kansas State Fair. His dam a prize winner at Missouri, Iowa, Kansas and Nebraska State Fairs. A splendid individual and perfectly marked. Spring pigs for sale. **HILLCREST FARM, Kalamazoo, Michigan****FOR SALE**Smooth Jumbo a grandson of Peter Mow's old boar Smooth Jumbo a 600 lb. yearling. A top notcher fit to head any herd. Also some nice bred gilts at \$50. If you get one you will have to hurry. **J. C. BUTLER, Portland, Michigan****Large Type P. O.** no public sale this year; 50 sows and 10 gilts all queens of the breed go at private treaty. **W. J. HAGEMSHAW, Augusta, Mich.****Big Type** P. O. Big boned fellows from Iowa's greatest herds. Special prices on spring boars. **E. J. MATHEWSON, Burr Oak, Mich.****Nothing** for sale at present. Spring pigs are coming fine. **O. E. GARNANT, Eaton Rapids, Mich.****Large Type P. O.**Bred gilts and boars all sold nothing to offer at present. **W. E. LIVINGSTON, Parma, Mich.****LEONARD'S** Bred sows all sold, fall pigs, orders booked for spring pigs at weaning time. Shipped O. O. D. **E. R. LEONARD, St. Louis, Mich.****P. C. Sows For Sale.** Bred for April farrow. Prices reasonable. **A. A. WOOD & SON, Saline, Mich.****Large Type P. O.** fall gilts, sire 800 lb. yearling to be bred to 1000 lb. 2 year old for July & Aug. 2 extra good fall boars. **WM. J. CLARKE, R. 7, Mason, Mich.****BIG TYPE** Poland Chinas: Bred sows all sold. Have a few fall pigs. Prices right. **L. W. BARNES & SON, Byron, Mich.****L. S. P. C.** all sold out, except the largest gilt raised last year, bred for June farrow. **H. O. SWARTZ, Shoolcraft, Mich.****Hampshire Boars** at a bargain. Book orders for Spring pigs. **JOHN W. SNYDER, R. 4, St. Johns, Mich.****HAMPSHIRE PIGS**—We have some very choice spring pigs, Messenger and General Allen blood line, perfect bell and good bone. Write your wants. **L. D. O'BRIEN, R. 2, Jackson, Michigan.****HORSES****Percherons, Holsteins, Angus, Shropshires, Durocs** **DORR D. BUELL, Elmira, Michigan.****Percheron** Stallions and mares of reasonable prices; inspection invited. **F. L. KING & SON, Charlotte, Mich.****No more Registered Percherons** for sale at present. **J. M. HICKS & SONS, R. 2, Williamston, Mich.****FOR SALE** Two Registered Percheron stallions and two Percheron mares at the right price. **E. J. ALDRICH, Tekonsha, Mich.****Shetland Ponies,** Fox Hounds, Young Cows **W. E. LEOKY, Holmesville, Ohio.****SHEEP****KOPE-KON FARMS.**

Coldwater, Mich.

Hampshires & Shropshires. It's a wise man who orders his ram for August delivery now.**About July 1** we will offer for sale choice Shropshire Rams. **ARMSTRONG BROS., R. 5, Fowlerville, Mich.****Some Good Breeding Ewes** and registered RAMS for sale. **Barnard Sheep Ranch, R. 5, Clare, Mich.**

LATEST MARKET REPORTS

SECOND EDITION.

On account of the holiday this week the markets in this second edition were revised and corrected on Wednesday afternoon, May 29, instead of Thursday, the regular day for revision.

WHEAT.

The new crop of wheat is showing general improvement. The lack of extended periods of extreme warm weather is favorable to this plant, especially with the moderate amount of rain that has fallen. Receipts of old grain are very small and stocks are out of all comparison with former years. One year ago No. 2 red wheat was quoted on the local market at \$2.73 per bushel. Present Detroit quotations for cash wheat are:

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

CORN.

At the opening this week a bearish feeling took hold of the corn trade and prices at the big central markets where supply and demand are acting most freely showed a tendency downward. Embargoes have restricted the buying which, with the splendid progress being made by the new crop, gives the consuming public confidence that ample stocks will be available when they are needed. Over practically the whole corn growing sections of the country the new crop is being planted in good season. Exporting the 1917 crop will probably not be on a large scale until July or later, when the grades available can be handled by exporters without undue loss. The American visible supply decreased a third of a million bushels last week to 15,118,000. A year ago No. 3 yellow corn was quoted in Detroit at \$1.63½ per bushel. Present Detroit quotations for cash corn are:

No. 3 corn.....	\$1.40
No. 3 yellow.....	1.55
No. 4 yellow.....	1.45
No. 5 yellow.....	1.30
No. 6 yellow.....	1.20

Chicago trade in cash corn showed a decline early this week, putting the latest quotations for corn as follows:

No. 2 yellow.....	\$ 1.72
No. 3 yellow.....	1.58@1.68
July option.....	1.36%

OATS.

Our reports show no important changes in the condition of this market. There is evidence of a slightly easier feeling due to the promising condition and the large acreage of the new crop. Prices, however, are generally about steady with a week ago. A fairly liberal business is being transacted, except that buyers from the seaboard are not taking sold as generously as they were a month or so ago, because of limited shipping facilities. The present American visible supply totals 20,515,000 bushels, against 22,907,000 bushels a year ago. A year ago the local quotation for standard oats was 67c per bushel. Present Detroit prices are:

Standard.....	77½
No. 3 white.....	77
No. 4 white.....	76

RYE.

This market is slow with receipts small and demand limited. Stocks are smaller than a year ago, while clearances from the Atlantic coast are larger. Detroit's quotation for cash No. 2 is \$2 per bushel.

BEANS.

Despite the gradually lowering of prices in the bean market, the movement is unsatisfactory, there apparently being no active outlet for the product. Farmers are bringing a fair amount to the country elevators, which adds to the bearish sentiment in the trade. At Detroit the basis has been reduced to \$10 per cwt. for cash stock. The Chicago market is also lower and the feeling easy. Present quotations there are:

Mich. pea beans, h. p....	\$10.00@11.00
Red kidneys.....	10.00@13.00
Brown Swedish.....	10.00

HAY.

The hay market is inactive and weak and demand is small. Detroit quotations are:

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

Pittsburgh.—There is little or no demand for hay, and arrivals, while light, are hard to place.

No. 1 timothy.....	\$22.00@22.50
No. 2 timothy.....	19.00@20.50
No. 1 light mixed....	19.00@20.00
No. 1 clover mixed...	14.00@16.00

FLOUR.

Per 196 lbs. in eighth paper sacks, in jobbing lots:

Straight winter...\$	11.25
Spring straight...	11.40@11.75
Rye flour.....	12.50

FEEDS.

Hominy feeds have lately declined about \$25 per ton, and rye and barley feeds are also selling at lower figures. The stocks of mill feeds ground after May 7 will be sold to farmers on the basis of the new schedule. Detroit feed prices in 100-lb. sacks, jobbing lots are:

Bran.....	\$37.00
Standard middlings....	39.00
Middlings, fine.....	45.00
Cracked corn.....	65.00
Coarse corn meal.....	64.00
Chopped feed.....	56.00

POTATOES.

From the grower's standpoint the potato market is not satisfactory, although prices are little changed from those of recent weeks. Michigan continues to be the leading shipper. On Wednesday the markets were stronger, with prices in Detroit advancing 10c or more. Jobbing prices per cwt. for Michigan stock, U. S. Grade No. 1, sacked, and the condition of markets as gathered over the wires by the U. S. Bureau of Markets, Detroit Office, are as follows:

Detroit (higher).....	\$1.30@1.33
Cleveland (steady)....	1.20@1.30
Buffalo (steady).....	1.50@1.60
Philadelphia (fair)....	1.35@1.50
Washington (steady)...	1.50@1.65
Pittsburgh (steady)....	1.60@1.65
Columbus (stronger)....	1.50
Cincinnati (firm).....	1.35
Indianapolis (steady)...	1.30

Michigan farmers are receiving at side tracks for round whites bulk, U. S. Grade No. 1, 50@70c, and a few higher.

BUTTER.

With a larger movement of butter toward market centers, there is a tendency toward a weakening of values. The quality of the product is much improved, although storage men are not inclined to put away present receipts, as they believe that a still higher quality will be forthcoming shortly, and that prices will then be on a lower basis than now. While present buying is merely to satisfy current needs it is remarkable how well prices are being maintained in spite of increased production. Detroit exchange quotes fresh creamery firsts at 40@40½c, and fresh creamery extras at 41@41½c; some dealers pay premiums above these quotations. New York prices are slightly easier. Quotations there are: Best creameries 43¼@44¼c; creamery extras 43@43¼c; do firsts 41@42¼c a lb; packing stock 28½@29c. Chicago market is unsettled. Prices there for creameries range from 34@41c. The weekly settlement price for the week of May 20 to 25 would appear to be 41 5-6c per pound.

CHEESE.

Reports indicate a better movement due to an improved demand. Production also is not increasing to the extent that was anticipated, and the supply of old grades is getting short. A slight improvement in values has taken place in Detroit with flats now ranging from 21@24c for new, and old stock selling at 26c; daisies 21¼@22½c; new limburger 21@22c, with some lots going above these figures. New York market is steady with fresh specials quoted at 23c, and average run at 22c. Philadelphia is buying full creams at 22@25c.

EGGS.

The large markets are not getting as many eggs as they were a year ago, and receipts last week while liberal, were generally smaller than for preceding weeks. Prices are little changed. At Detroit the board reports Michigan firsts as selling around 32½@33c, and storage packed at 34c per dozen. In New York the market is irregular, with fresh stock bringing 34½@37c, and

firsts 33@34½c. The Chicago market is unsettled with firsts quoted at 30@32c; ordinary firsts 26@29c; at mark cases included 29@31c.

WOOL.

On the following and the editorial pages of this issue appear articles of interest and importance to the wool growers of the state. An idea can be obtained from these contributions, as to what growers may expect for their 1918 fleeces.

DETROIT CITY MARKET

Our representative finds the city markets a lively place these days, with products selling at fairly steady prices. Old potatoes are bringing 50@70c per bushel; parsnips \$1; carrots 70c; radishes \$1.25; rhubarb 50c per dozen bunches; butter 50c; eggs 45c; hay \$23@25 per ton.

GRAND RAPIDS

Eggs are worth 31@32c; dairy butter 40c. Prices on the city market are as follows: Potatoes 50@55c per bu; pieplant 50@60c; asparagus 80@90c; spinach 50c. The mills are quoting grain as follows: Wheat \$2.07; rye \$1.75; barley \$1.50; corn \$1.80; oats 85c per bushel.

LIVE STOCK

DETROIT

May 28, 1918.

Cattle.

Except for the stock coming direct from grass, the different grades of cattle rule about steady as follows:

Best heavy steers.....	\$16.50@17.00
Best handy wt. butch. strs	13.50@14.75
Mixed steers and heifers	12.50@13.50
Handy light butchers....	11.50@12.50
Light butchers.....	9.00@10.00
Best cows.....	10.00@13.00
Butcher cows.....	8.50@ 9.50
Common cows.....	8.00@ 8.25
Canners.....	7.00@ 7.50
Best heavy bulls.....	9.75@13.00
Bologna bulls.....	8.75@ 9.00
Stock bulls.....	7.00@ 8.00
Light off-color stockers...	7.00@ 8.00
Good stockers, dehorned..	9.50@10.50
Milkers and springers...	60@ 125

Veal Calves.

Today's market is slightly stronger. Best.....\$14.50@15.50 Others.....10.00@14.00

Sheep and Lambs

Market remains steady with prices unchanged.

Best lambs.....	\$16.00@16.50
Fair lambs.....	15.00@15.50
Light to common lambs...	10.00@13.00
Fair to good sheep.....	10.00@12.50
Culls and common.....	7.00@ 8.00

Hogs.

Trading is slow and on lower basis. Good pigs selling at \$17.10; mixed at \$16@16.75.

BUFFALO.

May 28, 1918.

Cattle.

Receipts today two cars. Market is ruling steady.

Prime heavy steers.....	\$17.00@17.25
Best shipping steers.....	16.00@17.00
Plain and coarse.....	13.00@14.00
Native yearlings.....	15.00@16.00
Best handy steers.....	13.00@14.00
Fair to good kinds.....	12.00@13.00
Handy strs and hfrs mixed	12.00@13.00
Western heifers.....	12.00@13.50
Best fat cows.....	11.50@12.50
Butcher cows.....	8.50@ 9.50
Cutters.....	7.50@ 8.50
Canners.....	5.00@ 6.00
Grazing cows.....	7.50@ 8.00
Fancy bulls.....	11.50@13.00
Butcher bulls.....	10.00@11.00
Common bulls.....	8.50@ 9.50
Best fdg strs, 900-1000 lbs	10.50@11.50
Medium feeders.....	9.50@10.50
Light common.....	8.00@ 9.00
Stockers.....	8.50@ 9.50
Milkers and springers....	\$50@ 150

Calves.

Market rules about 50c lower at the following prices:

Tops.....	\$15.00@15.50
Fed calves.....	7.00@ 8.50

Sheep and Lambs.

Receipts two cars. Market strong with lambs higher.

Top lambs.....	\$17.75@18.00
Yearlings.....	15.00@15.75
Wethers.....	14.50@14.75
Ewes.....	13.00@13.50

Hogs.

Receipts 20 cars. Market is lower

and the trade is easy at the new level of prices.

Medium to heavy.....	\$17.25@17.40
Yorkers.....	17.50@17.60
Pigs.....	17.50@17.60

CHICAGO.

May 28, 1918.

Cattle.

Receipts.

Total today.....	23,000
Total, last week.....	52,556
Total, preceding week...	46,882
Total, week year ago...	53,505

Tuesday's receipts are heavy but the trading rules steady at about yesterday's prices. Later on there was more doing, but the market was far from active, and prices were not more than steady, although the choice beefs looked strong. Steers have sold at \$11@12 for the cheaper light weight kinds and at \$17@17.60 for the better class of heavy steers, with some weighty steers selling at \$16.50@16.75 and pretty good steers lacking weight at \$16 and over. Butcher cows and heifers sold at \$8.25@15; canners and cutters salable at \$7@8.20; bulls at \$8@13 and calves at \$7.50@14.50, while stockers and feeders are quotable at \$9@14, with very few feeders offered good enough to bring much over \$13.

Hogs.

Total, today.....	13,400
Total, last week.....	148,230
Total, preceding week...	139,565
Total, week year ago...	148,064

The market suffered a decline of fully 25c, with hogs selling at \$16.25@16.75 per cwt. Best light hogs top the market still, with sales of choice barrows weighing around 250 to 260 pounds about 30c below the highest figures. Pigs are scarce all the time, and sales are made at \$14.25@16.75.

Sheep and Lambs.

Total, today.....	6,000
Total, last week.....	60,856
Total, preceding week...	62,160
Total, week year ago...	41,713

Lambs comprise most of the daily offerings, and nearly all come shorn. The receipts today were extremely steady with Monday, with prices ranging from \$13.50@17.75. The best clipped lambs sold last week at \$17, with extremely heavy ones selling down to \$15@15.50 and plain killers as low as \$14.50@14.90. Shorn feeder lambs have been taken lately at \$12.50@13.75, and some prime woolled Colorado lambs brought \$20.90 last Friday.

HAPPENINGS OF THE WEEK.

(Continued from page 670).

in progress on the Aisne and Flanders fronts. The attacks were preceded by bombardments of great intensity.—The Aisne attack is on a front extending over forty miles.—Director General McAdoo has ordered an increase of twenty-five per cent in railroad freight rates, and passenger fares to be increased to three cents per mile.—Through the heroism of Miss Wright, a switchboard operator, 200 guests were saved from harm in a \$400,000 fire in the Hotel Cadillac of Detroit.—Great Britain and United States shipyards produce 40,000 tons more of shipping during April than were sunk by enemy submarines.

Tuesday, May 28.

A battle of extreme violence is raging in the Rheims sector, where the Franco-British troops have retired a short distance on a front of twenty-five miles. German attack started on Sunday in Flanders has failed.—Italy launches a huge offensive in which they capture a number of towns and 870 prisoners.—President Wilson addresses congress asking immediate preparation of war tax bill to provide for forty per cent of the nation's needs through taxation.—American Red Cross fund reaches a total of \$144,000,000. Detroit patriotic fund goes to the \$10,000,000 mark or \$3,000,000 over amount sought.—Canadians have asked for an American battalion to train with each Canadian brigade.—Lower house of congress passes deficiency bill carrying over \$123,000,000.

A Satisfied Investor.

"The best way to tell my appreciation of the Michigan Farmer is to state that the last three months' issues have paid several times the price of a five-year subscription."—J. M. W., Chesaning, Mich.

"Have sold all our stock. Are well pleased with results."—Collar Bros., Conklin, Mich.

What Is Your Wool Worth?

EVERY farmer who owns sheep is especially interested in the wool market just now. Increased interest is brought about by the recent action of the federal government in taking over the 1918 wool clip of the country and fixing prices thereon. In order to arrive at a just basis for the determination of values of the various grades of wool, it became necessary for the authorities having in charge the control of the wool trade to fix prices on the scoured basis. The prices agreed upon were those obtaining on July 30, 1917.

The first step necessary therefore was for the valuation committee to determine definitely what the prices were for the different grades of wool on the above date. This has been done and the following is the official list for fleeces from the states of Michigan

same sheep varies from season to season. Weather conditions, feed and the health of the animals are factors in influencing the percentage of weight that is lost in the scouring process. A similar variation obtains as in the quantity of butter-fat in milk. In order therefore, to learn the exact value of a consignment of wool it will be necessary first to have the wool graded and scoured.

It is possible, however, to give our readers an idea of about what they ought to receive for their fleeces. In the following table a range of prices is given for the different grades that will cover the shrinkage in most instances. Remember these figures are not authentic, but merely suggestive and are meant to indicate about what Michigan farmers can expect to secure for their 1918 clip:

	Choice.	Average.
Medium Combing (good staple).....	72c to 75c	68c to 71c
Medium Clothing (hort staple).....	68c to 71c	64c to 67c
Low Combing (good staple).....	68c to 71c	64c to 67c
Common and Braid, Low and Coarse.....	62c to 64c	58c to 60c
Half Blood, Combing.....	72c to 75c	65c to 71c
Half Blood, Clothing.....	65c to 68c	60c to 64c
Fine Delaine (Combing).....	64c to 66c	58c to 63c
Short Fine.....	61c to 64c	52c to 58c

and Ohio and all others east to the Atlantic coast and north of the Ohio river. These prices are, as noted above, for scoured wool:

	Choice.	Ave.
Fine delaine.....	\$1.85	1.70
Fine clothing.....	\$1.75	1.68
Half-blood staple.....		1.60
Half-blood clothing.....		1.62
Three-eighths staple.....		1.45
Three-eighths clothing.....		1.42
Quarter-blood staple.....		1.32
Quarter-blood clothing.....		1.30
Low quarter-blood.....		1.17
Common and braid.....		1.07

The above table means comparatively little to the average farmer, because he has not been in the habit of selling scoured wool. And furthermore it is impossible to arrive at the value of raw wool from these figures since the amount of shrinkage in wools from the

In Michigan and nearby states are many farmers who have purchased western sheep for both feeding and stock purposes. The wool from such sheep has a different value than that from native sheep. These men naturally are anxious to get a line on what the wool from these animals will probably bring. The following range of values is probably not far from what should be realized for such fleeces:

Medium (good staple).....	60c to 70c
Medium (short staple).....	57c to 65c
Half Blood (good staple).....	60c to 68c
Half Blood (short staple).....	56c to 65c
Fine Staple.....	58c to 65c
Fine Short.....	59c to 66c
Braid, Low and Coarse.....	56c to 60c

Those interested in what the government requirements for the handling of wool are, should read carefully the editorial comment on the subject in this issue. See page 670.

Veterinary.

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

Mange.—My horses are troubled with itchy legs below knees and hocks. One of my horses has been troubled with it for more than a year and the others have taken it from him, and whatever it is, it annoys them greatly. It makes them nervous, uneasy, and seems to cause them to lose flesh. Our Vet. calls it "Clyde Itch," and said to feed them sulphur. This treatment does not seem to help them. I have also applied creoline and coal tar disinfectant which failed to relieve them. I have also applied sulphur and lard, but none of these treatments seemed to do any good. B. J. C., Minden, City, Mich.—Doubtless you have cases of chronic mange, almost identical to mange in dogs, and perhaps you have been endeavoring to cure your horses without clipping the hair off their legs. Apply equal parts tincture iodine and tincture benzoin compound with a small brush occasionally. Another very good application is equal parts of tincture iodine and camphorated oil. Also give each horse 1 dr. of potassium iodide and 2 drs. of Fowler's solution of arsenic at a dose in feed or drinking water twice a day. It is perhaps needless for the writer to say that failure in effecting a cure in these kind of cases is generally on account of lack of persistency in treatment. There are many different remedies which possess merit. If they were applied two or three times daily. Your stable should be thoroughly cleaned and disinfected in order to destroy these mange parasites. Besides, your grooming tools should be soaked in kerosene occasionally.

Weak Back.—I have a Jersey heifer a little more than two years old that came fresh two weeks ago, and since then cannot get up. She is not paralyzed, can move her legs, eats all right and is in every way normal so far as I can tell; but she is unable to

get up. So far as I know she has met with no accident. R. H. M., Shiloh, Mich.—Give her 40 drops of fluid extract of nux vomica and 1 oz. of tincture cinchona at a dose in either feed or drinking water three times a day. Hand-rub the muscles which seem to be weak, three times daily. It is good practice to place canvass under body and raise her on foot two or three times a day. Her bowels should be kept open, besides she should be well fed.

Blind Stagers.—I have a seven-year-old Percheron mare which, while working, is inclined to toss her head, move sideways and very often backs as if having a fit; however, after allowing her to stand still for a few minutes she seems to be all right. This mare has a good appetite and so far as I can tell is in a healthy condition. Some two months ago she showed lameness in left hind leg; there was soreness on inside of thigh which disappeared and lately she is showing lameness in the right thigh, but less lame than heretofore.—A Subscriber, Linden, Mich.—Give her 1 dr. of bromide of potash, 40 drops fluid extract of nux vomica, and a tablespoonful of cooking soda at a dose in feed two or three times a day. Apply camphorated oil to inside of right thigh twice a day.

Vertigo.—We have a fine Percheron mare six years old which has always had good care and so far as we can tell is in good health, but when working in the field she occasionally commences to jerk her head, stands still a moment and usually backs up; then, in a few minutes she is all over it and will not have another spell for several days. We are anxious to know what ails her. Subscriber, Linden, Mich.—Perhaps her collar is too short, or possibly she may have a torpid liver, or the circulation of blood through body may be partially interrupted when she has these sick spells. Give her 20 grs. of calomel and 1 oz. of cooking soda at a dose in feed once a day for ten days. Also give her 1 dr. potassium bromide at a dose in either feed or drinking water three times a day, for thirty or sixty days.

Weak Cow.—I have a cow due to freshen that is very thin, low in flesh, down, and is unable to get up alone. She has a good appetite, is fed good clover hay, two quarts of bran, two quarts of corn meal once a day; but she does not suffer any pain, and shows no symptoms of sickness. What had I better do for her? E. C., Bellaire, Mich.—The writer is inclined to believe that your cow has been underfed and is at present suffering from physical weakness and if you will increase her grain ration, and at the same time give her some roots, she will soon gain in strength and perhaps be able soon after calving to get up without assistance. In addition to the ground corn and wheat bran, feed her ground oats and oil meal. Mix together equal parts of bicarbonate of soda, ginger, ground gentian and powdered wood charcoal, give her two tablespoonfuls at a dose in ground feed three times a day until she gets well.

LIVE STOCK NEWS.

Swine Prices Average High.

Hogs and provisions have been selling at far higher prices than in former years, notwithstanding the greatly increased numbers of hogs received in western packing points over those for a year ago and the big stocks of provisions on hand. Not only are hogs marketed far more liberally than a year ago, but there is also a great increase in their average weights, the inevitable result being that prime hogs of light weight are all the time market-toppers. Recent Chicago receipts of hogs have averaged in weight 241 pounds, comparing with 237 pounds a week earlier, 211 pounds one year ago, 219 pounds two years ago, 234 pounds three and four years ago, and 241 pounds five years ago. Hogs rally very quickly after declines in prices as a rule, and a short time ago May pork sold above \$48 a barrel, an advance of \$11 over the best price paid a year ago. Provision holdings in western packing points have increased so much that most of the space is filled, but it is reported that the government holds 20 per cent of the stocks for exportation. On April 1 the combined stocks of dry salted hog meats in western packing points footed up 449,210,000 pounds, showing an increase of 13,854,000 lbs. over stocks held a month earlier and a gain of 139,000,000 pounds over stocks of a year earlier. Stocks are the heaviest ever held at this time of the year. On April 1 stocks of lard in western markets amounted to 59,076,000 pounds, comparing with 57,901,452 pounds a year ago, with a gain last month of 16,742,442 pounds.

BROADENS SCOPE OF INTERNATIONAL.

The prizes offered, both by the "International" and by the various breed associations, were increased in nearly every division. Many cups, medals and trophies are to be offered in addition to the numerous and liberal money prizes.

The Illinois Centennial Commission will offer a line of splendid trophies in connection with this year's international, and exhibitors of every breed and in every division will have an opportunity to compete for some of these.

It was furthermore decided to reward the superior skill of herdsmen, (both in the cattle and swine departments), shepherds and grooms who will be fortunate enough to carry off some of the higher honors in the various departments.

The "short-fed" classes were given special attention and for the purpose of stimulating the short feeding of steers, the prizes in this division were greatly increased.

The barrow show will, as a result of greatly increased prizes offered both by the International and the breed associations prove one of the outstanding features of this year's exposition. In the swine department it was furthermore decided to permit exhibitors to show three animals instead of two, as was the rule in the past.

In connection with the horse department, it was decided to create a classification for light and heavy artillery horses, and liberal prizes will also be offered in this division.

The board went on record as favoring a limited show of grains, seed corn and forage crops, feeling that an economic feature of this sort would prove both timely and interesting.

Feeling that the International has a more important mission to perform this year than ever before, the directors were agreed on putting forth every possible effort to bring the lessons this exposition teaches to the attention of the greatest possible number.

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Cutter's Blackleg Filtrate positively protects against Blackleg.

Cutter's Blackleg Aggressin, made directly from animal tissues, affords even greater protection and is recommended for Pure Breeds.

Neither the Filtrate nor the Aggressin can possibly produce Blackleg in even the most susceptible animals since both are germ free.

Both have given 100% protection wherever used.

Prices—
10 dose pkgs. Filtrate.....\$2.00
50 " " " ".....8.00
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10 dose pkgs. Tissue Aggressin.....4.00

N. B.—Cutter's Filtrate (a "cultural product" aggressin) is full 5 c.c. to the dose, as we believe that smaller doses, whether concentrated or not, afford less protection.

Write for booklet telling what germ free vaccines are and wherein "cultural product" Aggressin differ from Cutter's Aggressin made from animal tissues.

While these new "germ free vaccines" have advantages that should be known to every stockraiser, we see no reason for a quick change to them by stockraisers who have had satisfactory results from the use of

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"California's Favorite"
for nearly 20 years

Year in and Year Out they have given better satisfaction than any other vaccine made, and as far as price and convenience of administration are concerned, they have all the advantage.

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50 " " " ".....4.00
10 dose pkgs. Double Pills 1.50
50 " " " ".....6.00
Cutter's Pill Injector.....1.50

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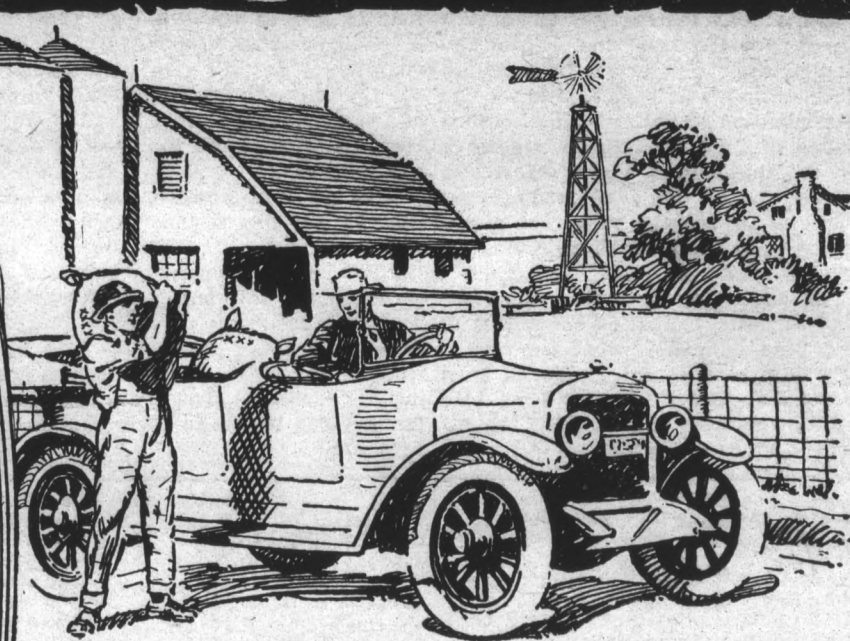
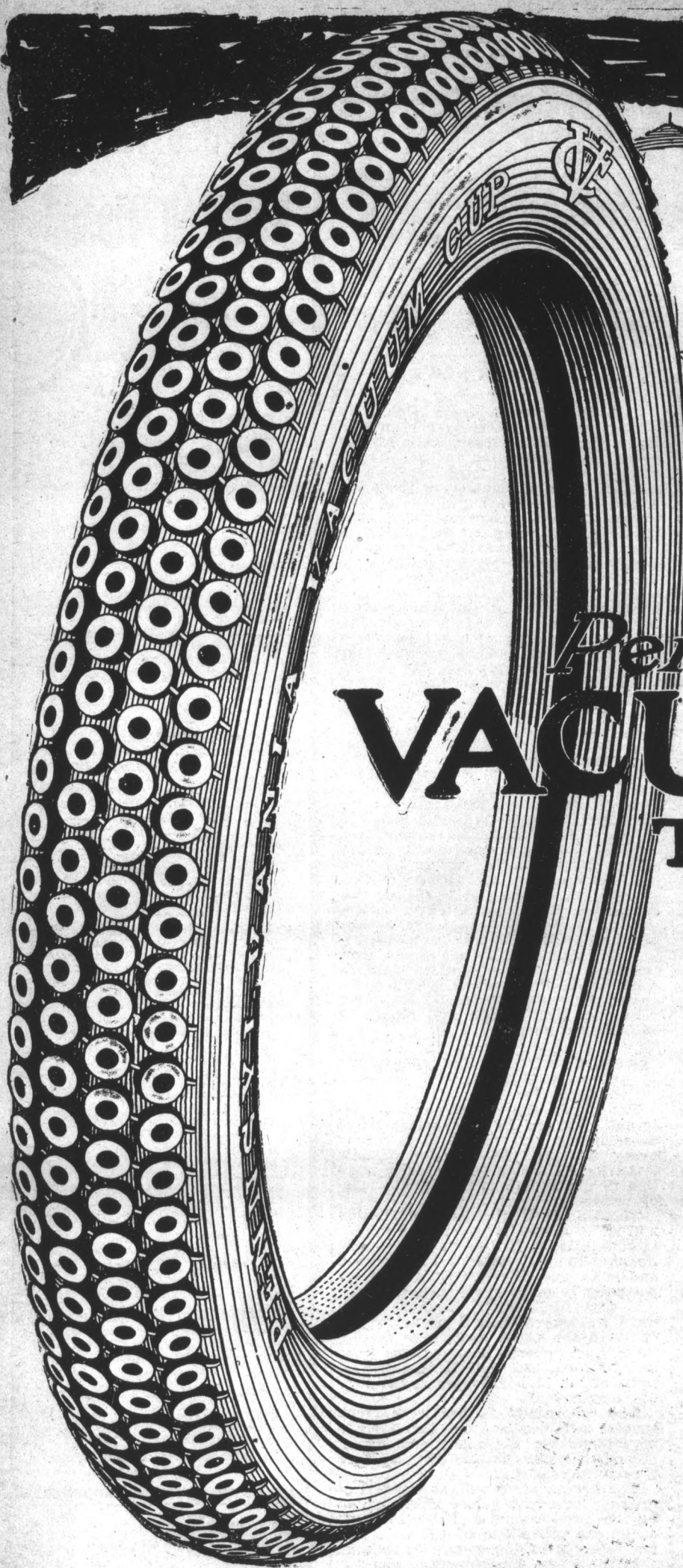
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